# CITY OF SANTEE
# DRY WEATHER FIELD SCREENING AND ANALYTICAL MONITORING PROGRAM
# 2009

**Submitted to:**

**City of Santee**
**Development Services**
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December 9, 2009
Project No. 200919W

Ms. Helen Perry
Storm Water Program Manager
City of Santee
Department of Development Services
10601 Magnolia Avenue
Santee, CA 92071-1266

**Re: 2009 Dry Weather Field Screening and Analytical Monitoring Program**
**City of Santee, California**

Dear Ms. Perry:

Enclosed please find our final report for the City of Santee 2009 Dry Weather Field Screening and Analytical Monitoring Program.

This report presents the results from both rounds of the monitoring program conducted in the City of Santee during the 2009 dry weather season. The contents include field screening data, analytical laboratory test results, trash assessments, analyses of the collected data, and photographs of sampling locations. The report also presents the results of follow-up investigations conducted to identify the sources of pollutants detected and our recommendations for additional actions.

Review comments from the draft report submitted to the City have been incorporated into this final report. It has been our pleasure working with the City of Santee on this project. If you have any questions regarding this report, please call me at (858) 586-6600 ext. 22.

Sincerely,
D-MAX Engineering Inc.

Arsalan Dadkhah

Arsalan Dadkhah, Ph.D., P.E.
Project Manager

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B PHOTOGRAPHS OF SAMPLING LOCATIONS
C LABORATORY ANALYTICAL REPORTS
D FIELD DATA AND TRASH ASSESSMENT SHEETS

# 1 INTRODUCTION

## 1.1 Program Overview

The purpose of the Dry Weather Field Screening and Analytical Monitoring Program (Dry Weather Monitoring Program) is to detect and eliminate illicit connections and illegal discharges (IC/ID) to the storm water conveyance system, minimizing the negative impact of human activities on receiving waterbodies. The Dry Weather Monitoring Program consists of the following components:

- Field screening observations
- Field screening and analytical monitoring
- Trash assessments
- Laboratory analytical monitoring

The City of Santee has elected to perform two rounds of monitoring during each dry weather season. These two rounds typically occur near the beginning and end of the season. The data gathered from dry weather monitoring is used to characterize discharges to the storm drain system and identify conveyances that are discharging elevated levels of pollutants. Follow-up studies and source investigations are conducted as needed to detect and eliminate the sources of these pollutants. This report presents the results of both rounds of the 2009 Dry Weather Monitoring Program conducted by D-MAX Engineering, Inc., (D-MAX).

## 1.2 Hydrologic Setting

The City of Santee (City) is located entirely within the San Diego River Watershed, Hydrologic Unit (HU) 907. The largest receiving waterbody in the City is the San Diego River, which enters the City in the east and flows west towards the Pacific Ocean. Other major receiving waterbodies include Forester Creek and Sycamore Creek, both of which eventually drain to the San Diego River. Forester Creek enters the City from the southeast and drains into the San Diego River at a location west of Carlton Hills Boulevard. Sycamore Creek enters the City from the north, flows southward, entering the San Diego River just west of Santee Recreation Lakes. All storm water drainage in the City of Santee is routed either directly or indirectly to these creeks and ultimately to the San Diego River. The entire City of Santee, along with the whole of the City of El Cajon and portions of the cities of La Mesa, San Diego, and Poway, lie within the Lower San Diego River Hydrologic Area (HA) 907.1.

## 1.3 Regulatory Requirements

In accordance with San Diego Regional Water Quality Control Board (RWQCB) Order No. R9-2007-0001 (Municipal Permit), each of the Copermittees, including the City of Santee, is required to annually perform dry weather monitoring of discharges into its storm water conveyance system. During the dry weather season, May 1 through September 30, selected locations along the storm drain conveyance system are evaluated. The City of Santee conducts two rounds of monitoring during this period. Round One occurs near the beginning of this time frame, while Round Two occurs near the end of this time frame. This procedure allows the City to make necessary improvements following Round One, and to evaluate the effectiveness of their actions when sites are revisited during Round Two.

Dry Weather Monitoring procedure includes recording field observations, estimating observed flow rates, and conducting field testing. The Municipal Permit also necessitates that the Copermittees conduct laboratory analyses for at least 25 percent of the visited sites

with flowing or ponded water. If a sampling location is dry, meaning there is no flowing or ponded water, an alternative sampling station is selected. If the results of the field or laboratory analyses exceed specific action levels, follow-up investigations are required within two business days.

## 1.4 Previous Work

The City of Santee has conducted Dry Weather Monitoring Programs since 1996 at several locations within the City's storm water conveyance system. These programs are conducted in two rounds during each year, with the exception of 1996 and 2002. A summary of the number of sites sampled each year and round is displayed in Table 1-1. Historical dry weather monitoring data is included in Appendix A.

**TABLE 1-1**
**SUMMARY OF HISTORICAL DRY WEATHER SITES**

| Year | Number of Sites Screened [1] | | Number of Flowing Sites | | Number of Ponded Sites | | Number of Dry Sites | | Number of Lab Analysis Sites [2] | |
|---|---|---|---|---|---|---|---|---|---|---|
| | R1 | R2 | R1 | R2 | R1 | R2 | R1 | R2 | R1 | R2 |
| 1996 [3] | 12 | | Data not available [4] | | | | 0 | | --- | |
| 1997 | 8 | 8 | 6 | 7 | 2 | 1 | 7 | 7 | --- | --- |
| 1998 | 14 | 12 | 11 | 7 | 3 | 5 | 1 | 4 | --- | --- |
| 1999 | 10 | 10 | 6 | 6 | 4 | 4 | 5 | 5 | --- | --- |
| 2000 | 12 | 12 | 9 | 10 | 3 | 2 | 4 | 4 | --- | --- |
| 2001 | 14 | 10 | 10 | 8 | 4 | 2 | 2 | 6 | --- | --- |
| 2002 [3] | 20 | | 13 | | 7 | | 1 | | 6 | |
| 2003 | 20 | 20 | 17 | 17 | 3 | 3 | 2 | 0 | 5 | 5 |
| 2004 | 20 | 20 | 17 | 17 | 3 | 3 | 1 | 1 | 5 | 5 |
| 2005 | 20 | 20 | 19 | 18 | 1 | 2 | 1 | 1 | 5 | 5 |
| 2006 | 20 | 20 | 18 | 17 | 2 | 3 | 1 | 1 | 5 | 5 |
| 2007 | 20 | 20 | 17 | 17 | 3 | 3 | 1 | 1 | 5 | 5 |
| 2008 | 20 | 20 | 18 | 16 | 2 | 4 | 0 | 0 | 5 | 5 |

**Notes:**
[1] Number of Sites Screened = Number Flowing + Number Ponded. Field screening cannot be conducted at sites found to be dry. Dry sites are replaced by either a flowing or ponded site.
[2] Laboratory analyses commenced in 2002 as required by RWQCB Order 2001-001.
[3] The City conducted only one round of the field screening program for this year.
[4] Available information does not distinguish between flowing and ponded sites during this period.

## 1.5 Report Outline

This report is presented in the following order:

**Section 1, Introduction,** includes a program overview, a discussion of the City's hydrologic setting, regulatory background, a summary of previous dry weather monitoring, and the report outline.

**Section 2**, **Sampling Locations,** describes the sampling locations and site selection criteria.

**Section 3, Field and Laboratory Analytical Methods,** includes field screening and laboratory analytical procedures, quality assurance protocols, and follow-up action levels.

**Section 4, Field Screening Results,** presents qualitative observations of the sampling locations and quantitative results of the field screening analyses.

**Section 5, Trash Assessment,** discusses the procedure and results of the trash assessment.

**Section 6, Laboratory Analytical Results,** presents results of the laboratory analyses.

**Section 7, Data Analysis,** provides an analysis of this year's field and laboratory data, as well as a comparison of past results.

**Section 8, Follow-up Investigations,** details the results of follow-up investigations undertaken to isolate the sources of action level exceedances measured during the monitoring program.

**Section 9, Summary and Recommendations,** provides a summary of the program results and recommendations for follow-up actions.

**Appendix A** Historical Dry Weather Monitoring Data

**Appendix B** Photographs of Sampling Locations

**Appendix C** Laboratory Analytical Reports

**Appendix D** Field Data and Trash Assessment Sheets

# 2 SAMPLING LOCATIONS

Twenty primary monitoring stations have been identified for the City of Santee's Dry Weather Monitoring Program. A set of alternative sites are also available for monitoring in the event that a primary station did not have flowing or ponded water. All primary and alternative sampling sites are located in San Diego Hydrological Unit 907.

In 2009, all 20 primary sites were visited during Round One and Round Two of dry weather monitoring. Sites U10a and Y15e were dry during both rounds, therefore alternative sites T5e and RCP3 were also visited for a total of 22 sites visited in each round.

Table 2-1 provides the site name, location, conveyance configuration, land uses, hydrologic subarea, and GPS coordinates of the sampling locations that were visited. Photographs of sampling locations are included in Appendix B. A map of the City including sampling locations was extensively updated in 2008-2009, and is included as Figure A. A map of the watersheds in and around Santee, shown by Hydrologic Subareas (HSAs), is presented in Figure B.

**TABLE 2-1**
**2009 DRY WEATHER MONITORING STATIONS**

| Site | Location | Conveyance | Primary Land Use | Secondary Land Use | Hydrologic Subarea | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| A5c | Next to 8335 Carlton Oaks Drive, between Cadorette Avenue and Praful Street | Outlet | Residential | None | 907.12 | 32.84081 | -117.02160 |
| E5g | Santee Recreation Lakes, west of the Southern Lake, outfall on east bank of Sycamore Creek | Outlet | Residential | None | 907.12 | 32.84854 | -117.00723 |
| G30c | South end of River Trail Place, north of San Diego River, down trail to the west | Outlet | Residential | Open | 907.12 | 32.84501 | -116.99122 |
| H5e | South of River Park Drive, at end of walkway between Brookview Court and River Rock Court, north of San Diego River | Outlet | Residential | None | 907.12 | 32.84561 | -116.98769 |
| J25c | West end of Carefree Drive, on the west side of channel | Outlet | Residential | None | 907.12 | 32.85813 | -116.97601 |
| J25c2 | At the east end of Country Scenes, east of Conejo Road | Outlet | Residential | None | 907.12 | 32.85639 | -116.97598 |
| J30d | In the Woodglen Vista Channel on the south side of Mast Boulevard, 100 feet east of San Remo Road | Natural Creek | Residential | None | 907.12 | 32.85485 | -116.97588 |
| K15j2 | North side of Woodglen Vista Drive, east of Woodrose Avenue, south side of the park | Concrete Channel | Residential | Parks | 907.12 | 32.86596 | -116.97418 |
| O40b | At the north end of Abraham Way, south of San Diego River | Outlet | Commercial | Industrial | 907.12 | 32.84851 | -116.96392 |
| P15b | Northeast corner of the North Magnolia Avenue and Rockville Street intersection | Manhole | Commercial | Residential | 907.12 | 32.83704 | -116.96633 |
| P20f | East of North Magnolia Avenue, at the east end of Chubb Lane | Concrete Channel | Residential | Commercial | 907.12 | 32.84674 | -116.96920 |
| Q5l | North side of Prospect Avenue, 50 feet east of Railroad Avenue | Catch Basin | Commercial | Industrial | 907.12 | 32.83121 | -116.97090 |
| RCP1 | North bank of the San Diego River in the RCP Brick Factory, across from the southwest corner of the antennae field | Outlet | Residential | None | 907.12 | 32.84959 | -116.96659 |

**TABLE 2-1**
**2009 DRY WEATHER MONITORING STATIONS (CONTINUED)**

| Site | Location | Conveyance | Primary Land Use | Secondary Land Use | Hydrologic Subarea | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| RCP3* | North bank of the San Diego River in the RCP Brick Factory, across from the southeast corner of the antennae field | Outlet | Residential | None | 907.12 | 32.84975 | -116.96341 |
| S15h | North of Town Center Parkway, between Mission Gorge Road and Cuyamaca Street, north of Walmart, west of trail | Outlet | Commercial | None | 907.12 | 32.84326 | -116.98969 |
| S5c | North of Town Center Parkway, between Mission Gorge Road and Cuyamaca Street, northwest of Michael's | Outlet | Commercial | None | 907.12 | 32.84371 | -116.98798 |
| T5e* | Northwest of the Prospect Avenue and Argent Street intersection, south of Forester Creek | Outlet | Commercial | Industrial | 907.12 | 32.83393 | -116.98956 |
| U10a* | South bank of Forester Creek, 450 feet south of the Mission Gorge Road and Carlton Hills Boulevard intersection | Outlet | Commercial | Industrial | 907.12 | 32.83745 | -116.99586 |
| V40d | On the south side of Prospect Avenue, east of Fanita Drive | Concrete Channel | Residential | None | 907.12 | 32.83375 | -117.00005 |
| V45k | On the north side of Mission Gorge Road, at the north end of freeway 125 | Natural Creek | Commercial | Open | 907.12 | 32.83895 | -117.00251 |
| Y15e* | On the north side of Mission Gorge Road, between Crossway Court and Big Rock Road, across from a shopping center | Outlet | Commercial | Residential | 907.12 | 32.83670 | -117.02158 |
| Z15b | On the north side of Mission Gorge Road, east of Father Junipero Serra Trail | Outlet | Residential | None | 907.12 | 32.83770 | -117.02997 |

**Note:** * Alternative sites RCP3 and T5e replaced dry primary sites U10a and Y15e

# 3 FIELD AND LABORATORY ANALYTICAL METHODS

## 3.1 Field Screening Procedures and Methods

Field screening techniques consist of qualitative field observations, flow measurement, and quantitative field analyses of selected water quality parameters. Weather conditions, time since last rainfall, and the type of storm water conveyance are recorded as well. Specific observations and results of the field water quality analyses are documented on field datasheets, which also serve as a record of the field visit. Datasheets are completed for every site visit regardless of whether or not samples were collected. Check boxes on the datasheets indicate if the visit is for routine field screening, confirmation of an exceedance, or an IC/ID follow-up visit. A confirmation visit is a revisit of the original site, whereas an IC/ID follow-up is an upstream investigation. Datasheets from the 2009 Dry Weather Monitoring Program are included as Appendix D. Field screening and analyses were conducted according to the following procedures and methods:

Qualitative Observations

Qualitative field observations are made during each site visit. These observations include a general site assessment and description of water odor, clarity, the presence of floatable materials, visible deposits or stains, and organisms. Evidence of present or past illicit connections and illegal discharges to the storm drain system can also be discovered through careful field observations. Each field screening location is photographed to document site conditions. Photographs are included in Appendix B.

Flow Measurement

Flow measurements can help estimate pollutant mass loading, prioritize storm drains for future investigation, and identify significant changes in flow that may be indicative of an illegal discharge. Various field methods are used in formulas to estimate the flow rate. These include measuring the velocity, depth, and width of the flowing water; recording the amount of time required to fill a bottle of known volume with sample water; or, if measuring flow within a cylindrical pipe, measuring the pipe diameter as well as the depth and velocity of the flow. Low levels of flow may also be assessed visually.

Field Water Quality Analyses

At each site with ponded or flowing water, water samples were collected and analyzed in the field for the following constituents:

- Specific conductance
- Temperature
- pH
- Turbidity
- Surfactants, measured as methylene blue active substances (MBAS) (Surfactants are also referred to as detergents.)
- Nitrate-nitrogen (Nitrate-N)
- Ammonia-nitrogen (Ammonia-N)
- Orthophosphate-phosphorus (Orthophosphate-P)
- Dissolved oxygen

The methods used to perform the above field analyses, along with the reporting limit, range, and accuracy of each method, are listed in Table 3-1.

## TABLE 3-1
## FIELD ANALYTICAL METHODS

| Parameter | Method | Reporting Limit | Range | Accuracy |
|---|---|---|---|---|
| Specific Conductance | Hanna Instruments HI 991301 Portable pH/EC/TDS/Temperature Meter*** | 0.01 mS/cm | 0 – 20 mS/cm | ± 2% of functional sensitivity[1] |
| Temperature | Hanna Instruments HI 991301 Portable pH/EC/TDS/Temperature Meter*** | 0.1°C | 0.0°C – 60.0°C | ± 0.5°C |
| pH | Hanna Instruments HI 991301 Portable pH/EC/TDS/Temperature Meter*** | 0.01 | 0.00 – 14.00 | ± 0.01 pH |
| Turbidity | Hanna Instruments HI 93703 Portable Turbidity Meter*** | 0.01 NTU | 0.01 – 50.00 NTU and 50 – 1000 NTU | ± 0.5 NTU or 5% of reading (whichever is greater) |
| Surfactants | CHEMetrics CHEMets Kit (K-9400) methylene blue active substances | 0.13 mg/L | 0.00 mg/L – 3.00 mg/L* | ± 0.13 & ± 0.5 mg/L[2] |
| Nitrate-N | CHEMetrics V-2000 Multi-Analyte LED Photometer – Nitrate 3<br>Vacu-vials® (K-6933)<br>Cadmium reduction[3]*** | 1.13 mg/L** | 1.13 mg/L – 113 mg/L** | ± 30%of practical detection limit[4] |
| Ammonia-N | CHEMetrics V-2000 Multi-Analyte LED Photometer – Ammonia 3<br>Vacu-vials® (K-1403)<br>Salicylate*** | 0.100 mg/L** | 0.100 mg/L – 3.000 mg/L** | Varies with measured concentration[4,5] |
| Ortho-phosphate-P | CHEMetrics V-2000 Multi-Analyte LED Photometer – Phosphate 2<br>Vacu-vials® (K-8513)<br>Stannous chloride chemistry[6]*** | 0.098 mg/L** | 0.098 mg/L – 2.608 mg/L** | Varies with measured concentration[4,5] |

**Notes:**

EC = electrical conductivity
mS/cm = millisiemens per centimeter
°C = Degrees Celsius
NTU = nephelometric turbidity unit
mg/L = milligrams per liter
LED = light-emitting diode

[1] Functional sensitivity (FS) represents the lowest limit at which quantitative information is reliable. FS is estimated as the mean concentration for a spiked sample whose coefficient of variance (CV) is 20%. CV is the standard deviation divided by the mean.

[2] ± 0.13 for the range of 0.0 to 1.0 mg/L, ± 0.25 mg/L for the range of 1.0 to 2.0 mg/L and 0.5 mg/L for the range of 2.0 to 3.0 mg/L.

[3] This method determines the concentration of nitrate in mg/L $NO_3$. To determine the amount of nitrate-nitrogen, the concentration of nitrogen must be adjusted for the presence of oxygen in the $NO_3$ molecule. Therefore, the result is multiplied by a conversion factor of 0.226, the ratio of the molecular weight of N (14g/mol) to $NO_3$ (62 g/mol). The practical detection limit for nitrate is 5.0 mg/L; however, the practical detection limit for nitrate-nitrogen is lowered due to the conversion.

[4] Practical Detection Limit (PDL) is defined as the lower limit of the stated test range.

[5] Percent error adjusts as follows: ±30% at PDL, ±20% for 25% of full range, ±10% for 75% of full range, ±10% for 120% of full range.

[6] This method determines the concentration of orthophosphate in mg/L $PO_4$. To determine the amount of orthophosphate-P, the concentration of phosphate must be adjusted for the presence of oxygen in the $PO_4$ molecule. Oxygen is 67.4% of phosphate by mass but is not a plant nutrient in this form. Therefore, the result is multiplied by a conversion factor of 0.326, the ratio of the molecular weight of P (31g/mol) to $PO_4$ (95 g/mol). The practical detection limit for orthophosphate is 0.3 mg/L; however, the practical detection limit for orthophosphate-phosphorus is lower due to the conversion.

*Extended ranges in chemical analyses can be achieved through dilutions. Accuracies decrease proportionally with further dilutions.

** Readings below the PDL have increased percent error; measurements are reported, but are flagged as being below the PDL.

***Test method information taken from Hanna Instruments and CHEMetrics manuals, available online at www.hannainst.com and www.chemetrics.com.

## 3.2 Laboratory Analytical Methods

In accordance with the Municipal Permit, laboratory samples were collected at five sites, representing 25 percent of the sites where ponded or flowing water was observed. Samples were submitted to EnviroMatrix Analytical, Inc, a laboratory certified by the California Department of Health Services, for analysis of the following constituents:

- Total hardness
- Oil and grease
- Diazinon
- Chlorpyrifos
- Cadmium (Dissolved)
- Copper (Dissolved)
- Lead (Dissolved)
- Zinc (Dissolved)
- Total Coliform bacteria
- Fecal Coliform bacteria
- *Enterococcus* bacteria

The methods used to perform each of the above analyses along with method reporting limits and holding times are listed in Table 3-2.

## 3.3 Quality Assurance and Quality Control (QA/QC)

The QA/QC Plan used for this project includes the United States Environmental Protection Agency (USEPA) approved test methods for the field and laboratory analysis of water samples, calibration of test equipment, and pre- and post-rinsing of sample collection containers and test vials. Key components of the QA/QC Plan are described below.

### 3.3.1 Field Sampling and Analysis QA/QC

The pH meters, turbidity meter, and conductivity meter are tested daily before field screening begins. The pH meters are calibrated as needed with sodium/potassium phosphate, monobasic buffer solutions with pH values equal to 4.00 ± 0.01, 7.00 ± 0.01, and 10.00 ± 0.01 units. The glass electrode tube is kept moist to preserve the meter's accuracy during fieldwork. The turbidity meter and conductivity meter are calibrated as needed using standard solutions.

Field sample collection containers are rinsed first with distilled water and then with the sample water prior to sample collection. Upon completion of sampling and testing at each site, sample collection containers, test vials, and ion-sensitive electrodes are rinsed twice with distilled water and dried.

The accuracy of field analytical techniques and equipment is assessed at the beginning of each sampling week by analyzing solutions of known concentrations for ammonia-nitrogen, surfactants, nitrate, and orthophosphate. The results of the assessment are shown in Table 3-3.

**TABLE 3-2**
**LABORATORY ANALYTICAL METHODS**

| Analyte | Analytical Method | Method Reporting Limit | Maximum Holding Time [1] |
|---|---|---|---|
| Oil and Grease | USEPA 1664 | 5 mg/L | 28 days |
| Total Hardness | USEPA 200.7 | 10 mg/L | 14 days |
| Dissolved Cadmium | USEPA 200.8 | 0.001 mg/L | 24 hours |
| Dissolved Copper | USEPA 200.8 | 0.001 mg/L | 24 hours |
| Dissolved Lead | USEPA 200.8 | 0.001 mg/L | 24 hours |
| Dissolved Zinc | USEPA 200.8 | 0.020 mg/L | 24 hours |
| Diazinon | USEPA 8141A | 0.05 µg/L | 7 days |
| Chlorpyrifos | USEPA 8141A | 0.05 µg/L | 7 days |
| Total Coliforms[2] | SM 9221 | 20 – 1,600,000 MPN/100 mL | 6 hours |
| Fecal Coliforms[2] | SM 9221 | 20 – 1,600,000 MPN/100 mL | 6 hours |
| Enterococci[2] | SM 9230 | 20 – 160,000 MPN/100 mL | 6 hours |
| Total Coliforms | SM 9223 (IDEXX Colilert)[3] | 10 – 2,419,600 MPN/100 mL | 6 hours |
| *Escherichia coli* (E. coli) [4] | SM 9223 (IDEXX Colilert)[3] | 10 – 2,419,600 MPN/100 mL | 6 hours |
| Enterococci | IDEXX Enterolert[4] | 10 – 241,960 MPN/100 mL | 6 hours |

**Notes:**
µg/L = micrograms per liter
MPN/100 mL = most probable number (of colony-forming units) per 100 milliliters
[1] Maximum Holding Time values listed apply to samples collected and preserved in accordance with the quality assurance and quality control procedures listed in Section 3.3.2.
[2] For D-MAX's Dry Weather Monitoring Program, EnviroMatrix Analytical, Inc. (EMA) performs standard dilutions for total coliforms to quantify from 20-1,600,000 most probable number per 100 milliliters (MPN/100 mL). For fecal coliforms and Enterococci, EMA performs standard dilutions to quantify from 20-160,000 MPN/100 mL. During the analysis and interpretation of the results, the number of tubes used to quantify the sample must fit the MPN index table from Standard Method 9221. The dilution set used will determine the detection limit. A standard dilution analysis is set up with 15 tubes at different concentrations. The reporting limit will always be adjusted depending on the dilution factor used for quantifying the actual results based on the MPN table. If the result for the analysis was less than 16,000 MPN/100 mL, the reporting limit will always be 20, and the dilution factor will be 10. As the dilution factor goes up, the reporting limit listed in the results from EMA will also go up based on the calculation made with EMA's data system. However, the lowest quantifiable number or reporting limit would still be 20 based on how the standard tubes for the sample is set up.
[3] IDEXX Colilert and Enterolert tests are used during upstream investigations only.
[4] Number of fecal coliforms is derived from number of *E. coli* through the following formula:
Fecal Coliforms = *E. coli* / 0.85. The converted fecal coliform count, not the number of *E. coli*, is reported in this report's data tables.

**TABLE 3-3**
**FIELD ANALYSIS QA/QC RESULTS**

| Date | Analyte | Known Concentration (mg/L) | Acceptable Range* (mg/L) | Field Test Kit Results (mg/L) |
|---|---|---|---|---|
| 5/18/09 | Ammonia-Nitrogen | 0.82 | 0.66 – 0.98 | 0.822 |
| 5/18/09 | Surfactants | 1.0 | 0.75 – 1.25 | 1.00 |
| 5/18/09 | Nitrate ** | 44.3 | 31.0 – 57.6 | 43.64 |
| 5/18/09 | Orthophosphate ** | 3.07 | 2.45 – 3.88 | 2.98 |
| 9/2/09 | Ammonia-Nitrogen | 0.82 | 0.66 – 0.98 | 0.786 |
| 9/2/09 | Surfactants | 1.0 | 0.75 – 1.25 | 1.00 |
| 9/2/09 | Nitrate ** | 44.3 | 31.0 – 57.6 | 45.78 |
| 9/2/09 | Orthophosphate ** | 3.07 | 2.45 – 3.88 | 2.833 |
| 9/8/09 | Ammonia-Nitrogen | 0.82 | 0.66 – 0.98 | 0.799 |
| 9/8/09 | Surfactants | 1.0 | 0.75 – 1.25 | 1.00 |
| 9/8/09 | Nitrate ** | 44.3 | 31.0 – 57.6 | 43.97 |
| 9/8/09 | Orthophosphate ** | 3.07 | 2.45 – 3.88 | 2.798 |

**Notes:**
* Acceptable range is calculated based on the error associated with the methods as listed in Table 3-1.
** Nitrate and orthophosphate are converted to nitrate-nitrogen and orthophosphate-phosphorus, respectively, when conducting standard field screening. This is accomplished by multiplying the results by 0.226 for nitrate and 0.326 for orthophosphate. To simplify the calibration process, the unconverted numbers are used when calibrating the instruments.

### 3.3.2 Laboratory Sampling and Analysis QA/QC

Samples for laboratory analysis are collected concurrently with field samples and used the same sampling procedures. Pre-sterilized sample bottles are obtained from the laboratory and thus do not require rinsing with sample water prior to sample collection. After sample collection, all laboratory samples are kept in a cooler on ice until picked up by the lab. Strict chain of custody procedures are followed, and samples are delivered and analyzed within the appropriate holding times, as listed in Table 3-2. Completed chain of custody forms are included in Appendix C.

## 3.4 Follow-up Action Levels

Based on dry weather field screening results, immediate follow-up investigations are sometimes necessary to identify and eliminate pollutant sources. In order to determine whether an immediate source investigation is necessary, numeric action levels and best professional judgment are used to interpret the field screening results. If visual and/or analytical evidence of gross contamination are present at a site (e.g., substantial petroleum sheen, extremely high ammonia concentration, evidence of a sewage release, etc.), then an immediate source identification investigation is initiated. For sites that exceed numeric action levels but are not perceived as an immediate threat to water quality, a re-sampling is conducted within two business days. An upstream pollutant source investigation is conducted thereafter if elevated concentrations persist and no sources can be identified in the immediate vicinity of the monitoring station. If elevated levels of pollutants are detected by the laboratory analyses, a comprehensive follow-up pollutant source investigation is conducted within two business days of receiving the laboratory analytical reports. The results of these investigations are included in Section 8.

The following three methods are employed to determine whether immediate or comprehensive follow-up investigations are necessary: (1) Numeric Action Levels; (2) California Toxics Rule (CTR); and (3) Best Professional Judgment. All three approaches are described in detail below and presented in Table 3-4.

**Numeric Action Levels**

Numeric action levels are used as the primary approach for interpreting pH, orthophosphate-P, nitrate-N, ammonia-N, surfactants, oil and grease, diazinon, chlorpyrifos, total coliforms, fecal coliforms, and *Enterococcus* analytical results (see Table 3-4). Prior to the 2003 dry weather season, no standard action levels had been adopted for use throughout San Diego County. D-MAX calculated the current set of numeric action levels based on county-wide sampling data. These action levels have been used by all San Diego County Copermittees since the 2003 dry weather season.

**California Toxics Rule**

The CTR criterion maximum concentration (CMC) is used to determine appropriate action levels for dissolved trace metals, including cadmium, copper, lead, and zinc. The CTR equations, as provided in USEPA Federal Register Doc. 40 Code of Federal Regulations (CFR) Part 131, are used to calculate benchmarks based on the total hardness of the sampled water, with the action levels increasing as hardness increases. The CTR criterion maximum concentration (CMC) is a short term concentration limit in which aquatic life can be sustained. The CMC is used to determine appropriate action levels for dissolved trace metals, including cadmium, copper, lead, and zinc. The CTR equations, as provided in USEPA Federal Register Doc. 40 Code of Federal Regulations (CFR) Part 131, are used to calculate benchmarks based on the total hardness of the sampled water, with the action levels increasing as hardness increases. More information on the CTR is available at http://www.epa.gov/region09/water/ctr.

**Best Professional Judgment**

Best professional judgment is used as the primary approach for interpreting turbidity, water temperature, and conductivity and as a secondary approach for interpreting the results of all other field and laboratory analyses. Under best professional judgment, the need for a follow-up investigation is left to the discretion of the D-MAX field crew. Best professional judgment may indicate that results which either exceed certain action levels or are statistical outliers may be the result of natural or background factors.

## TABLE 3-4
## ACTION LEVELS FOR FIELD SCREENING AND LABORATORY PARAMETERS

| Field Screening Analytes | Action Levels[1] | Source/ Notes |
|---|---|---|
| pH | <6.5 or >9.0 | Basin Plan[2], with allowance for elevated pH due to excessive photosynthesis. Elevated pH is especially problematic in combination with high ammonia. |
| Orthophosphate-P (mg/L) | 2.000 | USEPA Multi-sector General Permit |
| Nitrate-N (mg/L) | 10.00 | Basin Plan and drinking water standards |
| Ammonia-N (mg/L) | 1.000 | Based on Workgroup experience. May also consider unionized ammonia fraction. |
| Turbidity (NTU) | Best Professional Judgment | WQOs relevant to inland surface waters are not available. Base judgment on channel type and bottom, time since last rain, background levels, and most importantly visual observation (e.g. unusual colors and lack of clarity) and unusual odors. |
| Temperature (°C) | Best Professional Judgment | Base judgment on season, air temperature, channel type, shading, etc. |
| Conductivity (mS/cm) | Best Professional Judgment | Conductivity may be highly elevated in some regions due to high TDS, groundwater exfiltration to surface water, mineral dissolution, drought, and seawater intrusion. Normal source ID and discharge elimination work is not effective in these situations. Knowledge of area background conditions is important. Values <0.75 may indicate excessive potable water discharge or flushing. |
| **Laboratory Analytes** | **Action Levels** | **Source/ Notes** |
| Oil and Grease (mg/L) | 15 | USEPA Multi-sector General Permit. If petroleum sheen is observed, the sample should be collected from the water surface. Visual observations may justify immediate investigation. |
| Diazinon (µg/L) | 0.5 | Response to diazinon and chlorpyrifos levels above 0.5 µg/L should focus on education and outreach to potential dischargers in the target drainage basin. Highly elevated levels should be investigated aggressively as with other potential IC/IDs. |
| Chlorpyrifos (µg/L) | 0.5 | |
| Dissolved Cadmium (µg/L) | California Toxics Rule | Use California Toxics Rule, 1-hour criteria to determine appropriate action level for individual samples. Table provides benchmarks based on hardness and dissolved metals concentration. For example, at 300 mg/L hardness the following action levels would apply: Cd – 14 ppb; Cu – 38 ppb; Pb – 209 ppb; and Zn – 297 ppb. |
| Dissolved Copper (µg/L) | California Toxics Rule | |
| Dissolved Lead (µg/L) | California Toxics Rule | |
| Dissolved Zinc (µg/L) | California Toxics Rule | |
| Total Coliforms (MPN/100 mL) | 50,000 | Bacteria levels in many storm drains are likely to exceed public health guidance criteria. Use confidence interval test and best professional judgment to identify conveyances for source ID. |
| Fecal Coliforms (MPN/100 mL) | 20,000 | |
| Enterococci (MPN/100 mL) | 10,000 | |

**Notes:**
[1] The referenced action levels are not the sole criteria for initiating a source identification investigation. Dry weather monitoring data is interpreted using a variety of available information, including within-site and between-site sample variability.
[2] Basin Plan = Water Quality Control Plan for the San Diego Basin
WQO = Water Quality Objective
ppb = parts per billion

# 4 FIELD SCREENING RESULTS

## 4.1 Round One

Round One of the Dry Weather Monitoring Program began in May 2009. Twenty primary sites and two alternative sites were visited.

### 4.1.1 Qualitative Observations

Qualitative observations for all Round One routine field screening visits are summarized below. Routine field screening and confirmation visit observations are presented in Table 4-1.

***Light Conditions***
The weather was sunny during two-thirds of the Round One routine visits; the remaining visits occurred during partly cloudy conditions.

***Odor***
The water sample at one site had a musty odor; all other samples were odorless.

***Color***
The water at four sites was yellow in color; all other samples were colorless.

***Clarity***
The water at one site had a slightly cloudy appearance; all other samples were clear.

***Floatable Materials***
A dust sheen and trash were observed on the water's surface at one site each, and two sites had bubbles/foam. No other types of floatable materials were observed.

***Deposits***
Sediment, gravel, and/or fine particulates were observed at all sites. No other types of deposits were noted.

***Vegetation***
All sites contained normal or no vegetation, appropriate to the amount of sunlight exposure and soil at the site.

***Biology***
The presence of organisms can be an indication of healthy waters. The presence of algae often indicates that flow is persistent. An overabundance of algae often implies high levels of nutrients in the water and can have negative effects on aquatic life. No sites had excessive algal growth this year. Insects and algae were prevalent at most sites. Some sites were also host to snails, crayfish, and/or fish.

**TABLE 4-1**
**FIELD OBSERVATIONS - ROUND ONE**

| Site | Date | Time | Light Conditions | Odor | Color | Clarity | Floatables | Deposits | Vegetation | Biology |
|---|---|---|---|---|---|---|---|---|---|---|
| A5c | 5/26/09 | 11:45 | Sunny | None | Yellow | Clear | None | Sediment/Gravel, Fine Particulates | None | Insects, Snails |
| E5g | 5/20/09 | 16:00 | Partly Cloudy | None | None | Clear | Dust Sheen | Sediment/Gravel, Fine Particulates | Normal | Insects |
| E5g (Confirmation 1) | 5/21/09 | 15:45 | Sunny | None | None | Clear | Dust Sheen | Sediment/Gravel, Fine Particulates | Normal | Insects |
| E5g (Confirmation 2) | 5/22/09 | 14:40 | Partly Cloudy | None | None | Clear | Dust Sheen | Sediment/Gravel, Fine Particulates | Normal | Insects |
| G30c | 5/20/09 | 11:45 | Partly Cloudy | None | None | Clear | None | Sediment/Gravel, Fine Particulates | Normal | Insect/Algae, Snails |
| H5e | 5/20/09 | 14:50 | Partly Cloudy | None | None | Clear | None | Fine Particulates | None | Insect/Algae, Snails |
| J25c | 5/21/09 | 12:15 | Sunny | None | None | Clear | None | Fine Particulates | None | Insect/Algae |
| J25c2 | 5/19/09 | 15:25 | Sunny | None | None | Clear | Trash | Fine Particulates | None | Insect/Algae, Snails |
| J30d | 5/22/09 | 9:50 | Sunny | None | None | Clear | None | Sediment/Gravel, Fine Particulates | Normal | Algae, Fish |
| K15j2 | 5/19/09 | 14:10 | Sunny | None | None | Clear | None | Fine Particulates | None | Insect/Algae |
| O40b | 5/20/09 | 9:20 | Partly Cloudy | None | Yellow | Clear | None | Sediment/Gravel, Fine Particulates | Normal | Insect/Algae, Snails |
| P15b | 5/21/09 | 15:15 | Sunny | None | None | Clear | None | Sediment/Gravel | None | Insects |
| P20f | 5/21/09 | 11:40 | Sunny | None | None | Clear | None | Fine Particulates | None | Algae, Snails |

**TABLE 4-1**
**FIELD OBSERVATIONS - ROUND ONE (CONTINUED)**

| Site | Date | Time | Light Conditions | Odor | Color | Clarity | Floatables | Deposits | Vegetation | Biology |
|---|---|---|---|---|---|---|---|---|---|---|
| Q5l | 5/21/09 | 9:25 | Partly Cloudy | None | Yellow | Slightly Cloudy | None | Sediment/Gravel, Fine Particulates | None | None |
| RCP1 | 5/21/09 | 10:45 | Partly Cloudy | None | None | Clear | Bubbles/ Foam | Sediment/Gravel, Fine Particulates | Normal | Insects |
| RCP3 | 5/26/09 | 10:25 | Sunny | None | None | Clear | None | Sediment/Gravel | Normal | Insect/Algae, Snails |
| S15h | 5/26/09 | 14:10 | Sunny | Musty | Yellow | Clear | None | Fine Particulates | None | Insects |
| S5c | 5/20/09 | 12:45 | Partly Cloudy | None | None | Clear | Bubbles/ Foam | Fine Particulates | Normal | Insect/Algae |
| T5e | 5/26/09 | 13:00 | Sunny | None | None | Clear | None | Sediment | None | Insects |
| U10a | 5/22/09 | 9:10 | Sunny | na | na | na | Na | Sediment/Gravel | Normal | None |
| V40d | 5/22/09 | 11:10 | Sunny | None | None | Clear | None | Fine Particulates | None | Insect/Algae, Snails |
| V45k | 5/22/09 | 12:00 | Sunny | None | None | Clear | None | Sediment/Gravel, Fine Particulates | Normal | Insect/Algae, Snails, Crayfish |
| Y15e | 5/26/09 | 12:35 | Sunny | na | na | na | na | Sediment/Gravel | Normal | None |
| Z15b | 5/26/09 | 9:20 | Partly Cloudy | None | None | Clear | None | Sediment/Gravel | Normal | Insects |

**Notes:**
denotes a confirmation visit
denotes a location sampled for laboratory analysis
na = not analyzed (dry site)

### 4.1.2 Field Analytical Results

Field analyses are conducted at all sites with flowing or ponded water. The measured constituents are described below.

**Flow rate** quantifies the volume of fluid passing across a given surface per unit time. Flow rate measurements are needed to calculate the load or particular amount of a pollutant discharged.

**Water temperature** is needed to assess the significance of other parameters, such as pH and conductivity. Also, the aquatic habitat must remain within a certain temperature range in order to sustain sensitive aquatic life. In the field, water temperature is measured immediately upon sample collection at each site.

The **pH** is an expression of acidity or alkalinity of a water sample. The pH of an aquatic system will affect a variety of chemical reactions, including the availability of nutrients and the solubility of chemical substances, particularly heavy metals.

**Turbidity** describes the clarity or cloudiness of a water sample, or the degree to which light is blocked by suspended material in the water. Turbid waters not only limit the amount of light that reaches submerged vegetation, thus reducing photosynthetic capacity, but excessive suspended particles can also absorb heat and increase water temperatures.

**Specific conductance (conductivity)** measurements indicate the total concentration of ions in an aquatic system and the ability of the water to conduct electricity. This parameter can be used to assess the mineral content of water and potentially help indicate the presence of dissolved pollutants.

**Surfactant** concentrations in water samples often reflect illegal discharges from industrial, commercial, or residential sources. Pollution resulting from surfactants alters the surface tension of water and disrupts the breathing mechanisms of fish gills and other aquatic organisms.

**Ammonia-nitrogen** (ammonia-N) is an indicator of pollution from decomposing organic matter, agricultural or household fertilizer runoff, or the presence of sewage. Ammonia occurs naturally in the environment; however, in higher quantities it can become toxic to fish and other organisms.

**Nitrate-nitrogen** (nitrate-N) is a common sign of nutrient pollution from agricultural or household fertilizer runoff. Nitrate pollution can cause excessive algal growth, resulting in oxygen depletion as algae decomposes and may eventually suffocate other aquatic life. During the field analysis, nitrate is measured and converted into nitrate-N using a conversion factor of 0.226. This process is explained in Note 3 of Table 3-1.

**Orthophosphate-phosphorus** (orthophosphate-P) is also an indicator of nutrient pollution from agricultural or household fertilizer runoff. Similar to nitrate-N, orthophosphate-P pollution can cause nutrient enrichment, stimulate algal growth, and thus deplete oxygen in the water to levels that are dangerous for aquatic life. Even low levels of orthophosphate-P can cause significant algal growth, as it is commonly the limiting nutrient in plant growth. During the field analysis, orthophosphate is measured and converted into orthophosphate-P using a conversion factor of 0.326. This process is explained in Note 6 of Table 3-1.

A statistical summary of the routine field analytical results for Round One data is presented in Table 4-2. Table 4-3 shows the results of all field analyses conducted at each dry weather monitoring station during Round One. Graphs of the various parameters and appropriate action levels for follow-up investigations are included at the end of this section.

**TABLE 4-2**
**FIELD ANALYSIS STATISTICAL SUMMARY – ROUND ONE**

| Parameter (units) | Maximum | Minimum | Average | Median | Standard Deviation | Number of Exceedances | Graph |
|---|---|---|---|---|---|---|---|
| **Flow Rate (gpm)** | 33.5 | 0 (ponded) | 5.4 | 2.0 | 8.8 | --- | 4-1 |
| **Temperature (ºC)** | 29.0 | 19.1 | 23.4 | 23.0 | 2.9 | 0 | 4-2 |
| **pH** | 8.9 | 7.0 | 8.2 | 8.2 | 0.4 | 0 | 4-3 |
| **Turbidity (NTU)** | 49.91 | 0.01 | 6.22 | 2.43 | 11.05 | 0 | 4-4 |
| **Conductivity (mS/cm)** | 5.12 | 1.02 | 2.46 | 1.84 | 1.35 | 0 | 4-5 |
| **Ammonia-N (mg/L)** | 1.590 | 0.030 | 0.254 | 0.178 | 0.337 | 1 | 4-6 |
| **Surfactants (mg/L)** | 0.75 | 0.13 | 0.34 | 0.25 | 0.17 | 0 | 4-7 |
| **Nitrate-N (mg/L)** | 9.27 | 0.14 | 3.61 | 3.00 | 3.00 | 0 | 4-8 |
| **Orthophosphate-P (mg/L)** | 0.985 | 0.004 | 0.229 | 0.094 | 0.272 | 0 | 4-9 |

**Note:** Calculations include complete routine visit data only. Confirmation visits, follow-up visits and dry sites not incorporated.

**TABLE 4-3**
**FIELD ANALYTICAL RESULTS - ROUND ONE**

| Site | Date | Time | Flow (gpm) | Temp (ºC) | pH | Turbidity (NTU) | Conductivity (mS/cm) | Surfactants (mg/L) | Ammonia-N (mg/L) | Nitrate-N (mg/L) | Ortho-phosphate-P (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A5c | 5/26/09 | 11:45 | Ponded | 21.4 | 8.2 | 5.83 | 2.14 | 0.50 | 0.183 | 4.83 | 0.472 |
| E5g | 5/20/09 | 16:00 | 2 | 22.1 | 7.0 | 7.72 | 5.12 | 0.50 | **1.590** | 8.38 | 0.985 |
| E5g (Confirmation 1) | 5/21/09 | 15:45 | 1 | 22.1 | 7.3 | na | 2.80 | na | **2.924** | na | na |
| E5g (Confirmation 2) | 5/22/09 | 14:40 | <1 | 22.4 | 7.3 | na | 3.02 | na | **>3.00** | na | na |
| G30c | 5/20/09 | 11:45 | 1 | 29 | 8.9 | 3.49 | 3.02 | 0.25 | 0.199 | 3.40 | 0.080* |
| H5e | 5/20/09 | 14:50 | 1 | 25.3 | 8.3 | 0.92 | 1.52 | 0.25 | 0.049* | 1.10* | 0.090* |
| J25c | 5/21/09 | 12:15 | 2 | 20.8 | 8.2 | 0.78 | 4.39 | 0.75 | 0.220 | 6.98 | 0.044* |
| J25c2 | 5/19/09 | 15:25 | 2 | 25.2 | 8.0 | 2.26 | 4.47 | 0.50 | 0.257 | 5.93 | 0.098 |
| J30d | 5/22/09 | 9:50 | 23 | 20.9 | 8.2 | 0.01 | 2.68 | 0.25 | 0.233 | 4.89 | 0.010* |
| K15j2 | 5/19/09 | 14:10 | 2 | 28.6 | 8.1 | 1.80 | 2.44 | 0.38 | 0.281 | 5.16 | 0.020* |
| O40b | 5/20/09 | 9:20 | Ponded | 19.1 | 8.1 | 9.17 | 1.51 | 0.25 | 0.069* | 2.26 | 0.485 |
| P15b | 5/21/09 | 15:15 | 4 | 24.6 | 7.7 | 0.79 | 1.62 | 0.13 | 0.130 | 7.00 | 0.126 |
| P20f | 5/21/09 | 11:40 | 15.5 | 23.8 | 8.8 | 10.30 | 1.36 | 0.13 | 0.232 | 2.59 | 0.049* |
| Q5l | 5/21/09 | 9:25 | <1 | 19.8 | 8.2 | 49.91 | 1.84 | 0.50 | 0.568 | 6.37 | 0.722 |
| RCP1 | 5/21/09 | 10:45 | 5 | 21.5 | 8.3 | 0.64 | 1.60 | 0.25 | 0.059* | 9.27 | 0.090* |
| RCP3 | 5/26/09 | 10:25 | 7.7 | 21.8 | 8.2 | 0.42 | 1.84 | 0.25 | 0.172 | 0.87* | 0.103 |
| S15h | 5/26/09 | 14:10 | <1 | 24.6 | 8.7 | 15.00 | 1.64 | 0.38 | 0.194 | 1.32 | 0.444 |

## TABLE 4-3
## FIELD ANALYTICAL RESULTS - ROUND ONE

| Site | Date | Time | Flow (gpm) | Temp (ºC) | pH | Turbidity (NTU) | Conductivity (mS/cm) | Surfactants (mg/L) | Ammonia-N (mg/L) | Nitrate-N (mg/L) | Ortho-phosphate-P (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S5c | 5/20/09 | 12:45 | 2 | 24.7 | 8.1 | 2.59 | 1.02 | 0.13 | 0.038* | 0.33* | 0.043* |
| T5e | 5/26/09 | 13:00 | <1 | 24.4 | 8.2 | 5.89 | 1.05 | 0.25 | 0.146 | 0.36* | 0.390 |
| U10a | 5/22/09 | 9:10 | Dry | ns | ns | ns | ns | ns | ns | ns | ns |
| V40d | 5/22/09 | 11:10 | 33.5 | 27.9 | 8.6 | 1.68 | 4.19 | 0.50 | 0.138 | 0.14* | 0.004* |
| V45k | 5/22/09 | 12:00 | 6 | 21.6 | 7.9 | 0.01 | 4.55 | 0.50 | 0.152 | 0.14* | 0.019* |
| Y15e | 5/26/09 | 12:35 | Dry | ns | ns | ns | ns | ns | ns | ns | ns |
| Z15b | 5/26/09 | 9:20 | <1 | 19.8 | 8.1 | 5.14 | 1.13 | 0.13 | 0.034* | 0.98* | 0.303 |
| **PRACTICAL DETECTION LIMIT** | | | | **0.0** | **0.0** | **0.01** | **0.00** | **0.00** | **0.100** | **1.13** | **0.098** |
| **ACTION LEVEL** | | | | **BPJ** | **< 6.5 > 9.0** | **BPJ** | **BPJ** | **1.00** | **1.000** | **10.00** | **2.000** |

**Notes:**
na = not analyzed
ns = not sampled (dry site)
* Value reported is below the Practical Detection Limit (PDL). Per manufacturer, the value is reported but flagged. See footnotes to Table 3-1.
**Red** values are at or above the measured constituent's action level.
denotes a confirmation visit
denotes a location sampled for laboratory analysis

## 4.2 Round Two

Round Two began in September 2009. Twenty primary sites and two alternative sites were visited.

### 4.2.1 Qualitative Observations

Qualitative observations for all Round Two routine field screening visits are summarized below. Routine field screening and confirmation visit observations are presented in Table 4-4.

***Light Conditions***
The weather was sunny during all routine visits.

***Odor***
The water sample at one site had a musty odor, and an odor like that of decomposing organic waste was noted at one site; all other water samples were odorless.

***Color***
The water at three sites was yellow in color, and one site had brown water; all other samples were colorless.

***Clarity***
The water at one site had a slightly cloudy appearance, and water was opaque at another site. All other samples were clear.

***Floatable Materials***
Trash was the most common type of floatable material, observed at seven sites. One of these sites also had bubbles floating on the water's surface. No other types of floatable materials were observed.

***Deposits***
Sediment, gravel, and/or fine particulates were observed at all but one site. No other types of deposits were noted.

***Vegetation***
All sites contained vegetation appropriate to the amount of sunlight exposure and soil at the site. A few sites had limited vegetation, while most sites had either normal or no vegetation.

***Biology***
Insects and algae were prevalent at most sites. Some sites were also host to snails, frogs, and fish.

**TABLE 4-4**
**FIELD OBSERVATIONS - ROUND TWO**

| Site | Date | Time | Light Conditions | Odor | Color | Clarity | Floatables | Deposits | Vegetation | Biology |
|---|---|---|---|---|---|---|---|---|---|---|
| A5c | 9/8/09 | 12:30 | Sunny | None | Yellow | Clear | None | Sediment, Fine Particulates | None | Insects, Algae |
| E5g | 9/8/09 | 16:00 | Sunny | Musty | None | Clear | None | Sediment, Fine Particulates | Normal | Insects, Frogs |
| G30c | 9/2/09 | 15:50 | Sunny | None | None | Clear | Trash | Sediment/Gravel, Fine Particulates | Limited | Insects, Algae |
| H5e | 9/4/09 | 14:50 | Sunny | None | None | Clear | Trash | Fine Particulates | None | Snails, Insects, Algae |
| J25c | 9/3/09 | 11:10 | Sunny | None | None | Clear | None | None | None | Insects, Algae |
| J25c2 | 9/2/09 | 15:00 | Sunny | None | None | Clear | Trash | Sediment, Fine Particulates | None | Algae, Snails |
| J30d | 9/4/09 | 11:30 | Sunny | None | Yellow | Clear | None | Sediment, Fine Particulates | Limited | Insects, Algae |
| J30d (Confirmation 1) | 9/15/09 | 14:45 | Sunny | None | None | Clear | None | Sediment/Gravel, Fine Particulates | None | Fish, Snails, Insects, Algae |
| J30d (Confirmation 2) | 9/21/09 | 14:00 | Sunny | None | None | Clear | Trash | Sediment/Gravel, Fine Particulates | None | Snails, Insects, Algae |
| J30d (Confirmation 3) | 9/23/09 | 16:00 | Sunny | None | None | Clear | None | Sediment/Gravel, Fine Particulates | Limited | Snails, Insects, Algae |
| K15j2 | 9/3/09 | 14:40 | Sunny | None | None | Clear | None | Fine Particulates | None | Insects, Algae |
| O40b | 9/8/09 | 14:15 | Sunny | None | None | Clear | None | Sediment, Fine Particulates | Limited | Insects, Algae |

**TABLE 4-4**
**FIELD OBSERVATIONS - ROUND TWO (CONTINUED)**

| Site | Date | Time | Light Conditions | Odor | Color | Clarity | Floatables | Deposits | Vegetation | Biology |
|---|---|---|---|---|---|---|---|---|---|---|
| P15b | 9/4/09 | 13:45 | Sunny | None | None | Clear | None | Sediment/Gravel, Fine Particulates | None | Insects |
| P15b (Confirmation) | 9/8/09 | 15:00 | Sunny | None | None | Clear | None | Sediment/Gravel, Fine Particulates | None | Insects |
| P20f | 9/4/09 | 10:40 | Sunny | None | None | Clear | Trash | Sediment, Fine Particulates | None | Snails, Insects, Algae |
| Q5l | 9/8/09 | 11:20 | Sunny | Decomposing organic waste | Yellow | Opaque | None | Fine Particulates | None | None |
| Q5l (Confirmation) | 9/9/09 | 10:35 | Sunny | ns | ns | ns | ns | Fine Particulates | None | None |
| RCP1 | 9/3/09 | 12:00 | Sunny | None | None | Clear | Trash | Sediment, Fine Particulates | Normal | Insects, Algae |
| RCP3 | 9/9/09 | 9:45 | Sunny | None | None | Clear | Trash | Sediment/Gravel, Fine Particulates | Normal | Insects, Algae |
| S15h | 9/9/09 | 11:20 | Sunny | None | Brown | Slightly Cloudy | Trash, Bubbles | Sediment, Fine Particulates | Normal | Insects |
| S5c | 9/3/09 | 16:10 | Sunny | None | None | Clear | None | Sediment, Fine Particulates | Limited | Insects, Algae |
| T5e | 9/8/09 | 10:05 | Sunny | None | None | Clear | None | Sediment/Gravel, Fine Particulates | Normal | Insects |
| U10a | 9/8/09 | 10:50 | Sunny | ns | ns | ns | ns | Sediment/Gravel, Fine Particulates | Normal | Insects |
| V40d | 9/3/09 | 12:40 | Sunny | None | None | Clear | None | Sediment, Fine Particulates | Limited | Snails, Insects, Algae |

**TABLE 4-4**
**FIELD OBSERVATIONS - ROUND TWO (CONTINUED)**

| Site | Date | Time | Light Conditions | Odor | Color | Clarity | Floatables | Deposits | Vegetation | Biology |
|---|---|---|---|---|---|---|---|---|---|---|
| V40d (Confirmation) | 9/4/09 | 10:05 | Sunny | None | None | Clear | None | Sediment, Fine Particulates | Limited | Snails, Insects, Algae |
| V45k | 9/9/09 | 12:30 | Sunny | None | None | Clear | None | Sediment/Gravel, Fine Particulates | Normal | Insects, Algae |
| Y15e | 9/8/09 | 9:35 | Sunny | ns | ns | ns | ns | Sediment/Gravel, Fine Particulates | Normal | Insects |
| Z15b | 9/4/09 | 9:20 | Sunny | None | Brown | Clear | None | Sediment, Fine Particulates | Normal | Insects |

**Notes:**
denotes a confirmation visit
denotes a location sampled for laboratory analysis
ns = not sampled (dry site)

### 4.2.2 Field Analytical Results

Field analyses for Round Two of the Dry Weather Monitoring Program were conducted at all sites with flowing or ponded water. The measured constituents are described in Section 4.1.2 of this report.

A statistical summary of the routine field analytical results for Round Two data is presented in Table 4-5. Table 4-6 shows the results of all field analyses conducted at the sampled sites during Round Two. Graphs of the various parameters and appropriate action levels for follow-up investigations are included at the end of this section.

**TABLE 4-5**
**FIELD ANALYSIS STATISTICAL SUMMARY – ROUND TWO**

| Parameter (units) | Maximum | Minimum | Average | Median | Standard Deviation | Number of Exceedances | Graph |
|---|---|---|---|---|---|---|---|
| **Flow Rate (gpm)** | 23 | 0 (ponded) | 2.8 | 1 | 5.3 | --- | 4-1 |
| **Temperature (ºC)** | 34.4 | 23.0 | 27.7 | 27.5 | 3.0 | 0 | 4-2 |
| **pH** | 9.1 | 7.4 | 8.0 | 8.0 | 0.4 | 1 | 4-3 |
| **Turbidity (NTU)** | 112 | 0.18 | 13.13 | 2.71 | 28.66 | 0 | 4-4 |
| **Conductivity (mS/cm)** | 5.42 | 1.36 | 2.43 | 2.26 | 1.04 | 0 | 4-5 |
| **Ammonia-N (mg/L)** | 0.750 | 0.110 | 0.331 | 0.262 | 0.192 | 0 | 4-6 |
| **Surfactants (mg/L)** | 0.75 | 0.13 | 0.35 | 0.25 | 0.20 | 0 | 4-7 |
| **Nitrate-N (mg/L)** | 13.42 | 0.09 | 3.67 | 1.88 | 3.96 | 1 | 4-8 |
| **Orthophosphate-P (mg/L)** | 9.343 | 0.015 | 0.676 | 0.160 | 2.053 | 1 | 4-9 |

**Note:** Calculations include complete routine visit data only. Confirmation visits, follow-up visits and dry sites not incorporated.

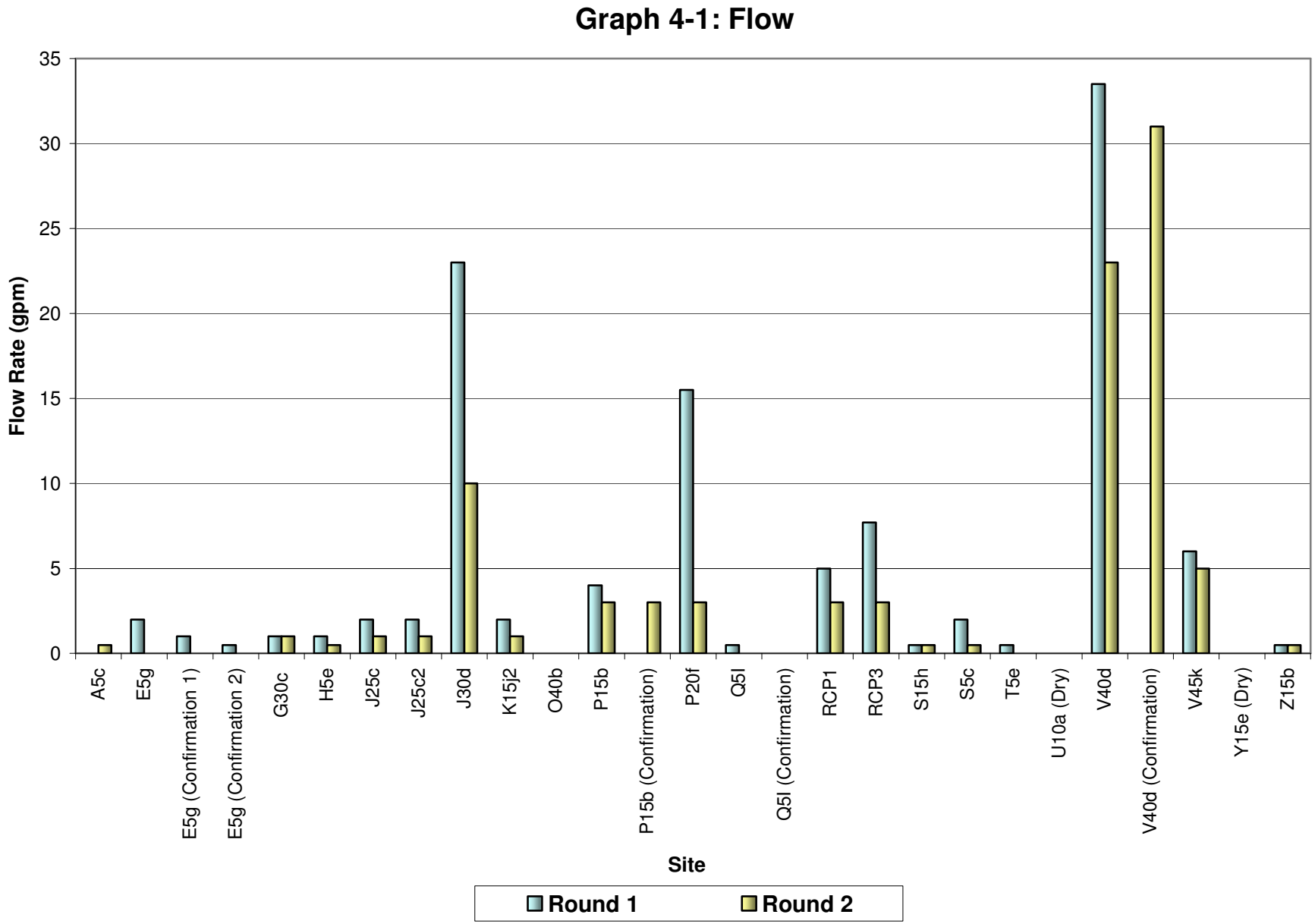
**TABLE 4-6**
**FIELD ANALYTICAL RESULTS - ROUND TWO**

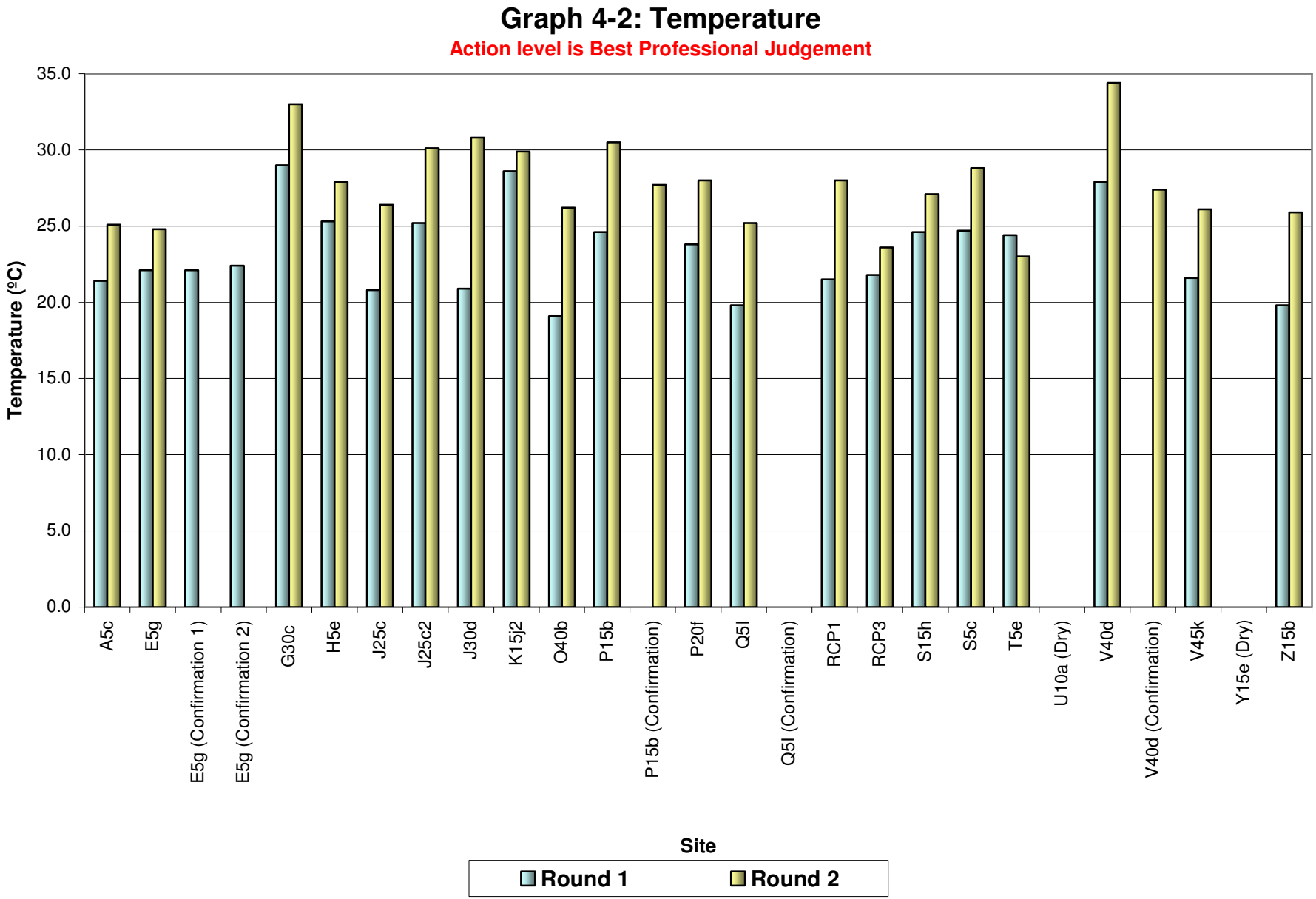
| Site | Date | Time | Flow (gpm) | Temp (ºC) | pH | Turbidity (NTU) | Conductivity (mS/cm) | Surfactants (mg/L) | Ammonia-N (mg/L) | Nitrate-N (mg/L) | Ortho-phosphate-P (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A5c | 9/8/09 | 12:30 | <1 | 25.1 | 8.0 | 18.10 | 2.16 | 0.75 | 0.432 | 1.33 | 0.712 |
| E5g | 9/8/09 | 16:00 | Ponded | 24.8 | 7.4 | 12.68 | 3.26 | 0.50 | 0.693 | 0.55* | 0.465 |
| G30c | 9/2/09 | 15:50 | 1 | 33.0 | 8.8 | 3.46 | 2.58 | 0.25 | 0.214 | 2.86 | 0.186 |
| H5e | 9/4/09 | 14:50 | <1 | 27.9 | 7.9 | 1.14 | 2.70 | 0.25 | 0.285 | 0.81* | 0.414 |
| J25c | 9/3/09 | 11:10 | 1 | 26.4 | 8.3 | 0.18 | 4.36 | 0.38 | 0.221 | 7.94 | 0.196 |
| J25c2 | 9/2/09 | 15:00 | 1 | 30.1 | 7.9 | 0.41 | 5.42 | 0.38 | 0.240 | 6.01 | 0.054* |
| J30d | 9/4/09 | 11:30 | 10 | 30.8 | 8.0 | 8.66 | 3.11 | 0.25 | 0.643 | 2.43 | 0.044* |
| J30d (Confirmation 1) | 9/15/09 | 14:45 | 3 | 29.9 | 8.9 | 2.82 | na | na | na | na | na |
| J30d (Confirmation 2) | 9/21/09 | 14:00 | 5 | 29.5 | 8.7 | 2.45 | na | na | na | na | na |
| J30d (Confirmation 3) | 9/23/09 | 16:00 | 2 | 27.4 | 8.6 | 2.92 | 15.65 | na | na | na | na |
| K15j2 | 9/3/09 | 14:40 | 1 | 29.9 | 7.7 | 0.80 | 2.02 | 0.13 | 0.210 | 5.36 | 0.037* |
| O40b | 9/8/09 | 14:15 | Ponded | 26.2 | 8.0 | 1.21 | 1.36 | 0.25 | 0.430 | 0.71* | 0.228 |
| P15b | 9/4/09 | 13:45 | 3 | 30.5 | 7.7 | 0.82 | 1.60 | 0.13 | 0.202 | **13.42** | 0.156 |
| P15b (Confirmation) | 9/8/09 | 15:00 | 3 | 27.7 | 7.4 | 6.70 | 1.61 | na | na | 7.56 | na |
| P20f | 9/4/09 | 10:40 | 3 | 28.0 | 8.2 | 3.50 | 1.53 | 0.25 | 0.268 | 5.66 | 0.016* |
| Q5l | 9/8/09 | 11:20 | Ponded | 25.2 | 8.0 | **112** | 1.86 | 0.75 | 0.595 | 2.88 | **9.343** |
| Q5l (Confirmation) | 9/9/09 | 10:35 | Dry | ns | ns | ns | ns | ns | ns | ns | ns |

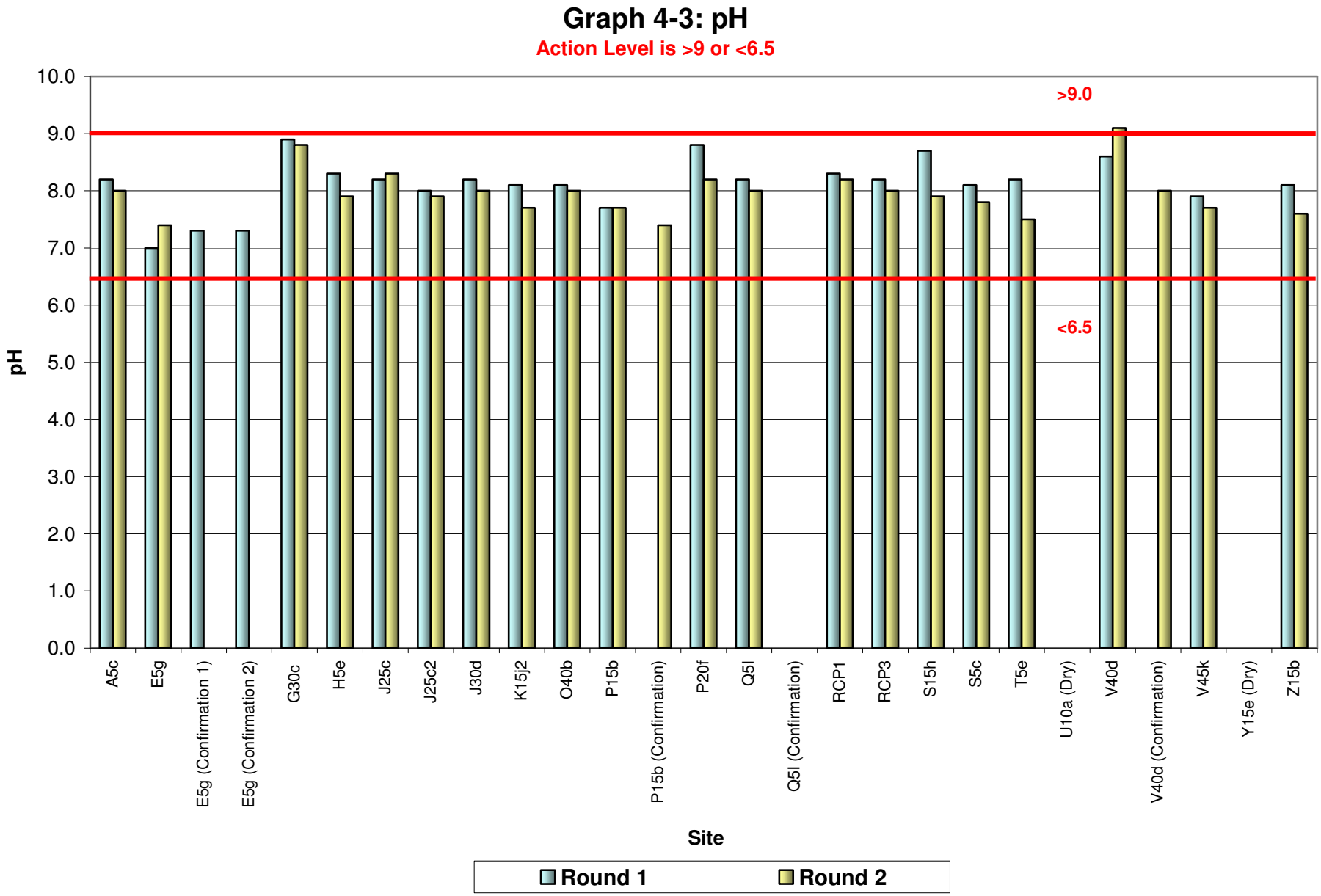
## TABLE 4-6
## FIELD ANALYTICAL RESULTS - ROUND TWO (CONTINUED)

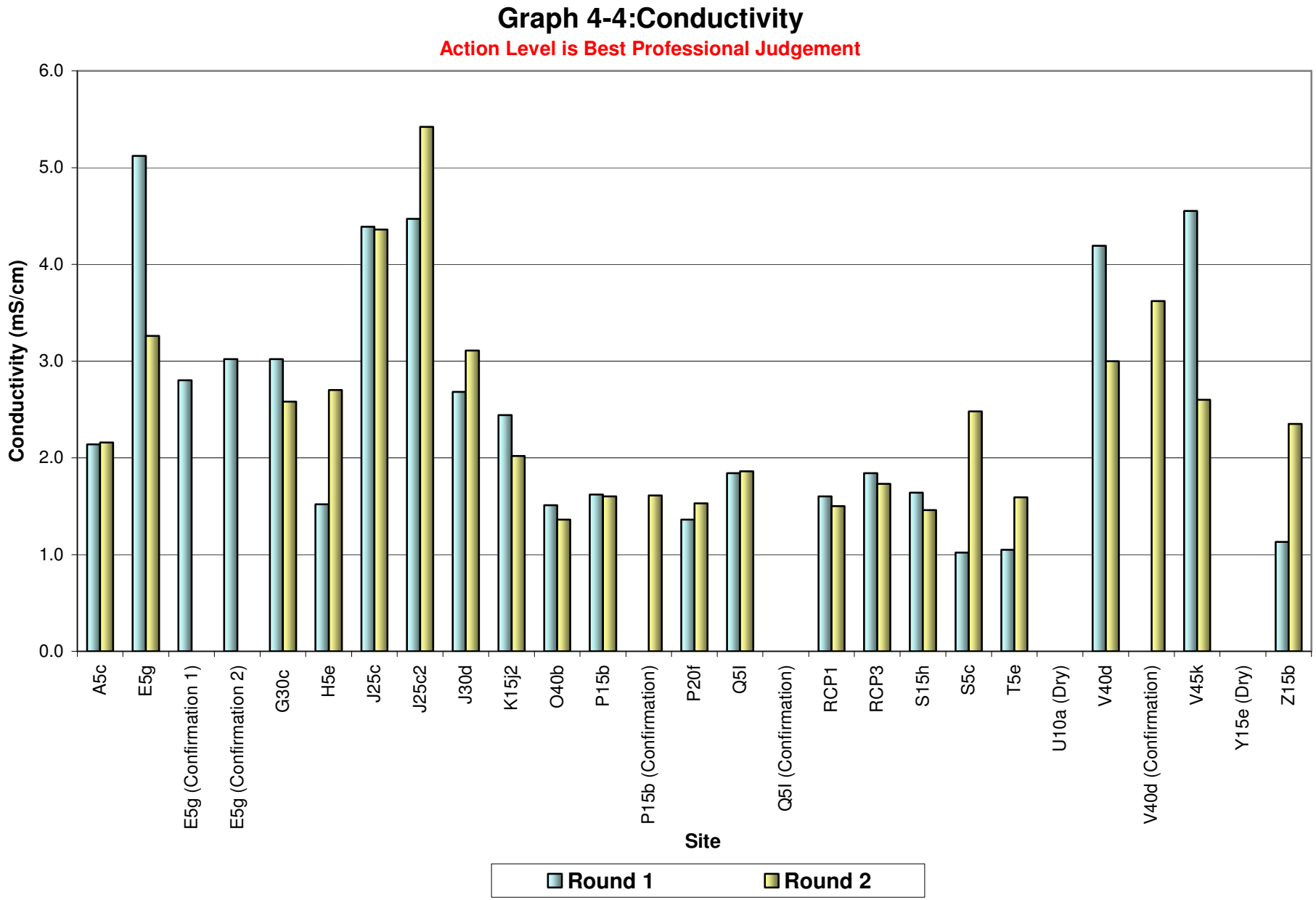
| Site | Date | Time | Flow (gpm) | Temp (ºC) | pH | Turbidity (NTU) | Conductivity (mS/cm) | Surfactants (mg/L) | Ammonia-N (mg/L) | Nitrate-N (mg/L) | Ortho-phosphate-P (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RCP1 | 9/3/09 | 12:00 | 3 | 28.0 | 8.2 | 0.50 | 1.50 | 0.13 | 0.170 | 9.96 | 0.103 |
| RCP3 | 9/9/09 | 9:45 | 3 | 23.6 | 8.0 | 0.49 | 1.73 | 0.25 | 0.177 | 9.93 | 0.152 |
| S15h | 9/9/09 | 11:20 | <1 | 27.1 | 7.9 | 16.76 | 1.46 | 0.75 | 0.750 | 1.27 | 0.839 |
| S5c | 9/3/09 | 16:10 | <1 | 28.8 | 7.8 | 1.60 | 2.48 | 0.25 | 0.273 | 1.30 | 0.267 |
| T5e | 9/8/09 | 10:05 | Ponded | 23.0 | 7.5 | 7.68 | 1.59 | 0.25 | 0.110 | 0.18* | 0.057* |
| U10a | 9/8/09 | 10:50 | Dry | ns | ns | ns | ns | ns | ns | ns | ns |
| V40d | 9/3/09 | 12:40 | 23 | 34.4 | **9.1** | 1.95 | 3 | 0.25 | 0.177 | 0.09* | 0.015* |
| V40d (Confirmation) | 9/4/09 | 10:05 | 31 | 27.4 | 8.0 | na | 3.62 | na | na | na | na |
| V45k | 9/9/09 | 12:30 | 5 | 26.1 | 7.7 | 3.70 | 2.60 | 0.25 | 0.271 | 0.12* | 0.064* |
| Y15e | 9/8/09 | 9:35 | Dry | ns | ns | ns | ns | ns | ns | ns | ns |
| Z15b | 9/4/09 | 9:20 | <1 | 25.9 | 7.6 | 7.79 | 2.35 | 0.50 | 0.256 | 0.60* | 0.163 |
| **PRACTICAL DETECTION LIMIT** | | | | **0.0** | **0.0** | **0.01** | **0.00** | **0.00** | **0.100** | **1.13** | **0.098** |
| **ACTION LEVEL** | | | | **BPJ** | **< 6.5 > 9.0** | **BPJ** | **BPJ** | **1.00** | **1.000** | **10.00** | **2.000** |

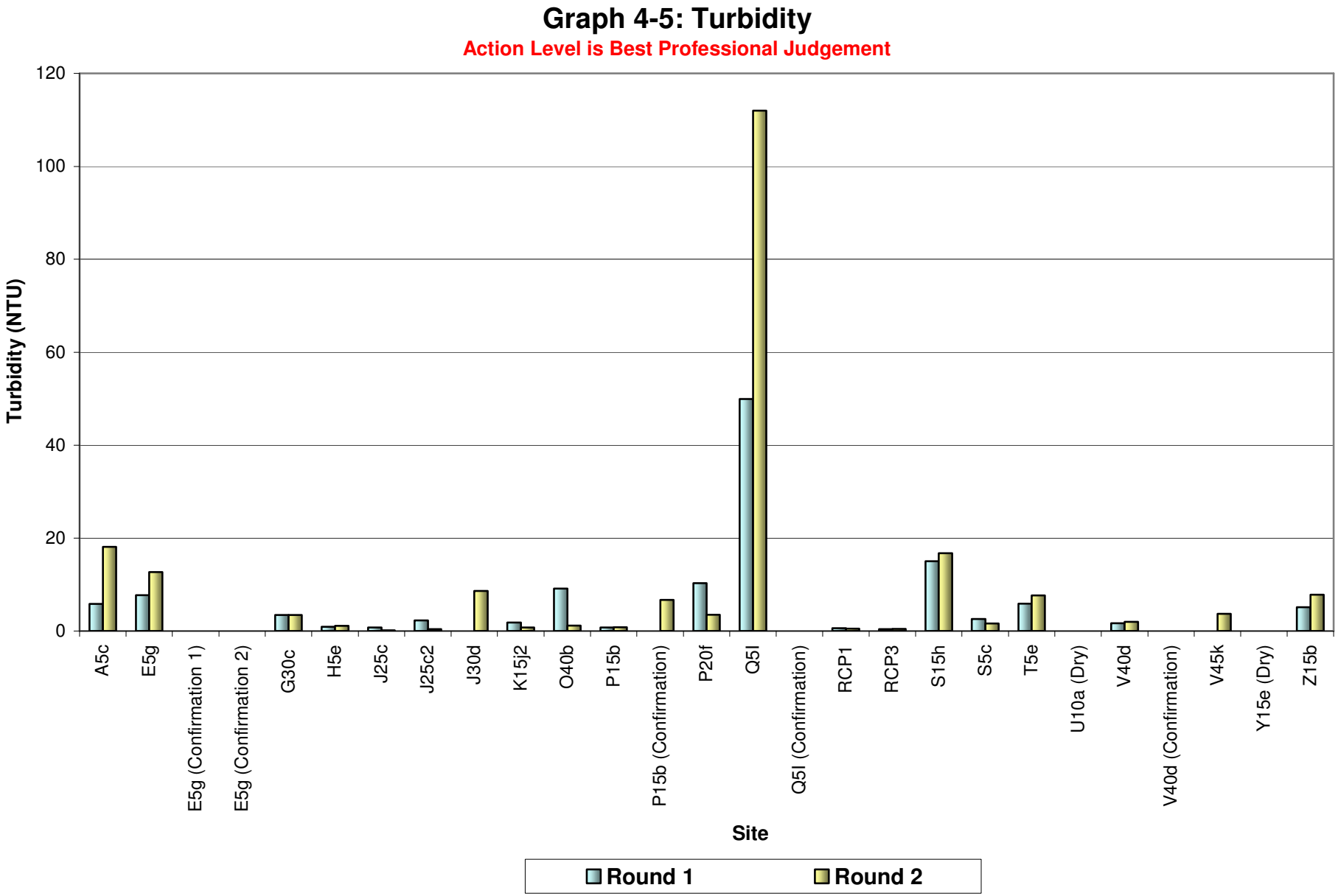
**Notes:**
na = not analyzed
ns = not sampled (dry site)
* Value reported is below the Practical Detection Limit (PDL). Per manufacturer, the value is reported but flagged. See footnotes to Table 3-1 for details.
**Red** values were at or above the measured constituent's action level
denotes a confirmation visit
denotes a location sampled for laboratory analysis

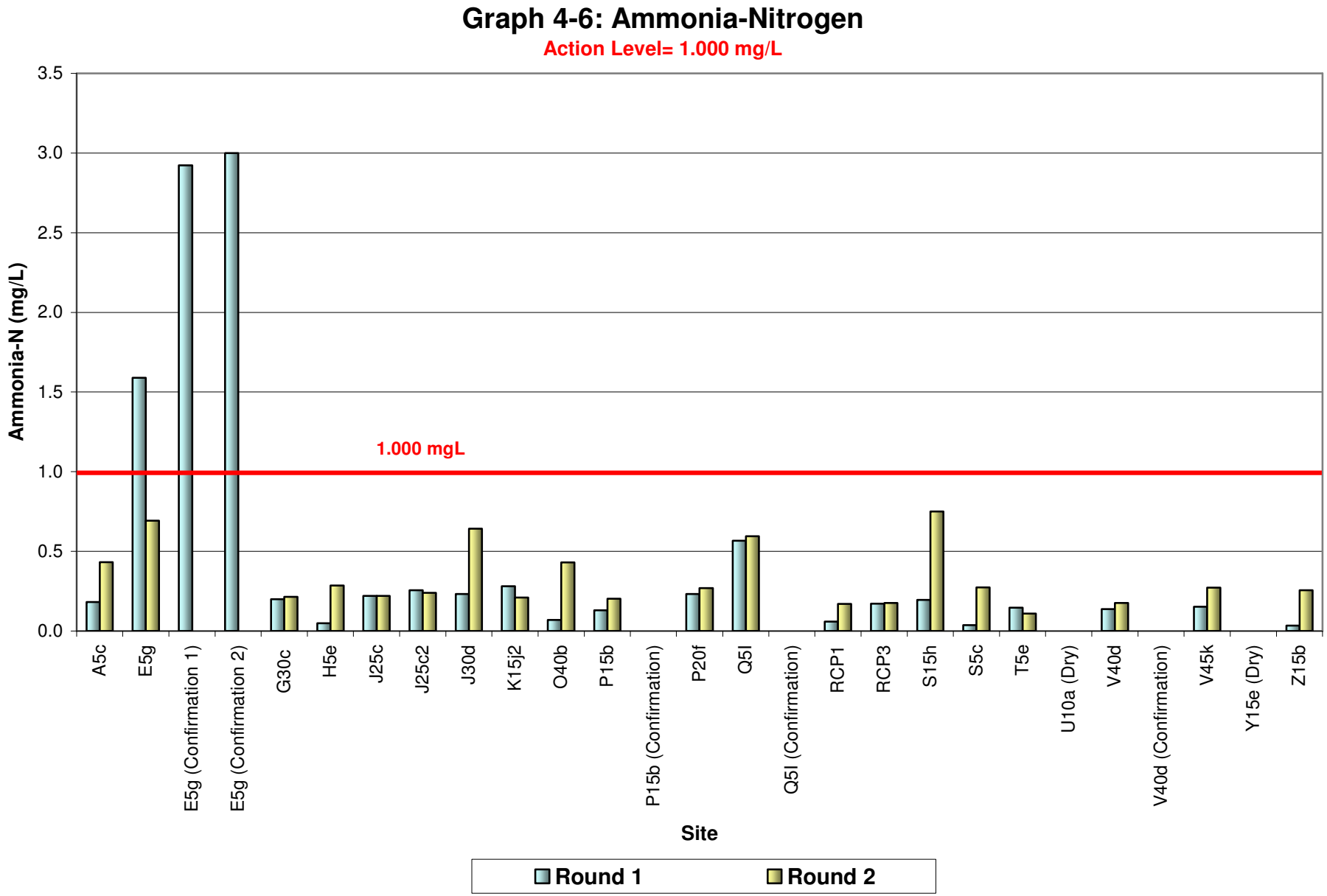

Graph 4-1: Flow
Flow Rate (gpm)
35
30
25
20
15
10
5
0
A5c
E5g
E5g (Confirmation 1)
E5g (Confirmation 2)
G30c
H5e
J25c
J25c2
J30d
K15j2
O40b
P15b
P15b (Confirmation)
P20f
Q5l
Q5l (Confirmation)
RCP1
RCP3
S15h
S5c
T5e
U10a (Dry)
V40d
V40d (Confirmation)
V45k
Y15e (Dry)
Z15b
Site
Round 1
Round 2

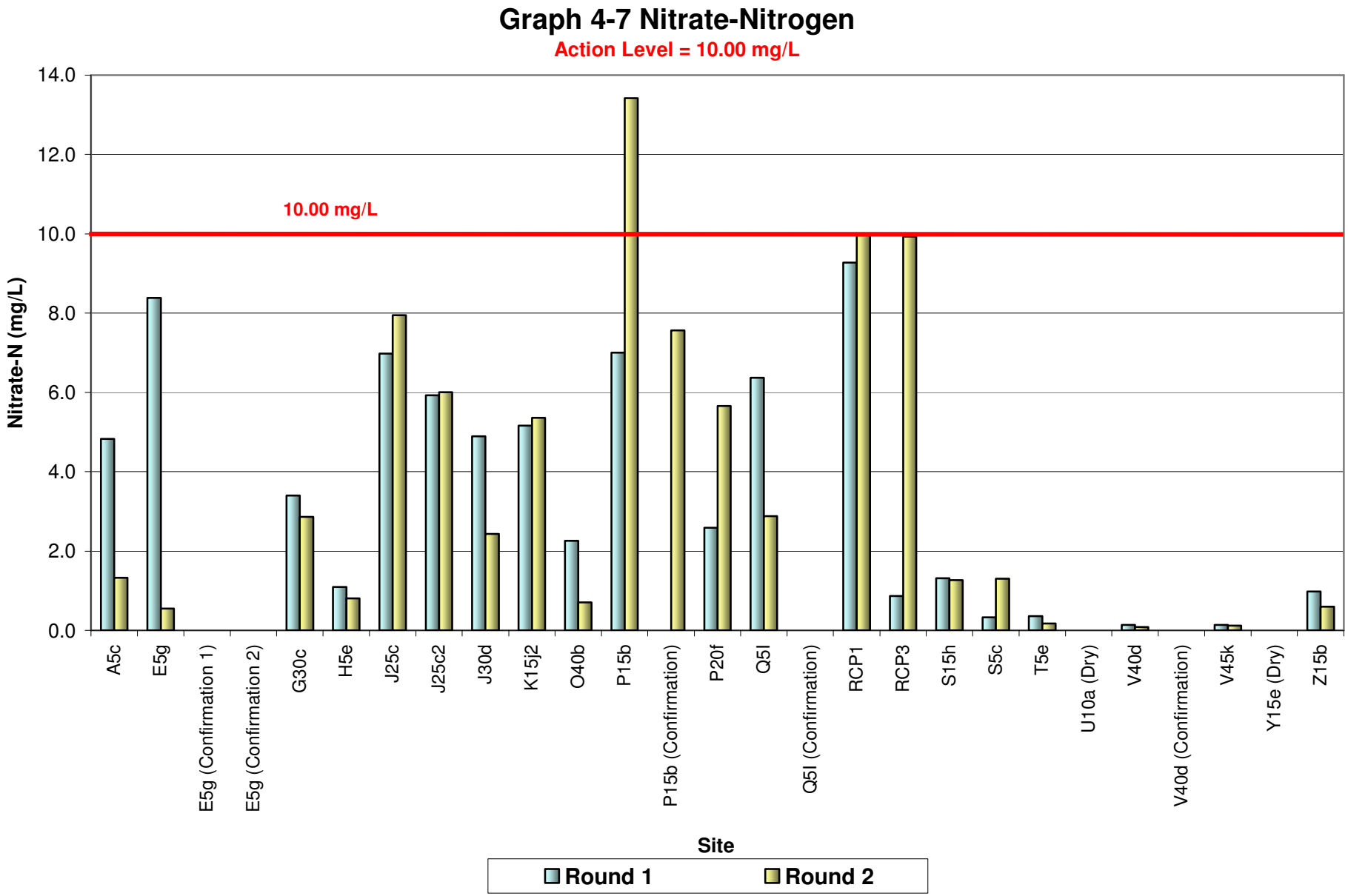

Graph 4-2: Temperature
Action level is Best Professional Judgement
Temperature (ºC)
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
A5c
E5g
E5g (Confirmation 1)
E5g (Confirmation 2)
G30c
H5e
J25c
J25c2
J30d
K15j2
O40b
P15b
P15b (Confirmation)
P20f
Q5l
Q5l (Confirmation)
RCP1
RCP3
S15h
S5c
T5e
U10a (Dry)
V40d
V40d (Confirmation)
V45k
Y15e (Dry)
Z15b
Site
Round 1
Round 2

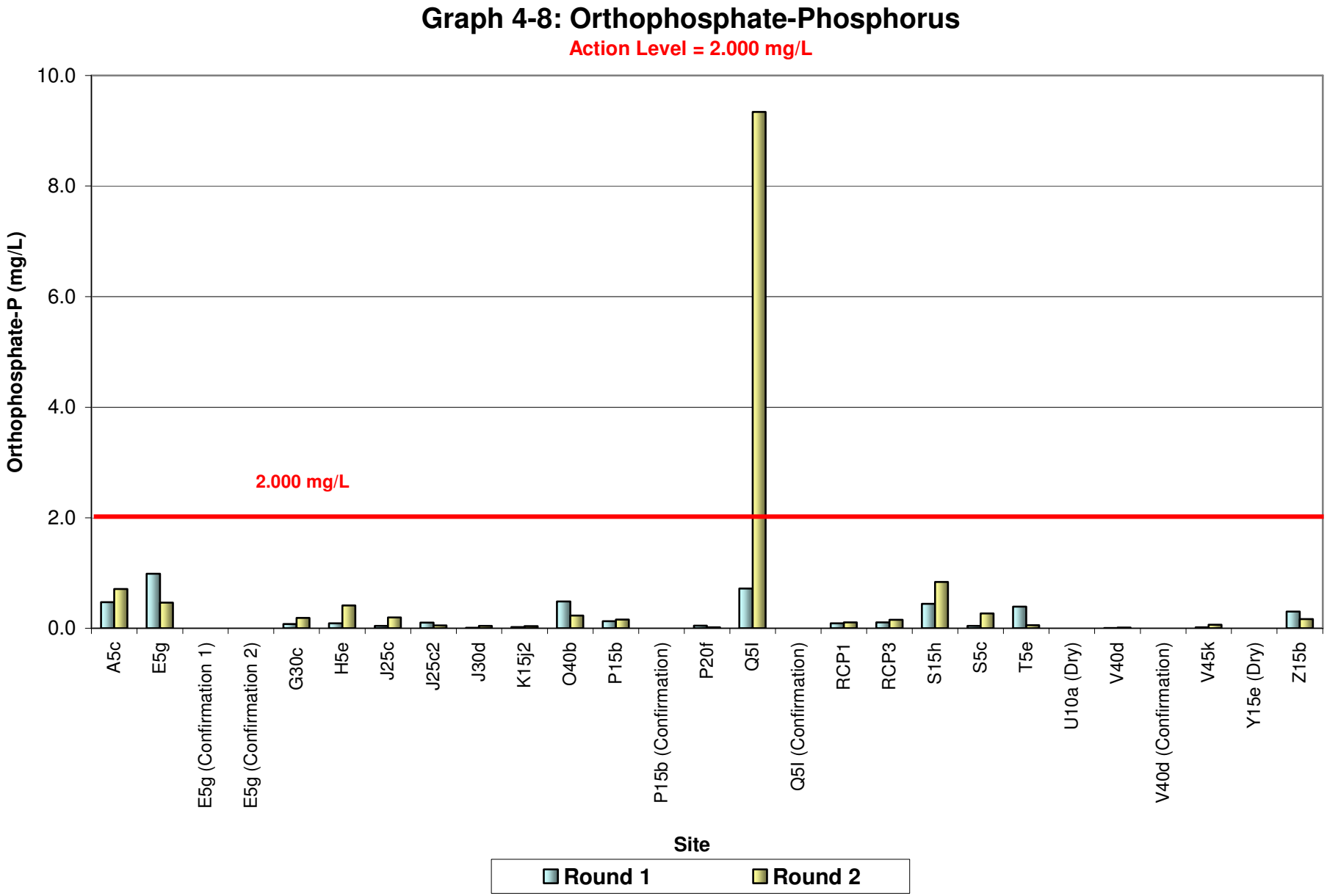

Graph 4-3: pH
Action Level is >9 or <6.5
>9.0
<6.5
pH
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
A5c
E5g
E5g (Confirmation 1)
E5g (Confirmation 2)
G30c
H5e
J25c
J25c2
J30d
K15j2
O40b
P15b
P15b (Confirmation)
P20f
Q5l
Q5l (Confirmation)
RCP1
RCP3
S15h
S5c
T5e
U10a (Dry)
V40d
V40d (Confirmation)
V45k
Y15e (Dry)
Z15b
Site
Round 1
Round 2

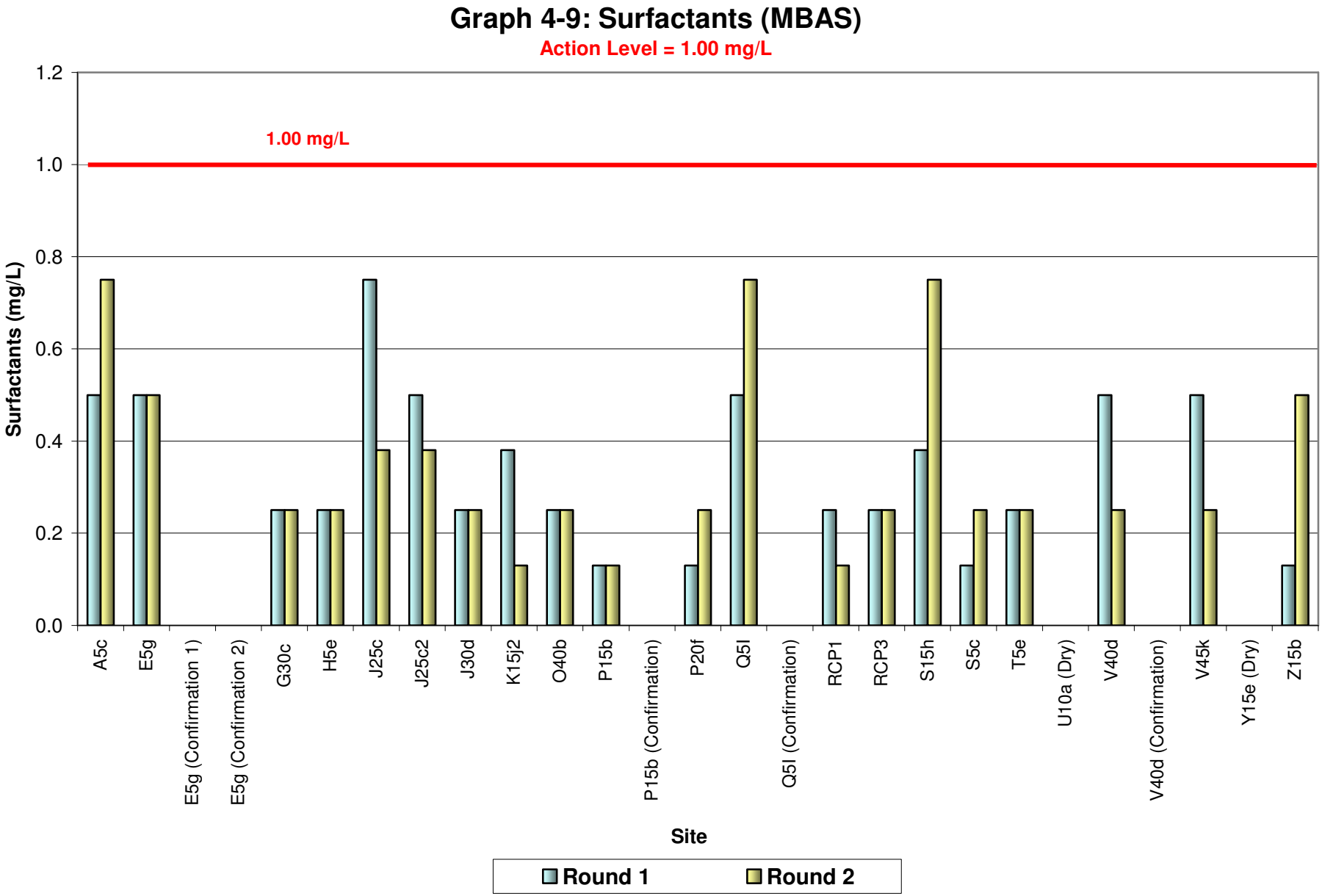

Graph 4-4:Conductivity
Action Level is Best Professional Judgement
Conductivity (mS/cm)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
A5c
E5g
E5g (Confirmation 1)
E5g (Confirmation 2)
G30c
H5e
J25c
J25c2
J30d
K15j2
O40b
P15b
P15b (Confirmation)
P20f
Q5l
Q5l (Confirmation)
RCP1
RCP3
S15h
S5c
T5e
U10a (Dry)
V40d
V40d (Confirmation)
V45k
Y15e (Dry)
Z15b
Site
Round 1
Round 2


Graph 4-5: Turbidity
Action Level is Best Professional Judgement
Turbidity (NTU)
120
100
80
60
40
20
0
A5c
E5g
E5g (Confirmation 1)
E5g (Confirmation 2)
G30c
H5e
J25c
J25c2
J30d
K15j2
O40b
P15b
P15b (Confirmation)
P20f
Q5I
Q5I (Confirmation)
RCP1
RCP3
S15h
S5c
T5e
U10a (Dry)
V40d
V40d (Confirmation)
V45k
Y15e (Dry)
Z15b
Site
Round 1
Round 2


Graph 4-6: Ammonia-Nitrogen
Action Level= 1.000 mg/L
Ammonia-N (mg/L)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1.000 mgL
A5c
E5g
E5g (Confirmation 1)
E5g (Confirmation 2)
G30c
H5e
J25c
J25c2
J30d
K15j2
O40b
P15b
P15b (Confirmation)
P20f
Q5I
Q5I (Confirmation)
RCP1
RCP3
S15h
S5c
T5e
U10a (Dry)
V40d
V40d (Confirmation)
V45k
Y15e (Dry)
Z15b
Site
Round 1
Round 2


Graph 4-7 Nitrate-Nitrogen
Action Level = 10.00 mg/L
10.00 mg/L
Nitrate-N (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
A5c
E5g
E5g (Confirmation 1)
E5g (Confirmation 2)
G30c
H5e
J25c
J25c2
J30d
K15j2
O40b
P15b
P15b (Confirmation)
P20f
Q5l
Q5l (Confirmation)
RCP1
RCP3
S15h
S5c
T5e
U10a (Dry)
V40d
V40d (Confirmation)
V45k
Y15e (Dry)
Z15b
Site
Round 1
Round 2


Graph 4-8: Orthophosphate-Phosphorus
Action Level = 2.000 mg/L
Orthophosphate-P (mg/L)
10.0
8.0
6.0
4.0
2.0
0.0
2.000 mg/L
A5c
E5g
E5g (Confirmation 1)
E5g (Confirmation 2)
G30c
H5e
J25c
J25c2
J30d
K15j2
O40b
P15b
P15b (Confirmation)
P20f
Q5I
Q5I (Confirmation)
RCP1
RCP3
S15h
S5c
T5e
U10a (Dry)
V40d
V40d (Confirmation)
V45k
Y15e (Dry)
Z15b
Site
Round 1
Round 2


Graph 4-9: Surfactants (MBAS)
Action Level = 1.00 mg/L
1.00 mg/L
Surfactants (mg/L)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
A5c
E5g
E5g (Confirmation 1)
E5g (Confirmation 2)
G30c
H5e
J25c
J25c2
J30d
K15j2
O40b
P15b
P15b (Confirmation)
P20f
Q5l
Q5l (Confirmation)
RCP1
RCP3
S15h
S5c
T5e
U10a (Dry)
V40d
V40d (Confirmation)
V45k
Y15e (Dry)
Z15b
Site
Round 1
Round 2

# 5 TRASH ASSESSMENT

## 5.1 Regulatory Requirements

Section II.B.3.C.(7) of the Municipal Permit's Receiving Waters and Urban Runoff Monitoring and Reporting Program requires all Copermittees, including the City of Santee, to assess the presence of trash in receiving waters and urban runoff at each dry weather monitoring site. This trash assessment program is designed to provide information on the spatial extent and relative amount of trash present, as well at the nature and origin of the trash at the site.

## 5.2 Procedure and Definitions

The San Diego Copermittee Dry Weather Monitoring Workgroup developed a Trash Assessment Form to document the amount and extent of trash at each evaluated site. The form categorizes the site into one of five trash categories: optimal, suboptimal, marginal, submarginal, or poor. The form also addresses any potential threats that the trash may pose to human or aquatic health. For sites rating submarginal or poor, the form includes a section to record types, prevalence, potential routes, and sources of trash.

- A qualitative estimate of the abundance of trash is made based upon a general impression of the site. The Trash Assessment Form's five categories are primarily qualitative descriptions of the amount and extent of trash although a number of trash pieces is also included in each category as a rough guideline. The five categories are defined as follows.
- Optimal: On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris.
- Suboptimal: On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area.
- Marginal: Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present.
- Submarginal: Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (~100-400 pieces). Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present.
- Poor: Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces).

The threat to human health and threat to aquatic health is assessed at each site using the following definitions:

- *Threat to Human Health* – Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment.

- *Threat to Aquatic Health* – Large amount (50 pieces or more) of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amounts of settleable, degradable, and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence of large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment.

In the event that a site is noted as potentially posing a threat to human or aquatic health, additional descriptive comments are recorded in the "Comments" section of the Trash Assessment Form.

If a site is labeled as submarginal or poor, it is assessed for types of trash present (e.g., automotive, biohazard, food waste), which are ranked based on their prevalence and the potential threat to water quality they pose. Lastly, the potential mechanism through which trash reached the site (e.g., dumping, littering, upstream sources) and the potential source of the trash (e.g., construction, commercial, transient) are identified.

## 5.2 Trash Assessment Results

During both Round One and Round Two, the majority of sites in the City of Santee were rated optimal or suboptimal. None of the sites were considered submarginal or poor, or were determined to pose a threat to aquatic health. During round one, Site E5g received a marginal trash assessment rating and was determined to pose a potential threat to human health due to the probable presence of human waste. The City was notified of the conditions at the site, and promptly removed all trash and debris from the site and surrounding area.

Tables 5-1 and 5-2 and Graph 5-1 summarize the trash assessment results for both rounds of monitoring. Figures 5-1 and 5-2 are maps of sampling sites and their corresponding trash assessment in Round One and Round Two, respectively.

**TABLE 5-1**
**TRASH ASSESSMENT RESULTS – ROUND ONE**

| Optimal (18 Sites) | | | Suboptimal (3 Sites) | Marginal (1 Site) | Submarginal (0 Sites) | Poor (0 Sites) |
|---|---|---|---|---|---|---|
| G30c<br>H5e<br>J25c<br>J25c2<br>J30d<br>K15j2 | O40b<br>P15b<br>P20f<br>Q5l<br>RCP1<br>S15h | S5c<br>T5e<br>U10a<br>V40d<br>V45k<br>Z15b | A5c<br>RCP3<br>Y15e | E5g | (None) | (None) |

**TABLE 5-2**
**TRASH ASSESSMENT RESULTS – ROUND TWO**

| Optimal (11 Sites) | | Suboptimal (9 Sites) | | Marginal (2 Sites) | Submarginal (0 Sites) | Poor (0 Sites) |
|---|---|---|---|---|---|---|
| A5c<br>E5g<br>G30c<br>J25c<br>J30d<br>K15j2 | P15b<br>RCP1<br>S5c<br>T5e<br>V45k | H5e<br>J25c2<br>O40b<br>Q5l<br>S15h | U10a<br>V40d<br>Y15e<br>Z15b | P20f<br>RCP3 | (None) | (None) |

**GRAPH 5-1**
**TRASH ASSESSMENT SUMMARY**

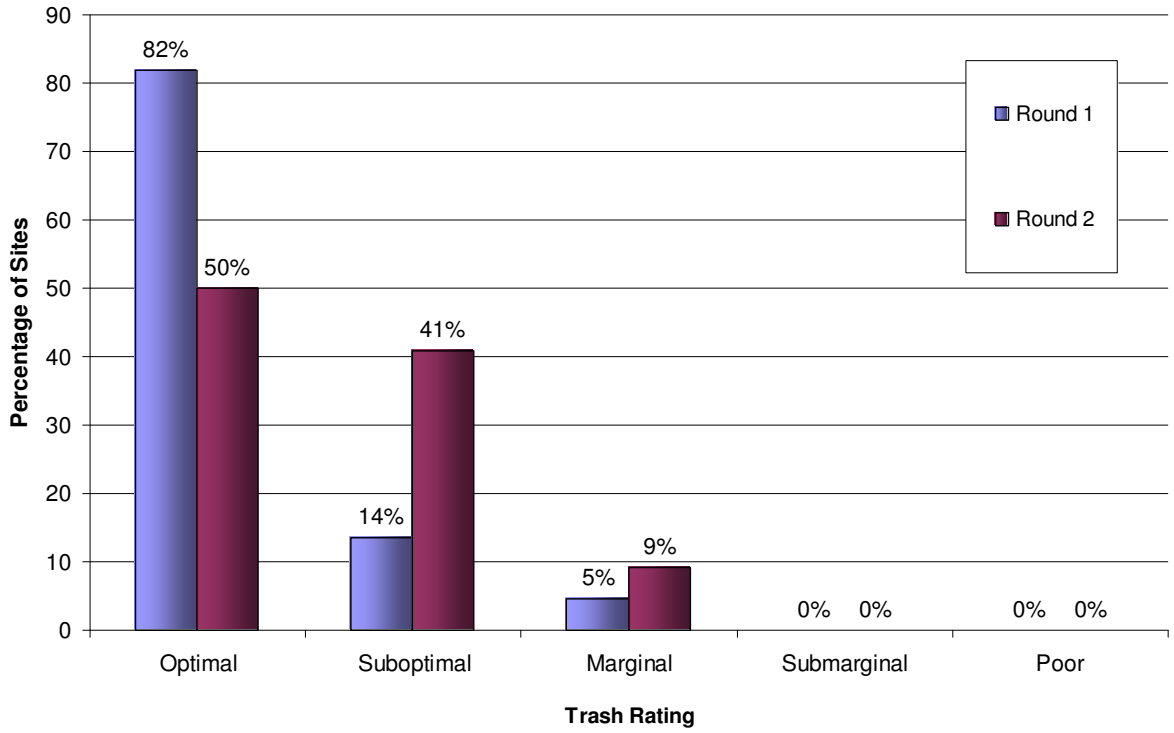
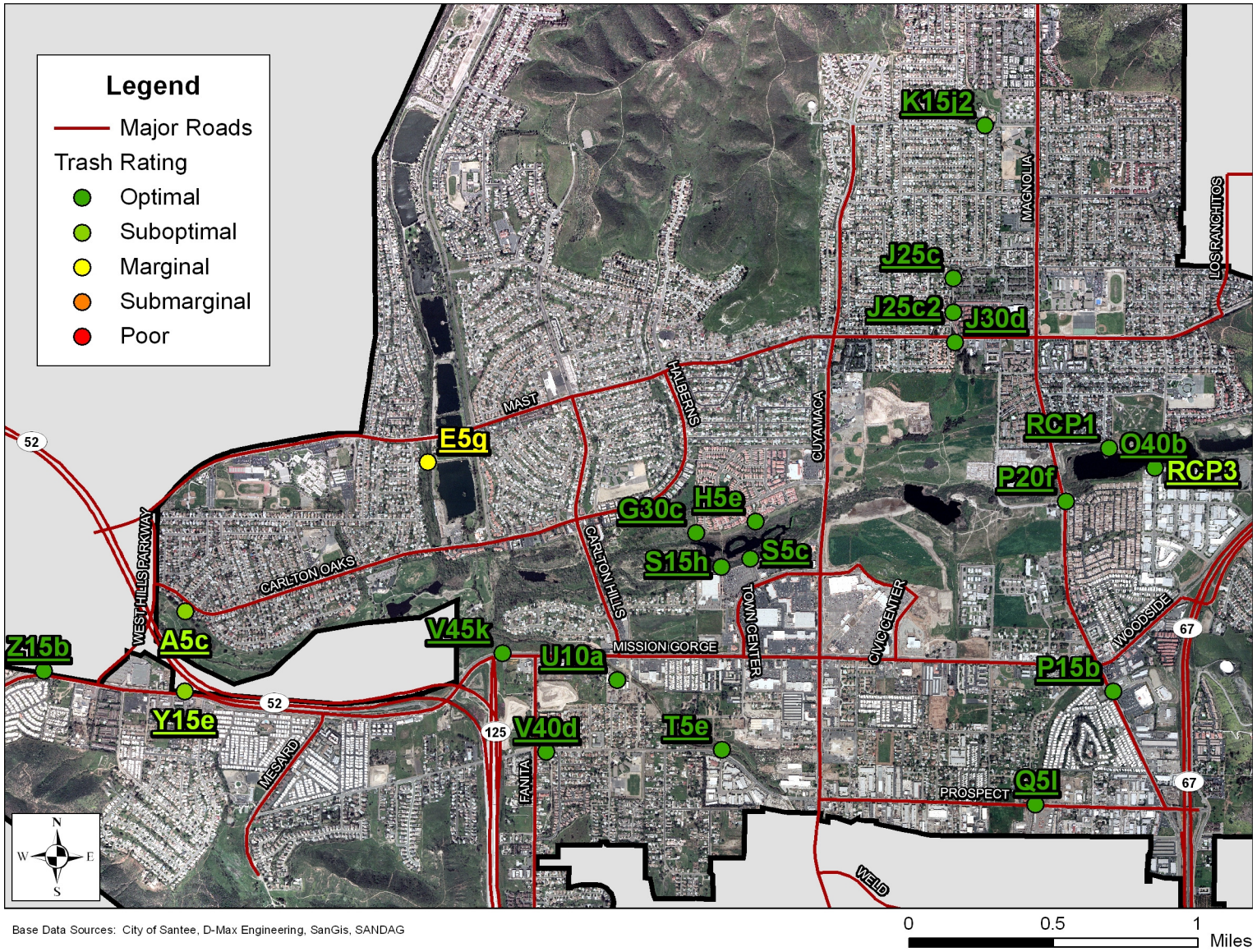


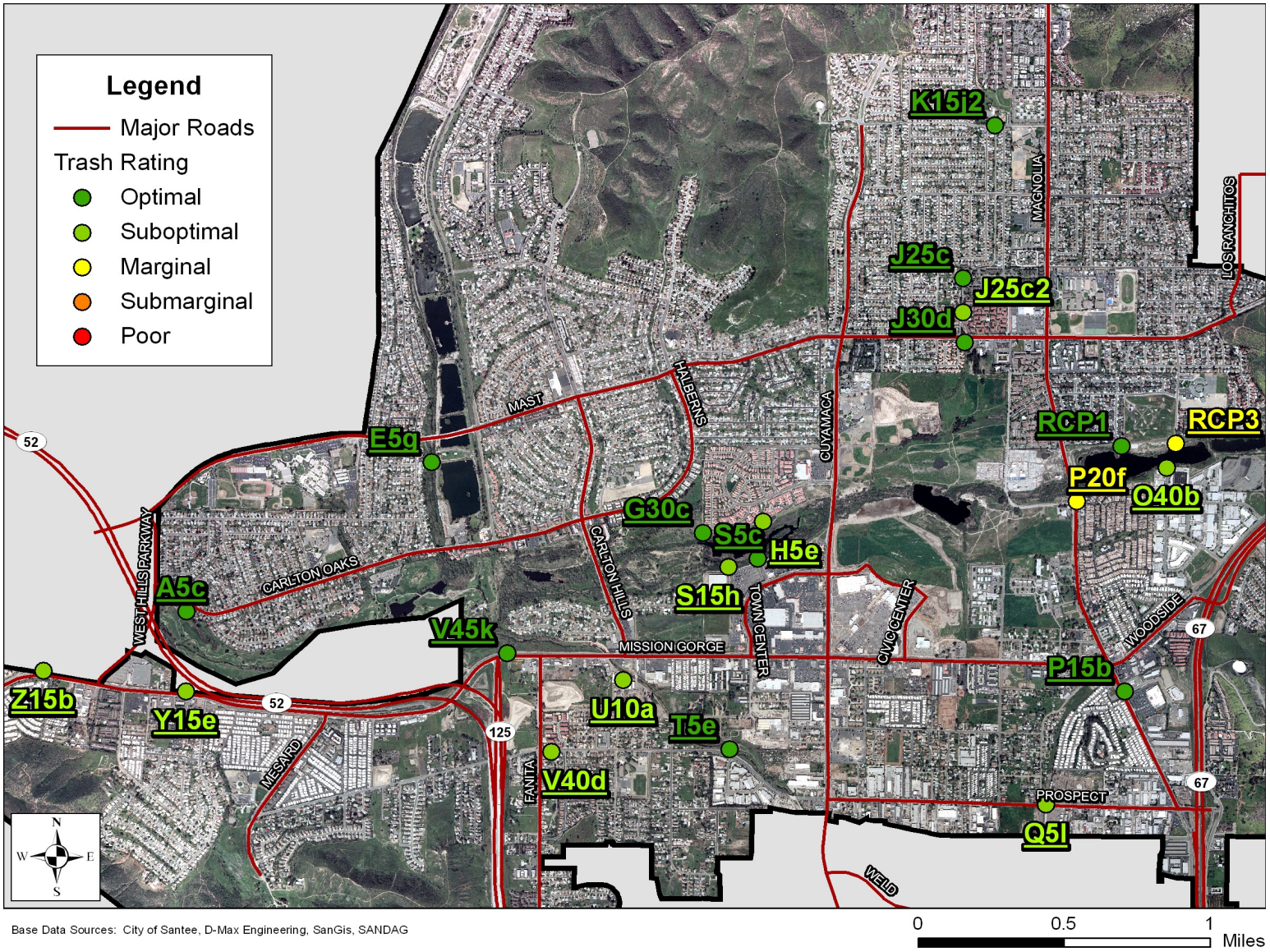
**FIGURE 5-1**
**ROUND ONE TRASH ASSESSMENT GIS MAP**




Base Data Sources: City of Santee, D-Max Engineering, SanGis, SANDAG

0 0.5 1 Miles

**FIGURE 5-2**
**ROUND TWO TRASH ASSESSMENT GIS MAP**




Base Data Sources: City of Santee, D-Max Engineering, SanGis, SANDAG

0 0.5 1 Miles

# 6 LABORATORY ANALYTICAL RESULTS

## 6.1 Summary

Laboratory analyses were conducted at five sites in each of the two rounds, representing over 25 percent of all sites with ponded or flowing water. The laboratory constituents measured are defined below.

**Oil and grease** analysis is used to detect hydrocarbon pollution from a variety of sources, including parking lots and streets, washing activities, illegal discharges, and automobile repair facilities.

**Total hardness** measures the amount of calcium and magnesium ions in a water sample, with the result expressed in mg/L of $CaCO_3$. Hardness itself is not considered a pollutant, but is measured to calculate CTR limits for dissolved metals. Hardness affects the solubility of dissolved metals as well as other minerals and ions.

**Diazinon** and **chlorpyrifos** are organophosphate pesticides that are highly toxic to insects, birds, and mammals, freshwater fish, and invertebrates. In 2005, the Environmental Protection Agency banned the sale of diazinon in the United States and tightened restrictions on chlorpyrifos use.

**Coliform bacteria** are relatively harmless to humans and are present in mammalian digestive tracts, most surface waters, and soils. Testing water samples for total coliform bacteria is a standard practice in public health. Total coliform is measured as an indicator of other more harmful pathogens, since these pathogens are generally present in much smaller quantities and are difficult to detect.

**Fecal coliform**, a subset of coliform bacteria, and ***Enterococcus*** are found primarily in the gastro intestinal tracts of humans and animals and are commonly used as indicators of water contamination by fecal matter. Without the use of significantly more expensive methods, such as ribotyping, it is not possible to determine whether the source of fecal material is human or animal. Human fecal material is known to contain pathogens dangerous to humans, but the relationship between animal waste and threat to human health is less certain.

**Metal** contamination of water can arise from a variety of sources, including automobile operation, automobile repair, vehicle washing, galvanizing of metal, and electronics manufacturing. Certain dissolved metals are toxic pollutants that are hazardous to the survival and development of aquatic organisms.

The California Toxics Rule for Dissolved Metals in Fresh Waters defines metal toxicity as a function of water hardness. As hardness increases, so does the Criterion Maximum Concentration (CMC), a concentration limit in which aquatic life can be sustained. CMC values differ for various metals. Dry weather monitoring laboratory samples are analyzed for the presence of dissolved cadmium, copper, lead, and zinc.

## 6.2 Results

Tables 6-1 and 6-2 present the statistical summaries of the laboratory results from Round One and Round Two samples, respectively. Table 6-3 shows the sites with metal concentrations during each round, the measured total hardness of the sample, and the associated CMC. Laboratory reports are included in Appendix C.

**TABLE 6-1**
**LABORATORY ANALYSIS STATISTICAL SUMMARY – ROUND ONE**

| Parameter (units) | Maximum | Minimum | Number of Exceedances |
|---|---|---|---|
| Total Hardness (mg/L $CaCO_3$) | 1,020 | 356 | * |
| Oil and grease (mg/L) | nd | nd | 0 |
| Diazinon (µg/L) | nd | nd | 0 |
| Chlorpyrifos (µg/L) | nd | nd | 0 |
| Cadmium (dissolved, mg/L) | nd | nd | 0 |
| Copper (dissolved, mg/L) | 0.006 | nd | 0 |
| Lead (dissolved, mg/L) | nd | nd | 0 |
| Zinc (dissolved, mg/L) | nd | nd | 0 |
| Total Coliforms (MPN/100 mL) | 11,000 | 1,700 | 0 |
| Fecal Coliforms (MPN/100 mL) | 3,000 | 70 | 0 |
| Enterococci (MPN/100 mL) | 3,000 | 300 | 0 |

**Notes**:
nd = not detected
*Total hardness is not considered a pollutant and does not have an established action level.
Calculations include complete routine visit data only. Confirmation visits, follow-up visits and dry sites not incorporated.

**TABLE 6-2**
**LABORATORY ANALYSIS STATISTICAL SUMMARY – ROUND TWO**

| Parameter (units) | Maximum | Minimum | Number of Exceedances |
|---|---|---|---|
| Total Hardness (mg/L $CaCO_3$) | 931 | 534 | * |
| Oil and grease (mg/L) | nd | nd | 0 |
| Diazinon (µg/L) | nd | nd | 0 |
| Chlorpyrifos (µg/L) | nd | nd | 0 |
| Cadmium (dissolved, mg/L) | nd | nd | 0 |
| Copper (dissolved, mg/L) | 0.021 | 0.002 | 0 |
| Lead (dissolved, mg/L) | nd | nd | 0 |
| Zinc (dissolved, mg/L) | nd | nd | 0 |
| Total Coliforms (MPN/100 mL) | 300,000 | 2,300 | 1 |
| Fecal Coliforms (MPN/100 mL) | 90,000 | 300 | 1 |
| Enterococci (MPN/100 mL) | 30,000 | 110 | 1 |

**Notes**:
nd = not detected
*Total hardness is not considered a pollutant and does not have an established action level.
Calculations include complete routine visit data only. Confirmation visits, follow-up visits and dry sites not incorporated.

**TABLE 6-3**
**CTR – CMC FOR DISSOLVED METALS**

| Dissolved Copper | | | |
|---|---|---|---|
| **Site** | **Total Hardness (mg/L)** | **CMC (mg/L)** | **Concentration (mg/L)** |
| **Round One** | | | |
| J25c | 780 | 0.050 | 0.006 |
| **Round Two** | | | |
| J25c | 931 | 0.050 | 0.021 |
| J30d | 834 | 0.050 | 0.004 |
| P20f | 534 | 0.050 | 0.003 |
| RCP1 | 553 | 0.050 | 0.002 |
| V40d | 773 | 0.050 | 0.005 |

**Note:** Cadmium, lead, and zinc were not detected in any of the samples.

## TABLE 6-4
## LABORATORY ANALYTICAL RESULTS

| Site | Date | Time | Oil & Grease (mg/L) | Total Hardness (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Lead (mg/L) | Zinc (mg/L) | Diazinon (µg/L) | Chlorpyrifos (µg/L) | Total Coliforms (MPN/100 mL) | Fecal Coliforms (MPN/100 mL) | Enterococci (MPN/100 mL) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Round One** | | | | | | | | | | | | | |
| J25c | 5/21/09 | 12:15 | nd | 780 | nd | 0.006 | nd | nd | nd | nd | 8,000 | 170 | 1,300 |
| J30d | 5/22/09 | 9:50 | nd | 685 | nd | nd | nd | nd | nd | nd | 11,000 | 3,000 | 3,000 |
| P20f | 5/21/09 | 11:40 | nd | 356 | nd | nd | nd | nd | nd | nd | 11,000 | 400 | 500 |
| RCP1 | 5/21/09 | 10:45 | nd | 520 | nd | nd | nd | nd | nd | nd | 8,000 | 70 | 2,300 |
| V40d | 5/22/09 | 11:10 | nd | 1,020 | nd | nd | nd | nd | nd | nd | 1,700 | 500 | 300 |
| **Round Two** | | | | | | | | | | | | | |
| J25c | 9/3/09 | 11:10 | nd | 931 | nd | 0.021 | nd | nd | nd | nd | 13,000 | 13,000 | 5,000 |
| J30d | 9/4/09 | 11:30 | nd | 834 | nd | 0.004 | nd | nd | nd | nd | **300,000** | **90,000** | **30,000** |
| J30d** (Confirmation 1) | 9/15/09 | 14:45 | na | na | na | na | na | na | na | na | **173,000** | 1,200* | 1,414 |
| J30d (Confirmation 2) | 9/21/09 | 14:00 | na | na | na | na | na | na | na | na | **242,000** | 2518 | na |
| J30d (Confirmation 3) | 9/23/09 | 16:00 | na | na | na | na | na | na | na | na | **242,000** | 434 | na |
| P20f | 9/4/08 | 10:40 | nd | 534 | nd | 0.003 | nd | nd | nd | nd | 22,000 | 17,000 | 110 |
| RCP1 | 9/3/09 | 12:00 | nd | 553 | nd | 0.002 | nd | nd | nd | nd | 13,000 | 8,000 | 800 |
| V40d | 9/3/09 | 12:40 | nd | 773 | nd | 0.005 | nd | nd | nd | nd | 2,300 | 300 | 130 |
| **Analytical Reporting Limits** | | | **5** | **10** | **0.001** | **0.001** | **0.001** | **0.020** | **0.05** | **0.05** | **20** | **20** | **20** |
| **Action Levels** | | | **15** | ***** | **CTR** | **CTR** | **CTR** | **CTR** | **0.50** | **0.50** | **50,000** | **20,000** | **10,000** |

**Notes:**

nd = not detected

na = not analyzed

**Red** values were at or above the measured constituent's action level

denotes a confirmation visit

* Number of fecal coliforms for confirmation samples are derived from *E. coli* count. Number of fecal coliforms = (Number of *E. coli*) / 0.85

** Bacteria confirmation samples are analyzed using the Colilert and Enterolert methods described in Table 3-2, which have a reporting limit of 10 MPN/100 mL.

*** = Total hardness is not considered a pollutant (see Section 3.4), and thus has no established action level for the purposes of dry weather monitoring. Total hardness is measured because the CTR action levels for metals are dependent on the total hardness value of the water sample.

# 7 DATA ANALYSIS

This section provides an overall evaluation of test results of the 2009 Dry Weather Monitoring Program, as well as a discussion of historical trends for various constituent exceedances.

## 7.1 2009 Results

Of the 40 routine field screening visits performed in 2009, eight exceedances were observed. This is significantly fewer than the 18 exceedances detected in the 2008 program. A summary of 2009 exceedances is presented in Table 7-1.

**TABLE 7-1**
**2009 EXCEEDANCES SUMMARY**

| Site | pH | Turbidity | Ammonia -N | Nitrate-N | Ortho-phosphate-P | Total Coliforms | Fecal Coliforms | Enterococci |
|---|---|---|---|---|---|---|---|---|
| **Round One** | | | | | | | | |
| E5g | | | ✓ | | | | | |
| **Round Two** | | | | | | | | |
| J30d | | | | | | ✓ | ✓ | ✓ |
| P15b | | | | ✓ | | | | |
| Q5l | | ✓ | | | ✓ | | | |
| V40d | ✓ | | | | | | | |

**Note:** Table reflects exceedances occurring during routine visits only, not confirmation or follow-up visits.

## 7.2 Previous Results

Historical exceedance results are presented in Table 7-2, and graphs 7-1, 7-2, 7-3, and 7-4. Table 7-2 shows the percentage of sampled sites that have had exceedances each year and round of the Dry Weather Monitoring Program. Graphs 7-1 and 7-2 illustrate the percentage of exceedances by year and round for field screening, and graphs 7-3 and 7-4 present the percentage exceedances by year for laboratory analyses.

Since the time that testing began in accordance with Order 2001-01, no exceedances have been measured in temperature, cadmium, lead, zinc, or chlorpyrifos. Thus, these constituents have not been included in the following table and graphs.

The historical data for the results of field analyses indicate a decreasing trend in ammonia-nitrogen exceedances. No discernable trend is apparent for pH, turbidity, nitrate-nitrogen, or orthophosphate-phosphorus. Surfactants have not been in exceedance since 2007.

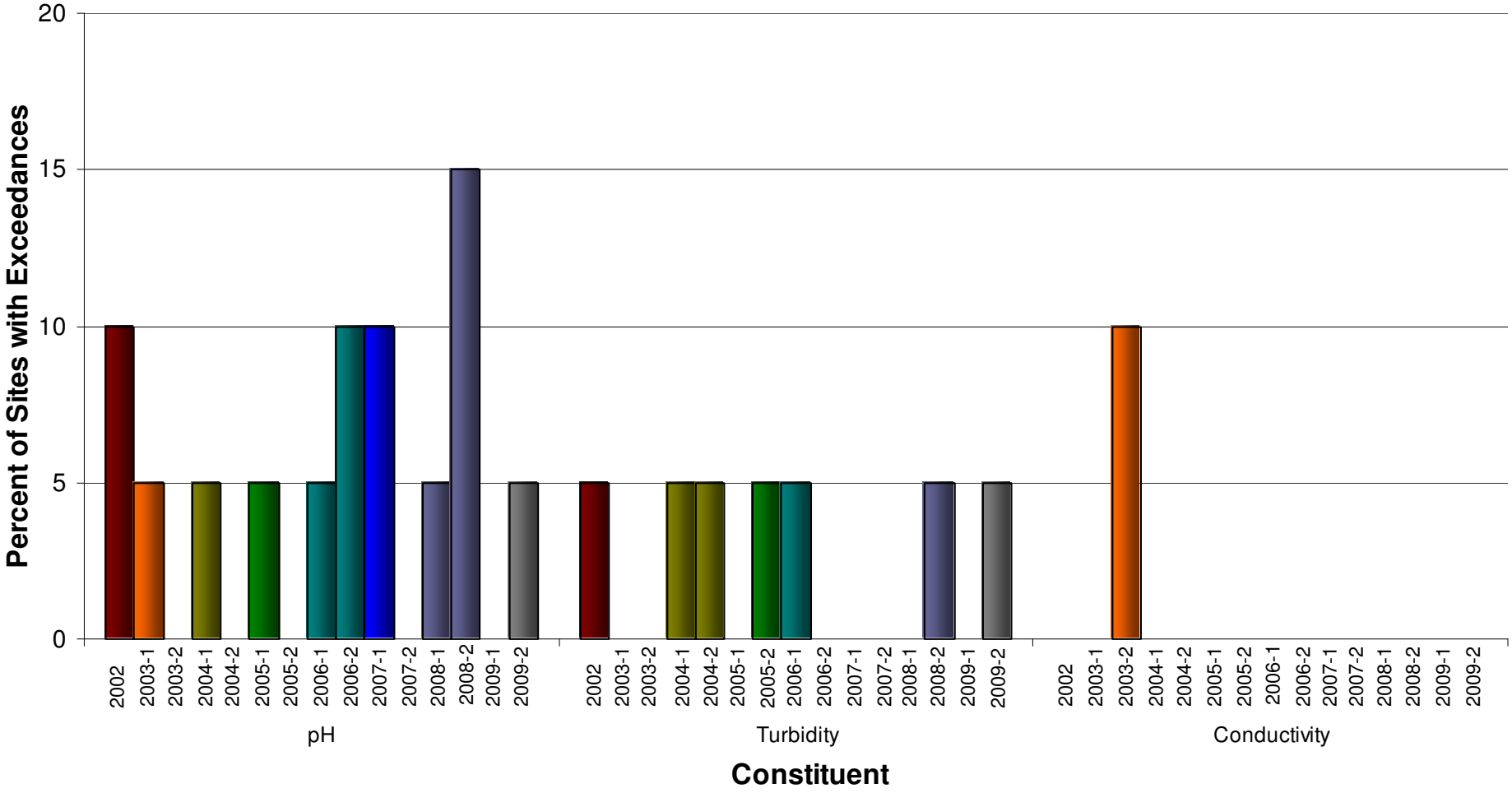
Historical data for laboratory analyses indicate that total coliform exceedance rates have decreased somewhat in the last few years. In general, there are more fecal coliform exceedances during the second round of sampling each year. There have been no diazinon exceedances in the last three years and no oil and grease or copper exceedances since 2003.

## TABLE 7-2
## PERCENT OF SITES WITH EXCEEDANCES BY YEAR AND ROUND

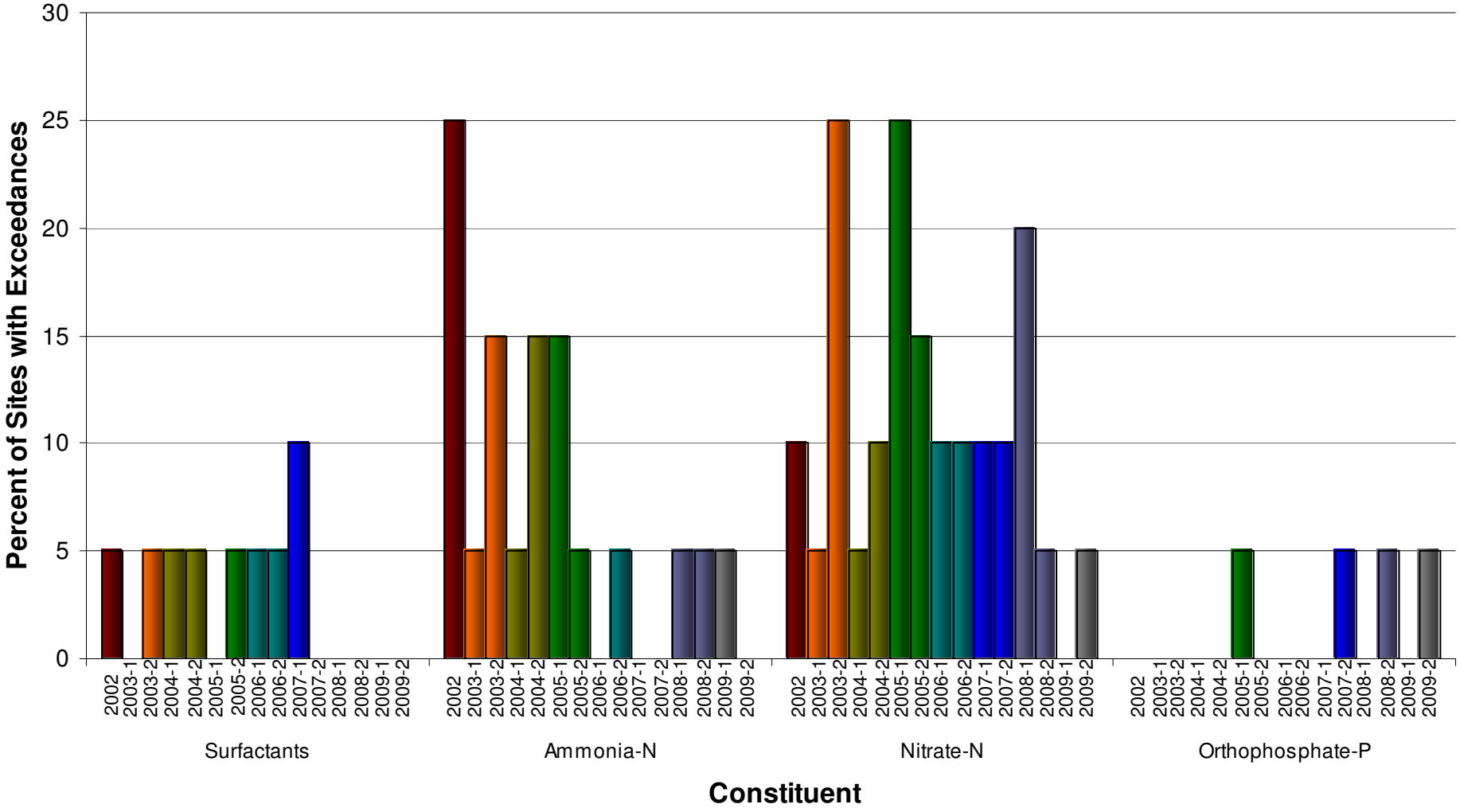
| Year and Round | Field Screening | | | | | | | | Laboratory Analysis | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Number of Field Screening Sites** | pH | Turbidity | Conductivity* | Surfactants | Ammonia-N | Nitrate-N | Orthophosphate-P | **Number of Laboratory Analysis Sites** | Oil & Grease | Copper | Diazinon | Total Coliforms | Fecal Coliforms | Enterococci |
| **2002** | 20 | 10 | 5 | 0 | 5 | 25 | 10 | 0 | 6 | 0 | 0 | 0 | 17 | 17 | 17 |
| **2003-1** | 20 | 5 | 0 | 0 | 0 | 5 | 5 | 0 | 5 | 20 | 0 | 0 | 20 | 20 | 0 |
| **2003-2** | 20 | 0 | 0 | 10 | 5 | 15 | 25 | 0 | 5 | 0 | 20 | 0 | 80 | 80 | 0 |
| **2004-1** | 20 | 5 | 5 | 0 | 5 | 5 | 5 | 0 | 6 | 0 | 0 | 17 | 50 | 0 | 0 |
| **2004-2** | 20 | 0 | 5 | 0 | 5 | 15 | 10 | 0 | 5 | 0 | 0 | 0 | 80 | 20 | 40 |
| **2005-1** | 20 | 5 | 0 | 0 | 0 | 15 | 25 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| **2005-2** | 20 | 0 | 5 | 0 | 5 | 5 | 15 | 0 | 5 | 0 | 0 | 0 | 100 | 20 | 20 |
| **2006-1** | 20 | 5 | 5 | 0 | 5 | 0 | 10 | 0 | 5 | 0 | 0 | 0 | 80 | 0 | 20 |
| **2006-2** | 20 | 10 | 0 | 0 | 5 | 5 | 10 | 0 | 5 | 0 | 0 | 20 | 60 | 20 | 40 |
| **2007-1** | 20 | 10 | 0 | 0 | 10 | 0 | 10 | 0 | 5 | 0 | 0 | 0 | 20 | 0 | 0 |
| **2007-2** | 20 | 0 | 0 | 0 | 0 | 0 | 10 | 5 | 5 | 0 | 0 | 0 | 40 | 40 | 20 |
| **2008-1** | 20 | 5 | 0 | 0 | 0 | 5 | 20 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| **2008-2** | 20 | 15 | 5 | 0 | 0 | 5 | 5 | 5 | 5 | 0 | 0 | 0 | 40 | 20 | 60 |
| **2009-1** | 20 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| **2009-2** | 20 | 5 | 5 | 0 | 0 | 0 | 5 | 5 | 5 | 0 | 0 | 0 | 20 | 20 | 20 |

**Notes:**
Results based on complete routine visits only. Confirmation visits, follow-up visits, and dry sites not included.
na = not analyzed
* By regional consensus, the action level for conductivity has been changed during past years from numeric values to best professional judgment in order to account for sites in which salt water and groundwater increase conductivity. High conductivity levels at these sites are not necessarily exceedances or considered to be a water quality concern.

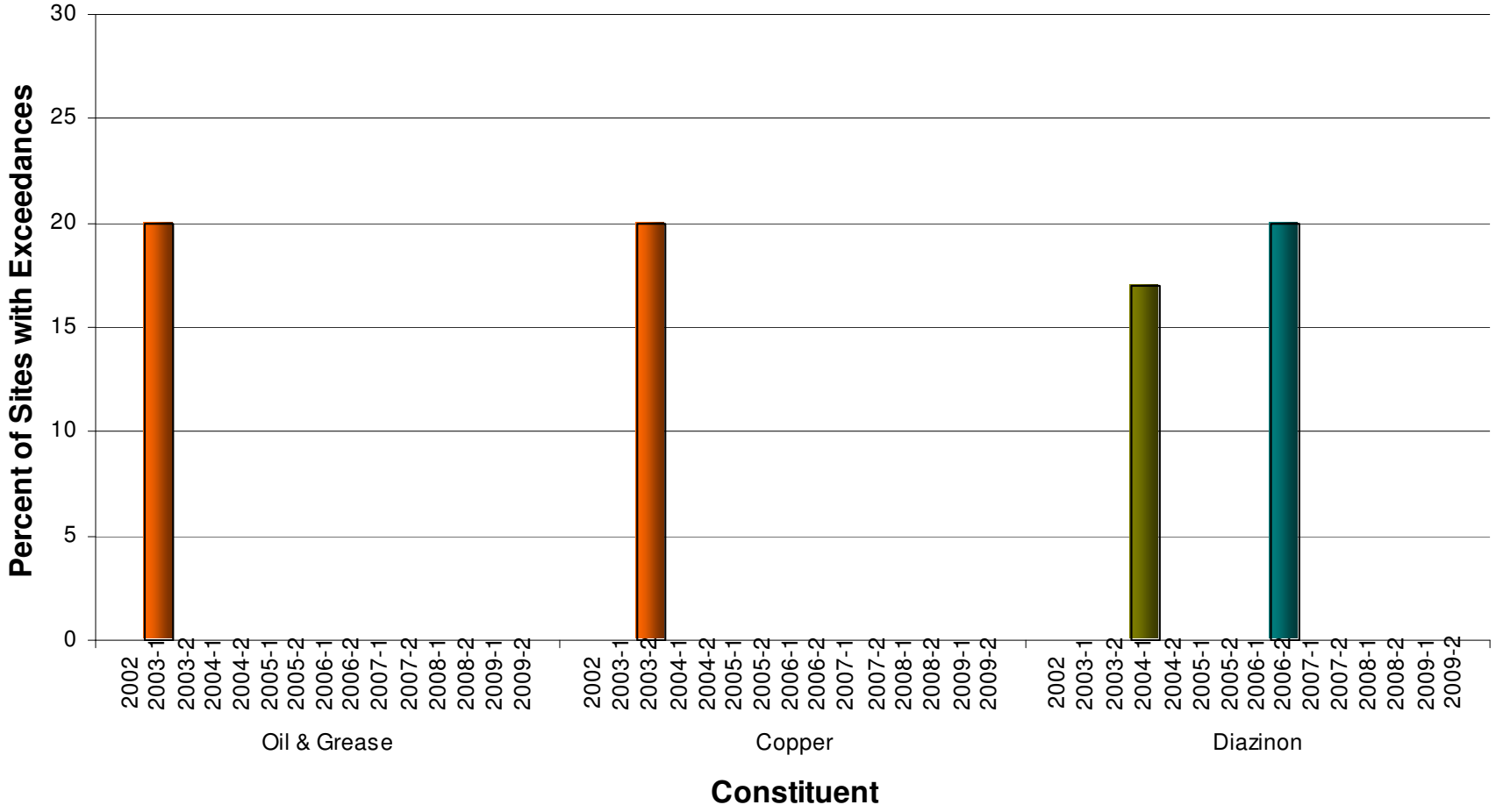
**GRAPH 7-1**
**PERCENT OF SITES WITH FIELD SCREENING EXCEEDANCES BY YEAR AND ROUND – PART 1**



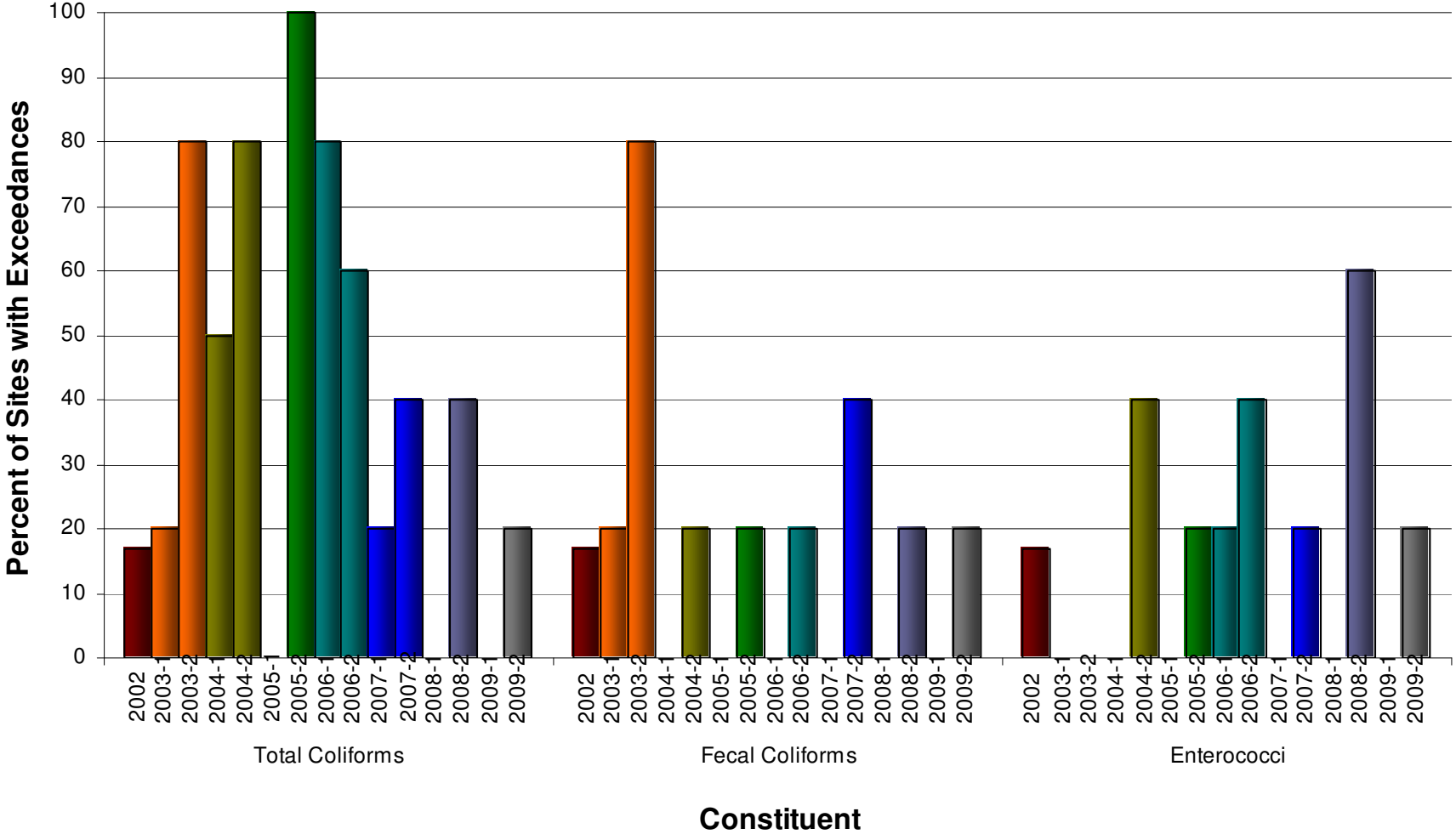
**GRAPH 7-2**
**PERCENT OF SITES WITH FIELD SCREENING EXCEEDANCES BY YEAR AND ROUND – PART 2**



**GRAPH 7-3**
**PERCENT OF SITES WITH LABORATORY CONSTITUENT EXCEEDANCES BY YEAR AND ROUND – PART 1**



**GRAPH 7-4**
**PERCENT OF SITES WITH LABORATORY CONSTITUENT EXCEEDANCES BY YEAR AND ROUND – PART 2**



# 8 FOLLOW-UP INVESTIGATIONS

One of the primary purposes of the Dry Weather Monitoring Program is to identify IC/IDs. Both field screening and laboratory analytical results are compared to regionally developed action levels (Table 3-4). When parameters are measured at or above action levels, it is possible that IC/IDs are present, and further investigation is performed. Procedures for such investigations are described below, followed by a discussion of the follow-up investigations performed in 2009.

## 8.1 Investigation Procedures

Follow-up investigations are conducted in two rounds. The first follow-up investigations are for the sites at which field tests indicate action level exceedances. These investigations are in the form of additional field testing and are conducted within one business day of the initial findings. Any observations of gross pollution (substantial oil sheen, foam, odor, etc.) are immediately investigated. The second round of follow-up investigations are carried out for the sites at which laboratory testing shows elevated constituent levels. These investigations are conducted within two business days of receiving the laboratory test results.

During the follow-up investigations, flow rates are measured, visual observations are performed, and field testing is conducted. Visual observations, such as water color, clarity, odor, floatable materials, deposits, vegetation, and biology are recorded on field data sheets at each site. Field data sheets are included in Appendix D.

Source identification investigations begin by testing the water at the site again. This is referred to as a “confirmation” visit, as its purpose is to confirm the initial findings. If confirmation testing results in constituent concentrations below specified action levels, the exceedance found during the initial sampling may have been due to a transient flow. If confirmation testing at a site finds constituent concentrations again above the specified action levels, an upstream investigation will be conducted. The field crew will progress upstream to isolate and identify potential pollutant sources.

Upstream investigations are also referred to as “IC/ID follow-up” visits, as the purpose is to identify illicit connections and illegal discharges. They are conducted by examining a number of upstream branches for any potential sources of the constituent of concern. The estimated flow rate in each branch and any relevant observations are recorded. Depending upon the constituent(s) under investigation, laboratory samples may be collected for analysis.

The laboratory test for investigating upstream bacteria sources differs from routine bacteria testing by using the IDEXX Colilert and IDEXX Enterolert tests. Information about these methods is provided in Table 3-2. Results for the Colilert and Enterolert tests are typically available within 24 hours, as opposed to the five business days needed for routine testing. The quicker turnaround time allows for additional upstream investigations as needed.

## 8.2 Investigated Sites

In the 2009 Dry Weather Monitoring Program, one site in Round One and four sites in Round Two had action level exceedances. A brief description of each site, analytical results, photographs of selected upstream locations, and the results of the investigations are discussed in this section.

## Site E5g

### Round One

Site E5g is located at a concrete outlet adjacent to the Santee Recreational Lakes Preserve, west of the southern lake and east of Sycamore Creek. During the initial visit to the site, a flow of 2 gpm was observed. The ammonia-nitrogen concentration was found to be 1.590 mg/L, above the action level of 1.000 mg/L. The area surrounding the site was vegetated and had significant amounts of leaf litter on the ground as well as in the water (Photo 8-1). Evidence of human habitation was noted in and around the water, including clothing, food wrappings, beverage containers, backpacks, and wood pallets. The area had an overall musty smell, however the water sample had no discernable odor.

A confirmation visit was performed the following day, and the flow rate was observed to be 1 gpm, half that of the previous day. The ammonia-nitrogen level of the sample was measured at 2.924 mg/L. Upstream areas were visually assessed for potential sources of ammonia; however no obvious sources were identified.

**Photo 8-1:** Decomposing leaves and trash at Site E5g

The site was revisited the following day to recheck the ammonia-nitrogen levels and flow rate prior to continuing the upstream investigation. The flow rate at the sample site was observed to be less than 1 gpm, and the ammonia-nitrogen level was greater than 3 mg/L. An upstream investigation was initiated to determine if the area upstream of the site was contributing to the elevated ammonia-nitrogen levels. A channel north of Mast Street on Fanita Parkway was visited, where both lateral storm drain lines were found to be damp; no flowing or standing water was observed. A manhole across the street from the recreational lake entrance on the east side of Fanita Parkway was found to be completely dry. A manhole in the grassy area immediately east of Site E5g, on the west side of the entrance road and approximately 100 feet south of the entrance toll booth (location E5g-1), was sampled and had a flow of less than 1 gpm, the same as at Site E5g on the same day. The ammonia-nitrogen level of the sample was measured at 0.319 mg/L, below the action level. This evidence indicates that upstream flows were not the source of the elevated ammonia-nitrogen levels. It seems likely that the decomposition of organic material at the site, as well as the apparent use of the area by humans, is responsible for the high ammonia-nitrogen levels at Site E5g. The fact that lower ammonia-nitrogen levels were recorded when higher flow rates from upstream were observed, and vice versa, also supports this conclusion.

As a result of the exceedances found and the designation of the site as a potential threat to human health due to the probable presence of human waste, the City removed all trash and debris from the area around the outlet of Site E5g. A table summarizing the upstream investigation for Site E5g is presented in Table 8-1, and a map of sampling locations is provided in Figure 8-1.

**TABLE 8-1**
**SITE E5G AMMONIA-NITROGEN UPSTREAM INVESTIGATION**

| Site | Location | Flow (gpm) | Ammonia-N (mg/L) |
|---|---|---|---|
| E5g | Santee Recreation Lakes, west of the Southern Lake, east of Sycamore Creek | 2 | **1.590** |
| E5g (Confirmation) | *Same as above* | 1 | **2.924** |
| E5g (Confirmation 2) | *Same as above* | < 1 | **> 3.000** |
| E5g-1 | Santee Recreation Lakes, west side of entrance road, 100 feet south of entrance toll booth in grassy area | < 1 | 0.319 |

**Note:** **Red Bold Type** = value exceeds action level

**FIGURE 8-1**
**SITE E5G AMMONIA-NITROGEN UPSTREAM INVESTIGATION MAP**

### Round Two

No exceedances were observed at Site E5g during Round Two of the Dry Weather Monitoring Program.

## Site J30d

### Round One

No exceedances were observed at Site J30d during Round One of the Dry Weather Monitoring Program.

**Round Two**

Site J30d is located where the Woodglen Vista concrete channel turns into a natural creek, south of Mast Boulevard. The areas upstream of Site J30d are primarily residential. Laboratory analyses indicated that total coliform, fecal coliform, and *Enterococcus* bacteria were all above their respective action levels. Total coliform bacteria was measured at 300,000 MPN/100 mL, over the action level of 50,000 MPN/100 mL; fecal coliform bacteria was measured at 90,000 MPN/100 mL, over the action level of 20,000 MPN/100 mL; and *Enterococcus* bacteria was measured at 30,000 MPN/100 mL, over the action level of 10,000 MPN/100 mL. During the confirmation visit, fecal coliform and *Enterococcus* bacteria were measured below action levels, while total coliform bacteria measured 173,000 MPN/100 mL, above the action level.

An upstream investigation was conducted in three stages. During the first stage, locations immediately upstream of the site were sampled. Locations J30d-1 and J30d-2 (also known as primary sites J25c2 and J25c, respectively) are outlets that receive flow from the neighborhoods to the northwest of Site J30d. Total coliforms were below action levels at both locations, indicating that high levels of bacteria were not entering the channel from these sources. Further upstream, the flow within the Woodglen Vista Channel was sampled where it crosses the west end of Carefree Drive. This location (J30d-3) had total coliforms measuring above the action level at 54,800 MPN/100 mL, indicating that upstream of this site was a source of bacteria. Further investigation was needed since no clear source of bacteria was identified.

**Photo 8-2:** Excessive irrigation runoff upstream of location J30d-4

During this second stage of sampling, Site J30d was resampled, and the total coliform bacteria level was elevated at 242,000 MPN/100 mL. Locations further upstream than those visited during the first stage were sampled. Location J30d-4, an outlet that receives flow from the area northwest of the Beck Drive and Woodrose Avenue intersection, had a total coliform level measuring above the action level at 2,420,000 MPN/100 mL. Flow from this outlet was traced to a home on Beck Drive, where the resident had mistakenly left an irrigation system running for approximately four hours. The discharge was stopped once the resident was made aware of the runoff. The water flowed along the gutter of Beck Drive, as seen in Photo 8-2, where decomposing grass clippings were observed. Catch basins in the area contained decomposing leaves and trash. Flow through these catch basins over the span of several hours is likely to transport bacteria downstream, where it enters the Woodglen Vista channel. The City maintenance division was informed of the issue and subsequently cleaned out the area catch basins and inlets.

Further north the channel flows through a park, and the flow within the Woodglen Vista channel was sampled just south of the park at location J30d-5 (also known as primary Site K15j). The total coliform level of the sample was measured at 51,700 MPN/100 mL. Decomposing organic debris was present in the channel immediately upstream of the sampling location, as seen in Photo 8-3, which is likely to be contributing to the elevated bacteria levels within the channel.

**Photo 8-3:** Sediment and decomposing vegetation in the channel upstream of location J30d-5. Note: The channel was cleaned and underwent restoration shortly after this photograph was taken.

The third stage of testing included another confirmation visit to Site J30d, which continued to have elevated total coliforms, measured at 242,000 MPN/100 mL. Several outlets contributing flow to the channel were sampled, including the previously sampled location J30d-4. Elevated total coliform levels were no longer found at this location, likely because the overirrigation observed upstream had ceased, eliminating the source of flow. Further upstream along the main MS4 line, and located just downstream of location J30d-5, three additional outlets to the channel were sampled. These locations are referred to as locations J30d-6, J30d-7 and J30d-8, and receive flow from the neighborhood to the west. None of the samples from these locations had total coliforms above the action level. Decomposing leaves were observed in the channel at this location, as seen in Photo 8-4. Upstream of this area, the channel flows through the park, and upstream of the park the channel is dry. Outlets to the channel from other portions of the drainage area were not contributing flow to the channel during the upstream investigation.

During the three stages of testing, elevated total coliform levels were found almost exclusively within the channel itself, with the exception of one transient exceedance from residential outlet J30d-4. Bacteria levels in this outlet were not elevated the following sampling day. Since bacteria levels were high at Site J30d on the day that they were below the action level at location J30d-4, the primary source of bacteria to Site J30d is not from location J30d-4. Additionally, fecal coliform and *Enteroccus* bacteria counts were measured above respective action levels during the initial visit only. Since no sources of fecal coliform or Enteroccus bacteria were observed during the investigation, it was concluded that the exceedances were the result of a transient flow.

Throughout the stages of sampling, total coliform levels within the channel were consistently high, while flow from outlets of lateral lines did not have consistently high bacteria levels. This indicates that conditions within the channel itself were most likely responsible for the elevated bacteria levels at Site J30d. Organic debris was noted within the channel in multiple locations, which is likely to encourage bacterial growth as it decomposes. Also, the warm, slow-moving water observed in the channel upstream of Site J30d is an environment conducive to bacterial growth.

**Photo 8-4:** Decomposing leaves in the channel where multiple outlets were discharging

The City removed organic debris and sediment from the channel, as well as restoring sections of the channel, following the results of this investigation. A table

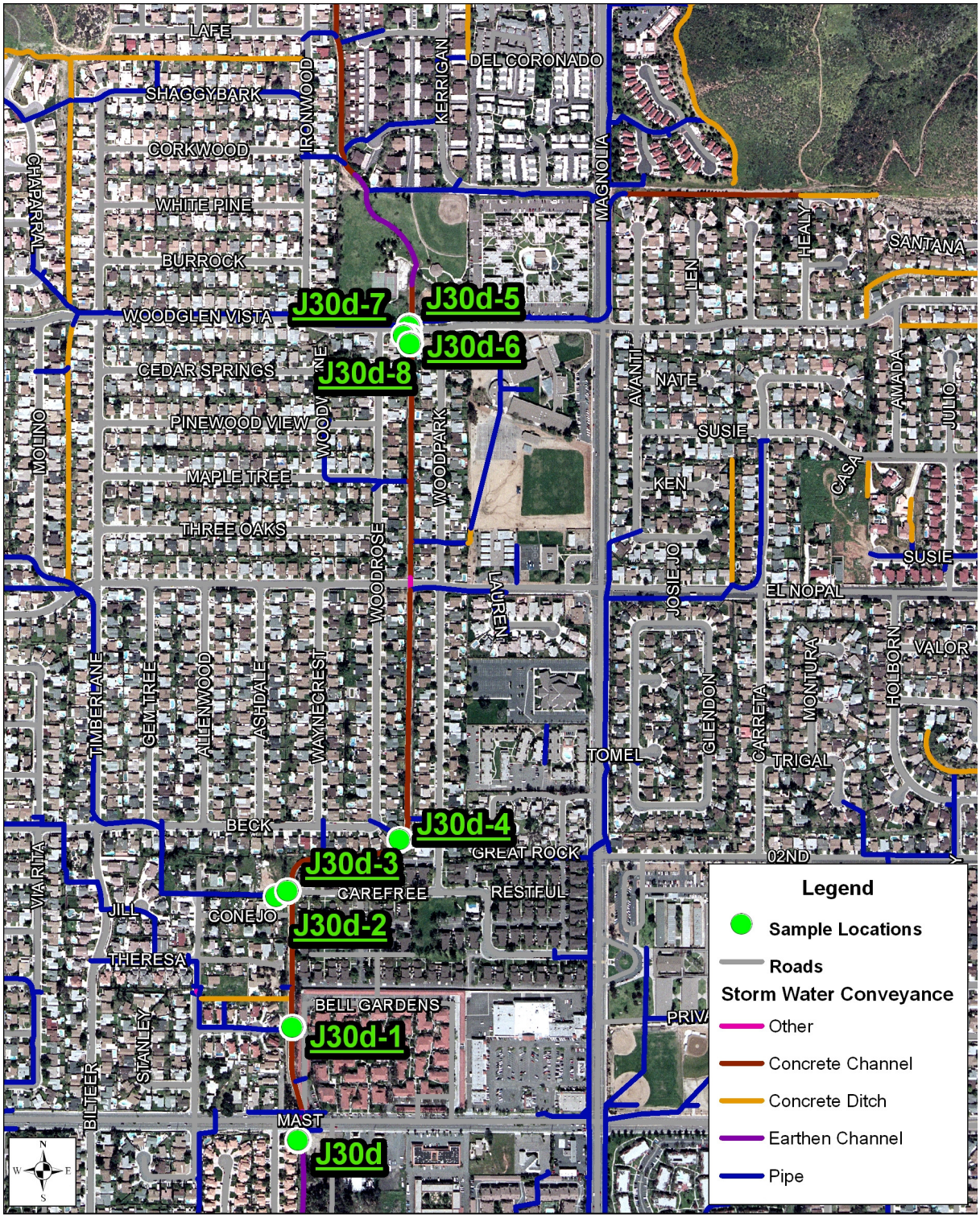
summarizing the upstream investigation for Site J30d is presented in Table 8-2, and a map of sampling locations is provided in Figure 8-2.

**TABLE 8-2**
**SITE J30D BACTERIA UPSTREAM INVESTIGATION**

| Site | Location | Total Coliforms (MPN/100 mL) | Fecal Coliforms (MPN/100 mL) | Enterococci (MPN/100 mL) |
|---|---|---|---|---|
| | **9/04/09** | | | |
| J30d | In the Woodglen Vista Channel on the south side of Mast Boulevard | **300,000** | **90,000** | **30,000** |
| | **9/15/09** | | | |
| J30d (Confirmation) | In the Woodglen Vista Channel on the south side of Mast Boulevard | **173,000** | 1,200 | 1,414 |
| J30d-1 | Primary Site J25c2, outlet at the east end of Country Scenes, east of Conejo Road | 24,200 | 418 | 404 |
| J30d-2 | Primary Site J25c. West end of Carefree Drive, outlet on the west side of channel | 15,500 | 35 | 355 |
| J30d-3 | In Woodglen Vista channel, at the west end of Carefree Drive | **54,800** | 546 | 785 |
| | **9/21/09** | | | |
| J30d (Confirmation 2) | In the Woodglen Vista Channel on the south side of Mast Boulevard | **242,000** | 2,518 | na |
| J30d-4 | Outlet on the west side of Woodglen Vista channel, southeast of the Beck Drive and Woodrose Avenue intersection | **2,420,000** | 521 | na |
| J30d-5 | Primary Site K15j2, in Woodglen Vista Channel, on the north side of Woodglen Vista Drive, south of the park | **51,700** | 88 | na |
| | **9/23/09** | | | |
| J30d (Confirmation 3) | In Woodglen Vista Channel on the south side of Mast Boulevard | **242,000** | 434 | na |
| J30d-4 | Outlet on the west side of Woodglen Vista channel, southeast of the Beck Drive and Woodrose Avenue intersection | 34,500 | nd | na |
| J30d-6 | 24 inch outlet pipe on west side of Woodglen Vista channel, south of Woodglen Vista Drive | 41,100 | 868 | na |
| J30d-7 | Small outlet on the west side of Woodglen Vista channel under the Woodglen Vista Drive bridge | 12,000 | 98 | na |
| J30d-8 | Small outlet on the west side of Woodglen Vista channel, next to J30d-6, South of Woodglen Vista Drive | 4,570 | 12 | na |

**Note:** **Red Bold Type** = value exceeds action level

**FIGURE 8-2**
**SITE J30D BACTERIA UPSTREAM INVESTIGATION MAP**




Base Data Sources: City of Santee, SanGis, SANDAG, USGS

## Site P15b

### Round One

No exceedances were observed at Site P15b during Round One of the Dry Weather Monitoring Program.

### Round Two

Site P15b is located within a manhole at the intersection of Magnolia Avenue and Rockville Street. At the time of the initial visit, the nitrate-nitrogen concentration of the sample measured above the action level of 10.00 mg/L at 13.42 mg/L. Upstream areas were visually assessed for potential sources; however upstream conveyances were dry and no source of nitrates was apparent.

At the confirmation visit the following day, the nitrate-nitrogen concentration of the sample was measured below the action level at 7.56 mg/L. Flows from each of the two pipes contributing to the site, an eastern and a southern line, were also sampled separately. Both samples had nitrate-nitrogen concentrations below the action level: 7.26 mg/L from the southern line and 8.93 mg/L from the eastern line. Conveyances further upstream were dry.

Elevated nitrate-nitrogen values have consistently been measured at Site P15b since nitrate testing began in 2002. In 2008 the pipes upstream of the site were videoed by Padre Dam Municipal Water District. During this investigation water was observed seeping into the pipe at multiple underground locations. In addition, the MS4 lines further upstream were typically observed to be dry, and no consistent sources of overland flow have been observed. It was concluded that the nitrate-containing flow to Site P15b was the result of groundwater infiltration. In June of 2008, the City submitted a Letter Report on Nitrates in Groundwater with the findings of this investigation to the Regional Water Quality Control Board. The results of this year's follow-up investigation are consistent with previous findings. Table 8-3 provides the investigation results for Site P15b.

**TABLE 8-3**
**SITE P15B NITRATE-NITROGEN UPSTREAM INVESTIGATION**

| Site | Location | Flow (gpm) | Nitrate-N (mg/L) |
|---|---|---|---|
| P15b | Northeast of Magnolia Avenue and Rockville Street intersection | 3 | **13.42** |
| P15b (Confirmation) | Same as above | 3 | 7.564 |
| P15b-1 | South line to P15b | 2 | 7.259 |
| P15b-2 | East line to P15b | 1 | 8.925 |

**Note:** **Red Bold Type** = value exceeds action level

## Site Q5I

### Round One

No exceedances were observed at Site Q5I during Round One of the Dry Weather Monitoring Program.

**Round Two**

Site Q5I is located in a catch basin on the north side of Prospect Avenue, east of Railroad Avenue. At the time of the initial visit, a small amount of water was ponded with an orthophosphate-phosphorus concentration measured at 9.343 mg/L, over the action level of 2.000 mg/L. Turbidity was also elevated, measuring 112 NTU. The source of water was traced to a catch basin on the corner of Prospect Avenue and Tumbleweed Terrace (location Q5I-1), where water was dripping very slowly from a PVC pipe to the northeast. No additional sources of flow were observed entering the catch basin, or at any other point on the conveyance, upstream of Site Q5I.

At the confirmation visit the following day, Site Q5I was dry. Upstream of the site, a sample was collected from the PVC pipe at location Q5I-1, where the water was again flowing at a slow drip. The orthophosphate-phosphorus concentration of the sample measured 11.75 mg/L, and turbidity measured 148 NTU. The pipe was coming from the direction of a business complex to the northeast. As reported by property management and presented in building plans, the PVC pipe connects to storm drains in the northeastern portion of the business complex. Building plans reviewed by the City, however, did not show any underground drains in the area. The business area was examined, but no storm drains or overland flow was observed. Only a very small portion of the area was landscaped, indicating that improper fertilizer use was not a likely source of orthophosphate-phosphorus to the site.

When Site Q5I was revisited it was observed to be dry. Upstream, the PVC pipe at location Q5I-1 still had a slow drip, and the water was sampled. Orthophosphate-phosphorus was measured at 20.86 mg/L, and turbidity was measured at 201 NTU.

A nearby groundwater monitoring well (OW3) is located at 8510 Railroad Avenue. Monitoring records from November 2006 indicate that the groundwater level in the area was 7 to 8 feet below grade; it is therefore a possibility that the shallow groundwater is seeping into the pipe upstream of location Q5I-1.

**Photo 8-5**: Ponded water within soil depressions in a non-irrigated area (location Q5I-2)

Further north, between Tumbleweed Terrace and Siesta Road (location Q5I-2), water was observed to be ponded within depressions in the soil during multiple visits (Photo 8-5). This area is upgradient to Site Q5I, and is currently a CalTrans worksite for SR52 construction. Since this area was not irrigated, no surface flow to the location was visible, and the area appeared to be perpetually wet, it is possible that the water at Q5I-2 is groundwater. It is also possible that the dampness in the area is due to overwatering at the CalTrans construction site. This location is not directly connected to Site Q5I's upstream MS4 conveyance, as no pipeline exists between the two areas. The orthophosphate-phosphorus concentration of a sample measured here was only 0.080 mg/L. However, the likely presence of groundwater may suggest a high water table in the general area.

The owner of the building to the northeast of location Q5I-1 reported that the area had historically been used for agricultural purposes. It is possible that fertilizer use during this period may have affected the nutrient concentrations of groundwater in the area. Since

2002, nitrate-nitrogen exceedances have been measured during four Dry Weather Monitoring Programs. Orthophosphate-phosphorus has been measured above the action level during one Dry Weather Monitoring Program; although orthophosphate-phosphorus concentrations were below the action level in other years, the levels were still relatively high, measuring over 1.0 mg/L during four years of the program.

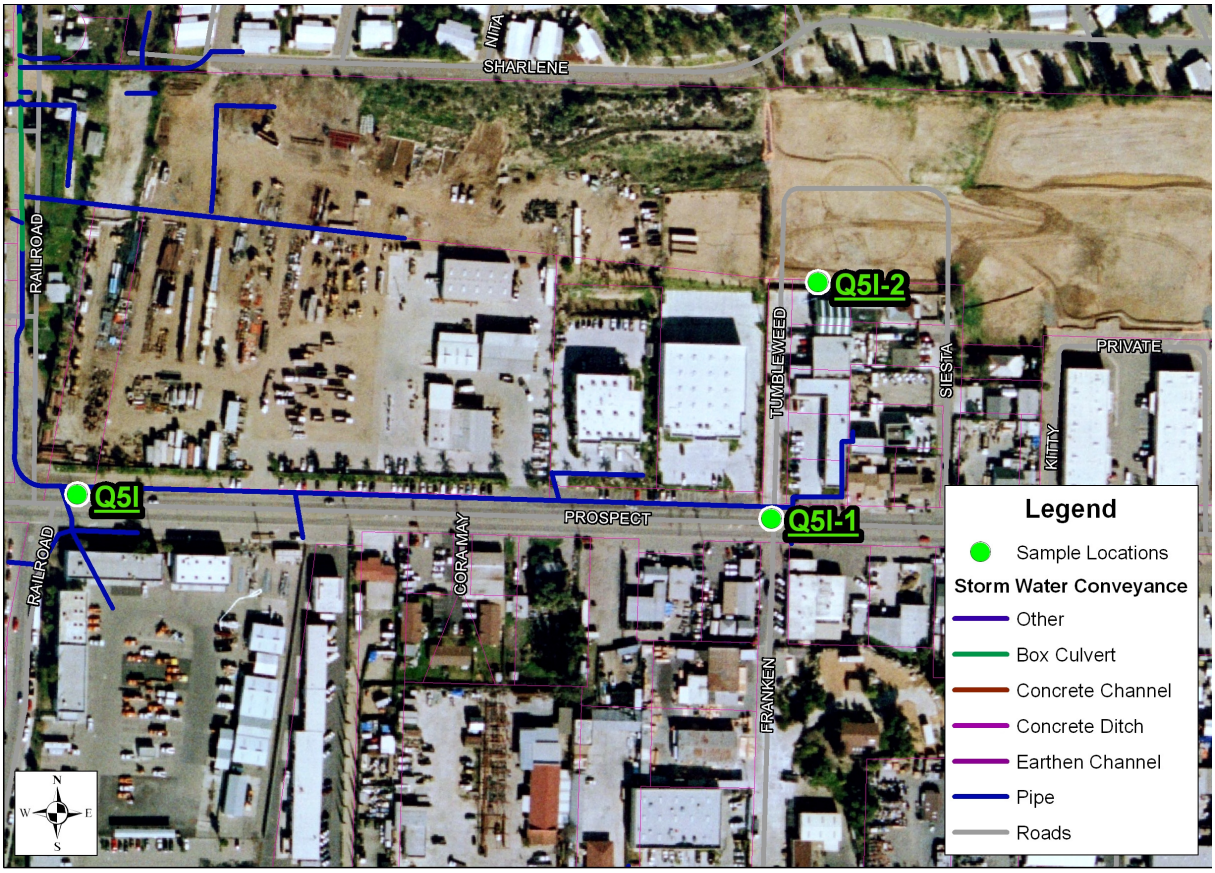
The City is conducting further research into the sources of water, orthophosphate, and elevated turbidity to location Q5I-1. Table 8-4 presents the current dry weather sampling results, and a map detailing sampling locations is provided in Figure 8-3.

**TABLE 8-4**
**SITE Q5L ORTHOPHOSPHATE-PHOSPHORUS AND TURBIDITY UPSTREAM INVESTIGATION**

| Site | Location | Flow (gpm) | Turbidity (NTU) | Orthophosphate-P (mg/L) |
|---|---|---|---|---|
| Q5I | North side of Prospect Avenue, 50 feet east of Railroad Avenue | Ponded | **112** | **9.343** |
| Q5I (Confirmation) | Same as above | Dry | ns | ns |
| Q5I-1 | Northeast corner of the Prospect Avenue and Tumbleweed Terrace intersection, flow from PVC pipe | <1 | **148** | **11.75** |
| Q5I-1 (Second visit) | Northeast corner of the Prospect Avenue and Tumbleweed Terrace intersection, flow from PVC pipe | <1 | **201** | **20.86** |
| Q5I-2 | North of Prospect Ave, between Tumbleweed Terrace and Siesta Rd. Water coming out of ground near fence in Caltrans worksite. | Ponded | na | 0.080 |

**Note:** **Red Bold Type** = value exceeds action level

**FIGURE 8-3**
**SITE Q5L ORTHOPHOSPHATE-PHOSPHORUS AND TURBIDITY UPSTREAM INVESTIGATION**




Base Data Sources: City of Santee, SanGis, SANDAG, USGS

## Site V40d

### Round One

No exceedances were observed at Site V40d during Round One of the Dry Weather Monitoring Program.

### Round Two

Site V40d is located in a concrete channel east of Fanita Drive and south of Prospect Avenue. The initial visit took place during the afternoon, when the water temperature was measured at 34.4°C. The pH was measured at 9.1, above the action level of 9.0. The site receives ample sunlight throughout the day, warming the water and promoting algal growth. A confirmation visit was performed the following morning, and the pH of the sample was measured at 8.0, and temperature at 27.4°C.

High pH readings are often associated with algal photosynthesis and high temperatures, which removes carbon dioxide from the water. Because carbon dioxide forms carbonic acid when dissolved in water, removal of carbon dioxide from water makes the water more basic and results in higher pH readings. Typically, pH will increase during daylight hours as sunlight stimulates algal photosynthesis and carbon dioxide is removed. During the night when algae is not photosynthesizing, the carbon dioxide level in the water increases due to

biological respiration and physical diffusion of carbon dioxide from air into water, decreasing pH. Additionally, because the solubility of gas in water is inversely proportional to the water temperature, carbon dioxide is less soluble in warmer water. Sunlight heats the shallow water in concrete channels, resulting in lower solubility for carbon dioxide later in the day when the water is warmer. The effects of temperature and algal photosynthesis lead to lower pH values in the morning and higher values in the afternoon. This situation is consistent with the conditions at Site V40d.

# 9 SUMMARY AND RECOMMENDATIONS

## 9.1 Summary of Field Screening and Laboratory Analysis Data

Two rounds of dry weather monitoring were conducted during the 2009 Dry Weather Monitoring Program. In each round, twenty sites were sampled for field screening analysis, five of which were also evaluated for laboratory constituents. Two sites in each round were dry, and were replaced by alternative sites RCP3 and T5e. No sites in either round were rated submarginal or poor in the trash assessment, and no sites were determined to pose a threat to human or aquatic health. One site in Round One and four sites in Round Two had action level exceedances for tested constituents. Table 9-1 provides a summary of action level exceedances.

**TABLE 9-1**
**SUMMARY OF ACTION LEVEL EXCEEDANCES**

| Field Screening (20 samples) | | | | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Number of Exceedances** | | **Percentage of Sites with Exceedance** | | **Site Exceeding Action Level** | |
| | *R1* | *R2* | *R1* | *R2* | *R1* | *R2* |
| **pH** | 0 | 1 | 0 | 5 | --- | V40d |
| **Conductivity** | 0 | 0 | 0 | 0 | --- | --- |
| **Turbidity** | 0 | 1 | 0 | 5 | --- | Q5l |
| **Surfactants** | 0 | 0 | 0 | 0 | --- | --- |
| **Ammonia-N** | 1 | 0 | 5 | 0 | E5g | --- |
| **Nitrate-N** | 0 | 1 | 0 | 5 | --- | P15b |
| **Orthophosphate-P** | 0 | 1 | 0 | 5 | --- | Q5l |
| **Laboratory Analyses (5 samples)** | | | | | | |
| **Analyte** | **Number of Exceedances** | | **Percentage of Sites with Exceedance** | | **Site Exceeding Action Level** | |
| | *R1* | *R2* | *R1* | *R2* | *R1* | *R2* |
| **Oil & Grease** | 0 | 0 | 0 | 0 | --- | --- |
| **Cadmium** | 0 | 0 | 0 | 0 | --- | --- |
| **Copper** | 0 | 0 | 0 | 0 | --- | --- |
| **Lead** | 0 | 0 | 0 | 0 | --- | --- |
| **Zinc** | 0 | 0 | 0 | 0 | --- | --- |
| **Diazinon** | 0 | 0 | 0 | 0 | --- | --- |
| **Chlorpyrifos** | 0 | 0 | 0 | 0 | --- | --- |
| **Total Coliforms** | 0 | 1 | 0 | 20 | --- | J30d |
| **Fecal Coliforms** | 0 | 1 | 0 | 20 | --- | J30d |
| **Enterococci** | 0 | 1 | 0 | 20 | --- | J30d |

**Note:** Data is from the routine site visits only.

## 9.2 Summary of Follow-Up Investigation Data

In 2009, no sites had exceedances during both rounds of dry weather monitoring. Two exceedances were transient and did not require upstream investigations. Table 9-2 and Table 9-3 present conclusions based on the results of confirmation visits and upstream investigations conducted during Round One and Round Two, respectively, of the 2009 Dry Weather Monitoring Program.

**TABLE 9-2**
**ROUND ONE SUMMARY OF FOLLOW-UP INVESTIGATIONS**

| Site | Follow-Up Investigation Target Constituent | | Results / Probable Sources |
|---|---|---|---|
| | Field | Laboratory | |
| E5g | Ammonia-N | --- | Organic material decomposition and human use of the site |

**TABLE 9-3**
**ROUND TWO SUMMARY OF FOLLOW-UP INVESTIGATIONS**

| Site | Follow-Up Investigation Target Constituent | | Results / Probable Sources |
|---|---|---|---|
| | Field | Laboratory | |
| J30d | --- | Total Coliforms, Fecal Coliforms, Enterococci | Fecal coliforms and Enterococci: transient flow<br>Total coliforms: decomposing organic debris within the channel upstream |
| P15b | Nitrate-N | --- | Groundwater seepage into conveyance |
| Q5l | Orthophosphate-P, Turbidity | --- | Historical agricultural activity and groundwater seepage are the most probable sources, additional research is underway |
| V40d | pH | --- | Transient; algal photosynthesis and increased temperature removing carbon dioxide from the water, which increases pH |

## 9.3 Recommendations

Based on the results of the City of Santee 2009 Dry Weather Monitoring Program, the following actions are recommended for consideration. Note that some of the recommendations have already been completed.

### 9.3.1 Inspection and Maintenance

- After the completion of Round One, the City removed trash and debris from marginal Site E5g, which was identified as a potential threat to human health and an exceedance of ammonia-nitrogen had been noted. Round Two observations indicated the City's action was effective; no exceedances were noted at Site E5g, and the site received an optimal trash assessment rating.
- Upstream of Site J30d, decomposing vegetation in the channel north of Woodglen Vista Drive, and leaves and debris in the gutters and catch basins on Beck Drive were the most likely sources of bacteria to Site J30d. The vegetation and debris were removed from gutters, catch basins and the channel as part of routine maintenance prior to the beginning of the rainy season.
- Trash and debris was removed by public works crews from sites P20f and RCP3, which received marginal trash assessment ratings during Round Two.

### 9.3.2 Additional Investigation

- The City is currently researching the sources of elevated orthophosphate-phosphorus and turbidity to Site Q5l and upstream location Q5l-1. Specifically, a consultant who conducts groundwater monitoring and sampling at a well on Siesta Road has been contacted to obtain data on turbidity (or related parameters) and phosphate.

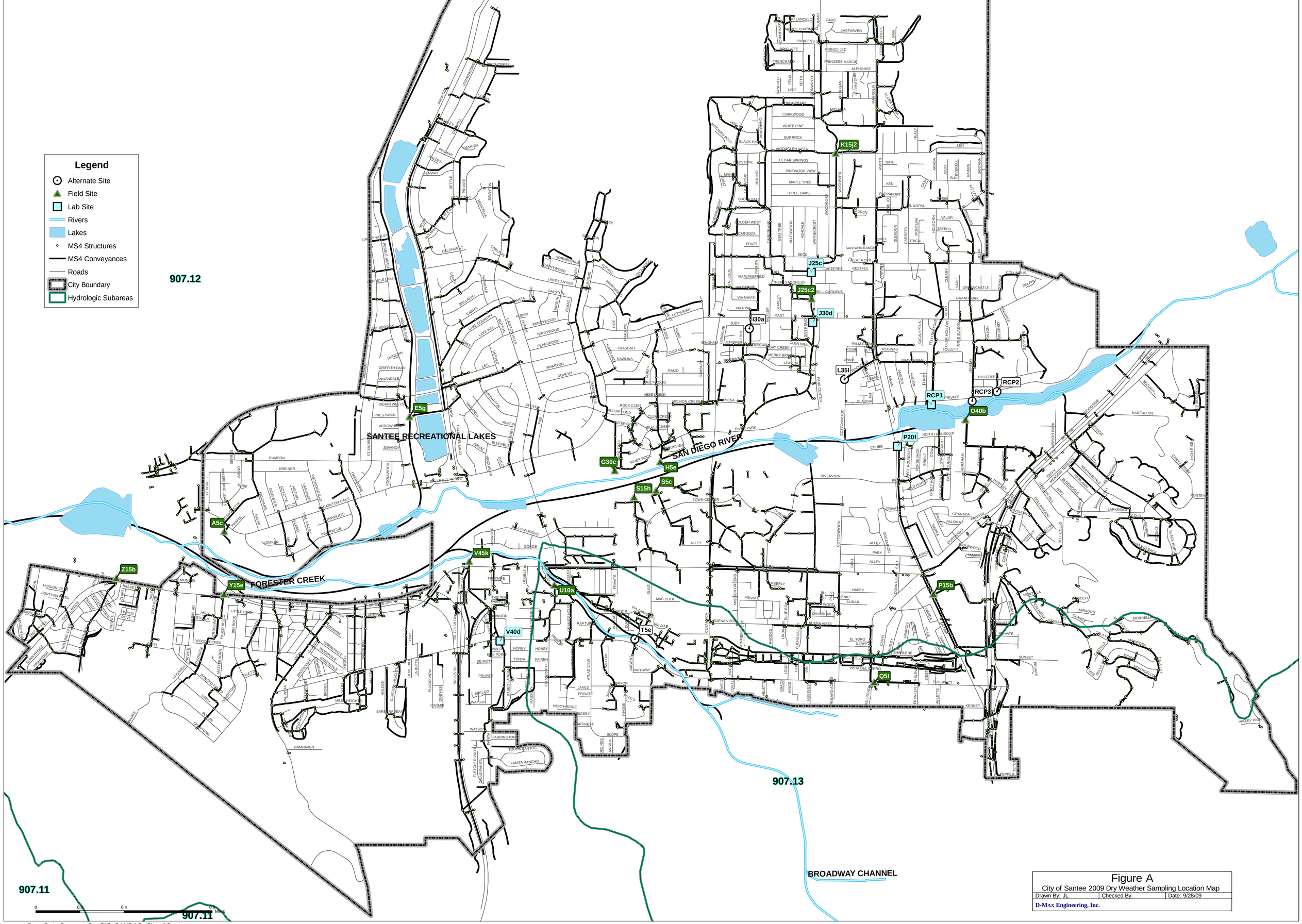


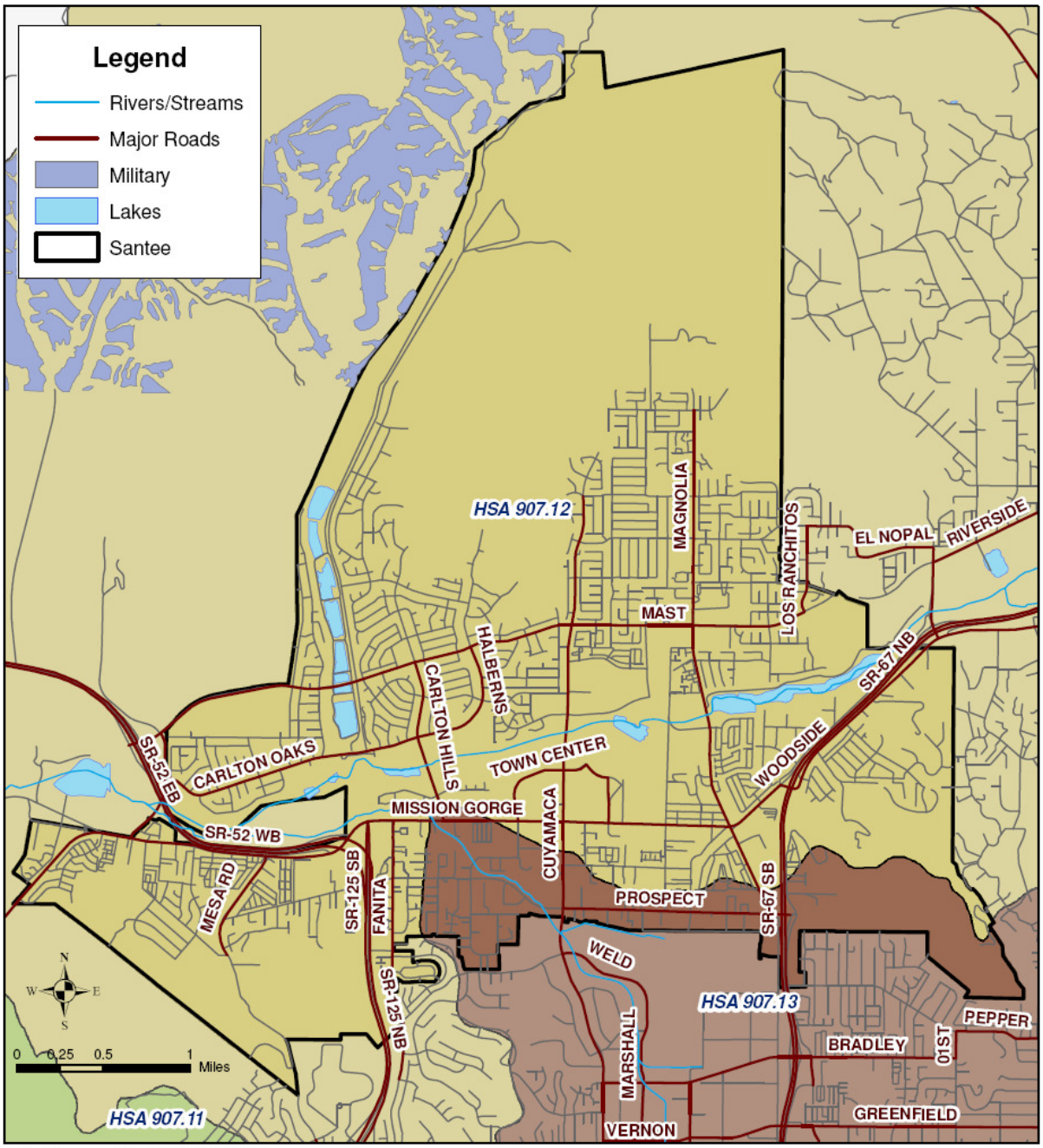

Figure A
City of Santee 2009 Dry Weather Sampling Location Map

| Drawn By: JL | Checked By: | Date: 9/28/09 |
|---|---|---|

D-MAX Engineering, Inc.

Base Data Sources: SanGIS, SANDAG, City of Santee

**FIGURE B**
**WATERSHED MAP OF THE SANTEE AREA SHOWING THE HYDROLOGIC SUBAREAS**




Data Sources: SanGIS, SANDAG

# Appendix A

# Historical Dry Weather Monitoring Data

# City of Santee Dry Weather Historical Data

| Site ID | A5c | E5g | G30c | H5e | I10d | J25c | J25c2 | J30d | K15j2 | O20b | O40b | P15b | P20f | Q5l | Q25k | Q26d | RCP1 | RCP2 | R10b | R20a | S5c | S15h | T5d | T5e | T30b | U10a | V40d | V45k | Y15e | Z15b |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1996 First Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | | ns | 0.1 | ns | | | nd | | | ns | | nd | | ns | | | | | ns | 0.1 | | ns | | ns | | | | | |
| Detergents (mg/L) | | | ns | 0.50 | ns | | | nd | | | ns | | 0.50 | | ns | | | | | ns | 0.25 | | ns | | ns | | | | | |
| Chlorine (mg/L) | | | ns | nd | ns | | | nd | | | ns | | 0.05 | | ns | | | | | ns | nd | | ns | | ns | | | | | |
| Copper (mg/L) | | | ns | nd | ns | | | nd | | | ns | | nd | | ns | | | | | ns | nd | | ns | | ns | | | | | |
| Ammonia (mg/L) | | | ns | nd | ns | | | nd | | | ns | | nd | | ns | | | | | ns | nd | | ns | | ns | | | | | |
| **1996 Second Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | | | 0.2 | | | | nd | | | | | nd | | | | | | | | 0.1 | | | | | | | | | |
| Detergents (mg/L) | | | | 0.25 | | | | 0.25 | | | | | 0.25 | | | | | | | | 0.50 | | | | | | | | | |
| Chlorine (mg/L) | | | | 0.20 | | | | nd | | | | | nd | | | | | | | | nd | | | | | | | | | |
| Copper (mg/L) | | | | nd | | | | nd | | | | | nd | | | | | | | | nd | | | | | | | | | |
| Ammonia (mg/L) | | | | nd | | | | nd | | | | | nd | | | | | | | | nd | | | | | | | | | |
| **1997 Round One First Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | ns | ns | ns | | | nd | | ns | 0.1 | | nd | | ns | | | | | ns | nd | | ns | 0.2 | | | nd | nd | | |
| Detergents (mg/L) | | 0.25 | ns | ns | ns | | | 0.50 | | ns | 0.85 | | 0.20 | | ns | | | | | ns | 1.00 | | ns | 0.60 | | | 0.30 | 0.25 | | |
| Chlorine (mg/L) | | nd | ns | ns | ns | | | 0.25 | | ns | 0.50 | | 0.25 | | ns | | | | | ns | 0.15 | | ns | nd | | | 0.20 | 0.30 | | |
| Copper (mg/L) | | nd | ns | ns | ns | | | nd | | ns | nd | | nd | | ns | | | | | ns | nd | | ns | nd | | | nd | 0.05 | | |
| Ammonia (mg/L) | | 0.40 | ns | ns | ns | | | 0.40 | | ns | 3.00 | | 0.35 | | ns | | | | | ns | 0.30 | | ns | 2.50 | | | 0.15 | 0.35 | | |
| **1997 Round One Second Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | | | | | | nd | | | nd | | nd | | | | | | | | nd | | | 0.2 | | | nd | 0.1 | | |
| Detergents (mg/L) | | 0.35 | | | | | | 0.35 | | | 1.75 | | 0.25 | | | | | | | | 0.25 | | | >3.0 | | | 0.35 | 0.25 | | |
| Chlorine (mg/L) | | 0.05 | | | | | | 0.15 | | | 0.40 | | nd | | | | | | | | 0.20 | | | nd | | | 0.20 | 0.35 | | |
| Copper (mg/L) | | nd | | | | | | nd | | | nd | | nd | | | | | | | | nd | | | nd | | | nd | nd | | |
| Ammonia (mg/L) | | 1.50 | | | | | | 0.40 | | | 2.50 | | 0.30 | | | | | | | | 0.60 | | | 5.50 | | | 0.60 | 0.50 | | |
| **1997 Round Two First Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | nd | nd | ns | | | nd | | ns | ns | | nd | | ns | | | | | ns | nd | | ns | ns | | | nd | nd | | |
| Detergents (mg/L) | | 0.20 | 0.20 | 0.20 | ns | | | 0.20 | | ns | ns | | 0.20 | | ns | | | | | ns | 0.90 | | ns | ns | | | 0.30 | 0.20 | | |
| Chlorine (mg/L) | | nd | 0.40 | 0.70 | ns | | | 0.25 | | ns | ns | | 0.25 | | ns | | | | | ns | 0.50 | | ns | ns | | | 0.25 | 0.80 | | |
| Copper (mg/L) | | nd | nd | nd | ns | | | nd | | ns | ns | | nd | | ns | | | | | ns | 0.10 | | ns | ns | | | nd | nd | | |
| Ammonia (mg/L) | | 0.70 | 0.40 | 0.30 | ns | | | 0.60 | | ns | ns | | 0.10 | | ns | | | | | ns | 1.50 | | ns | ns | | | 0.90 | 0.90 | | |
| **1997 Round Two Second Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | nd | nd | | | | nd | | | | | nd | | | | | | | | nd | | | | | | nd | nd | | |
| Detergents (mg/L) | | 0.20 | 0.25 | 0.20 | | | | 0.20 | | | | | 0.20 | | | | | | | | 0.20 | | | | | | 0.30 | 0.20 | | |
| Chlorine (mg/L) | | nd | 0.50 | 0.70 | | | | 0.50 | | | | | 0.25 | | | | | | | | 0.25 | | | | | | 0.50 | 0.80 | | |
| Copper (mg/L) | | nd | nd | nd | | | | nd | | | | | nd | | | | | | | | nd | | | | | | nd | nd | | |
| Ammonia (mg/L) | | 0.80 | 0.35 | 0.50 | | | | 0.60 | | | | | 0.30 | | | | | | | | 0.20 | | | | | | 0.60 | 0.60 | | |
| **1998 Round One First Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | nd | nd | nd | | | nd | | | 0.2 | | nd | | nd | nd | | | | nd | nd | | ns | 0.2 | | | nd | nd | | |
| Detergents (mg/L) | | 0.25 | 0.25 | 0.25 | 0.25 | | | 0.25 | | | 0.25 | | 0.25 | | 0.50 | 0.25 | | | | 0.25 | 0.25 | | ns | 0.13 | | | 0.25 | 0.25 | | |
| Chlorine (mg/L) | | 0.30 | 0.10 | 0.20 | 0.20 | | | 0.30 | | | nd | | 0.10 | | 0.30 | 0.40 | | | | 0.10 | 0.15 | | ns | nd | | | nd | 0.05 | | |
| Copper (mg/L) | | nd | nd | nd | nd | | | nd | | | nd | | nd | | nd | nd | | | | nd | nd | | ns | nd | | | nd | nd | | |
| Ammonia (mg/L) | | 0.10 | 0.10 | 0.60 | 0.60 | | | 0.60 | | | 0.20 | | 0.10 | | 2.00 | nd | | | | 0.10 | nd | | ns | 0.60 | | | 0.20 | 0.20 | | |
| **1998 Round One Second Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | | nd | ns | | | nd | | | 0.2 | | nd | | | nd | | | | nd | nd | | | nd | | | nd | nd | | |
| Detergents (mg/L) | | nd | | 0.25 | ns | | | 0.25 | | | 0.25 | | 0.50 | | | 0.25 | | | | 0.50 | 0.25 | | | 0.50 | | | 0.25 | 0.25 | | |
| Chlorine (mg/L) | | 0.10 | | nd | ns | | | 2.50 | | | 0.30 | | 0.20 | | | nd | | | | 0.10 | 0.15 | | | 0.15 | | | 0.10 | 0.05 | | |
| Copper (mg/L) | | nd | | nd | ns | | | nd | | | nd | | nd | | | nd | | | | nd | nd | | | nd | | | nd | nd | | |
| Ammonia (mg/L) | | 0.10 | | 0.60 | ns | | | nd | | | 0.60 | | 0.20 | | | nd | | | | 0.80 | 0.60 | | | 0.40 | | | 0.10 | 0.20 | | |
| **1998 Round Two First Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | nd | nd | ns | | | nd | | | 0.1 | | nd | | ns | ns | | | nd | nd | nd | | ns | nd | | | nd | nd | | |
| Detergents (mg/L) | | 0.13 | 0.13 | 0.38 | ns | | | 0.38 | | | 1.00 | | 0.13 | | ns | ns | | | 0.13 | 0.25 | >3.0 | | ns | 0.25 | | | 1.00 | 0.25 | | |
| Chlorine (mg/L) | | nd | nd | 0.10 | ns | | | nd | | | 0.10 | | nd | | ns | ns | | | 0.10 | 0.10 | nd | | ns | nd | | | 0.10 | nd | | |
| Copper (mg/L) | | nd | nd | nd | ns | | | nd | | | nd | | nd | | ns | ns | | | nd | nd | nd | | ns | nd | | | nd | nd | | |
| Ammonia (mg/L) | | 0.30 | 0.60 | 0.40 | ns | | | 0.60 | | | 0.60 | | 0.30 | | ns | ns | | | 1.50 | 12.30 | 3.00 | | ns | 0.80 | | | 0.40 | 0.60 | | |
| **1998 Round Two Second Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | nd | nd | ns | | | nd | | | nd | | nd | | | | | | nd | nd | nd | | | ns | | | nd | nd | | |
| Detergents (mg/L) | | 0.38 | 0.13 | 0.13 | ns | | | 0.13 | | | 0.38 | | 0.13 | | | | | | 1.00 | 0.13 | >3.0 | | | ns | | | 1.50 | 0.13 | | |
| Chlorine (mg/L) | | 0.10 | nd | nd | ns | | | nd | | | nd | | nd | | | | | | 0.10 | nd | nd | | | ns | | | nd | nd | | |
| Copper (mg/L) | | nd | nd | nd | ns | | | nd | | | nd | | nd | | | | | | nd | nd | nd | | | ns | | | nd | nd | | |
| Ammonia (mg/L) | | 0.60 | 0.60 | 1.00 | ns | | | 0.35 | | | 0.10 | | 0.20 | | | | | | >10.00 | 1.50 | 3.00 | | | ns | | | 2.53 | 0.40 | | |
| **1999 Round One First Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | nd | nd | ns | | | nd | | | 0.1 | | nd | | ns | 0.1 | | | | ns | nd | | ns | 1.0 | | | nd | nd | | |
| Detergents (mg/L) | | 0.25 | 0.25 | 0.25 | ns | | | 0.25 | | | 0.75 | | 0.25 | | ns | 0.75 | | | | ns | 0.25 | | ns | >3.0 | | | 1.50 | 0.75 | | |
| Chlorine (mg/L) | | <0.10 | 0.10 | 0.40 | ns | | | 0.30 | | | 0.30 | | 0.10 | | ns | nd | | | | ns | 0.10 | | ns | 0.20 | | | 0.10 | 0.20 | | |
| Copper (mg/L) | | 0.10 | nd | nd | ns | | | nd | | | nd | | nd | | ns | 0.10 | | | | ns | nd | | ns | 0.10 | | | 0.10 | nd | | |
| Ammonia (mg/L) | | 0.80 | 0.50 | 0.30 | ns | | | 5.00 | | | 0.40 | | 0.20 | | ns | 0.60 | | | | ns | 0.20 | | ns | 6.00 | | | 0.60 | 0.40 | | |

# City of Santee Dry Weather Historical Data

| Site ID | A5c | E5g | G30c | H5e | I10d | J25c | J25c2 | J30d | K15j2 | O20b | O40b | P15b | P20f | Q5l | Q25k | Q26d | RCP1 | RCP2 | R10b | R20a | S5c | S15h | T5d | T5e | T30b | U10a | V40d | V45k | Y15e | Z15b |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1999 Round One Second Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | 0.1 | nd | nd | | | | nd | | | ns | | nd | | | <0.1 | | | | | nd | | | 1.0 | | | nd | nd | | |
| Detergents (mg/L) | | 0.25 | 3.00 | 0.75 | | | | 1.50 | | | ns | | 0.50 | | | 1.50 | | | | | 0.25 | | | >3.0 | | | 1.00 | 0.25 | | |
| Chlorine (mg/L) | | <0.10 | nd | 0.40 | | | | <0.10 | | | ns | | 0.10 | | | <0.10 | | | | | 0.10 | | | nd | | | 0.10 | 0.30 | | |
| Copper (mg/L) | | nd | nd | nd | | | | nd | | | ns | | nd | | | 0.10 | | | | | nd | | | 0.10 | | | 0.10 | nd | | |
| Ammonia (mg/L) | | 1.00 | 1.00 | 0.80 | | | | 1.00 | | | ns | | 3.00 | | | 1.00 | | | | | 0.20 | | | 1.00 | | | 1.00 | 0.40 | | |
| **1999 Round Two First Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | 0.1 | 0.1 | nd | ns | | | 0.1 | | | ns | | 0.1 | | 0.1 | nd | | | | ns | 0.1 | | ns | ns | | | nd | nd | | |
| Detergents (mg/L) | | 0.25 | 0.50 | 0.25 | ns | | | 0.50 | | | ns | | 0.25 | | 0.75 | 0.50 | | | | ns | 0.50 | | ns | ns | | | 0.25 | 0.25 | | |
| Chlorine (mg/L) | | nd | 0.20 | nd | ns | | | 0.20 | | | ns | | 0.40 | | nd | nd | | | | ns | 0.10 | | ns | ns | | | nd | 0.10 | | |
| Copper (mg/L) | | 0.10 | 0.20 | 0.10 | ns | | | 0.10 | | | ns | | nd | | nd | 0.10 | | | | ns | 0.20 | | ns | ns | | | nd | nd | | |
| Ammonia (mg/L) | | 0.60 | 0.60 | 0.40 | ns | | | 0.90 | | | ns | | 0.20 | | 1.00 | 0.70 | | | | ns | 0.40 | | ns | ns | | | 0.20 | 0.10 | | |
| **1999 Round Two Second Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | 0.1 | nd | | | | nd | | | | | nd | | ns | ns | | | | | nd | | | | | | nd | nd | | |
| Detergents (mg/L) | | 0.25 | 0.75 | 0.25 | | | | 0.25 | | | | | 0.25 | | ns | ns | | | | | 0.25 | | | | | | 0.25 | 0.25 | | |
| Chlorine (mg/L) | | nd | nd | 0.10 | | | | nd | | | | | nd | | ns | ns | | | | | 0.30 | | | | | | nd | 0.10 | | |
| Copper (mg/L) | | 0.10 | 0.20 | 0.10 | | | | nd | | | | | nd | | ns | ns | | | | | nd | | | | | | nd | 0.10 | | |
| Ammonia (mg/L) | | 0.40 | 0.40 | 0.30 | | | | 0.90 | | | | | 0.10 | | ns | ns | | | | | nd | | | | | | 0.10 | 0.20 | | |
| **2000 Round One First Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | 0.1 | 0.1 | ns | | | nd | | | ns | | nd | | ns | nd | nd | 0.1 | | ns | nd | | | 0.1 | | | 0.1 | nd | | |
| Detergents (mg/L) | | 0.25 | 0.25 | 0.25 | ns | | | 0.50 | | | ns | | 0.25 | | ns | 0.25 | 0.25 | 0.50 | | ns | 0.25 | | | 3.00 | | | 0.50 | 0.25 | | |
| Chlorine (mg/L) | | nd | 0.20 | 0.20 | ns | | | nd | | | ns | | 0.20 | | ns | 0.10 | nd | 0.10 | | ns | 0.10 | | | 0.20 | | | nd | 0.10 | | |
| Copper (mg/L) | | nd | nd | 0.10 | ns | | | nd | | | ns | | nd | | ns | 0.10 | nd | 0.10 | | ns | nd | | | nd | | | nd | nd | | |
| Ammonia (mg/L) | | 0.80 | 0.40 | 0.20 | ns | | | 0.30 | | | ns | | 0.10 | | ns | 0.60 | 0.10 | 2.50 | | ns | 0.30 | | | 1.00 | | | 0.20 | 0.50 | | |
| **2000 Round One Second Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | nd | nd | | | | nd | | | | | nd | | | ns | nd | nd | | | 0.1 | | | 0.1 | | | nd | nd | | |
| Detergents (mg/L) | | 0.25 | 0.25 | 0.75 | | | | 1.50 | | | | | 0.25 | | | ns | 0.25 | 0.25 | | | 0.25 | | | 0.75 | | | 0.50 | 0.25 | | |
| Chlorine (mg/L) | | nd | 0.20 | 0.20 | | | | nd | | | | | nd | | | ns | 0.20 | nd | | | 0.10 | | | nd | | | nd | nd | | |
| Copper (mg/L) | | nd | 0.10 | 0.10 | | | | nd | | | | | nd | | | ns | 0.10 | nd | | | nd | | | nd | | | nd | nd | | |
| Ammonia (mg/L) | | 0.80 | 0.50 | 0.40 | | | | 0.80 | | | | | 0.10 | | | ns | 0.10 | 2.50 | | | 0.60 | | | 0.20 | | | 0.20 | 0.30 | | |
| **2000 Round Two First Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | 0.1 | nd | nd | ns | | | nd | | | nd | | 0.1 | | nd | nd | nd | nd | | ns | nd | | | ns | | | nd | nd | | |
| Detergents (mg/L) | | 0.50 | 0.25 | 0.25 | ns | | | 0.25 | | | 0.25 | | 0.50 | | 1.50 | 1.00 | 0.25 | 0.50 | | ns | 0.25 | | | ns | | | 1.00 | 0.25 | | |
| Chlorine (mg/L) | | nd | nd | nd | ns | | | nd | | | nd | | nd | | nd | nd | 0.10 | nd | | ns | nd | | | ns | | | nd | nd | | |
| Copper (mg/L) | | nd | nd | nd | ns | | | nd | | | nd | | nd | | nd | nd | nd | nd | | ns | nd | | | ns | | | nd | nd | | |
| Ammonia (mg/L) | | 0.80 | 0.20 | 0.20 | ns | | | 0.50 | | | 0.30 | | 0.80 | | 1.00 | 0.80 | 0.10 | 2.00 | | ns | 0.40 | | | ns | | | 0.80 | 0.30 | | |
| **2000 Round Two Second Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | nd | nd | | | | nd | | | ns | | nd | | nd | nd | nd | nd | | | nd | | | | | | nd | nd | | |
| Detergents (mg/L) | | 0.50 | 0.25 | 0.25 | | | | 0.50 | | | ns | | 0.50 | | 1.00 | 0.25 | 0.25 | 0.25 | | | 0.25 | | | | | | 0.25 | 0.50 | | |
| Chlorine (mg/L) | | nd | nd | nd | | | | nd | | | ns | | nd | | nd | nd | 0.10 | nd | | | nd | | | | | | nd | nd | | |
| Copper (mg/L) | | nd | nd | nd | | | | nd | | | ns | | nd | | nd | nd | nd | nd | | | nd | | | | | | nd | nd | | |
| Ammonia (mg/L) | | 0.70 | 0.20 | 0.30 | | | | 0.80 | | | ns | | 0.80 | | 0.70 | 0.30 | 0.10 | 2.00 | | | 0.20 | | | | | | 0.30 | 0.70 | | |
| **2001 Round One First Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | nd | nd | ns | | | nd | | | nd | | nd | | ns | nd | nd | nd | | nd | nd | | | nd | | | nd | nd | | |
| Detergents (mg/L) | | 0.25 | 0.25 | 0.25 | ns | | | 0.25 | | | 0.25 | | 0.25 | | ns | 0.25 | 0.25 | 0.50 | | 0.25 | 0.25 | | | 0.25 | | | 0.25 | 0.25 | | |
| Chlorine (mg/L) | | nd | nd | nd | ns | | | nd | | | nd | | nd | | ns | nd | nd | nd | | nd | nd | | | nd | | | nd | nd | | |
| Copper (mg/L) | | nd | nd | nd | ns | | | nd | | | nd | | nd | | ns | nd | nd | nd | | nd | nd | | | nd | | | nd | nd | | |
| Ammonia (mg/L) | | 0.10 | 0.50 | 0.50 | ns | | | 0.80 | | | 0.20 | | 0.20 | | ns | 0.80 | 0.60 | 0.10 | | 0.20 | 0.40 | | | 0.80 | | | 0.50 | 0.10 | | |
| **2001 Round One Second Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | nd | nd | | | | nd | | | nd | | nd | | | ns | nd | nd | | nd | nd | | | nd | | | nd | nd | | |
| Detergents (mg/L) | | 0.25 | 0.25 | 0.25 | | | | 0.25 | | | 0.25 | | 0.25 | | | ns | 0.25 | 0.25 | | 0.25 | 0.25 | | | 0.25 | | | 0.25 | 0.25 | | |
| Chlorine (mg/L) | | nd | nd | nd | | | | nd | | | nd | | nd | | | ns | nd | nd | | nd | nd | | | nd | | | nd | nd | | |
| Copper (mg/L) | | nd | nd | nd | | | | nd | | | nd | | nd | | | ns | nd | nd | | nd | nd | | | nd | | | nd | nd | | |
| Ammonia (mg/L) | | 0.50 | 0.30 | 0.20 | | | | 0.60 | | | 0.70 | | 0.10 | | | ns | 0.40 | 0.80 | | 0.30 | 0.40 | | | 0.50 | | | 0.30 | 0.20 | | |
| **2001 Round Two First Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | nd | nd | ns | | | nd | | | ns | | nd | | ns | ns | nd | nd | | ns | nd | | | ns | | | nd | nd | | |
| Detergents (mg/L) | | 0.25 | <0.25 | 0.25 | ns | | | 0.50 | | | ns | | <0.25 | | ns | ns | <0.25 | 0.75 | | ns | <0.25 | | | ns | | | <0.25 | <0.25 | | |
| Chlorine (mg/L) | | 0.10 | 0.50 | 0.50 | ns | | | nd | | | ns | | 0.10 | | ns | ns | 0.10 | nd | | ns | 0.10 | | | ns | | | nd | nd | | |
| Copper (mg/L) | | nd | nd | nd | ns | | | nd | | | ns | | nd | | ns | ns | nd | nd | | ns | nd | | | ns | | | nd | nd | | |
| Ammonia (mg/L) | | 0.40 | 0.40 | 0.50 | ns | | | 0.60 | | | ns | | 0.20 | | ns | ns | 0.10 | 2.00 | | ns | 0.40 | | | ns | | | 0.10 | 0.20 | | |
| **2001 Round Two Second Visit** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols (mg/L) | | nd | nd | nd | | | | nd | | | | | nd | | | | nd | nd | | | nd | | | | | | nd | nd | | |
| Detergents (mg/L) | | 0.25 | <0.25 | <0.25 | | | | 0.50 | | | | | <0.25 | | | | <0.25 | 0.50 | | | 0.25 | | | | | | <0.25 | <0.25 | | |
| Chlorine (mg/L) | | 0.10 | 0.10 | 0.80 | | | | 0.10 | | | | | 0.10 | | | | 0.10 | 0.10 | | | 0.10 | | | | | | nd | nd | | |
| Copper (mg/L) | | nd | nd | nd | | | | nd | | | | | nd | | | | nd | nd | | | nd | | | | | | nd | nd | | |
| Ammonia (mg/L) | | 0.40 | 0.20 | 0.20 | | | | 0.60 | | | | | 0.20 | | | | 0.10 | 2.00 | | | 0.50 | | | | | | 0.20 | 0.30 | | |

# City of Santee Dry Weather Historical Data

| Site ID | A5c | E5g | G30c | H5e | I10d | J25c | J25c2 | J30d | K15j2 | O20b | O40b | P15b | P20f | Q5l | Q25k | Q26d | RCP1 | RCP2 | R10b | R20a | S5c | S15h | T5d | T5e | T30b | U10a | V40d | V45k | Y15e | Z15b |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2002** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.°C | 24.0 | 25.0 | 31.0 | 26.0 | | 23.0 | 23.5 | 30.0 | 25.0 | | 23.5 | 26.5 | 23.0 | 26.0 | | | 23.0 | | | | 26.0 | 25.0 | | | ns | 26.0 | 22.0 | 22.0 | 23.5 | 22.0 |
| pH | 7.8 | 7.9 | 8.5 | 8.5 | | 8.8 | 8.3 | 9.4 | 7.5 | | 7.9 | 8.2 | 8.8 | 8.8 | | | 8.6 | | | | 8.3 | 8.4 | | | ns | 8.4 | 9.2 | 8.1 | 7.9 | 8.0 |
| Conductivity (µmhos/cm) | 1,070 | 2,500 | 1,550 | 1,231 | | 3,250 | 875 | 2,470 | 1,596 | | 957 | 1,483 | 1,750 | 2,840 | | | 1,474 | | | | 1,191 | 1,933 | | | ns | 1,174 | 2,270 | 2,590 | 1,142 | 1,426 |
| Turbidity (NTU) | 14.18 | 12.77 | 2.89 | 1.99 | | 3.34 | 5.17 | 8.04 | 5.59 | | 33.51 | 1.67 | 2.79 | 104 | | | 2.53 | | | | 3.47 | 15.37 | | | ns | 7.42 | 6.68 | 6.94 | 7.76 | 23.55 |
| Ammonia-N (mg/L) | 2.5 | 2.0 | 0.6 | 0.2 | | 0.4 | 0.3 | 0.4 | 0.1 | | 1.0 | 0.1 | 0.3 | 2.0 | | | 0.4 | | | | 0.6 | 1.5 | | | ns | 0.4 | 0.2 | 0.6 | 0.6 | 2.0 |
| Nitrate-N (mg/L) | 0.3 | 2.0 | nd | 1.0 | | 4.0 | 2.0 | 0.1 | 8.0 | | 1.0 | 24.0 | 1.0 | 1.5 | | | 20.0 | | | | nd | 0.2 | | | ns | 0.3 | nd | 0.2 | 0.5 | 1.5 |
| Orthophosphate (mg/L) | 2.0 | 2.0 | 3.0 | 1.5 | | 2.5 | 0.6 | 0.5 | 0.2 | | 1.5 | 0.6 | 0.2 | 5.5 | | | 0.6 | | | | 4.0 | 4.5 | | | ns | 2.5 | 0.6 | 0.3 | 0.8 | 4.5 |
| Orthophosphate-P (mg/L) | 0.65 | 0.65 | 0.98 | 0.49 | | 0.82 | 0.20 | 0.03 | 0.05 | | 0.49 | 0.20 | 0.07 | 1.79 | | | 0.20 | | | | 1.30 | 1.47 | | | ns | 0.82 | 0.20 | 0.10 | 0.26 | 1.47 |
| Surfactants (mg/l MBAS)Field test | 0.75 | 0.50 | 0.25 | 0.25 | | 0.25 | < 0.25 | 0.50 | 0.25 | | 0.50 | 0.50 | 0.25 | 3.00 | | | 0.25 | | | | 0.50 | 0.25 | | | ns | 0.25 | 0.25 | 0.25 | 0.50 | 1.00 |
| Surfactants (mg/l MBAS)Lab test | | | < 0.50 | | | < 0.50 | | < 0.50 | | | | | < 0.50 | | | | < 0.50 | | | | | | | | | | < 0.50 | | | |
| Oil and Grease (mg/L) | | | 1.0 | | | 2.0 | | 8.0 | | | | | 2.0 | | | | 3.0 | | | | | | | | | | 12.0 | | | |
| Total Hardness (mg/L) | | | 349 | | | 579 | | 391 | | | | | 429 | | | | 422 | | | | | | | | | | 495 | | | |
| Cadmium-diss (mg/L) | | | < 0.10 | | | < 0.10 | | < 0.10 | | | | | < 0.10 | | | | < 0.10 | | | | | | | | | | < 0.10 | | | |
| Copper-diss (mg/L) | | | < 0.10 | | | < 0.10 | | < 0.10 | | | | | < 0.10 | | | | < 0.10 | | | | | | | | | | < 0.10 | | | |
| Lead-diss (mg/L) | | | < 0.10 | | | < 0.10 | | < 0.10 | | | | | < 0.10 | | | | < 0.10 | | | | | | | | | | < 0.10 | | | |
| Zinc-diss (mg/L) | | | < 0.10 | | | < 0.10 | | < 0.10 | | | | | < 0.10 | | | | < 0.10 | | | | | | | | | | < 0.10 | | | |
| Diazinon (µg/L) | | | < 1.0 | | | < 0.50 | | < 0.50 | | | | | < 0.50 | | | | < 0.50 | | | | | | | | | | < 0.50 | | | |
| Chlorpyrifos (µg/L) | | | < 1.0 | | | < 0.50 | | < 0.50 | | | | | < 0.50 | | | | < 0.50 | | | | | | | | | | < 0.50 | | | |
| Total Coliform (MPN/100mL) | | | 17,000 | | | 3,000 | | 13,000 | | | | | 1,700 | | | | 50,000 | | | | | | | | | | 5,000 | | | |
| Fecal Coliform (MPN/100mL) | | | 13,000 | | | 1,700 | | 8,000 | | | | | 1,100 | | | | 50,000 | | | | | | | | | | 5,000 | | | |
| *Enterococcus* (MPN/100mL) | | | 2,300 | | | 17,000 | | 2,300 | | | | | 3,000 | | | | 230 | | | | | | | | | | 3,000 | | | |
| **2003 Round One** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.°C | 20.0 | 20.0 | 18.0 | 25.0 | | 20.0 | 23.0 | 28.0 | 31.0 | | 16.0 | 23.0 | 26.0 | 23.0 | | | 19.5 | | | | 22.0 | 21.0 | | 24.0 | ns | ns | 21.0 | 19.0 | 18.0 | 23.0 |
| pH | 9.0 | 7.4 | 8.9 | 9.0 | | 8.5 | 8.4 | 9.7 | 8.8 | | 8.4 | 7.8 | 9.0 | 8.4 | | | 8.7 | | | | 8.3 | 8.1 | | 7.9 | ns | ns | 8.9 | 8.5 | 7.7 | 8.2 |
| Conductivity (µmhos/cm) | 2,030 | 3,310 | 2,230 | 1,270 | | 4,160 | 4,650 | 3,010 | 2,350 | | 1,750 | 2,150 | 1,810 | 2,240 | | | 1,860 | | | | 1,820 | 1,820 | | 1,030 | ns | ns | 2,960 | 3,840 | 1,470 | 1,080 |
| Turbidity (NTU) | 6.11 | 14.94 | 3.6 | 2.91 | | 3.05 | 0.04 | 6.46 | 2.27 | | 2.03 | 1.33 | 4.69 | 36.48 | | | 10.81 | | | | 61 | 2.67 | | 0.98 | ns | ns | 0.96 | 0.98 | 2.89 | 25.2 |
| Ammonia-N (mg/L) | 0.4 | 0.6 | 1.0 | 0.3 | | 0.2 | 0.2 | 0.4 | 0.3 | | 2.5 | 0.1 | 0.2 | 0.2 | | | 0.1 | | | | 1.0 | 0.3 | | 0.3 | ns | ns | 0.2 | 0.4 | 0.8 | 0.8 |
| Nitrate-N (mg/L) | 0.6 | 0.6 | 1.0 | 3.2 | | 5.0 | 8.0 | 0.8 | 1.0 | | 4.0 | 8.0 | 3.5 | 24.0 | | | 8.0 | | | | nd | 0.4 | | 0.2 | ns | ns | 0.1 | 0.8 | 1.5 | 0.8 |
| Orthophosphate (mg/L) | 0.3 | 0.8 | 2.5 | 1.5 | | 0.2 | 0.2 | 0.1 | 0.1 | | 4.0 | 0.4 | 0.1 | 0.4 | | | 0.4 | | | | 1.5 | 1.5 | | 0.6 | ns | ns | 0.1 | 0.1 | 1.5 | 0.8 |
| Orthophosphate-P (mg/L) | 0.10 | 0.26 | 0.82 | 0.49 | | 0.07 | 0.07 | 0.03 | 0.03 | | 1.30 | 0.13 | 0.03 | 0.13 | | | 0.13 | | | | 0.49 | 0.49 | | 0.20 | ns | ns | 0.03 | 0.03 | 0.49 | 0.26 |
| Surfactants (mg/l MBAS)Field test | 0.25 | 0.25 | 0.25 | 0.50 | | 0.25 | 0.25 | 0.25 | 0.25 | | 0.25 | 0.25 | 0.25 | 0.25 | | | 0.75 | | | | 0.75 | 0.25 | | 0.25 | ns | ns | 0.25 | 0.25 | 0.25 | 0.25 |
| Surfactants (mg/l MBAS)Lab test | | | | | | nd | | nd | | | | | nd | | | | 0.7 | | | | | | | | | | nd | | | |
| Oil and Grease (mg/L) | | | | | | nd | | 2.00 | | | | | nd | | | | nd | | | | | | | | | | 18.00 | | | |
| Total Hardness (mg/L) | | | | | | 1,030 | | 449 | | | | | 450 | | | | 414 | | | | | | | | | | 609 | | | |
| Cadmium-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Copper-diss (mg/L) | | | | | | 0.01 | | 0.012 | | | | | nd | | | | 0.008 | | | | | | | | | | nd | | | |
| Lead-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Zinc-diss (mg/L) | | | | | | 0.026 | | nd | | | | | nd | | | | 0.033 | | | | | | | | | | 0.022 | | | |
| Diazinon (µg/L) | | | | | | nd | | 0.09 | | | | | nd | | | | nd | | | | | | | | | | 0.26 | | | |
| Chlorpyrifos (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Coliform (MPN/100mL) | | | | | | 50,000 | | 1,700 | | | | | 1,400 | | | | 11,000 | | | | | | | | | | 2,300 | | | |
| Fecal Coliform (MPN/100mL) | | | | | | 22,000 | | 1,300 | | | | | 700 | | | | 7,000 | | | | | | | | | | 1,300 | | | |
| *Enterococcus* (MPN/100mL) | | | | | | 8,000 | | 500 | | | | | 300 | | | | 1,100 | | | | | | | | | | 80 | | | |
| **2003 Round Two** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.°C | 28.5 | 22.5 | 20.5 | 24.5 | | 21.5 | 24.0 | 25.0 | 24.5 | | 25.5 | 26.0 | 27.5 | 27.0 | | | 24.0 | | | | 25.0 | 22.0 | | | ns | 26.0 | 19.5 | 24.0 | 21.5 | 20.0 |
| pH | 8.8 | 7.4 | 8.3 | 8.3 | | 8.3 | 8.8 | 9.0 | 7.4 | | 8.1 | 8.2 | 8.8 | 7.8 | | | 8.5 | | | | 8.1 | 7.5 | | | ns | 7.3 | 8.3 | 7.9 | 7.6 | 7.8 |
| Conductivity (µmhos/cm) | 1,560 | 3,130 | 1,340 | 1,360 | | 3,690 | 6,610 | 3,060 | 2,340 | | 970 | 1,830 | 1,390 | 1,110 | | | 1,840 | | | | 13,650 | 1,490 | | | ns | 1,020 | 1,990 | 2,150 | 1,160 | 1,350 |
| Turbidity (NTU) | 502.0 | 20.0 | 8.9 | 16.9 | | 2.3 | 0.7 | 4.5 | 3.2 | | 20.5 | 4.0 | 3.0 | 262.0 | | | 1.2 | | | | 17.3 | 5.5 | | | ns | 6.8 | 2.6 | 13.9 | 10.6 | 17.8 |
| Ammonia-N (mg/L) | 0.4 | 0.8 | 0.4 | 0.4 | | 0.4 | 0.4 | 1.0 | 0.3 | | 0.3 | 0.2 | 0.3 | 0.8 | | | 0.2 | | | | 0.8 | 0.6 | | | ns | 1.0 | 0.2 | 0.4 | 0.6 | 3.0 |
| Nitrate-N (mg/L) | 2.0 | 0.4 | 0.6 | 4.0 | | 10.0 | 16.0 | 0.6 | 4.0 | | 2.4 | 16.0 | 5.0 | 3.2 | | | 24.0 | | | | 28.0 | 0.8 | | | ns | 0.4 | 0.1 | 0.2 | 0.8 | 1.0 |
| Orthophosphate (mg/L) | 2.0 | 3.0 | 2.0 | 1.5 | | 0.6 | 0.2 | 0.3 | 0.1 | | 2.0 | 0.8 | nd | 1.0 | | | 0.2 | | | | 2.0 | 1.5 | | | ns | 2.5 | 0.1 | 0.3 | 2.5 | 3.0 |
| Orthophosphate-P (mg/L) | 0.65 | 0.98 | 0.65 | 0.49 | | 0.20 | 0.07 | 0.10 | 0.03 | | 0.65 | 0.26 | nd | 0.33 | | | 0.07 | | | | 0.65 | 0.49 | | | ns | 0.82 | 0.03 | 0.10 | 0.82 | 0.98 |
| Surfactants (mg/l MBAS)Field test | 0.13 | 0.25 | 0.25 | 0.13 | | 0.25 | 0.25 | 0.25 | 0.13 | | 0.13 | 0.25 | 0.13 | 3.00 | | | 0.25 | | | | 0.50 | 0.25 | | | ns | 0.50 | 0.13 | 0.25 | 0.25 | 0.50 |
| Surfactants (mg/l MBAS)Lab test | | | nd | | | nd | | | | | | nd | | | | | | | | | | | | | | | nd | | | nd |
| Oil and Grease (mg/L) | | | nd | | | 1.00 | | | | | | 2.00 | | | | | | | | | | | | | | | nd | | | 2.00 |
| Total Hardness (mg/L) | | | 396 | | | 739 | | | | | | 539 | | | | | | | | | | | | | | | 488 | | | 330 |
| Cadmium-diss (mg/L) | | | 0.006 | | | nd | | | | | | nd | | | | | | | | | | | | | | | nd | | | nd |
| Copper-diss (mg/L) | | | 0.097 | | | 0.005 | | | | | | 0.007 | | | | | | | | | | | | | | | nd | | | 0.012 |
| Lead-diss (mg/L) | | | nd | | | nd | | | | | | 0.005 | | | | | | | | | | | | | | | nd | | | nd |
| Zinc-diss (mg/L) | | | 0.056 | | | nd | | | | | | nd | | | | | | | | | | | | | | | nd | | | 0.077 |
| Diazinon (µg/L) | | | 0.10 | | | nd | | | | | | nd | | | | | | | | | | | | | | | nd | | | nd |
| Chlorpyrifos (µg/L) | | | nd | | | nd | | | | | | nd | | | | | | | | | | | | | | | nd | | | nd |
| Total Coliform (MPN/100mL) | | | 90,000 | | | 50,000 | | | | | | 13,000 | | | | | | | | | | | | | | | 50,000 | | | 90,000 |
| Fecal Coliform (MPN/100mL) | | | 30,000 | | | 24,000 | | | | | | 5,000 | | | | | | | | | | | | | | | 24,000 | | | 30,000 |
| *Enterococcus* (MPN/100mL) | | | 8,000 | | | 2,200 | | | | | | 5,000 | | | | | | | | | | | | | | | 700 | | | 8,000 |

# City of Santee Dry Weather Historical Data

| Site ID | A5c | E5g | G30c | H5e | I10d | J25c | J25c2 | J30d | K15j2 | O20b | O40b | P15b | P20f | Q5l | Q25k | Q26d | RCP1 | RCP2 | R10b | R20a | S5c | S15h | T5d | T5e | T30b | U10a | V40d | V45k | Y15e | Z15b |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2004 Round One** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.°C | 32 | 26 | 24 | 24 | | 24 | 26 | 30 | 27 | | 27 | 28 | 25 | 24 | | | 24 | | | | 26 | 26 | | | ns | 31 | 32 | 29 | 26 | 22 |
| pH | 8.4 | 7.0 | 7.4 | 8.6 | | 8.5 | 7.7 | 8.9 | 6.9 | | 7.5 | 7.4 | 8.6 | 8.5 | | | 8.3 | | | | 7.9 | 8.0 | | | ns | 7.5 | 9.2 | 8.6 | 7.8 | 8.2 |
| Conductivity (µmhos/cm) | 1,930 | 2,620 | 1,920 | 1,350 | | 2,950 | 1,820 | 1,950 | 1,780 | | 910 | 1,610 | 1,260 | 1,430 | | | 1,280 | | | | 1,589 | 1,390 | | | ns | 1,320 | 1,480 | 1,450 | 2,560 | 1,280 |
| Turbidity (NTU) | 8.52 | 27.66 | 3.15 | 2.23 | | 8.85 | 0.12 | 5.05 | 4.95 | | 1.98 | 7.56 | 1.14 | 101 | | | 3.97 | | | | 9.32 | 3.55 | | | ns | 18.48 | 4.14 | 3.43 | 4.82 | 7.82 |
| Ammonia-N (mg/L) | 1.5 | 0.8 | 0.7 | 0.3 | | 0.8 | 0.1 | 0.6 | 0.1 | | 0.8 | 0.5 | 0.1 | 0.8 | | | 0.2 | | | | 0.6 | 0.6 | | | ns | 0.8 | 0.6 | 0.2 | 0.8 | 0.8 |
| Nitrate-N (mg/L) | 1.25 | 1.25 | 2.5 | 2.5 | | 6.75 | 2.5 | 2.5 | 5 | | 2.5 | 20 | 3.75 | 1.25 | | | 5 | | | | 2.5 | 1.25 | | | ns | 1.25 | 1.25 | 1.25 | 3.75 | 2.5 |
| Orthophosphate (mg/L) | 0.60 | 2.00 | 4.50 | 1.50 | | 0.70 | 0.10 | 0.10 | 0.30 | | 1.50 | 0.40 | 0.10 | 0.10 | | | 0.20 | | | | 2.00 | 0.60 | | | ns | 1.50 | 0.20 | 0.30 | 1.50 | 3.50 |
| Orthophosphate-P (mg/L) | 0.20 | 0.65 | 1.47 | 0.49 | | 0.23 | 0.03 | 0.03 | 0.10 | | 0.49 | 0.13 | 0.03 | 0.03 | | | 0.07 | | | | 0.70 | 0.20 | | | ns | 0.49 | 0.07 | 0.10 | 0.49 | 1.14 |
| Surfactants (mg/l MBAS)Field test | 0.75 | 0.25 | 0.25 | 0.25 | | 0.50 | 0.25 | 0.25 | 0.25 | | 0.25 | 0.25 | 0.25 | 3.00 | | | 0.25 | | | | 0.25 | 0.25 | | | ns | 0.50 | 0.25 | 0.25 | 0.50 | 0.50 |
| Surfactants (mg/l MBAS)Lab test | | | nd | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Oil and Grease (mg/L) | | | nd | | | 1 | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Hardness (mg/L) | | | 461 | | | 669 | | 346 | | | | | 355 | | | | 397 | | | | | | | | | | 368 | | | |
| Cadmium-diss (mg/L) | | | nd | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Copper-diss (mg/L) | | | nd | | | 0.021 | | 0.008 | | | | | 0.010 | | | | 0.013 | | | | | | | | | | 0.005 | | | |
| Lead-diss (mg/L) | | | nd | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Zinc-diss (mg/L) | | | 0.024 | | | nd | | nd | | | | | nd | | | | 0.02 | | | | | | | | | | nd | | | |
| Diazinon (µg/L) | | | 4.05 | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Chlorpyrifos (µg/L) | | | nd | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Coliform (MPN/100mL) | | | 22,000 | | | 110,000 | | 30,000 | | | | | 170,000 | | | | 50,000 | | | | | | | | | | 4,000 | | | |
| Fecal Coliform (MPN/100mL) | | | 8,000 | | | 2,600 | | 2,200 | | | | | 17,000 | | | | 800 | | | | | | | | | | 40 | | | |
| Enterococcus (MPN/100mL) | | | 5,000 | | | 7,000 | | 800 | | | | | 200 | | | | 3,000 | | | | | | | | | | 220 | | | |
| **2004 Round Two** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.°C | 20 | 22 | 19 | 23 | | 21 | 25 | 25 | 25 | | 23 | 27 | 23 | 25 | | | 22 | | | | 22 | 21 | | | ns | 20 | 22 | 20 | 22 | 23 |
| pH | 8.0 | 7.4 | 7.6 | 7.9 | | 8.2 | 7.9 | 8.9 | 7.4 | | 7.8 | 7.8 | 8.7 | 8.3 | | | 8.3 | | | | 7.8 | 8.0 | | | ns | 7.4 | 8.8 | 7.7 | 7.6 | 7.6 |
| Conductivity (µmhos/cm) | 2,150 | 2,860 | 2,570 | 2,130 | | 2,940 | 5,680 | 2,490 | 1,990 | | 850 | 1,670 | 1,610 | 2,490 | | | 1,670 | | | | 970 | 1,860 | | | ns | 1,770 | 1,420 | 1,490 | 1,270 | 1,180 |
| Turbidity (NTU) | 2.35 | 28.87 | 3.86 | 18.87 | | 2.35 | 1.48 | 11.59 | 1.22 | | 4.55 | 11.34 | 2.26 | 143 | | | 0.67 | | | | 5.55 | 33.76 | | | ns | 3.36 | 4.08 | 8.32 | 10.15 | 12.73 |
| Ammonia-N (mg/L) | 3.0 | 0.6 | 0.1 | 6.0 | | 0.3 | 0.1 | 0.4 | 0.2 | | 0.1 | 0.1 | 0.1 | 0.8 | | | 0.2 | | | | 0.1 | 0.7 | | | ns | 0.6 | 0.2 | 0.2 | 0.3 | 1.0 |
| Nitrate-N (mg/L) | 7.50 | 2.50 | 2.50 | 15.00 | | 5.00 | 8.75 | 2.50 | 5.00 | | 1.25 | 15.00 | 3.75 | 1.25 | | | 8.75 | | | | 1.25 | 3.75 | | | ns | 3.75 | 1.25 | 1.25 | 3.75 | 3.75 |
| Orthophosphate (mg/L) | 3.0 | 3.0 | 1.0 | 5.0 | | 0.4 | 0.2 | 0.2 | 0.8 | | 1.0 | 0.6 | 0.1 | 4.0 | | | 0.4 | | | | 1.0 | 3.0 | | | ns | 1.0 | 0.3 | 0.3 | 0.6 | 5.0 |
| Orthophosphate-P (mg/L) | 0.98 | 0.98 | 0.33 | 1.63 | | 0.13 | 0.07 | 0.07 | 0.26 | | 0.33 | 0.20 | 0.03 | 1.30 | | | 0.13 | | | | 0.33 | 0.98 | | | ns | 0.33 | 0.10 | 0.10 | 0.20 | 1.63 |
| Surfactants (mg/l MBAS)Field test | 0.38 | 0.75 | 0.25 | 0.25 | | 0.50 | 0.25 | 0.38 | 0.25 | | 0.38 | 0.38 | 0.38 | 3.00 | | | 0.25 | | | | 0.50 | 0.50 | | | ns | 0.25 | 0.13 | 0.13 | 0.50 | 0.75 |
| Surfactants (mg/l MBAS)Lab test | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Oil and Grease (mg/L) | | | | | | nd | | nd | | | | | nd | | | | 1 | | | | | | | | | | nd | | | |
| Total Hardness (mg/L) | | | | | | 572 | | 473 | | | | | 421 | | | | 508 | | | | | | | | | | 356 | | | |
| Cadmium-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Copper-diss (mg/L) | | | | | | 0.008 | | 0.005 | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Lead-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Zinc-diss (mg/L) | | | | | | 0.023 | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Diazinon (µg/L) | | | | | | nd | | nd | | | | | nd | | | | 0.33 | | | | | | | | | | 0.12 | | | |
| Chlorpyrifos (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Coliform (MPN/100mL) | | | | | | 300,000 | | 300,000 | | | | | 240,000 | | | | 160,000 | | | | | | | | | | 17,000 | | | |
| Fecal Coliform (MPN/100mL) | | | | | | 1,300 | | 800 | | | | | 500 | | | | 30,000 | | | | | | | | | | 1,400 | | | |
| Enterococcus (MPN/100mL) | | | | | | 7,000 | | 7,000 | | | | | 80 | | | | 24,000 | | | | | | | | | | 13,000 | | | |
| **2005 Round One** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.°C | 21.1 | 21.3 | 24.2 | 19.4 | | 20.5 | 23.6 | 27.4 | 22.7 | | 19.4 | 24.2 | 20.4 | 24.5 | | | 20.3 | | | | 20.0 | 19.7 | | | ns | 21.5 | 22.9 | 24.7 | 20.5 | 17.0 |
| pH | 8.4 | 7.3 | 8.9 | 8.5 | | 8.4 | 8.0 | 9.1 | 7.7 | | 7.9 | 7.8 | 8.8 | 7.9 | | | 8.4 | | | | 7.4 | 7.7 | | | ns | 8.3 | 8.8 | 8.4 | 7.7 | 8.1 |
| Conductivity (µmhos/cm) | 2,020 | 2,290 | 2,070 | 2,240 | | 4,500 | 5,320 | 2,540 | 2,030 | | 930 | 1,740 | 1,630 | 1,990 | | | 1,900 | | | | 1,190 | 1,550 | | | ns | 2,240 | 2,530 | 2,270 | 1,460 | 1,260 |
| Turbidity (NTU) | 3.11 | 8.15 | 2.15 | 1.23 | | 4.62 | 0.33 | 4.24 | 2.02 | | 6.88 | 1.11 | 0.70 | 2.67 | | | 0.46 | | | | 6.05 | 5.73 | | | ns | 18.34 | 2.50 | 2.06 | 3.92 | 37.4 |
| Ammonia-N (mg/L) | 0.2 | 0.8 | 0.2 | 0.2 | | 0.1 | 0.2 | 0.4 | 0.3 | | 2.0 | nd | 0.2 | 0.1 | | | 0.1 | | | | 1.0 | 0.8 | | | ns | 0.2 | 0.1 | 0.2 | 0.4 | 1.5 |
| Nitrate-N (mg/L) | 5.00 | 1.25 | 2.50 | 2.50 | | 8.75 | 6.25 | 5.00 | 3.75 | | 6.25 | 20.00 | 10.00 | 25.00 | | | 15.00 | | | | 2.50 | 5.00 | | | ns | 20.00 | 1.25 | 2.50 | 2.50 | 5.00 |
| Orthophosphate (mg/L) | 1.0 | 2.0 | 0.4 | 1.5 | | 0.3 | 0.2 | 0.1 | 0.1 | | 7.0 | 0.6 | nd | 0.6 | | | 0.3 | | | | 0.2 | 0.8 | | | ns | 0.8 | 0.1 | 0.2 | 0.2 | 3.5 |
| Orthophosphate-P (mg/L) | 0.33 | 0.65 | 0.13 | 0.50 | | 0.98 | 0.07 | 0.03 | 0.03 | | 2.28 | 0.20 | nd | 0.20 | | | 0.98 | | | | 0.07 | 0.26 | | | ns | 0.26 | 0.03 | 0.07 | 0.06 | 1.14 |
| Surfactants (mg/l MBAS)Field test | 0.13 | 0.38 | 0.25 | 0.25 | | 0.50 | 0.50 | 0.38 | 0.25 | | 0.13 | 0.25 | 0.38 | 0.63 | | | 0.38 | | | | 0.75 | 0.75 | | | ns | 0.50 | 0.25 | 0.25 | 0.25 | 0.50 |
| Surfactants (mg/l MBAS)Lab test | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Oil and Grease (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Hardness (mg/L) | | | | | | 907 | | 545 | | | | | 486 | | | | 584 | | | | | | | | | | 566 | | | |
| Cadmium-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Copper-diss (mg/L) | | | | | | nd | | 0.014 | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Lead-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Zinc-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Diazinon (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Chlorpyrifos (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Coliform (MPN/100mL) | | | | | | 24,000 | | 30,000 | | | | | 23,000 | | | | 13,000 | | | | | | | | | | 23,000 | | | |
| Fecal Coliform (MPN/100mL) | | | | | | 70 | | 270 | | | | | 2,300 | | | | 170 | | | | | | | | | | 1,700 | | | |
| Enterococcus (MPN/100mL) | | | | | | 1,300 | | 2,300 | | | | | 1,700 | | | | 2,300 | | | | | | | | | | 2,200 | | | |

# City of Santee Dry Weather Historical Data

| Site ID | A5c | E5g | G30c | H5e | I10d | J25c | J25c2 | J30d | K15j2 | O20b | O40b | P15b | P20f | Q5l | Q25k | Q26d | RCP1 | RCP2 | R10b | R20a | S5c | S15h | T5d | T5e | T30b | U10a | V40d | V45k | Y15e | Z15b |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2005 Round Two** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.℃ | 22.9 | 23.0 | 24.5 | 23.6 | | 23.1 | 25.3 | 25.4 | 23.7 | | 23.0 | 26.9 | 24.1 | 30.1 | | | 21.8 | | | | 24.0 | 22.6 | | | ns | 23.0 | 19.1 | 24.8 | 21.7 | 18.7 |
| pH | 8.5 | 7.3 | 8.4 | 8.7 | | 8.4 | 8.1 | 8.9 | 8.3 | | 8.0 | 7.6 | 8.9 | 8.2 | | | 8.5 | | | | 8.3 | 8.2 | | | ns | 7.6 | 8.8 | 8.2 | 7.9 | 8.4 |
| Conductivity (µmhos/cm) | 1,840 | 2,040 | 2,490 | 1,550 | | 3,450 | 5,380 | 2,150 | 1,800 | | 1,090 | 1,680 | 1,530 | 1,000 | | | 1,760 | | | | 1,310 | 1,400 | | | ns | 1,330 | 1,740 | 1,970 | 1,250 | 1,010 |
| Turbidity (NTU) | 14.94 | 28.68 | 1.47 | 3.31 | | 4.96 | 0.65 | 3.14 | 4.71 | | 4.77 | 3.79 | 1.45 | 444.00 | | | 0.44 | | | | 2.89 | 5.30 | | | ns | 3.04 | 7.03 | 1.78 | 4.55 | 3.20 |
| Ammonia-N (mg/L) | 0.8 | 2.5 | 0.3 | 0.6 | | 0.3 | 0.2 | 0.4 | 0.6 | | 0.4 | 0.1 | 0.2 | 0.3 | | | 0.1 | | | | 0.1 | 0.3 | | | ns | 0.3 | 0.1 | 0.2 | 0.8 | 0.4 |
| Nitrate-N (mg/L) | 2.50 | 1.25 | 2.50 | 1.25 | | 7.50 | 8.75 | 3.75 | 1.25 | | 2.50 | 25.00 | 10.00 | 2.50 | | | 20.00 | | | | 2.50 | 1.25 | | | ns | 1.25 | 1.25 | 2.50 | 2.50 | 2.50 |
| Orthophosphate (mg/L) | 3.0 | 0.8 | 1.0 | 2.0 | | 0.6 | 0.2 | 0.1 | 0.3 | | 1.0 | 0.6 | nd | 0.3 | | | 0.1 | | | | 0.8 | 1.0 | | | ns | 1.0 | 0.1 | nd | 1.0 | 2.0 |
| Orthophosphate-P (mg/L) | 0.98 | 0.26 | 0.33 | 0.65 | | 0.20 | 0.07 | 0.03 | 0.01 | | 0.33 | 0.20 | nd | 0.10 | | | 0.03 | | | | 0.26 | 0.33 | | | ns | 0.33 | 0.03 | nd | 0.33 | 0.63 |
| Surfactants (mg/l MBAS)Field test | 0.50 | 2.00 | 0.25 | 0.25 | | 0.50 | 0.75 | 0.25 | 0.63 | | 0.75 | 0.25 | 0.38 | 0.13 | | | 0.25 | | | | 0.25 | 0.50 | | | ns | 0.25 | 0.13 | 0.13 | 0.38 | 0.75 |
| Surfactants (mg/l MBAS)Lab test | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Oil and Grease (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Hardness (mg/L) | | | | | | 585 | | 510 | | | | | 401 | | | | 702 | | | | | | | | | | 494 | | | |
| Cadmium-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Copper-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Lead-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Zinc-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Diazinon (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Chlorpyrifos (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Coliform (MPN/100mL) | | | | | | 300,000 | | 900,000 | | | | | 130,000 | | | | 110,000 | | | | | | | | | | 1,600,000 | | | |
| Fecal Coliform (MPN/100mL) | | | | | | 22,000 | | 7,000 | | | | | 8,000 | | | | 11,000 | | | | | | | | | | 5,000 | | | |
| Enterococcus (MPN/100mL) | | | | | | 2,300 | | 30,000 | | | | | 500 | | | | 2,300 | | | | | | | | | | 2,300 | | | |
| **2006 Round One** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.℃ | 18.8 | 21.1 | 23.1 | 21.7 | | 20.4 | 23.2 | 28.2 | 23.0 | | 21.5 | 24.9 | 24.1 | 23.8 | | | 20.0 | | | | 22.1 | 23.6 | | | ns | 23.0 | 26.6 | 22.3 | 19.3 | 17.7 |
| pH | 8.2 | 7.2 | 8.1 | 8.3 | | 8.3 | 8.0 | 9.2 | 7.1 | | 7.5 | 7.6 | 8.8 | 8.1 | | | 8.4 | | | | 7.8 | 7.8 | | | ns | 7.4 | 8.9 | 7.6 | 7.5 | 8.2 |
| Conductivity (µmhos/cm) | 1,950 | 2,080 | 3,350 | 1,590 | | 3,990 | 5,440 | 2,270 | 1,860 | | 1,020 | 1,620 | 1,300 | 1,960 | | | 1,660 | | | | 1,070 | 1,160 | | | ns | 1,320 | 2,760 | 2,970 | 1,240 | 940 |
| Turbidity (NTU) | 2.50 | 19.29 | 2.55 | 1.81 | | 3.89 | 1.86 | 1.34 | 0.91 | | 2.14 | 2.33 | 2.05 | 53.00 | | | 1.94 | | | | 0.79 | 6.44 | | | ns | 57.00 | 4.27 | 2.00 | 20.12 | 4.26 |
| Ammonia-N (mg/L) | 0.8 | 0.8 | 0.2 | 0.3 | | 0.3 | 0.2 | 0.4 | 0.1 | | 0.8 | 0.1 | 0.2 | 0.2 | | | 0.1 | | | | 0.1 | 0.6 | | | ns | 0.7 | 0.2 | 0.1 | 0.2 | 0.1 |
| Nitrate-N (mg/L) | 3.75 | 1.25 | 1.25 | 1.25 | | 5.00 | 7.50 | 3.75 | 5.00 | | 1.25 | 15.00 | 2.50 | 5.00 | | | 15.00 | | | | 1.25 | 2.50 | | | ns | 1.25 | 1.25 | 2.50 | 7.50 | 3.75 |
| Orthophosphate (mg/L) | 3.5 | 2.0 | 0.4 | 0.6 | | 0.3 | 0.3 | 0.1 | 0.2 | | 0.6 | 0.7 | 0.1 | 2.5 | | | 0.2 | | | | 0.4 | 1.5 | | | ns | 2.0 | 0.3 | 0.3 | 0.7 | 0.6 |
| Orthophosphate-P (mg/L) | 1.14 | 0.65 | 0.13 | 0.20 | | 0.10 | 0.10 | 0.03 | 0.07 | | 0.20 | 0.23 | 0.03 | 0.82 | | | 0.07 | | | | 0.13 | 0.49 | | | ns | 0.65 | 0.10 | 0.10 | 0.23 | 0.20 |
| Surfactants (mg/l MBAS)Field test | 0.75 | 0.50 | 0.50 | 0.75 | | 0.50 | 0.50 | 0.25 | 0.25 | | 0.25 | 0.50 | 0.25 | >3.0 | | | 0.25 | | | | 0.25 | 0.50 | | | ns | 0.25 | 0.50 | 0.50 | 0.50 | 0.25 |
| Surfactants (mg/l MBAS)Lab test | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Oil and Grease (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Hardness (mg/L) | | | | | | 826 | | 563 | | | | | 366 | | | | 574 | | | | | | | | | | 709 | | | |
| Cadmium-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Copper-diss (mg/L) | | | | | | 0.012 | | 0.008 | | | | | 0.009 | | | | nd | | | | | | | | | | 0.010 | | | |
| Lead-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Zinc-diss (mg/L) | | | | | | nd | | nd | | | | | 0.024 | | | | 0.021 | | | | | | | | | | nd | | | |
| Diazinon (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Chlorpyrifos (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Coliform (MPN/100mL) | | | | | | 1,600,000 | | 900,000 | | | | | 220,000 | | | | 5,000 | | | | | | | | | | 240,000 | | | |
| Fecal Coliform (MPN/100mL) | | | | | | 14,000 | | 1,400 | | | | | 3,000 | | | | 230 | | | | | | | | | | 800 | | | |
| Enterococcus (MPN/100mL) | | | | | | 130,000 | | 500 | | | | | 5,000 | | | | 130 | | | | | | | | | | 800 | | | |
| **2006 Round Two** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.℃ | 24.3 | 23.2 | 22.3 | 22.3 | | 21.6 | 24.0 | 26.5 | 23.9 | | 20.6 | 26.2 | 20.2 | 27.1 | | | 21.6 | | | | 24.7 | 22.8 | | | ns | 19.9 | 19.0 | 20.8 | 21.5 | 19.0 |
| pH | 8.8 | 7.9 | 7.7 | 8.8 | | 8.4 | 8.1 | 9.4 | 7.7 | | 8.7 | 8.0 | 9.2 | 8.2 | | | 8.6 | | | | 7.9 | 7.9 | | | ns | 8.4 | 8.5 | 8.0 | 8.2 | 8.5 |
| Conductivity (µmhos/cm) | 1,840 | 1,150 | 1,690 | 1,550 | | 2,660 | 5,370 | 2,140 | 1,860 | | 1,440 | 1,570 | 1,280 | 2,100 | | | 1,610 | | | | 1,000 | 1,530 | | | ns | 900 | 2,610 | 2,650 | 1,400 | 930 |
| Turbidity (NTU) | 12.20 | 4.58 | 15.54 | 2.08 | | 2.42 | 1.20 | 5.98 | 3.90 | | 6.38 | 2.15 | 3.89 | 29.59 | | | 2.91 | | | | 6.38 | 6.96 | | | ns | 8.27 | 4.15 | 1.77 | 26.66 | 4.11 |
| Ammonia-N (mg/L) | 0.4 | 0.4 | 0.1 | 0.2 | | 0.3 | 0.2 | 0.2 | 0.1 | | 0.2 | 0.1 | 0.1 | 1.3 | | | 0.1 | | | | 0.1 | 0.6 | | | ns | 0.6 | 0.2 | 0.2 | 0.3 | 0.2 |
| Nitrate-N (mg/L) | 3.75 | 1.25 | 3.75 | 1.25 | | 3.75 | 6.25 | 2.50 | 2.50 | | 6.25 | 10.00 | 3.75 | 3.75 | | | 10.00 | | | | 3.75 | 1.25 | | | ns | 2.50 | 1.25 | 2.50 | 5.00 | 2.50 |
| Orthophosphate (mg/L) | 3.0 | 0.2 | 0.6 | 2.0 | | 0.6 | 0.4 | nd | 0.1 | | 1.5 | 0.4 | 0.2 | 3.5 | | | 0.2 | | | | 0.4 | 2.0 | | | ns | 1.5 | 0.4 | 0.3 | 0.6 | 1.5 |
| Orthophosphate-P (mg/L) | 0.98 | 0.07 | 0.20 | 0.65 | | 0.20 | 0.13 | nd | 0.03 | | 0.49 | 0.13 | 0.07 | 1.14 | | | 0.07 | | | | 0.13 | 0.65 | | | ns | 0.49 | 0.13 | 0.10 | 0.20 | 0.49 |
| Surfactants (mg/l MBAS)Field test | 0.25 | 0.25 | 0.75 | 0.25 | | 0.25 | 0.25 | 0.25 | 0.13 | | 0.25 | 0.13 | 0.50 | 3.00 | | | 0.25 | | | | 0.25 | 0.50 | | | ns | 0.25 | 0.75 | 0.25 | 0.67 | 0.25 |
| Surfactants (mg/l MBAS)Lab test | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Oil and Grease (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Hardness (mg/L) | | | | | | 580 | | 475 | | | | | 385 | | | | 531 | | | | | | | | | | 707 | | | |
| Cadmium-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Copper-diss (mg/L) | | | | | | 0.011 | | 0.006 | | | | | 0.008 | | | | nd | | | | | | | | | | nd | | | |
| Lead-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Zinc-diss (mg/L) | | | | | | 0.022 | | nd | | | | | 0.027 | | | | nd | | | | | | | | | | 0.024 | | | |
| Diazinon (µg/L) | | | | | | 3.91 | | 0.28 | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Chlorpyrifos (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Coliform (MPN/100mL) | | | | | | 170,000 | | 80,000 | | | | | 130,000 | | | | 30,000 | | | | | | | | | | 22,000 | | | |
| Fecal Coliform (MPN/100mL) | | | | | | 24,000 | | 13,000 | | | | | 5,000 | | | | 8,000 | | | | | | | | | | 5,000 | | | |
| Enterococcus (MPN/100mL) | | | | | | 30,000 | | 24,000 | | | | | 500 | | | | 300 | | | | | | | | | | 2,300 | | | |

# City of Santee Dry Weather Historical Data

| Site ID | A5c | E5g | G30c | H5e | I10d | J25c | J25c2 | J30d | K15j2 | O20b | O40b | P15b | P20f | Q5l | Q25k | Q26d | RCP1 | RCP2 | R10b | R20a | S5c | S15h | T5d | T5e | T30b | U10a | V40d | V45k | Y15e | Z15b |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2007 Round One** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.℃ | 18.0 | 18.9 | 18.3 | 17.6 | | 20.0 | 19.3 | 24.4 | 18.8 | | 21.3 | 22.0 | 21.8 | 21.0 | | | 19.3 | | | | 22.2 | 22.1 | | | | 28.7 | 18.1 | 22.0 | 19.4 | 16.8 |
| pH | 8.2 | 7.5 | 9.2 | 8.3 | | 8.3 | 8.2 | 8.9 | 8.5 | | 8.1 | 7.9 | 9.2 | 8.2 | | | 8.5 | | | | 7.8 | 8.2 | | | | 8.8 | 8.7 | 7.8 | 7.5 | 8.2 |
| Conductivity (mS/cm) | 1.57 | 2.52 | 1.60 | 1.92 | | 3.81 | 5.37 | 2.27 | 1.95 | | 1.33 | 1.57 | 1.11 | 2.17 | | | 1.57 | | | | 1.04 | 1.44 | | | | 1.26 | 2.27 | 2.46 | 1.29 | 1.02 |
| Turbidity (NTU) | 4.78 | 5.22 | 4.93 | 4.15 | | 3.31 | 1.26 | 3.32 | 1.77 | | 5.56 | 11.79 | 3.45 | 48.79 | | | 0.25 | | | | 2.01 | 9.08 | | | | 10.86 | 3.32 | 2.53 | 7.32 | 3.04 |
| Ammonia-N (mg/L) | nd | 0.4 | nd | 0.1 | | 0.2 | 0.1 | 0.4 | 0.1 | | 0.8 | nd | 0.1 | 0.3 | | | 0.1 | | | | nd | 0.3 | | | | 0.4 | 0.1 | 0.2 | 0.1 | nd |
| Nitrate-N (mg/L) | 6.90 | 0.95 | 0.97 | 2.37 | | 4.75 | 9.65 | 3.00 | 3.53 | | 4.00 | 11.50 | 1.29 | 26.20 | | | 8.10 | | | | 1.08 | 9.40 | | | | 0.70 | 0.50 | 0.23 | 2.78 | 2.03 |
| Orthophosphate (mg/L) | 1.4 | 0.9 | 1.2 | 1.8 | | 0.4 | 0.2 | 1.0 | 0.1 | | 1.6 | 0.6 | 0.1 | 2.3 | | | 0.5 | | | | 1.0 | 3.8 | | | | 1.9 | 0.1 | 0.3 | 0.7 | 0.7 |
| Orthophosphate-P (mg/L) | 0.46 | 0.29 | 0.39 | 0.59 | | 0.13 | 0.07 | 0.03 | 0.03 | | 0.52 | 0.20 | 0.03 | 0.75 | | | 0.16 | | | | 0.33 | 1.24 | | | | 0.62 | 0.03 | 0.10 | 0.23 | 0.23 |
| Surfactants (mg/l MBAS)Field test | 0.50 | 0.50 | 0.75 | 0.50 | | 1.00 | 0.75 | 0.38 | 0.25 | | 0.50 | 0.25 | 0.38 | 3.00 | | | 0.25 | | | | 0.50 | 0.75 | | | | 0.50 | 0.38 | 0.25 | 0.50 | 0.38 |
| Surfactants (mg/l MBAS)Lab test | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Oil and Grease (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Hardness (mg/L) | | | | | | 808 | | 573 | | | | | 358 | | | | 577 | | | | | | | | | | 662 | | | |
| Cadmium-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Copper-diss (mg/L) | | | | | | 0.009 | | 0.007 | | | | | nd | | | | 0.010 | | | | | | | | | | nd | | | |
| Lead-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Zinc-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Diazinon (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Chlorpyrifos (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Coliform (MPN/100mL) | | | | | | 13,000 | | 23,000 | | | | | 23,000 | | | | 13,000 | | | | | | | | | | 50,000 | | | |
| Fecal Coliform (MPN/100mL) | | | | | | 5,000 | | 800 | | | | | 330 | | | | 1,700 | | | | | | | | | | 1,100 | | | |
| *Enterococcus* (MPN/100mL) | | | | | | 1,300 | | 800 | | | | | 800 | | | | 2,800 | | | | | | | | | | 1,300 | | | |
| **2007 Round Two** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.℃ | 23.5 | 20.2 | 21.5 | 20.1 | | 23.4 | 24.9 | 24.5 | 21.0 | | 20.9 | 27.4 | 17.7 | 24.5 | | | 22.0 | | | | 24.8 | 19.8 | | | | 26.8 | 20.8 | 22.7 | 18.3 | 17.5 |
| pH | 8.3 | 7.4 | 8.1 | 8.5 | | 8.2 | 7.9 | 8.4 | 7.5 | | 7.8 | 7.8 | 8.1 | 8.2 | | | 8.1 | | | | 7.6 | 7.5 | | | | 8.9 | 8.7 | 7.8 | 7.4 | 8.0 |
| Conductivity (mS/cm) | 1.81 | 2.20 | 1.49 | 1.27 | | 3.33 | 4.60 | 2.17 | 1.75 | | 1.26 | 1.48 | 1.34 | 1.73 | | | 1.44 | | | | 1.13 | 1.51 | | | | 1.55 | 2.04 | 2.09 | 1.44 | 0.87 |
| Turbidity (NTU) | 3.73 | 2.03 | 0.10 | 4.38 | | 0.10 | 0.10 | 0.10 | 0.12 | | 0.90 | 0.82 | 0.82 | 16.09 | | | 0.10 | | | | 2.46 | 2.14 | | | | 1.85 | 0.10 | 0.10 | 4.71 | 0.10 |
| Ammonia-N (mg/L) | 0.2 | 0.2 | nd | 0.1 | | 0.2 | 0.2 | 0.4 | 0.2 | | nd | 0.1 | nd | 0.6 | | | nd | | | | nd | 0.1 | | | | 0.1 | 0.1 | 0.1 | 0.3 | nd |
| Nitrate-N (mg/L) | 3.19 | 0.97 | 0.88 | 0.66 | | 5.31 | 7.46 | 3.28 | 4.54 | | 2.71 | 15.37 | 3.71 | 4.29 | | | 13.10 | | | | 0.41 | 5.88 | | | | 0.90 | 0.63 | 0.66 | 1.08 | 1.06 |
| Orthophosphate (mg/L) | 3.0 | 2.2 | 0.7 | 2.6 | | 0.6 | 0.5 | 0.2 | 0.2 | | 2.3 | 0.6 | 0.6 | 4.2 | | | 0.6 | | | | 6.7 | 2.8 | | | | 1.5 | 0.2 | 0.4 | 2.9 | 0.9 |
| Orthophosphate-P (mg/L) | 0.98 | 0.72 | 0.23 | 0.85 | | 0.20 | 0.16 | 0.07 | 0.07 | | 0.75 | 0.20 | 0.20 | 1.37 | | | 0.20 | | | | 2.18 | 0.91 | | | | 0.49 | 0.07 | 0.13 | 0.95 | 0.29 |
| Surfactants (mg/l MBAS)Field test | 0.50 | 0.63 | 0.13 | 0.50 | | 0.50 | 0.50 | 0.25 | 0.38 | | 0.75 | 0.13 | 0.50 | 0.50 | | | 0.25 | | | | 0.75 | 0.75 | | | | 0.38 | 0.50 | 0.25 | 0.75 | 0.13 |
| Surfactants (mg/l MBAS)Lab test | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Oil and Grease (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Hardness (mg/L) | | | | | | 765 | | 629 | | | | | 479 | | | | 436 | | | | | | | | | | 606 | | | |
| Cadmium-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Copper-diss (mg/L) | | | | | | 0.012 | | 0.005 | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Lead-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Zinc-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Diazinon (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Chlorpyrifos (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Coliform (MPN/100mL) | | | | | | 50,000 | | 13,000 | | | | | 50,000 | | | | 23,000 | | | | | | | | | | 30,000 | | | |
| Fecal Coliform (MPN/100mL) | | | | | | 24,000 | | 13,000 | | | | | 5,000 | | | | 23,000 | | | | | | | | | | 500 | | | |
| Enterococcus (MPN/100mL) | | | | | | 8,000 | | 5,000 | | | | | 2,300 | | | | 24,000 | | | | | | | | | | 230 | | | |
| **2008 Round One** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.℃ | 24.8 | 21.8 | 19.9 | 20.4 | | 19.5 | 21.3 | 26.2 | 21.4 | | 18.9 | 23.7 | 22.7 | 23.3 | | | 18.6 | | | | 21.2 | 21.2 | | | | 19.2 | 21.5 | 23.4 | 20.5 | 15.8 |
| pH | 8.3 | 7.4 | 8.2 | 8.1 | | 8.2 | 7.8 | 9.1 | 7.0 | | 8.2 | 7.5 | 7.8 | 8.0 | | | 8.2 | | | | 7.6 | 8.2 | | | | 7.8 | 8.4 | 7.8 | 7.5 | 7.7 |
| Conductivity (mS/cm) | 1.94 | 2.66 | 1.38 | 2.36 | | 4.29 | 5.20 | 2.38 | 2.21 | | 1.95 | 1.67 | 1.26 | 1.89 | | | 1.63 | | | | 1.37 | 1.65 | | | | 1.45 | 2.89 | 3.03 | 1.57 | 1.20 |
| Turbidity (NTU) | 1.14 | 0.01 | 0.01 | 0.27 | | 0.01 | 0.01 | 0.52 | 0.01 | | 0.01 | 1.41 | 0.74 | 0.87 | | | 0.01 | | | | 1.04 | 1.35 | | | | 0.01 | 0.20 | 0.01 | 0.01 | 0.04 |
| Ammonia-N (mg/L) | 0.1 | 1.4 | nd | 0.3 | | 0.2 | 0.1 | 0.4 | 0.1 | | 0.2 | 0.1 | 0.1 | 0.2 | | | nd | | | | 0.1 | 0.1 | | | | nd | 0.2 | 0.2 | 0.1 | nd |
| Surfactants (mg/l MBAS) | 0.38 | 0.50 | 0.13 | 0.75 | | 0.50 | 0.50 | 0.38 | 0.25 | | 0.63 | 0.38 | 0.13 | 0.50 | | | 0.25 | | | | 0.38 | 0.50 | | | | 0.75 | 0.50 | 0.50 | 0.50 | 0.38 |
| Nitrate-N (mg/L) | 1.0 | 3.5 | 1.4 | 1.8 | | 9.1 | 8.7 | 2.2 | 8.0 | | 17.9 | 14.7 | 0.8 | 22.6 | | | 15.4 | | | | 2.0 | 9.0 | | | | 0.6 | 0.7 | 0.7 | 3.5 | 3.1 |
| Orthophosphate-P (mg/L) | 0.30 | 0.16 | 0.07 | 0.40 | | 0.13 | 0.20 | 0.07 | 0.50 | | 0.20 | 0.20 | 0.20 | 0.30 | | | 0.10 | | | | 0.13 | 0.50 | | | | 0.30 | nd | 0.07 | 0.13 | 0.20 |
| Oil and Grease (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Hardness (mg/L) | | | | | | 822 | | 617 | | | | | 408 | | | | 557 | | | | | | | | | | 748 | | | |
| Cadmium-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Copper-diss (mg/L) | | | | | | 0.008 | | 0.005 | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Lead-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Zinc-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Diazinon (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Chlorpyrifos (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Coliform (MPN/100mL) | | | | | | 600 | | 11,000 | | | | | 13,000 | | | | 7,000 | | | | | | | | | | 1,300 | | | |
| Fecal Coliform (MPN/100mL) | | | | | | 400 | | 3,000 | | | | | 300 | | | | 500 | | | | | | | | | | 130 | | | |
| Enterococcus (MPN/100mL) | | | | | | 800 | | 8,000 | | | | | 500 | | | | 480 | | | | | | | | | | 3,000 | | | |

# City of Santee Dry Weather Historical Data

| Site ID | A5c | E5g | G30c | H5e | I10d | J25c | J25c2 | J30d | K15j2 | O20b | O40b | P15b | P20f | Q5l | Q25k | Q26d | RCP1 | RCP2 | R10b | R20a | S5c | S15h | T5d | T5e | T30b | U10a | V40d | V45k | Y15e | Z15b |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2008 Round Two** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp.℃ | 23.4 | 24.8 | 33.3 | 26.4 | | 27.8 | 27.3 | 27.4 | 25.5 | | 27.1 | 27.8 | 29.0 | 29.5 | | | 25.3 | | | | 23.8 | 27.4 | | | | 27.2 | 33.2 | 27.0 | 25.3 | 28.1 |
| pH | 8.3 | 7.6 | 9.4 | 8.4 | | 8.4 | 7.9 | 8.3 | 7.8 | | 7.8 | 7.8 | 8.9 | 7.7 | | | 8.5 | | | | 8.3 | 8.0 | | | | 9.3 | 9.2 | 7.8 | 7.6 | 7.5 |
| Conductivity (mS/cm) | 1.76 | 2.88 | 2.11 | 2.15 | | 2.79 | 4.84 | 2.16 | 2.09 | | 1.23 | 1.58 | 1.23 | 2.09 | | | 1.73 | | | | 1.26 | 1.44 | | | | 1.56 | 3.05 | 3.38 | 1.42 | 1.37 |
| Turbidity (NTU) | 190.00 | 10.63 | 11.58 | 0.01 | | 0.82 | 0.01 | 1.69 | 0.01 | | 3.24 | 0.01 | 0.90 | 239.00 | | | 0.01 | | | | 1.29 | 6.80 | | | | 11.74 | 0.50 | 3.34 | 1.24 | 3.85 |
| Ammonia-N (mg/L) | 0.179 | 0.424 | 0.446 | 0.244 | | 0.222 | 0.303 | 0.311 | 0.245 | | 0.554 | 0.191 | 0.236 | 1.760 | | | 0.212 | | | | 0.026 | 0.216 | | | | 0.523 | 0.279 | 0.278 | 0.116 | 0.348 |
| Surfactants (mg/l MBAS) | 0.13 | 0.25 | 0.25 | 0.13 | | 0.25 | 0.38 | 0.25 | 0.13 | | 0.13 | 0.13 | 0.25 | 0.75 | | | 0.25 | | | | 0.13 | 0.38 | | | | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| Nitrate-N (mg/L) | 2.32 | 1.40 | 1.13 | 3.02 | | 4.00 | 7.18 | 2.46 | 4.08 | | 0.74 | 12.06 | 0.64 | 0.95 | | | 9.50 | | | | 1.89 | 1.06 | | | | 1.20 | 0.72 | 0.73 | 1.55 | 1.61 |
| Orthophosphate-P (mg/L) | 1.172 | 0.315 | 0.329 | 0.510 | | 0.384 | 0.295 | 0.056 | nd | | 0.005 | 0.165 | 0.053 | 2.925 | | | 0.080 | | | | 0.562 | 0.401 | | | | 0.474 | 0.011 | 0.177 | 0.180 | 0.377 |
| Oil and Grease (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Hardness (mg/L) | | | | | | 614 | | 590 | | | | | 372 | | | | 587 | | | | | | | | | | 749 | | | |
| Cadmiu-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Copper-diss (mg/L) | | | | | | 0.01600 | | 0.00673 | | | | | 0.00319 | | | | 0.00413 | | | | | | | | | | 0.00737 | | | |
| Lead-diss (mg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Zinc-diss (mg/L) | | | | | | 0.0188 | | 0.0172 | | | | | 0.0173 | | | | 0.0226 | | | | | | | | | | 0.0135 | | | |
| Diazinon (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Chlorpyrifos (µg/L) | | | | | | nd | | nd | | | | | nd | | | | nd | | | | | | | | | | nd | | | |
| Total Coliform (MPN/100mL) | | | | | | 140,000 | | 240,000 | | | | | 5,000 | | | | 14,000 | | | | | | | | | | 800 | | | |
| Fecal Coliform (MPN/100mL) | | | | | | 5,000 | | 28,000 | | | | | 800 | | | | 9,000 | | | | | | | | | | 300 | | | |
| Enterococcus (MPN/100mL) | | | | | | 13,000 | | 160,000 | | | | | 20 | | | | 14,000 | | | | | | | | | | 500 | | | |

# Appendix B

# Photographs of Sampling Locations

| | |
|---|---|
| **Site A5c** | |
| **Site E5g** | |
| **Site G30c** | |

| | |
|---|---|
| **Site H5e** | |
| **Site J25c** | |
| **Site J25c2** | |

| | |
|---|---|
| **Site J30d** | |
| **Site K15j2** | |
| **Site O40b** | |

| | |
|---|---|
| **Site P15b** | |
| **Site P20f** | |
| **Site Q5l** | |

| | |
|---|---|
| **Site RCP1** | |
| **Site RCR3** | |
| **Site S5c** | |

| | |
|---|---|
| **Site S15h** | |
| **Site T5e** | |
| **Site U10a** | |

| | |
|---|---|
| **Site V40d** | |
| **Site V45k** | |
| **Site Y15e** | |

| | |
|---|---|
| **Site Z15b** | |

# Appendix C

# Laboratory Analytical Reports

# Round One

**EnviroMatrix Analytical, Inc.**

29 May 2009

D-Max Engineering
Attn: Arsalan Dadkhah
7220 Trade Street, Suite 119
San Diego, California 92121

**EMA Log #: 0905606**

**Project Name: Santee Dry Weather**
**Project Desc./#:200919W-1 Round One**

Enclosed are the results of analyses for samples received by the laboratory on 05/21/09 13:29. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

**Dan Verdon**
**Laboratory Director**

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
**Analytical Chemistry Laboratory**

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905606**

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| RCP1 | 0905606-01 | Water | 05/21/09 10:45 | 05/21/09 13:29 |
| P2of | 0905606-02 | Water | 05/21/09 11:40 | 05/21/09 13:29 |
| J25C | 0905606-03 | Water | 05/21/09 12:15 | 05/21/09 13:29 |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905606**

# Metals (Dissolved) by EPA 6000/7000 Series Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **RCP1 (0905606-01) Water Sampled: 05/21/09 10:45 Received: 05/21/09 13:29** | | | | | | | | | |
| Cadmium | ND | 0.005 | mg/l | 1 | 9052308 | 05/23/09 | 05/23/09 | EPA 6020 | |
| Copper | ND | 0.005 | " | " | " | " | " | " | |
| Lead | ND | 0.005 | " | " | " | " | " | " | |
| Zinc | ND | 0.020 | " | " | " | " | " | " | |
| **P2of (0905606-02) Water Sampled: 05/21/09 11:40 Received: 05/21/09 13:29** | | | | | | | | | |
| Copper | ND | 0.005 | mg/l | 1 | 9052308 | 05/23/09 | 05/23/09 | EPA 6020 | |
| Cadmium | ND | 0.005 | " | " | " | " | " | " | |
| Lead | ND | 0.005 | " | " | " | " | " | " | |
| Zinc | ND | 0.020 | " | " | " | " | " | " | |
| **J25C (0905606-03) Water Sampled: 05/21/09 12:15 Received: 05/21/09 13:29** | | | | | | | | | |
| Zinc | ND | 0.020 | mg/l | 1 | 9052308 | 05/23/09 | 05/23/09 | EPA 6020 | |
| Lead | ND | 0.005 | " | " | " | " | " | " | |
| **Copper** | **0.006** | 0.005 | " | " | " | " | " | " | |
| Cadmium | ND | 0.005 | " | " | " | " | " | " | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905606**

# Organophosphorus Pesticides by EPA Method 8141A

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **RCP1 (0905606-01) Water Sampled: 05/21/09 10:45 Received: 05/21/09 13:29** | | | | | | | | | **GC-05** |
| Chlorpyrifos | ND | 0.05 | ug/l | 1 | 9052205 | 05/21/09 | 05/29/09 | EPA 8141A | |
| Diazinon | ND | 0.05 | " | " | " | " | " | " | |
| Malathion | ND | 0.05 | " | " | " | " | " | " | |
| *Surrogate: Triphenyl phosphate* | | *92 %* | *60-130* | | " | " | " | " | |
| *Surrogate: Tribuytlphosphate* | | *80 %* | *60-130* | | " | " | " | " | |
| **P2of (0905606-02) Water Sampled: 05/21/09 11:40 Received: 05/21/09 13:29** | | | | | | | | | **GC-05** |
| Chlorpyrifos | ND | 0.05 | ug/l | 1 | 9052205 | 05/21/09 | 05/29/09 | EPA 8141A | |
| Diazinon | ND | 0.05 | " | " | " | " | " | " | |
| Malathion | ND | 0.05 | " | " | " | " | " | " | |
| *Surrogate: Triphenyl phosphate* | | *88 %* | *60-130* | | " | " | " | " | |
| *Surrogate: Tribuytlphosphate* | | *92 %* | *60-130* | | " | " | " | " | |
| **J25C (0905606-03) Water Sampled: 05/21/09 12:15 Received: 05/21/09 13:29** | | | | | | | | | **GC-05** |
| Chlorpyrifos | ND | 0.05 | ug/l | 1 | 9052205 | 05/21/09 | 05/29/09 | EPA 8141A | |
| Diazinon | ND | 0.05 | " | " | " | " | " | " | |
| Malathion | ND | 0.05 | " | " | " | " | " | " | |
| *Surrogate: Triphenyl phosphate* | | *76 %* | *60-130* | | " | " | " | " | |
| *Surrogate: Tribuytlphosphate* | | *60 %* | *60-130* | | " | " | " | " | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905606**

## Conventional Chemistry Parameters by Standard/EPA Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **RCP1 (0905606-01) Water Sampled: 05/21/09 10:45 Received: 05/21/09 13:29** | | | | | | | | | |
| **Hardness (Total)** | **520** | 100 | mg CaCO3/L | 10 | 9052651 | 05/26/09 | 05/27/09 | EPA 200.7 | |
| Oil & Grease | ND | 5 | mg/l | 1 | 9052746 | 05/27/09 | 05/27/09 | EPA 1664A | |
| **P2of (0905606-02) Water Sampled: 05/21/09 11:40 Received: 05/21/09 13:29** | | | | | | | | | |
| **Hardness (Total)** | **356** | 100 | mg CaCO3/L | 10 | 9052651 | 05/26/09 | 05/28/09 | EPA 200.7 | |
| Oil & Grease | ND | 5 | mg/l | 1 | 9052746 | 05/27/09 | 05/27/09 | EPA 1664A | |
| **J25C (0905606-03) Water Sampled: 05/21/09 12:15 Received: 05/21/09 13:29** | | | | | | | | | |
| **Hardness (Total)** | **780** | 100 | mg CaCO3/L | 10 | 9052651 | 05/26/09 | 05/28/09 | EPA 200.7 | |
| Oil & Grease | ND | 5 | mg/l | 1 | 9052746 | 05/27/09 | 05/27/09 | EPA 1664A | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905606**

# Microbiological Parameters by Standard Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **RCP1 (0905606-01) Water Sampled: 05/21/09 10:45 Received: 05/21/09 13:29** | | | | | | | | | |
| **Total Coliforms** | **8000** | 200 | MPN/100 ml | 100 | 9052622 | 05/21/09 | 05/25/09 | SM 9221 B, E | |
| **Fecal Coliforms** | **70** | 20 | " | 10 | " | " | 05/24/09 | " | |
| **Enterococcus** | **2300** | 200 | " | 100 | 9052623 | " | 05/25/09 | SM 9230 A, B | |
| **P2of (0905606-02) Water Sampled: 05/21/09 11:40 Received: 05/21/09 13:29** | | | | | | | | | |
| **Total Coliforms** | **11000** | 200 | MPN/100 ml | 100 | 9052622 | 05/21/09 | 05/25/09 | SM 9221 B, E | |
| **Fecal Coliforms** | **400** | 20 | " | 10 | " | " | 05/24/09 | " | |
| **Enterococcus** | **500** | 20 | " | " | 9052623 | " | 05/25/09 | SM 9230 A, B | |
| **J25C (0905606-03) Water Sampled: 05/21/09 12:15 Received: 05/21/09 13:29** | | | | | | | | | |
| **Total Coliforms** | **8000** | 200 | MPN/100 ml | 100 | 9052622 | 05/21/09 | 05/25/09 | SM 9221 B, E | |
| **Fecal Coliforms** | **170** | 20 | " | 10 | " | " | 05/24/09 | " | |
| **Enterococcus** | **1300** | 20 | " | " | 9052623 | " | 05/25/09 | SM 9230 A, B | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905606**

# Metals (Dissolved) by EPA 6000/7000 Series Methods - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9052308** | | | | | | | | | | |
| **Blank (9052308-BLK1)** | | | | Prepared & Analyzed: 05/23/09 | | | | | | |
| Cadmium | ND | 0.005 | mg/l | | | | | | | |
| Copper | ND | 0.005 | " | | | | | | | |
| Lead | ND | 0.005 | " | | | | | | | |
| Zinc | ND | 0.020 | " | | | | | | | |
| **LCS (9052308-BS1)** | | | | Prepared & Analyzed: 05/23/09 | | | | | | |
| Zinc | 0.050 | 0.020 | mg/l | 0.0500 | | 101 | 75-125 | | | |
| Lead | 0.052 | 0.005 | " | 0.0500 | | 104 | 75-125 | | | |
| Copper | 0.051 | 0.005 | " | 0.0500 | | 103 | 75-125 | | | |
| Cadmium | 0.051 | 0.005 | " | 0.0500 | | 101 | 75-125 | | | |
| **LCS Dup (9052308-BSD1)** | | | | Prepared & Analyzed: 05/23/09 | | | | | | |
| Zinc | 0.051 | 0.020 | mg/l | 0.0500 | | 101 | 75-125 | 0.8 | 20 | |
| Cadmium | 0.051 | 0.005 | " | 0.0500 | | 102 | 75-125 | 0.7 | 20 | |
| Lead | 0.049 | 0.005 | " | 0.0500 | | 99 | 75-125 | 5 | 20 | |
| Copper | 0.052 | 0.005 | " | 0.0500 | | 103 | 75-125 | 0.5 | 20 | |
| **Duplicate (9052308-DUP1)** | | **Source: 0905606-01** | | Prepared & Analyzed: 05/23/09 | | | | | | |
| Copper | 0.002 | 0.005 | mg/l | | 0.002 | | | 6 | 20 | |
| Cadmium | ND | 0.005 | " | | ND | | | | 20 | |
| Lead | ND | 0.005 | " | | ND | | | | 20 | |
| Zinc | ND | 0.020 | " | | ND | | | | 20 | |
| **Matrix Spike (9052308-MS1)** | | **Source: 0905606-01** | | Prepared & Analyzed: 05/23/09 | | | | | | |
| Zinc | 0.052 | 0.020 | mg/l | 0.0500 | ND | 104 | 75-125 | | | |
| Cadmium | 0.048 | 0.005 | " | 0.0500 | ND | 96 | 75-125 | | | |
| Copper | 0.048 | 0.005 | " | 0.0500 | 0.002 | 93 | 75-125 | | | |
| Lead | 0.053 | 0.005 | " | 0.0500 | ND | 105 | 75-125 | | | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905606**

# Metals (Dissolved) by EPA 6000/7000 Series Methods - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9052308** | | | | | | | | | | |
| **Matrix Spike Dup (9052308-MSD1)** | | **Source: 0905606-01** | | Prepared & Analyzed: 05/23/09 | | | | | | |
| Lead | 0.052 | 0.005 | mg/l | 0.0500 | ND | 104 | 75-125 | 2 | 20 | |
| Zinc | 0.052 | 0.020 | " | 0.0500 | ND | 104 | 75-125 | 0.06 | 20 | |
| Cadmium | 0.048 | 0.005 | " | 0.0500 | ND | 96 | 75-125 | 0.7 | 20 | |
| Copper | 0.048 | 0.005 | " | 0.0500 | 0.002 | 93 | 75-125 | 0.7 | 20 | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905606**

# Organophosphorus Pesticides by EPA Method 8141A - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9052205** | | | | | | | | | | |
| **Blank (9052205-BLK1)** | | | | Prepared: 05/21/09 Analyzed: 05/29/09 | | | | | | |
| Chlorpyrifos | ND | 0.05 | ug/l | | | | | | | |
| Diazinon | ND | 0.05 | " | | | | | | | |
| Malathion | ND | 0.05 | " | | | | | | | |
| *Surrogate: Triphenyl phosphate* | *0.210* | | *"* | *0.250* | | *84* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.190* | | *"* | *0.250* | | *76* | *60-130* | | | |
| **LCS (9052205-BS1)** | | | | Prepared: 05/21/09 Analyzed: 05/29/09 | | | | | | |
| Bolstar | 0.38 | 0.10 | ug/l | 0.500 | | 76 | 60-130 | | | |
| Diazinon | 0.46 | 0.05 | " | 0.500 | | 92 | 60-130 | | | |
| Ethoprop | 0.39 | 0.05 | " | 0.500 | | 78 | 60-130 | | | |
| Mevinphos | 0.38 | 0.25 | " | 0.500 | | 76 | 60-130 | | | |
| Methyl parathion | 0.37 | 0.10 | " | 0.500 | | 74 | 60-130 | | | |
| Phorate | 0.35 | 0.05 | " | 0.500 | | 70 | 60-130 | | | |
| Ronnel | 0.44 | 0.25 | " | 0.500 | | 88 | 60-130 | | | |
| Trichlorinate | 0.44 | 0.05 | " | 0.500 | | 88 | 60-130 | | | |
| *Surrogate: Triphenyl phosphate* | *0.250* | | *"* | *0.250* | | *100* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.200* | | *"* | *0.250* | | *80* | *60-130* | | | |
| **LCS Dup (9052205-BSD1)** | | | | Prepared: 05/21/09 Analyzed: 05/29/09 | | | | | | |
| Bolstar | 0.37 | 0.10 | ug/l | 0.500 | | 74 | 60-130 | 3 | 30 | |
| Diazinon | 0.45 | 0.05 | " | 0.500 | | 90 | 60-130 | 2 | 30 | |
| Ethoprop | 0.38 | 0.05 | " | 0.500 | | 76 | 60-130 | 3 | 30 | |
| Mevinphos | 0.39 | 0.25 | " | 0.500 | | 78 | 60-130 | 3 | 30 | |
| Methyl parathion | 0.35 | 0.10 | " | 0.500 | | 70 | 60-130 | 6 | 30 | |
| Phorate | 0.37 | 0.05 | " | 0.500 | | 74 | 60-130 | 6 | 30 | |
| Ronnel | 0.42 | 0.25 | " | 0.500 | | 84 | 60-130 | 5 | 30 | |
| Trichlorinate | 0.42 | 0.05 | " | 0.500 | | 84 | 60-130 | 5 | 30 | |
| *Surrogate: Triphenyl phosphate* | *0.250* | | *"* | *0.250* | | *100* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.180* | | *"* | *0.250* | | *72* | *60-130* | | | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905606**

# Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9052651** | | | | | | | | | | |
| **Blank (9052651-BLK1)** | | | | Prepared: 05/26/09 | Analyzed: 05/27/09 | | | | | |
| Hardness (Total) | ND | 10 | mg CaCO3/L | | | | | | | |
| **Duplicate (9052651-DUP1)** | | **Source: 0905606-01** | | Prepared: 05/26/09 | Analyzed: 05/27/09 | | | | | |
| Hardness (Total) | 525 | 100 | mg CaCO3/L | | 520 | | | 1 | 20 | |
| **Batch 9052746** | | | | | | | | | | |
| **Blank (9052746-BLK1)** | | | | Prepared & Analyzed: 05/27/09 | | | | | | |
| Oil & Grease | ND | 5 | mg/l | | | | | | | |
| **LCS (9052746-BS1)** | | | | Prepared & Analyzed: 05/27/09 | | | | | | |
| Oil & Grease | 33 | 5 | mg/l | 40.0 | | 84 | 78-114 | | | |
| **LCS Dup (9052746-BSD1)** | | | | Prepared & Analyzed: 05/27/09 | | | | | | |
| Oil & Grease | 32 | 5 | mg/l | 40.0 | | 80 | 78-114 | 4 | 20 | |
| **Matrix Spike (9052746-MS1)** | | **Source: 0905606-01** | | Prepared & Analyzed: 05/27/09 | | | | | | |
| Oil & Grease | 34 | 5 | mg/l | 40.0 | ND | 84 | 78-114 | | | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

## Notes and Definitions

| | |
|---|---|
| GC-05 | Results confirmed by GCMS. |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |

# CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

**EMA LOG #:** 09 05606

Client: D-Max Engineering, Inc.
Attn: Arsalan Dadkhah
Samplers(s): Manouchehr / Annika
Address: 7220 Trade street, suite 119
San Diego, CA 92121
Phone: (858) 586-6600 Fax: (858) 586-6644
Email:
Billing Address: Same
Santee Dry weather Round One
Project ID:
Project #: 200919W-1 PO #:

**Requested Analysis**

| ID # | Client Sample ID | Sample Date | Sample Time | Sample Matrix | Container # / Type | Oil & Grease □ 413.1 ☒ 413.2 ☒ 1664 | 8015B (TPH) □ Gas □ Diesel □ Ext | 624/8260 (VOC) Full BTXE MTBE Oxy Nap | 625 / 8270 (SVOC) □ PAH only | 608 / 8081 (Organochlorine Pesticides) | 608 / 8082 (Polychlorinated Biphenyls) | (8141) (Organophosphorus Pesticides) Dir/Chlor | TBT (Organotin Compounds) | □ pH □ EC □ TSS □TDS | □ Nitrate □ Nitrite □ TKN □NH3 | CAC Title 22/CAM17 Metals □ TTLC □ STLC | TCLP (RCRA) □ Metals □ Organics | Cd Cr Cu Pb Ni Ag Zn ☒ Dissolved | Coliform, ☒ Total (MTF) ☒ Fecal (MTF) | Colilert, T+E.Coli □ P/A □ Enumeration | Enterococcus, ☒ MTF □ Enterolert | Heterotrophic Plate Count (HPC) | Total Hardness | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RCP1 | 5/21/09 | 10:45 | water | 3/4 G/p | X | | | | | | X | | | | | | X | X | | X | | X | | | | | |
| 2 | P20f | " | 11:40 | " | 2/4 G/p | X | | | | | | X | | | | | | X | X | | X | | X | | | | | |
| 3 | J25C | " | 12:15 | " | 2/4 G/p | X | | | | | | X | | | | | | X | X | | X | | X | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**Matrix Codes:** A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

**Shipped By:** ☒ Courier □ UPS □ FedEx □ USPS □ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day ☒ 5 day □ STD (7 day)

[1]**Reporting Requirements:** □ Fax □ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** □ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

**Sample Integrity**

| | |
|---|---|
| Correct Containers: Yes No N/A | Containers Properly Preseved: Yes No N/A |
| Custody Seals Intact: Yes No N/A | Temp @ Receipt: |
| COC/Labels Agree: Yes No N/A | Sampled By: Client EMA Autosampler |

| RELINQUISHED BY | DATE/TIME | RECEIVED BY |
|---|---|---|
| Signature: Manouchehr Dadkhah<br>Print: Manouchehr Dadkhah<br>Company: D-Max Engr. | 5-21-09<br>1315 | Signature:<br>Print: Danny Huerta<br>Company: EMA |
| Signature:<br>Print: Danny Huerta<br>Company: EMA | 5-21-09<br>1329 | Signature:<br>Print: Sean Flum<br>Company: EMA |
| Signature:<br>Print:<br>Company: | | Signature:<br>Print:<br>Company: |

**Project/Sample Comments:**

6° on Ice

[1]Additional costs may apply, consult a project manager for details.
[2]EMA reserves the right to return any samples that do not match our waste profile.

White- EMA Canary - Accounting Pink - Client (w/report) Gold - Client (Relinquish)

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

**EnviroMatrix Analytical, Inc.**

01 June 2009

D-Max Engineering
Attn: Arsalan Dadkhah
7220 Trade Street, Suite 119
San Diego, California 92121

**EMA Log #: 0905626**

**Project Name: Santee Dry Weather**
**Project Desc./#:200919W-1 Round One**

Enclosed are the results of analyses for samples received by the laboratory on 05/22/09 13:20. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

**Dan Verdon**
**Laboratory Director**

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
**Analytical Chemistry Laboratory**

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905626**

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| J30d | 0905626-01 | Water | 05/22/09 09:50 | 05/22/09 13:20 |
| V40d | 0905626-02 | Water | 05/22/09 11:10 | 05/22/09 13:20 |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905626**

# Metals (Dissolved) by EPA 6000/7000 Series Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **J30d (0905626-01) Water Sampled: 05/22/09 09:50 Received: 05/22/09 13:20** | | | | | | | | | |
| Zinc | ND | 0.020 | mg/l | 1 | 9052308 | 05/23/09 | 05/23/09 | EPA 6020 | |
| Cadmium | ND | 0.005 | " | " | " | " | " | " | |
| Copper | ND | 0.005 | " | " | " | " | " | " | |
| Lead | ND | 0.005 | " | " | " | " | " | " | |
| **V40d (0905626-02) Water Sampled: 05/22/09 11:10 Received: 05/22/09 13:20** | | | | | | | | | |
| Zinc | ND | 0.020 | mg/l | 1 | 9052308 | 05/23/09 | 05/23/09 | EPA 6020 | |
| Lead | ND | 0.005 | " | " | " | " | " | " | |
| Copper | ND | 0.005 | " | " | " | " | " | " | |
| Cadmium | ND | 0.005 | " | " | " | " | " | " | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905626**

# Organophosphorus Pesticides by EPA Method 8141A

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **J30d (0905626-01) Water Sampled: 05/22/09 09:50 Received: 05/22/09 13:20** | | | | | | | | | **GC-05** |
| Chlorpyrifos | ND | 0.05 | ug/l | 1 | 9052648 | 05/26/09 | 05/29/09 | EPA 8141A | |
| Diazinon | ND | 0.05 | " | " | " | " | " | " | |
| Malathion | ND | 0.05 | " | " | " | " | " | " | |
| *Surrogate: Triphenyl phosphate* | | *88 %* | *60-130* | | " | " | " | " | |
| *Surrogate: Tribuytlphosphate* | | *76 %* | *60-130* | | " | " | " | " | |
| **V40d (0905626-02) Water Sampled: 05/22/09 11:10 Received: 05/22/09 13:20** | | | | | | | | | **GC-05** |
| Chlorpyrifos | ND | 0.05 | ug/l | 1 | 9052648 | 05/26/09 | 05/29/09 | EPA 8141A | |
| Diazinon | ND | 0.05 | " | " | " | " | " | " | |
| Malathion | ND | 0.05 | " | " | " | " | " | " | |
| *Surrogate: Triphenyl phosphate* | | *88 %* | *60-130* | | " | " | " | " | |
| *Surrogate: Tribuytlphosphate* | | *84 %* | *60-130* | | " | " | " | " | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905626**

## Conventional Chemistry Parameters by Standard/EPA Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **J30d (0905626-01) Water Sampled: 05/22/09 09:50 Received: 05/22/09 13:20** | | | | | | | | | |
| **Hardness (Total)** | **685** | 100 | mg CaCO3/L | 10 | 9052651 | 05/26/09 | 05/28/09 | EPA 200.7 | |
| Oil & Grease | ND | 5 | mg/l | 1 | 9052746 | 05/27/09 | 05/27/09 | EPA 1664A | |
| **V40d (0905626-02) Water Sampled: 05/22/09 11:10 Received: 05/22/09 13:20** | | | | | | | | | |
| **Hardness (Total)** | **1020** | 100 | mg CaCO3/L | 10 | 9052651 | 05/26/09 | 05/28/09 | EPA 200.7 | |
| Oil & Grease | ND | 5 | mg/l | 1 | 9052746 | 05/27/09 | 05/27/09 | EPA 1664A | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905626**

## Microbiological Parameters by Standard Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **J30d (0905626-01) Water Sampled: 05/22/09 09:50 Received: 05/22/09 13:20** | | | | | | | | | |
| **Total Coliforms** | **11000** | 200 | MPN/100 ml | 100 | 9052853 | 05/22/09 | 05/26/09 | SM 9221 B, E | |
| **Fecal Coliforms** | **3000** | 200 | " | " | " | " | 05/25/09 | " | |
| **Enterococcus** | **3000** | 200 | " | " | 9052854 | " | 05/26/09 | SM 9230 A, B | |
| **V40d (0905626-02) Water Sampled: 05/22/09 11:10 Received: 05/22/09 13:20** | | | | | | | | | |
| **Total Coliforms** | **1700** | 20 | MPN/100 ml | 10 | 9052853 | 05/22/09 | 05/26/09 | SM 9221 B, E | |
| **Fecal Coliforms** | **500** | 20 | " | " | " | " | 05/25/09 | " | |
| **Enterococcus** | **300** | 20 | " | " | 9052854 | " | 05/26/09 | SM 9230 A, B | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905626**

# Metals (Dissolved) by EPA 6000/7000 Series Methods - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9052308** | | | | | | | | | | |
| **Blank (9052308-BLK1)** | | | | Prepared & Analyzed: 05/23/09 | | | | | | |
| Copper | ND | 0.005 | mg/l | | | | | | | |
| Lead | ND | 0.005 | " | | | | | | | |
| Zinc | ND | 0.020 | " | | | | | | | |
| Cadmium | ND | 0.005 | " | | | | | | | |
| **LCS (9052308-BS1)** | | | | Prepared & Analyzed: 05/23/09 | | | | | | |
| Cadmium | 0.051 | 0.005 | mg/l | 0.0500 | | 101 | 75-125 | | | |
| Copper | 0.051 | 0.005 | " | 0.0500 | | 103 | 75-125 | | | |
| Lead | 0.052 | 0.005 | " | 0.0500 | | 104 | 75-125 | | | |
| Zinc | 0.050 | 0.020 | " | 0.0500 | | 101 | 75-125 | | | |
| **LCS Dup (9052308-BSD1)** | | | | Prepared & Analyzed: 05/23/09 | | | | | | |
| Cadmium | 0.051 | 0.005 | mg/l | 0.0500 | | 102 | 75-125 | 0.7 | 20 | |
| Zinc | 0.051 | 0.020 | " | 0.0500 | | 101 | 75-125 | 0.8 | 20 | |
| Copper | 0.052 | 0.005 | " | 0.0500 | | 103 | 75-125 | 0.5 | 20 | |
| Lead | 0.049 | 0.005 | " | 0.0500 | | 99 | 75-125 | 5 | 20 | |
| **Duplicate (9052308-DUP1)** | | **Source: 0905606-01** | | Prepared & Analyzed: 05/23/09 | | | | | | |
| Zinc | ND | 0.020 | mg/l | | ND | | | | 20 | |
| Cadmium | ND | 0.005 | " | | ND | | | | 20 | |
| Copper | 0.002 | 0.005 | " | | 0.002 | | | 6 | 20 | |
| Lead | ND | 0.005 | " | | ND | | | | 20 | |
| **Matrix Spike (9052308-MS1)** | | **Source: 0905606-01** | | Prepared & Analyzed: 05/23/09 | | | | | | |
| Zinc | 0.052 | 0.020 | mg/l | 0.0500 | ND | 104 | 75-125 | | | |
| Lead | 0.053 | 0.005 | " | 0.0500 | ND | 105 | 75-125 | | | |
| Cadmium | 0.048 | 0.005 | " | 0.0500 | ND | 96 | 75-125 | | | |
| Copper | 0.048 | 0.005 | " | 0.0500 | 0.002 | 93 | 75-125 | | | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905626**

# Metals (Dissolved) by EPA 6000/7000 Series Methods - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9052308** | | | | | | | | | | |
| **Matrix Spike Dup (9052308-MSD1)** | | **Source: 0905606-01** | | Prepared & Analyzed: 05/23/09 | | | | | | |
| Cadmium | 0.048 | 0.005 | mg/l | 0.0500 | ND | 96 | 75-125 | 0.7 | 20 | |
| Copper | 0.048 | 0.005 | " | 0.0500 | 0.002 | 93 | 75-125 | 0.7 | 20 | |
| Lead | 0.052 | 0.005 | " | 0.0500 | ND | 104 | 75-125 | 2 | 20 | |
| Zinc | 0.052 | 0.020 | " | 0.0500 | ND | 104 | 75-125 | 0.06 | 20 | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905626**

# Organophosphorus Pesticides by EPA Method 8141A - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9052648** | | | | | | | | | | |
| **Blank (9052648-BLK1)** | | | | Prepared: 05/26/09 Analyzed: 05/28/09 | | | | | | |
| Chlorpyrifos | ND | 0.05 | ug/l | | | | | | | |
| Diazinon | ND | 0.05 | " | | | | | | | |
| Malathion | ND | 0.05 | " | | | | | | | |
| *Surrogate: Triphenyl phosphate* | *0.250* | | *"* | *0.250* | | *100* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.190* | | *"* | *0.250* | | *76* | *60-130* | | | |
| **LCS (9052648-BS1)** | | | | Prepared: 05/26/09 Analyzed: 05/28/09 | | | | | | |
| Bolstar | 0.39 | 0.10 | ug/l | 0.500 | | 78 | 60-130 | | | |
| Diazinon | 0.44 | 0.05 | " | 0.500 | | 88 | 60-130 | | | |
| Ethoprop | 0.42 | 0.05 | " | 0.500 | | 84 | 60-130 | | | |
| Mevinphos | 0.42 | 0.25 | " | 0.500 | | 84 | 60-130 | | | |
| Methyl parathion | 0.43 | 0.10 | " | 0.500 | | 86 | 60-130 | | | |
| Phorate | 0.40 | 0.05 | " | 0.500 | | 80 | 60-130 | | | |
| Ronnel | 0.45 | 0.25 | " | 0.500 | | 90 | 60-130 | | | |
| Trichlorinate | 0.43 | 0.05 | " | 0.500 | | 86 | 60-130 | | | |
| *Surrogate: Triphenyl phosphate* | *0.270* | | *"* | *0.250* | | *108* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.240* | | *"* | *0.250* | | *96* | *60-130* | | | |
| **LCS Dup (9052648-BSD1)** | | | | Prepared: 05/26/09 Analyzed: 05/28/09 | | | | | | |
| Bolstar | 0.33 | 0.10 | ug/l | 0.500 | | 66 | 60-130 | 17 | 30 | |
| Diazinon | 0.43 | 0.05 | " | 0.500 | | 86 | 60-130 | 2 | 30 | |
| Ethoprop | 0.34 | 0.05 | " | 0.500 | | 68 | 60-130 | 21 | 30 | |
| Mevinphos | 0.41 | 0.25 | " | 0.500 | | 82 | 60-130 | 2 | 30 | |
| Methyl parathion | 0.40 | 0.10 | " | 0.500 | | 80 | 60-130 | 7 | 30 | |
| Phorate | 0.37 | 0.05 | " | 0.500 | | 74 | 60-130 | 8 | 30 | |
| Ronnel | 0.42 | 0.25 | " | 0.500 | | 84 | 60-130 | 7 | 30 | |
| Trichlorinate | 0.40 | 0.05 | " | 0.500 | | 80 | 60-130 | 7 | 30 | |
| *Surrogate: Triphenyl phosphate* | *0.270* | | *"* | *0.250* | | *108* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.190* | | *"* | *0.250* | | *76* | *60-130* | | | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905626**

# Organophosphorus Pesticides by EPA Method 8141A - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9052648** | | | | | | | | | | |
| **Duplicate (9052648-DUP1)** | | **Source: 0904552-03** | | Prepared: 05/26/09 | Analyzed: 05/28/09 | | | | | |
| Bolstar | ND | 0.10 | ug/l | | ND | | | | 30 | |
| Diazinon | 18.0 | 0.25 | " | | 19.1 | | | 6 | 30 | |
| Ethoprop | 16.8 | 0.25 | " | | 17.2 | | | 2 | 30 | |
| Mevinphos | ND | 0.25 | " | | ND | | | | 30 | |
| Methyl parathion | 10.5 | 0.50 | " | | 11.4 | | | 8 | 30 | |
| Phorate | 5.47 | 0.05 | " | | 4.70 | | | 15 | 30 | |
| Ronnel | 3.64 | 0.25 | " | | 3.30 | | | 10 | 30 | |
| Trichlorinate | ND | 0.05 | " | | ND | | | | 30 | |
| *Surrogate: Triphenyl phosphate* | *0.250* | | *"* | *0.250* | | *100* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.360* | | *"* | *0.250* | | *144* | *60-130* | | | *S-02, S-04* |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0905626**

# Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9052651** | | | | | | | | | | |
| **Blank (9052651-BLK1)** | | | | Prepared: 05/26/09 | Analyzed: 05/27/09 | | | | | |
| Hardness (Total) | ND | 10 | mg CaCO3/L | | | | | | | |
| **Duplicate (9052651-DUP1)** | | **Source: 0905606-01** | | Prepared: 05/26/09 | Analyzed: 05/27/09 | | | | | |
| Hardness (Total) | 525 | 100 | mg CaCO3/L | | 520 | | | 1 | 20 | |
| **Batch 9052746** | | | | | | | | | | |
| **Blank (9052746-BLK1)** | | | | Prepared & Analyzed: 05/27/09 | | | | | | |
| Oil & Grease | ND | 5 | mg/l | | | | | | | |
| **LCS (9052746-BS1)** | | | | Prepared & Analyzed: 05/27/09 | | | | | | |
| Oil & Grease | 33 | 5 | mg/l | 40.0 | | 84 | 78-114 | | | |
| **LCS Dup (9052746-BSD1)** | | | | Prepared & Analyzed: 05/27/09 | | | | | | |
| Oil & Grease | 32 | 5 | mg/l | 40.0 | | 80 | 78-114 | 4 | 20 | |
| **Matrix Spike (9052746-MS1)** | | **Source: 0905606-01** | | Prepared & Analyzed: 05/27/09 | | | | | | |
| Oil & Grease | 34 | 5 | mg/l | 40.0 | ND | 84 | 78-114 | | | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

| | |
|---|---|
| Client Name: D-Max Engineering<br>Project Name: Santee Dry Weather | **EMA Log #: 0905626** |

## Notes and Definitions

| | |
|---|---|
| S-04 | The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect. |
| S-02 | The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract. |
| GC-05 | Results confirmed by GCMS. |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

# CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

**EMA LOG #:** 0905626

Client: D-Max Engineering, Inc.
Attn: Arsalan Dadkhah
Samplers(s): Manouchehr / Annika
Address: 7220 Trade Street, Suite 919
San Diego, CA 92121
Phone (858) 586-6600 Fax: (858) 586-6688
Email:
Billing Address: Same
Santee Dry Weather Round One
Project ID:
Project #: 200919W-1 PO #:

**Requested Analysis**

| ID # | Client Sample ID | Sample Date | Sample Time | Sample Matrix | Container # / Type | Oil & Grease □ 413.1 □ 413.2 ☒ 1664 | 8015B (TPH) □ Gas □ Diesel □ Ext | 624/8260 (VOC) Full BTXE MTBE Oxy Nap | 625 / 8270 (SVOC) □ PAH only | 608 / 8081 (Organochlorine Pesticides) | 608 / 8082 (Polychlorinated Biphenyls) | (8141) (Organophosphorus Pesticides) Dia/Chlor | TBT (Organotin Compounds) | □ pH □ EC □ TSS □ TDS | □ Nitrate □ Nitrite □ TKN □ NH3 | CAC Title 22/CAM17 Metals □ TTLC □ STLC | TCLP (RCRA) □ Metals □ Organics | (Cd) Cr (Cu) (Pb) Ni Ag (Zn) ☒ Dissolved | Coliform, ☒ Total (MTF) ☒ Fecal (MTF) | Colilert, T+E.Coli □ P/A □ Enumeration | Enterococcus, ☒ MTF □ Enterolert | Heterotrophic Plate Count (HPC) | Total Hardness | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | J30d | 5/22/09 | 9:50 | Water | 2/4 G/p | X | | | | | | X | | | | | | X | X | | X | | X | | | | |
| 2 | V40d | " | 11:10 | " | " " | X | | | | | | X | | | | | | X | X | | X | | X | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**Matrix Codes:** A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

**Shipped By:** ☒ Courier □ UPS □ FedEx □ USPS □ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day □ 5 day □ STD (7 day)

[1]**Reporting Requirements:** □ Fax □ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** □ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

**Sample Integrity**

| | |
|---|---|
| Correct Containers: Yes No N/A | Containers Properly Preseved: Yes No N/A |
| Custody Seals Intact: Yes No N/A | Temp @ Receipt: |
| COC/Labels Agree: Yes No N/A | Sampled By: Client EMA Autosampler |

| RELINQUISHED BY | DATE/TIME | RECEIVED BY |
|---|---|---|
| Signature: Manouchehr Dadkhah | 5/22/09 1305 | Signature: |
| Print: Manouchehr Dadkhah | | Print: Jenny Huerta |
| Company: D-Max Engr | | Company: EMA |
| Signature: | 5/22/09 1320 | Signature: |
| Print: Jenny Huerta | | Print: Louis Luce |
| Company: EMA | | Company: EMA |
| Signature | | Signature |
| Print | | Print |
| Company: | | Company: |

**Project/Sample Comments:**

8° on ice

White- EMA Canary - Accounting Pink - Client (w/report) Gold - Client (Relinquish)

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

# Round Two

**EnviroMatrix Analytical, Inc.**

14 September 2009

D-Max Engineering
Attn: Arsalan Dadkhah
7220 Trade Street, Suite 119
San Diego, California 92121

**EMA Log #: 0909098**

**Project Name: Santee 2009 Dry Weather Round 2 200919W-5**

Enclosed are the results of analyses for samples received by the laboratory on 09/03/09 14:57. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

**Dan Verdon**
**Laboratory Director**

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
**Analytical Chemistry Laboratory**

Client Name: D-Max Engineering
Project Name: Santee 2009 Dry Weather Round 2 200919W-5

**EMA Log #: 0909098**

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| Site-J25c | 0909098-01 | Stormwater | 09/03/09 11:10 | 09/03/09 14:57 |
| Site-RCP1 | 0909098-02 | Stormwater | 09/03/09 12:00 | 09/03/09 14:57 |
| Site-V40d | 0909098-03 | Stormwater | 09/03/09 12:40 | 09/03/09 14:57 |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee 2009 Dry Weather Round 2 200919W-5

**EMA Log #: 0909098**

## Metals (Dissolved) by EPA 200 Series Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Site-J25c (0909098-01) Stormwater Sampled: 09/03/09 11:10 Received: 09/03/09 14:57** | | | | | | | | | |
| Cadmium | ND | 0.001 | mg/l | 1 | 9091046 | 09/10/09 | 09/10/09 | EPA 200.8 | |
| **Copper** | **0.021** | 0.001 | " | " | " | " | " | " | |
| Lead | ND | 0.001 | " | " | " | " | " | " | |
| Zinc | ND | 0.020 | " | " | " | " | " | " | |
| **Site-RCP1 (0909098-02) Stormwater Sampled: 09/03/09 12:00 Received: 09/03/09 14:57** | | | | | | | | | |
| Cadmium | ND | 0.001 | mg/l | 1 | 9091046 | 09/10/09 | 09/10/09 | EPA 200.8 | |
| **Copper** | **0.002** | 0.001 | " | " | " | " | " | " | |
| Lead | ND | 0.001 | " | " | " | " | " | " | |
| Zinc | ND | 0.020 | " | " | " | " | " | " | |
| **Site-V40d (0909098-03) Stormwater Sampled: 09/03/09 12:40 Received: 09/03/09 14:57** | | | | | | | | | |
| Cadmium | ND | 0.001 | mg/l | 1 | 9091046 | 09/10/09 | 09/10/09 | EPA 200.8 | |
| **Copper** | **0.005** | 0.001 | " | " | " | " | " | " | |
| Lead | ND | 0.001 | " | " | " | " | " | " | |
| Zinc | ND | 0.020 | " | " | " | " | " | " | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee 2009 Dry Weather Round 2 200919W-5

**EMA Log #: 0909098**

# Organophosphorus Pesticides by EPA Method 8141A

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Site-J25c (0909098-01) Stormwater Sampled: 09/03/09 11:10 Received: 09/03/09 14:57** | | | | | | | | | **GC-05** |
| Chlorpyrifos | ND | 0.05 | ug/l | 1 | 9090802 | 09/08/09 | 09/09/09 | EPA 8141A | |
| Diazinon | ND | 0.05 | " | " | " | " | " | " | |
| Malathion | ND | 0.05 | " | " | " | " | " | " | |
| *Surrogate: Triphenyl phosphate* | | *104 %* | *60-130* | | " | " | " | " | |
| *Surrogate: Tribuytlphosphate* | | *80 %* | *60-130* | | " | " | " | " | |
| **Site-RCP1 (0909098-02) Stormwater Sampled: 09/03/09 12:00 Received: 09/03/09 14:57** | | | | | | | | | **GC-05** |
| Chlorpyrifos | ND | 0.05 | ug/l | 1 | 9090802 | 09/08/09 | 09/09/09 | EPA 8141A | |
| Diazinon | ND | 0.05 | " | " | " | " | " | " | |
| Malathion | ND | 0.05 | " | " | " | " | " | " | |
| *Surrogate: Triphenyl phosphate* | | *96 %* | *60-130* | | " | " | " | " | |
| *Surrogate: Tribuytlphosphate* | | *96 %* | *60-130* | | " | " | " | " | |
| **Site-V40d (0909098-03) Stormwater Sampled: 09/03/09 12:40 Received: 09/03/09 14:57** | | | | | | | | | **GC-05** |
| Chlorpyrifos | ND | 0.05 | ug/l | 1 | 9090802 | 09/08/09 | 09/09/09 | EPA 8141A | |
| Diazinon | ND | 0.05 | " | " | " | " | " | " | |
| Malathion | ND | 0.05 | " | " | " | " | " | " | |
| *Surrogate: Triphenyl phosphate* | | *112 %* | *60-130* | | " | " | " | " | |
| *Surrogate: Tribuytlphosphate* | | *92 %* | *60-130* | | " | " | " | " | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee 2009 Dry Weather Round 2 200919W-5

**EMA Log #: 0909098**

## Conventional Chemistry Parameters by Standard/EPA Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Site-J25c (0909098-01) Stormwater Sampled: 09/03/09 11:10 Received: 09/03/09 14:57** | | | | | | | | | |
| **Hardness (Total)** | **931** | 100 | mg CaCO3/L | 10 | 9090834 | 09/08/09 | 09/10/09 | EPA 200.7 | |
| Oil & Grease | ND | 5 | mg/l | 1 | 9090831 | 09/08/09 | 09/08/09 | EPA 1664A | |
| **Site-RCP1 (0909098-02) Stormwater Sampled: 09/03/09 12:00 Received: 09/03/09 14:57** | | | | | | | | | |
| **Hardness (Total)** | **553** | 100 | mg CaCO3/L | 10 | 9090834 | 09/08/09 | 09/10/09 | EPA 200.7 | |
| Oil & Grease | ND | 5 | mg/l | 1 | 9090831 | 09/08/09 | 09/08/09 | EPA 1664A | |
| **Site-V40d (0909098-03) Stormwater Sampled: 09/03/09 12:40 Received: 09/03/09 14:57** | | | | | | | | | |
| **Hardness (Total)** | **773** | 100 | mg CaCO3/L | 10 | 9090834 | 09/08/09 | 09/10/09 | EPA 200.7 | |
| Oil & Grease | ND | 5 | mg/l | 1 | 9090831 | 09/08/09 | 09/08/09 | EPA 1664A | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee 2009 Dry Weather Round 2 200919W-5

**EMA Log #: 0909098**

## Microbiological Parameters by Standard Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Site-J25c (0909098-01) Stormwater Sampled: 09/03/09 11:10 Received: 09/03/09 14:57** | | | | | | | | | |
| **Total Coliforms** | **13000** | 200 | MPN/100 ml | 100 | 9090417 | 09/03/09 | 09/07/09 | SM 9221 B, E | |
| **Fecal Coliforms** | **13000** | 200 | " | " | " | " | 09/06/09 | " | |
| **Enterococcus** | **5000** | 200 | " | " | 9090418 | " | 09/07/09 | SM 9230 A, B | |
| **Site-RCP1 (0909098-02) Stormwater Sampled: 09/03/09 12:00 Received: 09/03/09 14:57** | | | | | | | | | |
| **Total Coliforms** | **13000** | 200 | MPN/100 ml | 100 | 9090417 | 09/03/09 | 09/07/09 | SM 9221 B, E | |
| **Fecal Coliforms** | **8000** | 200 | " | " | " | " | 09/06/09 | " | |
| **Enterococcus** | **800** | 20 | " | 10 | 9090418 | " | 09/07/09 | SM 9230 A, B | |
| **Site-V40d (0909098-03) Stormwater Sampled: 09/03/09 12:40 Received: 09/03/09 14:57** | | | | | | | | | |
| **Total Coliforms** | **2300** | 200 | MPN/100 ml | 100 | 9090417 | 09/03/09 | 09/07/09 | SM 9221 B, E | |
| **Fecal Coliforms** | **300** | 20 | " | 10 | " | " | 09/06/09 | " | |
| **Enterococcus** | **130** | 20 | " | " | 9090418 | " | 09/07/09 | SM 9230 A, B | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee 2009 Dry Weather Round 2 200919W-5

**EMA Log #: 0909098**

# Metals (Dissolved) by EPA 200 Series Methods - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9091046** | | | | | | | | | | |
| **Blank (9091046-BLK1)** | | | | Prepared & Analyzed: 09/10/09 | | | | | | |
| Copper | ND | 0.001 | mg/l | | | | | | | |
| Cadmium | ND | 0.001 | " | | | | | | | |
| Zinc | ND | 0.020 | " | | | | | | | |
| Lead | ND | 0.001 | " | | | | | | | |
| **LCS (9091046-BS1)** | | | | Prepared & Analyzed: 09/10/09 | | | | | | |
| Cadmium | 0.051 | 0.001 | mg/l | 0.0500 | | 103 | 85-115 | | | |
| Copper | 0.049 | 0.001 | " | 0.0500 | | 97 | 85-115 | | | |
| Lead | 0.050 | 0.001 | " | 0.0500 | | 100 | 75-125 | | | |
| Zinc | 0.051 | 0.020 | " | 0.0500 | | 102 | 85-115 | | | |
| **LCS Dup (9091046-BSD1)** | | | | Prepared & Analyzed: 09/10/09 | | | | | | |
| Copper | 0.049 | 0.001 | mg/l | 0.0500 | | 97 | 85-115 | 0.2 | 20 | |
| Lead | 0.050 | 0.001 | " | 0.0500 | | 101 | 75-125 | 0.2 | 20 | |
| Zinc | 0.051 | 0.020 | " | 0.0500 | | 101 | 85-115 | 0.1 | 20 | |
| Cadmium | 0.051 | 0.001 | " | 0.0500 | | 103 | 85-115 | 0.04 | 20 | |
| **Duplicate (9091046-DUP1)** | | **Source: 0909098-01** | | Prepared & Analyzed: 09/10/09 | | | | | | |
| Zinc | 0.003 | 0.020 | mg/l | | 0.003 | | | 0.6 | 20 | |
| Lead | ND | 0.001 | " | | ND | | | | 20 | |
| Cadmium | ND | 0.001 | " | | ND | | | | 20 | |
| Copper | 0.021 | 0.001 | " | | 0.021 | | | 0.7 | 20 | |
| **Matrix Spike (9091046-MS1)** | | **Source: 0909098-01** | | Prepared & Analyzed: 09/10/09 | | | | | | |
| Zinc | 0.044 | 0.020 | mg/l | 0.0500 | 0.003 | 81 | 70-130 | | | |
| Lead | 0.052 | 0.001 | " | 0.0500 | ND | 105 | 75-125 | | | |
| Cadmium | 0.042 | 0.001 | " | 0.0500 | ND | 85 | 70-130 | | | |
| Copper | 0.059 | 0.001 | " | 0.0500 | 0.021 | 76 | 70-130 | | | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee 2009 Dry Weather Round 2 200919W-5

**EMA Log #: 0909098**

# Metals (Dissolved) by EPA 200 Series Methods - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9091046** | | | | | | | | | | |
| **Matrix Spike Dup (9091046-MSD1)** | | **Source: 0909098-01** | | Prepared & Analyzed: 09/10/09 | | | | | | |
| Copper | 0.061 | 0.001 | mg/l | 0.0500 | 0.021 | 81 | 70-130 | 4 | 20 | |
| Lead | 0.048 | 0.001 | " | 0.0500 | ND | 96 | 75-125 | 8 | 20 | |
| Zinc | 0.045 | 0.020 | " | 0.0500 | 0.003 | 84 | 70-130 | 3 | 20 | |
| Cadmium | 0.044 | 0.001 | " | 0.0500 | ND | 88 | 70-130 | 4 | 20 | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee 2009 Dry Weather Round 2 200919W-5

**EMA Log #: 0909098**

# Organophosphorus Pesticides by EPA Method 8141A - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9090802** | | | | | | | | | | |
| **Blank (9090802-BLK1)** | | | | Prepared: 09/08/09 Analyzed: 09/09/09 | | | | | | |
| Chlorpyrifos | ND | 0.05 | ug/l | | | | | | | |
| Diazinon | ND | 0.05 | " | | | | | | | |
| Malathion | ND | 0.05 | " | | | | | | | |
| *Surrogate: Triphenyl phosphate* | *0.230* | | *"* | *0.250* | | *92* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.240* | | *"* | *0.250* | | *96* | *60-130* | | | |
| **LCS (9090802-BS1)** | | | | Prepared: 09/08/09 Analyzed: 09/09/09 | | | | | | |
| Bolstar | 0.38 | 0.10 | ug/l | 0.500 | | 76 | 60-130 | | | |
| Diazinon | 0.39 | 0.05 | " | 0.500 | | 78 | 60-130 | | | |
| Ethoprop | 0.41 | 0.05 | " | 0.500 | | 82 | 60-130 | | | |
| Mevinphos | 0.42 | 0.25 | " | 0.500 | | 84 | 60-130 | | | |
| Methyl parathion | 0.38 | 0.10 | " | 0.500 | | 76 | 60-130 | | | |
| Phorate | 0.38 | 0.05 | " | 0.500 | | 76 | 60-130 | | | |
| Ronnel | 0.41 | 0.25 | " | 0.500 | | 82 | 60-130 | | | |
| Trichlorinate | 0.42 | 0.05 | " | 0.500 | | 84 | 60-130 | | | |
| *Surrogate: Triphenyl phosphate* | *0.280* | | *"* | *0.250* | | *112* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.280* | | *"* | *0.250* | | *112* | *60-130* | | | |
| **LCS Dup (9090802-BSD1)** | | | | Prepared: 09/08/09 Analyzed: 09/09/09 | | | | | | |
| Bolstar | 0.34 | 0.10 | ug/l | 0.500 | | 68 | 60-130 | 11 | 30 | |
| Diazinon | 0.38 | 0.05 | " | 0.500 | | 76 | 60-130 | 3 | 30 | |
| Ethoprop | 0.38 | 0.05 | " | 0.500 | | 76 | 60-130 | 8 | 30 | |
| Mevinphos | 0.38 | 0.25 | " | 0.500 | | 76 | 60-130 | 10 | 30 | |
| Methyl parathion | 0.36 | 0.10 | " | 0.500 | | 72 | 60-130 | 5 | 30 | |
| Phorate | 0.35 | 0.05 | " | 0.500 | | 70 | 60-130 | 8 | 30 | |
| Ronnel | 0.38 | 0.25 | " | 0.500 | | 76 | 60-130 | 8 | 30 | |
| Trichlorinate | 0.38 | 0.05 | " | 0.500 | | 76 | 60-130 | 10 | 30 | |
| *Surrogate: Triphenyl phosphate* | *0.250* | | *"* | *0.250* | | *100* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.250* | | *"* | *0.250* | | *100* | *60-130* | | | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee 2009 Dry Weather Round 2 200919W-5

**EMA Log #: 0909098**

## Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9090831** | | | | | | | | | | |
| **Blank (9090831-BLK1)** | | | | Prepared & Analyzed: 09/08/09 | | | | | | |
| Oil & Grease | ND | 5 | mg/l | | | | | | | |
| **LCS (9090831-BS1)** | | | | Prepared & Analyzed: 09/08/09 | | | | | | |
| Oil & Grease | 33 | 5 | mg/l | 40.0 | | 83 | 78-114 | | | |
| **LCS Dup (9090831-BSD1)** | | | | Prepared & Analyzed: 09/08/09 | | | | | | |
| Oil & Grease | 34 | 5 | mg/l | 40.0 | | 84 | 78-114 | 0.9 | 20 | |
| **Matrix Spike (9090831-MS1)** | | **Source: 0909200-01** | | Prepared & Analyzed: 09/09/09 | | | | | | |
| Oil & Grease | 32 | 5 | mg/l | 40.0 | ND | 79 | 78-114 | | | |
| **Batch 9090834** | | | | | | | | | | |
| **Blank (9090834-BLK1)** | | | | Prepared: 09/08/09 Analyzed: 09/10/09 | | | | | | |
| Hardness (Total) | ND | 10 | mg CaCO3/L | | | | | | | |
| **Duplicate (9090834-DUP1)** | | **Source: 0908793-01** | | Prepared: 09/08/09 Analyzed: 09/10/09 | | | | | | |
| Hardness (Total) | 515 | 100 | mg CaCO3/L | | 547 | | | 6 | 20 | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

## Notes and Definitions

| | |
|---|---|
| GC-05 | Results confirmed by GCMS. |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

# CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

**EMA LOG #:** 0909098

Client: D-Max Engineering
Attn: Arsalan Dad Khah
Samplers(s): JL/MD
Address: 7220 Trade Street Suite 119
San Diego CA 92121
Phone: 858-586-6660 Fax:
Email:
Billing Address: same

Project ID: Santee 2009 Dry Weather Round 2
Project #: 200919W-5 PO #:

**Requested Analysis**

| ID # | Client Sample ID | Sample Date | Sample Time | Sample Matrix | Container # / Type | Oil & Grease ☐ 413.1 ☐ 413.2 ☒ 1664 | 8015B (TPH) ☐ Gas ☐ Diesel ☐ Ext | 624/8260 (VOC) Full BTXE MTBE Oxy Nap | 625 / 8270 (SVOC) ☐ PAH only | 608 / 8081 (Organochlorine Pesticides) | 608 / 8082 (Polychlorinated Biphenyls) | 8141 (Organophosphorus Pesticides) | TBT (Organotin Compounds) | ☐ pH ☐ EC ☐ TSS ☐ TDS | ☐ Nitrate ☐ Nitrite ☐ TKN ☐ NH3 | CAC Title 22/CAM17 Metals ☐ TTLC ☐ STLC | TCLP (RCRA) ☐ Metals ☐ Organics | Cd Cr Cu (Pb) Ni Ag (Zn) ☒ Dissolved | Coliform, ☒ Total (MTF) ☒ Fecal (MTF) | Colilert, T+E.Coli ☐ P/A ☐ Enumeration | Enterococcus, ☒ MTF ☐ Enterolert | Heterotrophic Plate Count (HPC) | Total Hardness | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Site-J25L | 9/3/09 | 11:10 | SW | 3P/2G | X | | | | | | X | | | | | | X | X | | X | | X | | | | |
| 2 | Site-RCP1 | ↓ | 12:00 | ↓ | ↓ | X | | | | | | X | | | | | | X | X | | X | | X | | | | |
| 3 | Site-V40D | ↓ | 12:40 | ↓ | ↓ | X | | | | | | X | | | | | | X | X | | X | | X | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SEP 3'09 13:53

**Matrix Codes:** A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid
**Shipped By:** ☐ Courier ☐ UPS ☐ FedEx ☐ USPS ☐ Client Drop Off ☐ Other
[1]**Turn-Around-Time:** ☐ Same Day ☐ 24 hr ☐ 48 hr ☐ 3 day ☐ 4 day ☒ 5 day ☐ STD (7 day)
[1]**Reporting Requirements:** ☐ Fax ☐ PDF ☐ Excel ☐ Geotracker/EDF ☐ Hard Copy ☐ EDT
[1]**Sample Disposal:** ☐ By Laboratory ☐ [2]Return to Client: P/U or Delivery ☐ Archive

**Sample Integrity**

| | |
|---|---|
| Correct Containers: Yes No N/A | Containers Properly Preseved: Yes No N/A |
| Custody Seals Intact: Yes No N/A | Temp @ Receipt:_____ |
| COC/Labels Agree: Yes No N/A | Sampled By: Client EMA Autosampler |

| RELINQUISHED BY | DATE/TIME | RECEIVED BY |
|---|---|---|
| Signature: [signature] | 9/3/09 13:6 | Signature: [signature] |
| Print: Joe Leonard | | Print: Sean Flum |
| Company: D-Max | | Company: EMA |
| Signature: [signature] | 9/3/09 1332 | Signature: [signature] |
| Print: Sean Flum | | Print: Lance Lincoln |
| Company: EMA | | Company: EMA |
| Signature: | | Signature: |
| Print: | | Print: |
| Company: | | Company: |

**Project/Sample Comments:**

T=4°C on ice

[1]Additional costs may apply, consult a project manager for details.
[2]EMA reserves the right to return any samples that do not match our waste profile.

White- EMA Canary - Accounting Pink - Client (w/report) Gold - Client (Relinquish)

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

**EnviroMatrix Analytical, Inc.**

14 September 2009

D-Max Engineering
Attn: Arsalan Dadkhah
7220 Trade Street, Suite 119
San Diego, California 92121

**EMA Log #: 0909127**

**Project Name: Santee Dry Weather**
**Project Desc./#:200919W-5 Round 2**

Enclosed are the results of analyses for samples received by the laboratory on 09/04/09 12:31. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

**Dan Verdon**
**Laboratory Director**

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
**Analytical Chemistry Laboratory**

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909127**

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| Site-P20f | 0909127-01 | Stormwater | 09/04/09 10:40 | 09/04/09 12:31 |
| Site-J30d | 0909127-02 | Stormwater | 09/04/09 11:30 | 09/04/09 12:31 |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909127**

# Metals (Dissolved) by EPA 200 Series Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Site-P20f (0909127-01) Stormwater Sampled: 09/04/09 10:40 Received: 09/04/09 12:31** | | | | | | | | | |
| Cadmium | ND | 0.001 | mg/l | 1 | 9091046 | 09/10/09 | 09/10/09 | EPA 200.8 | |
| **Copper** | **0.003** | 0.001 | " | " | " | " | " | " | |
| Lead | ND | 0.001 | " | " | " | " | " | " | |
| Zinc | ND | 0.020 | " | " | " | " | " | " | |
| **Site-J30d (0909127-02) Stormwater Sampled: 09/04/09 11:30 Received: 09/04/09 12:31** | | | | | | | | | |
| Cadmium | ND | 0.001 | mg/l | 1 | 9091046 | 09/10/09 | 09/10/09 | EPA 200.8 | |
| **Copper** | **0.004** | 0.001 | " | " | " | " | " | " | |
| Lead | ND | 0.001 | " | " | " | " | " | " | |
| Zinc | ND | 0.020 | " | " | " | " | " | " | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909127**

# Organophosphorus Pesticides by EPA Method 8141A

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Site-P20f (0909127-01) Stormwater Sampled: 09/04/09 10:40 Received: 09/04/09 12:31** | | | | | | | | | **GC-05** |
| Chlorpyrifos | ND | 0.05 | ug/l | 1 | 9090802 | 09/08/09 | 09/09/09 | EPA 8141A | |
| Diazinon | ND | 0.05 | " | " | " | " | " | " | |
| Malathion | ND | 0.05 | " | " | " | " | " | " | |
| *Surrogate: Triphenyl phosphate* | | *100 %* | *60-130* | | " | " | " | " | |
| *Surrogate: Tribuytlphosphate* | | *100 %* | *60-130* | | " | " | " | " | |
| **Site-J30d (0909127-02) Stormwater Sampled: 09/04/09 11:30 Received: 09/04/09 12:31** | | | | | | | | | **GC-05** |
| Chlorpyrifos | ND | 0.05 | ug/l | 1 | 9090802 | 09/08/09 | 09/09/09 | EPA 8141A | |
| Diazinon | ND | 0.05 | " | " | " | " | " | " | |
| Malathion | ND | 0.05 | " | " | " | " | " | " | |
| *Surrogate: Triphenyl phosphate* | | *112 %* | *60-130* | | " | " | " | " | |
| *Surrogate: Tribuytlphosphate* | | *92 %* | *60-130* | | " | " | " | " | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909127**

## Conventional Chemistry Parameters by Standard/EPA Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Site-P20f (0909127-01) Stormwater Sampled: 09/04/09 10:40 Received: 09/04/09 12:31** | | | | | | | | | |
| **Hardness (Total)** | **534** | 100 | mg CaCO3/L | 10 | 9090834 | 09/08/09 | 09/10/09 | EPA 200.7 | |
| Oil & Grease | ND | 5 | mg/l | 1 | 9090831 | 09/08/09 | 09/08/09 | EPA 1664A | |
| **Site-J30d (0909127-02) Stormwater Sampled: 09/04/09 11:30 Received: 09/04/09 12:31** | | | | | | | | | |
| **Hardness (Total)** | **834** | 100 | mg CaCO3/L | 10 | 9090834 | 09/08/09 | 09/10/09 | EPA 200.7 | |
| Oil & Grease | ND | 5 | mg/l | 1 | 9090831 | 09/08/09 | 09/08/09 | EPA 1664A | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909127**

## Microbiological Parameters by Standard Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Site-P20f (0909127-01) Stormwater Sampled: 09/04/09 10:40 Received: 09/04/09 12:31** | | | | | | | | | |
| **Total Coliforms** | **22000** | 200 | MPN/100 ml | 100 | 9090944 | 09/04/09 | 09/08/09 | SM 9221 B, E | |
| **Fecal Coliforms** | **17000** | 200 | " | " | " | " | 09/07/09 | " | |
| **Enterococcus** | **110** | 20 | " | 10 | 9090945 | " | 09/08/09 | SM 9230 A, B | |
| **Site-J30d (0909127-02) Stormwater Sampled: 09/04/09 11:30 Received: 09/04/09 12:31** | | | | | | | | | |
| **Total Coliforms** | **300000** | 2000 | MPN/100 ml | 1000 | 9090944 | 09/04/09 | 09/08/09 | SM 9221 B, E | |
| **Fecal Coliforms** | **90000** | 200 | " | 100 | " | " | 09/07/09 | " | |
| **Enterococcus** | **30000** | 200 | " | " | 9090945 | " | 09/08/09 | SM 9230 A, B | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909127**

# Metals (Dissolved) by EPA 200 Series Methods - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9091046** | | | | | | | | | | |
| **Blank (9091046-BLK1)** | | | | Prepared & Analyzed: 09/10/09 | | | | | | |
| Cadmium | ND | 0.001 | mg/l | | | | | | | |
| Copper | ND | 0.001 | " | | | | | | | |
| Zinc | ND | 0.020 | " | | | | | | | |
| Lead | ND | 0.001 | " | | | | | | | |
| **LCS (9091046-BS1)** | | | | Prepared & Analyzed: 09/10/09 | | | | | | |
| Zinc | 0.051 | 0.020 | mg/l | 0.0500 | | 102 | 85-115 | | | |
| Cadmium | 0.051 | 0.001 | " | 0.0500 | | 103 | 85-115 | | | |
| Lead | 0.050 | 0.001 | " | 0.0500 | | 100 | 75-125 | | | |
| Copper | 0.049 | 0.001 | " | 0.0500 | | 97 | 85-115 | | | |
| **LCS Dup (9091046-BSD1)** | | | | Prepared & Analyzed: 09/10/09 | | | | | | |
| Cadmium | 0.051 | 0.001 | mg/l | 0.0500 | | 103 | 85-115 | 0.04 | 20 | |
| Copper | 0.049 | 0.001 | " | 0.0500 | | 97 | 85-115 | 0.2 | 20 | |
| Lead | 0.050 | 0.001 | " | 0.0500 | | 101 | 75-125 | 0.2 | 20 | |
| Zinc | 0.051 | 0.020 | " | 0.0500 | | 101 | 85-115 | 0.1 | 20 | |
| **Duplicate (9091046-DUP1)** | | **Source: 0909098-01** | | Prepared & Analyzed: 09/10/09 | | | | | | |
| Copper | 0.021 | 0.001 | mg/l | | 0.021 | | | 0.7 | 20 | |
| Cadmium | ND | 0.001 | " | | ND | | | | 20 | |
| Zinc | 0.003 | 0.020 | " | | 0.003 | | | 0.6 | 20 | |
| Lead | ND | 0.001 | " | | ND | | | | 20 | |
| **Matrix Spike (9091046-MS1)** | | **Source: 0909098-01** | | Prepared & Analyzed: 09/10/09 | | | | | | |
| Cadmium | 0.042 | 0.001 | mg/l | 0.0500 | ND | 85 | 70-130 | | | |
| Copper | 0.059 | 0.001 | " | 0.0500 | 0.021 | 76 | 70-130 | | | |
| Lead | 0.052 | 0.001 | " | 0.0500 | ND | 105 | 75-125 | | | |
| Zinc | 0.044 | 0.020 | " | 0.0500 | 0.003 | 81 | 70-130 | | | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909127**

# Metals (Dissolved) by EPA 200 Series Methods - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9091046** | | | | | | | | | | |
| **Matrix Spike Dup (9091046-MSD1)** | | **Source: 0909098-01** | | Prepared & Analyzed: 09/10/09 | | | | | | |
| Cadmium | 0.044 | 0.001 | mg/l | 0.0500 | ND | 88 | 70-130 | 4 | 20 | |
| Zinc | 0.045 | 0.020 | " | 0.0500 | 0.003 | 84 | 70-130 | 3 | 20 | |
| Lead | 0.048 | 0.001 | " | 0.0500 | ND | 96 | 75-125 | 8 | 20 | |
| Copper | 0.061 | 0.001 | " | 0.0500 | 0.021 | 81 | 70-130 | 4 | 20 | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909127**

# Organophosphorus Pesticides by EPA Method 8141A - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9090802** | | | | | | | | | | |
| **Blank (9090802-BLK1)** | | | | Prepared: 09/08/09 Analyzed: 09/09/09 | | | | | | |
| Chlorpyrifos | ND | 0.05 | ug/l | | | | | | | |
| Diazinon | ND | 0.05 | " | | | | | | | |
| Malathion | ND | 0.05 | " | | | | | | | |
| *Surrogate: Triphenyl phosphate* | *0.230* | | *"* | *0.250* | | *92* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.240* | | *"* | *0.250* | | *96* | *60-130* | | | |
| **LCS (9090802-BS1)** | | | | Prepared: 09/08/09 Analyzed: 09/09/09 | | | | | | |
| Bolstar | 0.38 | 0.10 | ug/l | 0.500 | | 76 | 60-130 | | | |
| Diazinon | 0.39 | 0.05 | " | 0.500 | | 78 | 60-130 | | | |
| Ethoprop | 0.41 | 0.05 | " | 0.500 | | 82 | 60-130 | | | |
| Mevinphos | 0.42 | 0.25 | " | 0.500 | | 84 | 60-130 | | | |
| Methyl parathion | 0.38 | 0.10 | " | 0.500 | | 76 | 60-130 | | | |
| Phorate | 0.38 | 0.05 | " | 0.500 | | 76 | 60-130 | | | |
| Ronnel | 0.41 | 0.25 | " | 0.500 | | 82 | 60-130 | | | |
| Trichlorinate | 0.42 | 0.05 | " | 0.500 | | 84 | 60-130 | | | |
| *Surrogate: Triphenyl phosphate* | *0.280* | | *"* | *0.250* | | *112* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.280* | | *"* | *0.250* | | *112* | *60-130* | | | |
| **LCS Dup (9090802-BSD1)** | | | | Prepared: 09/08/09 Analyzed: 09/09/09 | | | | | | |
| Bolstar | 0.34 | 0.10 | ug/l | 0.500 | | 68 | 60-130 | 11 | 30 | |
| Diazinon | 0.38 | 0.05 | " | 0.500 | | 76 | 60-130 | 3 | 30 | |
| Ethoprop | 0.38 | 0.05 | " | 0.500 | | 76 | 60-130 | 8 | 30 | |
| Mevinphos | 0.38 | 0.25 | " | 0.500 | | 76 | 60-130 | 10 | 30 | |
| Methyl parathion | 0.36 | 0.10 | " | 0.500 | | 72 | 60-130 | 5 | 30 | |
| Phorate | 0.35 | 0.05 | " | 0.500 | | 70 | 60-130 | 8 | 30 | |
| Ronnel | 0.38 | 0.25 | " | 0.500 | | 76 | 60-130 | 8 | 30 | |
| Trichlorinate | 0.38 | 0.05 | " | 0.500 | | 76 | 60-130 | 10 | 30 | |
| *Surrogate: Triphenyl phosphate* | *0.250* | | *"* | *0.250* | | *100* | *60-130* | | | |
| *Surrogate: Tribuytlphosphate* | *0.250* | | *"* | *0.250* | | *100* | *60-130* | | | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909127**

## Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 9090831** | | | | | | | | | | |
| **Blank (9090831-BLK1)** | | | | Prepared & Analyzed: 09/08/09 | | | | | | |
| Oil & Grease | ND | 5 | mg/l | | | | | | | |
| **LCS (9090831-BS1)** | | | | Prepared & Analyzed: 09/08/09 | | | | | | |
| Oil & Grease | 33 | 5 | mg/l | 40.0 | | 83 | 78-114 | | | |
| **LCS Dup (9090831-BSD1)** | | | | Prepared & Analyzed: 09/08/09 | | | | | | |
| Oil & Grease | 34 | 5 | mg/l | 40.0 | | 84 | 78-114 | 0.9 | 20 | |
| **Matrix Spike (9090831-MS1)** | | **Source: 0909200-01** | | Prepared & Analyzed: 09/09/09 | | | | | | |
| Oil & Grease | 32 | 5 | mg/l | 40.0 | ND | 79 | 78-114 | | | |
| **Batch 9090834** | | | | | | | | | | |
| **Blank (9090834-BLK1)** | | | | Prepared: 09/08/09 Analyzed: 09/10/09 | | | | | | |
| Hardness (Total) | ND | 10 | mg CaCO3/L | | | | | | | |
| **Duplicate (9090834-DUP1)** | | **Source: 0908793-01** | | Prepared: 09/08/09 Analyzed: 09/10/09 | | | | | | |
| Hardness (Total) | 515 | 100 | mg CaCO3/L | | 547 | | | 6 | 20 | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

## Notes and Definitions

| | |
|---|---|
| GC-05 | Results confirmed by GCMS. |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |

# CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

**EMA LOG #:** 0909177

Client: D-Max Engineering
Attn: Arsalan Dadkhah
Samplers(s): JL/MD
Address: 7220 Trade Street Suite 119
San Diego, CA 92121
Phone: 858-586-6600 Fax:
Email:
Billing Address: same

Project ID: Santee 2009 Dry Weather Round 2
Project #: 200919W-5 PO #:

**Requested Analysis**

| ID # | Client Sample ID | Sample Date | Sample Time | Sample Matrix | Container # / Type | Oil & Grease □ 413.1 □ 413.2 ☒ 1664 | 8015B (TPH) □ Gas □ Diesel □ Ext | 624/8260 (VOC) Full BTXE MTBE Oxy Nap | 625 / 8270 (SVOC) □ PAH only | 608 / 8081 (Organochlorine Pesticides) | 608 / 8082 (Polychlorinated Biphenyls) | 8141 (Organophosphorus Pesticides) | TBT (Organotin Compounds) | □ pH □ EC □ TSS □TDS | □ Nitrate □ Nitrite □ TKN □NH3 | CAC Title 22/CAM17 Metals □ TTLC □ STLC | TCLP (RCRA) □ Metals □ Organics | Cd Cr Cu Pb Ni Ag Zn ✓ Dissolved | Coliform, ✓ Total (MTF) ✓ Fecal (MTF) | Colilert, T+E.Coli □ P/A □ Enumeration | Enterococcus, ✓ MTF □ Enterolert | Heterotrophic Plate Count (HPC) | Total Hardness | SEP 4 '09 12:52 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Site-P20f | 9/4/09 | 10:40 | SW | 2 G 4P | X | | | | | | X | | | | | | X | X | | X | X | | | | | |
| 2 | Site-J30d | ↓ | 11:30 | SW | 2 G 4P | X | | | | | | X | | | | | | X | X | | X | X | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**Matrix Codes:** A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

**Shipped By:** □ Courier □ UPS □ FedEx □ USPS □ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day ☒ 5 day □ STD (7 day)

[1]**Reporting Requirements:** □ Fax □ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** □ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

**Sample Integrity**

| | |
|---|---|
| Correct Containers: Yes No N/A | Containers Properly Preseved: Yes No N/A |
| Custody Seals Intact: Yes No N/A | Temp @ Receipt:_____ |
| COC/Labels Agree: Yes No N/A | Sampled By: Client EMA Autosampler |

| RELINQUISHED BY | DATE/TIME | RECEIVED BY |
|---|---|---|
| Signature [signature] | 9/4/09 1215 | Signature [signature] |
| Print Joe Leonard | | Print Louis Luna |
| Company: D-Max | | Company: EMA |
| Signature [signature] | 9-4-09 12:31 | Signature |
| Print Louis Luna | | Print |
| Company: EMA | | Company: |
| Signature | | Signature |
| Print | | Print |
| Company: | | Company: |

**Project/Sample Comments:** 3°C on ice

[1]Additional costs may apply, consult a project manager for details.
[2]EMA reserves the right to return any samples that do not match our waste profile.

White- EMA Canary - Accounting Pink - Client (w/report) Gold - Client (Relinquish)

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

**EnviroMatrix Analytical, Inc.**

21 September 2009

D-Max Engineering
Attn: Arsalan Dadkhah
7220 Trade Street, Suite 119
San Diego, California 92121

**EMA Log #: 0909460**

**Project Name: Santee Dry Weather**
**Project Desc./#: 200919W-6 Round 2 Follow-Up**

Enclosed are the results of analyses for samples received by the laboratory on 09/15/09 16:16. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

**Dan Verdon**
**Laboratory Director**

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
**Analytical Chemistry Laboratory**

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909460**

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| Site-J30d | 0909460-01 | Stormwater | 09/15/09 14:45 | 09/15/09 16:16 |
| Site-J30d-1 | 0909460-02 | Stormwater | 09/15/09 15:05 | 09/15/09 16:16 |
| Site-J30d-2 | 0909460-03 | Stormwater | 09/15/09 15:20 | 09/15/09 16:16 |
| Site-J30d-3 | 0909460-04 | Stormwater | 09/15/09 15:35 | 09/15/09 16:16 |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909460**

# Microbiological Parameters by Standard Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Date Prepared<br>Date Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|
| **Site-J30d (0909460-01) Stormwater Sampled: 09/15/09 14:45 Received: 09/15/09 16:16** | | | | | | | | |
| **Total Coliforms** | **173000** | 100 | MPN/100 ml | 100 | 9091627 | 09/15/09 17:30<br>09/16/09 17:35 | SM9223 | |
| **E. Coli** | **1020** | 10 | " | 10 | " | 09/15/09 17:30<br>09/16/09 17:35 | " | |
| **Enterococcus** | **1414** | 10 | " | " | 9091628 | 09/15/09 17:30<br>09/16/09 17:35 | Idexx | |
| **Site-J30d-1 (0909460-02) Stormwater Sampled: 09/15/09 15:05 Received: 09/15/09 16:16** | | | | | | | | |
| **Total Coliforms** | **24200** | 10 | MPN/100 ml | 10 | 9091627 | 09/15/09 17:30<br>09/16/09 17:35 | SM9223 | |
| **E. Coli** | **355** | 10 | " | " | " | 09/15/09 17:30<br>09/16/09 17:35 | " | |
| **Enterococcus** | **404** | 10 | " | " | 9091628 | 09/15/09 17:30<br>09/16/09 17:35 | Idexx | |
| **Site-J30d-2 (0909460-03) Stormwater Sampled: 09/15/09 15:20 Received: 09/15/09 16:16** | | | | | | | | |
| **Total Coliforms** | **15500** | 10 | MPN/100 ml | 10 | 9091627 | 09/15/09 17:30<br>09/16/09 17:35 | SM9223 | |
| **E. Coli** | **30** | 10 | " | " | " | 09/15/09 17:30<br>09/16/09 17:35 | " | |
| **Enterococcus** | **355** | 10 | " | " | 9091628 | 09/15/09 17:30<br>09/16/09 17:35 | Idexx | |
| **Site-J30d-3 (0909460-04) Stormwater Sampled: 09/15/09 15:35 Received: 09/15/09 16:16** | | | | | | | | |
| **Total Coliforms** | **54800** | 100 | MPN/100 ml | 100 | 9091627 | 09/15/09 17:30<br>09/16/09 17:35 | SM9223 | |
| **E. Coli** | **464** | 10 | " | 10 | " | 09/15/09 17:30<br>09/16/09 17:35 | " | |
| **Enterococcus** | **785** | 10 | " | " | 9091628 | 09/15/09 17:30<br>09/16/09 17:35 | Idexx | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909460**

## Notes and Definitions

| | |
|---|---|
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| RPD | Relative Percent Difference |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

# CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

**EMA LOG #:** 0909460

Client: D-Max Engineering
Attn: Arsalan Badkhah
Samplers(s): JL/MD
Address: 7220 Trade Street Suite 119
San Diego, CA 92121
Phone: 858-586-6600 Fax:
Email:
Billing Address: Same

Project ID: Santee DW 2009 Round 2 Follow-Up
Project #: 200919W-6 PO #:

**Requested Analysis**

| ID # | Client Sample ID | Sample Date | Sample Time | Sample Matrix | Container # / Type | Oil & Grease □ 413.1 □ 413.2 □ 1664 | 8015B (TPH) □ Gas □ Diesel □ Ext | 624/8260 (VOC) Full BTXE MTBE Oxy Nap | 625 / 8270 (SVOC) □ PAH only | 608 / 8081 (Organochlorine Pesticides) | 608 / 8082 (Polychlorinated Biphenyls) | 8141 (Organophosphorus Pesticides) | TBT (Organotin Compounds) | □ pH □ EC □ TSS □TDS | □ Nitrate □ Nitrite □ TKN □NH3 | CAC Title 22/CAM17 Metals □ TTLC □ STLC | TCLP (RCRA) □ Metals □ Organics | Cd Cr Cu Pb Ni Ag Zn □ Dissolved | Coliform, □ Total (MTF) □ Fecal (MTF) | Colilert, T+E.Coli □ P/A ✓ Enumeration | Enterococcus, □ MTF ✓ Enterolert | Heterotrophic Plate Count (HPC) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Site - J30d | 9/15 | 14:45 | SW | 2P | | | | | | | | | | | | | | | X | X | | | | | | |
| 2 | Site - J30d-1 | ↓ | 15:05 | ↓ | ↓ | | | | | | | | | | | | | | | X | X | | | | | | |
| 3 | Site - J30d-2 | | 15:20 | | | | | | | | | | | | | | | | | X | X | | | | | | |
| 4 | Site - J30d-3 | | 15:35 | | | | | | | | | | | | | | | | | X | X | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SEP 15 '09 16:28

**Matrix Codes:** A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

**Shipped By:** □ Courier □ UPS □ FedEx □ USPS □ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day ☒ 5 day □ STD (7 day)

[1]**Reporting Requirements:** □ Fax □ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** □ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

**Sample Integrity**

Correct Containers: Yes No N/A
Custody Seals Intact: Yes No N/A
COC/Labels Agree: Yes No N/A
Containers Properly Preseved: Yes No N/A
Temp @ Receipt:_____
Sampled By: Client EMA Autosampler

| RELINQUISHED BY | DATE/TIME | RECEIVED BY |
|---|---|---|
| Signature: [signature] | 9/15/09 16:16 | Signature: [signature] |
| Print: Joe Leonard | | Print: Sean Flores |
| Company: D-Max | | Company: EMA |
| Signature: | | Signature: |
| Print: | | Print: |
| Company: | | Company: |
| Signature: | | Signature: |
| Print: | | Print: |
| Company: | | Company: |

**Project/Sample Comments:**

T=6.0 on ice

[1]Additional costs may apply, consult a project manager for details.
[2]EMA reserves the right to return any samples that do not match our waste profile.

White- EMA Canary - Accounting Pink - Client (w/report) Gold - Client (Relinquish)

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

**EnviroMatrix Analytical, Inc.**

25 September 2009

D-Max Engineering
Attn: Arsalan Dadkhah
7220 Trade Street, Suite 119
San Diego, California 92121

**EMA Log #: 0909596**

**Project Name: Santee Dry Weather**
**Project Desc./#: 200919W-6 Round 2 Follow Up**

Enclosed are the results of analyses for samples received by the laboratory on 09/21/09 14:46. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

**Dan Verdon**
**Laboratory Director**

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
**Analytical Chemistry Laboratory**

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909596**

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| Site-J30d-4 | 0909596-01 | Stormwater | 09/21/09 11:30 | 09/21/09 14:46 |
| Site-J30d-5 | 0909596-02 | Stormwater | 09/21/09 12:05 | 09/21/09 14:46 |
| Site-J30d | 0909596-03 | Stormwater | 09/21/09 14:00 | 09/21/09 14:46 |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909596**

# Microbiological Parameters by Standard Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Date Prepared<br>Date Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|
| **Site-J30d-4 (0909596-01) Stormwater** | **Sampled: 09/21/09 11:30** | | **Received: 09/21/09 14:46** | | | | | |
| **Total Coliforms** | **2420000** | 1000 | MPN/100 ml | 1000 | 9092224 | 09/21/09 15:45<br>09/22/09 15:50 | SM9223 | |
| **E. Coli** | **443** | 10 | " | 10 | " | 09/21/09 15:45<br>09/22/09 15:50 | " | |
| **Site-J30d-5 (0909596-02) Stormwater** | **Sampled: 09/21/09 12:05** | | **Received: 09/21/09 14:46** | | | | | |
| **Total Coliforms** | **51700** | 100 | MPN/100 ml | 100 | 9092224 | 09/21/09 15:45<br>09/22/09 15:50 | SM9223 | |
| **E. Coli** | **75** | 10 | " | 10 | " | 09/21/09 15:45<br>09/22/09 15:50 | " | |
| **Site-J30d (0909596-03) Stormwater** | **Sampled: 09/21/09 14:00** | | **Received: 09/21/09 14:46** | | | | | |
| **Total Coliforms** | **242000** | 100 | MPN/100 ml | 100 | 9092224 | 09/21/09 15:45<br>09/22/09 15:50 | SM9223 | |
| **E. Coli** | **2140** | 10 | " | 10 | " | 09/21/09 15:45<br>09/22/09 15:50 | " | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909596**

## Notes and Definitions

| | |
|---|---|
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| RPD | Relative Percent Difference |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

# CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

**EMA LOG #:** 0909596

Client: D-Max Engineering
Attn: Arselan Dadkhah
Samplers(s): SL/MD
Address: 7220 Trade Street Suite 119
San Diego CA 92121
Phone: 858-586-6600 Fax:
Email:
Billing Address: same

Project ID: Santee 2009 DW Round 2 Follow Up
Project #: 200919W-6 PO #:

SEP 21 '09 14:72

## Requested Analysis

| ID # | Client Sample ID | Sample Date | Sample Time | Sample Matrix | Container # / Type | Oil & Grease □ 413.1 □ 413.2 □ 1664 | 8015B (TPH) □ Gas □ Diesel □ Ext | 624/8260 (VOC) Full BTXE MTBE Oxy Nap | 625 / 8270 (SVOC) □ PAH only | 608 / 8081 (Organochlorine Pesticides) | 608 / 8082 (Polychlorinated Biphenyls) | 8141 (Organophosphorus Pesticides) | TBT (Organotin Compounds) | □ pH □ EC □ TSS □TDS | □ Nitrate □ Nitrite □ TKN □NH3 | CAC Title 22/CAM17 Metals □ TTLC □ STLC | TCLP (RCRA) □ Metals □ Organics | Cd Cr Cu Pb Ni Ag Zn □ Dissolved | Coliform, □ Total (MTF) □ Fecal (MTF) | Colilert, T+E.Coli □ P/A ☒ Enumeration | Enterococcus, □ MTF □ Enterolert | Heterotrophic Plate Count (HPC) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Site-J30d-4 | 9.21 | 11:30 | SW | 1P | | | | | | | | | | | | | | | X | | | | | | | |
| 2 | Site-J30d-5 | ↓ | 12:05 | ↓ | ↓ | | | | | | | | | | | | | | | X | | | | | | | |
| 3 | Site-J30d | ↓ | 14:00 | ↓ | ↓ | | | | | | | | | | | | | | | X | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**Matrix Codes:** A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

**Shipped By:** □ Courier □ UPS □ FedEx □ USPS □ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day ☒ 5 day □ STD (7 day)

[1]**Reporting Requirements:** □ Fax □ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** □ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

**Sample Integrity**

| | |
|---|---|
| Correct Containers: Yes No N/A | Containers Properly Preseved: Yes No N/A |
| Custody Seals Intact: Yes No N/A | Temp @ Receipt:_____ |
| COC/Labels Agree: Yes No N/A | Sampled By: Client EMA Autosampler |

| RELINQUISHED BY | | DATE/TIME | RECEIVED BY | |
|---|---|---|---|---|
| Signature | | 9/21/09 14:46 | Signature | |
| Print | Joe Leonard | | Print | Sean Flory |
| Company: | D-Max | | Company: | EMA Inc. |
| Signature | | | Signature | |
| Print | | | Print | |
| Company: | | | Company: | |
| Signature | | | Signature | |
| Print | | | Print | |
| Company: | | | Company: | |

**Project/Sample Comments:**

T=4° on ice

[1]Additional costs may apply, consult a project manager for details.
[2]EMA reserves the right to return any samples that do not match our waste profile.

White- EMA Canary - Accounting Pink - Client (w/report) Gold - Client (Relinquish)

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

**EnviroMatrix Analytical, Inc.**

29 September 2009

D-Max Engineering
Attn: Arsalan Dadkhah
7220 Trade Street, Suite 119
San Diego, California 92121

**EMA Log #: 0909676**

**Project Name: Santee Dry Weather**
**Project Desc./#: 200919W-6 Round 2 Follow Up**

Enclosed are the results of analyses for samples received by the laboratory on 09/23/09 16:28. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

**Dan Verdon**
**Laboratory Director**

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
**Analytical Chemistry Laboratory**

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909676**

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| Site-J30d-6 | 0909676-01 | Stormwater | 09/23/09 15:10 | 09/23/09 16:28 |
| Site-J30d-7 | 0909676-02 | Stormwater | 09/23/09 15:20 | 09/23/09 16:28 |
| Site-J30d-8 | 0909676-03 | Stormwater | 09/23/09 15:30 | 09/23/09 16:28 |
| Site-J30d-4-2 | 0909676-04 | Stormwater | 09/23/09 15:40 | 09/23/09 16:28 |
| Site-J30d | 0909676-05 | Stormwater | 09/23/09 16:00 | 09/23/09 16:28 |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909676**

# Microbiological Parameters by Standard Methods

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Date Prepared<br>Date Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|
| **Site-J30d-6 (0909676-01) Stormwater Sampled: 09/23/09 15:10 Received: 09/23/09 16:28** | | | | | | | | |
| **Total Coliforms** | **41100** | 100 | MPN/100 ml | 100 | 9092424 | 09/23/09 17:32<br>09/24/09 17:32 | SM9223 | |
| **E. Coli** | **738** | 10 | " | 10 | " | 09/23/09 17:32<br>09/24/09 17:32 | " | |
| **Site-J30d-7 (0909676-02) Stormwater Sampled: 09/23/09 15:20 Received: 09/23/09 16:28** | | | | | | | | |
| **Total Coliforms** | **12000** | 10 | MPN/100 ml | 10 | 9092424 | 09/23/09 17:32<br>09/24/09 17:32 | SM9223 | |
| **E. Coli** | **83** | 10 | " | " | " | 09/23/09 17:32<br>09/24/09 17:32 | " | |
| **Site-J30d-8 (0909676-03) Stormwater Sampled: 09/23/09 15:30 Received: 09/23/09 16:28** | | | | | | | | |
| **Total Coliforms** | **4570** | 10 | MPN/100 ml | 10 | 9092424 | 09/23/09 17:32<br>09/24/09 17:32 | SM9223 | |
| **E. Coli** | **10** | 10 | " | " | " | 09/23/09 17:32<br>09/24/09 17:32 | " | |
| **Site-J30d-4-2 (0909676-04) Stormwater Sampled: 09/23/09 15:40 Received: 09/23/09 16:28** | | | | | | | | |
| **Total Coliforms** | **34500** | 100 | MPN/100 ml | 100 | 9092424 | 09/23/09 17:32<br>09/24/09 17:32 | SM9223 | |
| E. Coli | ND | 10 | " | 10 | " | 09/23/09 17:32<br>09/24/09 17:32 | " | |
| **Site-J30d (0909676-05) Stormwater Sampled: 09/23/09 16:00 Received: 09/23/09 16:28** | | | | | | | | |
| **Total Coliforms** | **242000** | 100 | MPN/100 ml | 100 | 9092424 | 09/23/09 17:32<br>09/24/09 17:32 | SM9223 | |
| **E. Coli** | **369** | 10 | " | 10 | " | 09/23/09 17:32<br>09/24/09 17:32 | " | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: D-Max Engineering
Project Name: Santee Dry Weather

**EMA Log #: 0909676**

## Notes and Definitions

| | |
|---|---|
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| RPD | Relative Percent Difference |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

# CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

**EMA LOG #:** 0909676

Client: D-Max Engineering
Attn: Arsalan Dadkhah
Samplers(s): JL/MD
Address: 7220 Trade Street Suite 119
San Diego, CA 92121
Phone: 858-586-6600 Fax:
Email:
Billing Address: same

Project ID: Santee DW 2009 Round 2 Follow Up
Project #: 200919W-6 PO #:

**Requested Analysis**

| ID # | Client Sample ID | Sample Date | Sample Time | Sample Matrix | Container # / Type | Oil & Grease □ 413.1 □ 413.2 □ 1664 | 8015B (TPH) □ Gas □ Diesel □ Ext | 624/8260 (VOC) Full BTXE MTBE Oxy Nap | 625 / 8270 (SVOC) □ PAH only | 608 / 8081 (Organochlorine Pesticides) | 608 / 8082 (Polychlorinated Biphenyls) | 8141 (Organophosphorus Pesticides) | TBT (Organotin Compounds) | □ pH □ EC □ TSS □TDS | □ Nitrate □ Nitrite □ TKN □NH3 | CAC Title 22/CAM17 Metals □ TTLC □ STLC | TCLP (RCRA) □ Metals □ Organics | Cd Cr Cu Pb Ni Ag Zn □ Dissolved | Coliform, □ Total (MTF) □ Fecal (MTF) | Colilert, T+E.Coli □ P/A ✓Enumeration | Enterococcus, □ MTF □ Enterolert | Heterotrophic Plate Count (HPC) | SEP 23 '09 16:49 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Site-J30d-6 | 9/23 | 15:10 | SW | 1P | | | | | | | | | | | | | | X | | | |
| 2 | Site-J30d-7 | ↓ | 15:20 | ↓ | ↓ | | | | | | | | | | | | | | X | | | |
| 3 | Site-J30d-8 | ↓ | 15:30 | ↓ | ↓ | | | | | | | | | | | | | | X | | | |
| 4 | Site-J30d-4-2 | ↓ | 15:40 | ↓ | ↓ | | | | | | | | | | | | | | X | | | |
| 5 | Site-J30d | ↓ | 16:00 | ↓ | ↓ | | | | | | | | | | | | | | X | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | |

**Matrix Codes:** A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

**Shipped By:** □ Courier □ UPS □ FedEx □ USPS □ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day ☒ 5 day □ STD (7 day)

[1]**Reporting Requirements:** □ Fax □ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** □ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

**Sample Integrity**

Correct Containers: Yes No N/A
Containers Properly Preseved: Yes No N/A
Custody Seals Intact: Yes No N/A
Temp @ Receipt:_____
COC/Labels Agree: Yes No N/A
Sampled By: Client EMA Autosampler

| RELINQUISHED BY | DATE/TIME | RECEIVED BY |
|---|---|---|
| Signature: [signature] | 9/23/09 16:28 | Signature: [signature] |
| Print: Joe Leonard | | Print: Sam Flores |
| Company: D-Max | | Company: EMA Inc |
| Signature: | | Signature: |
| Print: | | Print: |
| Company: | | Company: |
| Signature: | | Signature: |
| Print: | | Print: |
| Company: | | Company: |

**Project/Sample Comments:**

T= 7.0 [illegible]

[1]Additional costs may apply, consult a project manager for details.
[2]EMA reserves the right to return any samples that do not match our waste profile.

White- EMA Canary - Accounting Pink - Client (w/report) Gold - Client (Relinquish)

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

# Appendix D

# Field Data and Trash Assessment Sheets

# Round One

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

✓

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | A5c | | Latitude | 32.84081 | Watershed | Hydrologic Unit | 907. |
| Location | Carlton Oaks Drive, across from Cuderette Avenue, next to 8335 | | Longitude | -117.02160 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1230, H6 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/26/2009 | Time 1145 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☐ None ☒ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☒ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☒ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☒ Insects ☐ Algae ☐ Fish ☒ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☐ Flowing ☒ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other:

**Photo Taken** ☒ Yes ☐ No **Photo #** 66, 67

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 21.4 | $NH_3$-N (mg/L) | 0.183 | $NO_3$ (mg/L) | 5.055 | Ortho-$PO_4$ (mg/L) | 1.447 |
| pH (pH units) | 8.2 | TURB (NTU) | 5.83 | $NO_3$-N (mg/L) | 4.829 | Ortho-$PO_4$-P (mg/L) | 0.472 |
| COND (mS/cm) | 2.14 | MBAS (mg/L) | 0.5 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

**SITE ID:** ASc

**DATE:** 08/26/2009

**LOCATION:** ~~ASc~~ Carlton Oaks Drive, across from Cadorette Ave., next to 8335

**TIME:** 11:45

**OBSERVER:** MV/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Optimal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 30x30

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☒ **MS4** ☐ **RECEIVING WATER** ☐ **BOTH** | |
| ☐ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☒ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | E5a | Latitude | 32.84854 | Watershed | Hydrologic Unit | 907 |
| Location | Santee Recreation Lakes, West of the Southern Lake, east of Sycamore Creek | Longitude | -117.00723 | | Hydrologic Area | 907.1 |
| | | TB Page | 1231, A5 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/20/2009 | Time | 1600 | Observer | MD/AK | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ~~☐ Open~~ ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

| | | | | | | |
|---|---|---|---|---|---|---|
| Weather | ☐ Sunny | ☒ Partly Cloudy | ☐ Overcast | ☐ Fog | | |
| Tide | ☒ N/A | ☐ Low | ☐ Incoming | ☐ High | ☐ Outgoing | Tide Height: _____ ft. |
| Last Rain | ☒ > 72 hours | ☐ < 72 hours | | | | |
| Rainfall | ☒ None | ☐ < 0.1" | ☐ > 0.1" | | | |

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| Odor | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| Color | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| Clarity | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| Floatables | ☐ None | ☐ Trash | ☐ Bubbles/Foam | ☒ Sheen - Dust (Dust) | ☐ Fecal Matter | ~~☒ Other Leaves~~ |
| Deposits | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| Vegetation | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other |
| Biology | ☐ None | ☒ Insects | ~~☒ Algae~~ ☐ Fish | ☐ Snails | ☐ Mussels/ Barnacles ☐ Insect/ Algae | ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 29, 30

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 22.1 | $NH_3$-N (mg/L) | 1.590 | $NO_3$ (mg/L) | 37.08 | Ortho-$PO_4$ (mg/L) | 3.022 |
| pH (pH units) | 7.0 | TURB (NTU) | 7.72 | $NO_3$-N (mg/L) | 8.38 | Ortho-$PO_4$-P (mg/L) | 0.985 |
| COND (mS/cm) | 5.12 | MBAS (mg/L) | 0.5 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 2 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** ESa **DATE:** 05/20/2009

**LOCATION:** Santee Recreation Lakes, West of the Southern lake, east of Sycamore Creek **TIME:** 1600

**OBSERVER:** MD / AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Marginal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 30 x 15

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☐ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☒ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☒ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☒ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☒ Confirmation For $NH_3$-N ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | E5g | | **Latitude** | 32.84854 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Santee Recreation Lakes, west of the Southern Lake, East of Sycamore Creek | | **Longitude** | -117.00723 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231, A5 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 05/21/2009 | **Time** 1345 | **Observer** | MD/AK | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☐ None ☐ Trash ☐ Bubbles/Foam ☒ Sheen (Dust) ☐ Fecal Matter ~~☒ Other leaves~~

**Deposits** ☐ None ☐ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☒ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 43,44

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 22.1 | $NH_3$-N (mg/L) | 2.924 | $NO_3$ (mg/L) | NA | Ortho-$PO_4$ (mg/L) | NA |
| pH (pH units) | 7.3 | TURB (NTU) | NA | $NO_3$-N (mg/L) | NA | Ortho-$PO_4$-P (mg/L) | NA |
| COND (mS/cm) | 2.80 | MBAS (mg/L) | NA | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☒ Confirmation For -2nd for Ammonia ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | E5g | | **Latitude** | 32.84894 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Santee Recreation Lakes, West of the Southern Lake, East of Sycamore Creek | | **Longitude** | -117.00723 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231, A5 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 05/22/2009 | **Time** 1440 | **Observer** | MD/AK | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☐ Sunny ☒ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☐ None ☐ Trash ☐ Bubbles/Foam ☒ Sheen (Dust) ☐ Fecal Matter ~~☒ Other (leaves)~~

**Deposits** ☐ None ☒ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☒ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** 57

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 22.4 | $NH_3$-N (mg/L) | >3 | $NO_2$ (mg/L) | NA | Ortho-$PO_4$ (mg/L) | NA |
| pH (pH units) | 7.3 | TURB (NTU) | NA | $NO_3$-N (mg/L) | NA | Ortho-$PO_4$-P (mg/L) | NA |
| COND (mS/cm) | 3.02 | MBAS (mg/L) | NA | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☒ IC/ID Follow-Up For Ammonia

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | ESg-1 | | **Latitude** | 32.84887 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Santee Recreational Lakes, West side of entrance road, ~100 feet South of entrance toll booth in grassy area | | **Longitude** | -117.004466 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-A5 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 05/22/2009 | **Time** 15:30 | **Observer** | MD/AK | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☒ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☐ Sunny ☒ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☒ None | ☐ Sediment/Gravel | ☐ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☒ None | ☐ Insects ☐ Algae | ☐ Fish ☐ Snails | ☐ Mussels/ Barnacles | ☐ Insect/ Algae | ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 57, 58

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | NA | $NH_3$-N (mg/L) | 0.319 | $NO_3$ (mg/L) | NA | Ortho-$PO_4$ (mg/L) | NA |
| pH (pH units) | NA | TURB (NTU) | NA | $NO_3$-N (mg/L) | NA | Ortho-$PO_4$ -P (mg/L) | NA |
| COND (mS/cm) | NA | MBAS (mg/L) | NA | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | G30c | | Latitude | 32.84501 | Watershed | Hydrologic Unit | 907 |
| Location | North of San Diego River, Silver Creek Dr. South of River Trail Place | | Longitude | -116.97122 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-C5 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/20/2009 | Time 11:45 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☒ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☐ Sunny ☒ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☒ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☒ Insects ☒ Algae ☐ Fish ☒ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 23, 24

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 29.0 | $NH_3$-N (mg/L) | 0.199 | $NO_3$ (mg/L) | 15.05 | Ortho-$PO_4$ (mg/L) | 0.245 |
| pH (pH units) | 8.9 | TURB (NTU) | 3.49 | $NO_3$-N (mg/L) | 3.40 | Ortho-$PO_4$-P (mg/L) | 0.080 |
| COND (mS/cm) | 3.02 | MBAS (mg/L) | 0.25 | DO (mg/L) | 8.33 | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

**SITE ID:** G30c **DATE:** 05/20/2009

**LOCATION:** North of San Diego River, Silver Creek Dr., South of River Trail Pl. **TIME:** 11:45

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Optional

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 20 x 10

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | H5e | | Latitude | 32.84561 | Watershed | Hydrologic Unit | 907 |
| Location | North of San Diego River, Silver Creek Dr., South of River Trail Place | | Longitude | -116.98769 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-C5 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/20/2009 | Time 12:50 pm | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☐ Sunny ☒ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** ____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☒ Insects ☒ Algae | ☐ Fish | ☒ Snails | ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail | ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 27, 28

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 25.3 | $NH_3$-N (mg/L) | 0.049 | $NO_3$ (mg/L) | 4.848 | Ortho-$PO_4$ (mg/L) | 0.275 |
| pH (pH units) | 8.3 | TURB (NTU) | 0.92 | $NO_3$-N (mg/L) | 1.096 | Ortho-$PO_4$-P (mg/L) | 0.090 |
| COND (mS/cm) | 1.52 | MBAS (mg/L) | 0.25 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** H5e **DATE:** 05/20/2009

**LOCATION:** North of San Diego River, Silver Creek Dr., South of River Trail Pl. **TIME:** 1450

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Marginal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 30 x 7

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | J25c | | Latitude | 32.85813 | Watershed | Hydrologic Unit | 907 |
| Location | West end of Caretree Dr. at the west side of channel | | Longitude | -116.97601 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231, D4 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/21 | Time 1215 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** ____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☐ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☒ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☒ Insects ☒ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ~~☒ No~~ ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 38, 39

**Field Screening Samples Collected?** ☐ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 20.8 | $NH_3$-N (mg/L) | 0.220 | $NO_2$ (mg/L) | 30.89 | Ortho-$PO_4$ (mg/L) | 0.134 |
| pH (pH units) | 8.2 | TURB (NTU) | 0.78 | $NO_3$-N (mg/L) | 6.98 | Ortho-$PO_4$-P (mg/L) | 0.044 |
| COND (mS/cm) | 4.39 | MBAS (mg/L) | 0.75 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 2 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** J25c **DATE:** 05/21/2009

**LOCATION:** West end of Carefree Dr, at the West side of channel **TIME:** 1215

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Marginal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 8 x 4

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

✓

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | J25c2 | | Latitude | 32.85639 | Watershed | Hydrologic Unit | 907 |
| Location | Conejo rd, at the end of Country Scenes | | Longitude | -116.97598 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231, D4 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/19/2009 | Time 3:25 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☐ None ☒ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☐ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☒ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☒ Insects ☒ Algae ☐ Fish ☒ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 16,17

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 25.2 | $NH_3$-N (mg/L) | 0.257 | $NO_3$ (mg/L) | 26.25 | Ortho-$PO_4$ (mg/L) | 0.301 |
| pH (pH units) | 8.0 | TURB (NTU) | 2.26 | $NO_3$-N (mg/L) | 5.93 | Ortho-$PO_4$ -P (mg/L) | 0.098 |
| COND (mS/cm) | 4.47 | MBAS (mg/L) | 0.5 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 2 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** J25c2 **DATE:** 05/19/2009

**LOCATION:** Conejo road, at the end of Country Scenes **TIME:** 3:25pm

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** ~~Optimal~~ Suboptimal

**ESTIMATED AREA OF ASSESSMENT L X W (FT):** 5x3

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☒ **MS4** ☐ **RECEIVING WATER** ☐ **BOTH** | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

✓

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | J30d | | Latitude | 32.89485 | Watershed | Hydrologic Unit | 907 |
| Location | Woodglen Vista Channel, South of Mast Boulevard | | Longitude | -116.97588 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-D4 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/22/2009 | Time 0950 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☒ Algae | ☒ Fish | ☐ Snails | ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 47, 48

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 20.9 | $NH_3$-N (mg/L) | 0.233 | $NO_3$ (mg/L) | 21.63 | Ortho-$PO_4$ (mg/L) | 0.032 |
| pH (pH units) | 8.2 | TURB (NTU) | 0.01 | $NO_3$-N (mg/L) | 4.89 | Ortho-$PO_4$-P (mg/L) | 0.010 |
| COND (mS/cm) | 2.68 | MBAS (mg/L) | 0.25 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | 30 | in |
| Depth | 0.25 | in |
| Velocity | 10/10 | ft/sec |
| Flow | 23 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** J30d **DATE:** 05/22/2009

**LOCATION:** Woodglen Vista Channel, South Side of Mast Blvd. **TIME:** 9:50

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Suboptimal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 30 x 15

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | K15j2 | | Latitude | 32.86596 | Watershed | Hydrologic Unit | 907 |
| Location | Woodglen Vista Drive, east of Woodrose Ave. South side of the park | | Longitude | -116.97418 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231, D2 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/19/2009 | Time 2:10pm | Observer | MD / AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☒ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☐ Outlet ☒ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ~~☒ Other leaf litter~~

**Deposits** ☐ None ☐ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☒ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☒ Insects ☒ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 14, 15

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 28.6 | $NH_3$-N (mg/L) | 0.281 | $NO_3$ (mg/L) | 22.83 | Ortho-$PO_4$ (mg/L) | 0.061 |
| pH (pH units) | 8.1 | TURB (NTU) | 1.8 | $NO_3$-N (mg/L) | 5.16 | Ortho-$PO_4$-P (mg/L) | 0.02 |
| COND (mS/cm) | 2.44 | MBAS (mg/L) | 0.38 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 2 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** K15j2 **DATE:** 05/19/2009

**LOCATION:** Woodglen Vista Drive east of Woodrose Ave, south side of the park **TIME:** 2:10 pm

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Suboptimal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 20 x 8

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

✓

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | 0406 | | Latitude | 32.84851 | Watershed | Hydrologic Unit | 907 |
| Location | Abraham Way, South of San Diego River | | Longitude | -116.96392 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-F5 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/20/2009 | Time 9:20 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☐ Sunny ☒ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☐ None | ☒ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other |

**Biology** ☐ None ~~☒ Insects~~ ~~☒ Algae~~ ☐ Fish ☒ Snails ☐ Mussels/ Barnacles ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☐ Flowing ☒ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 18-20

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 19.1 | $NH_3$-N (mg/L) | 0.069 | $NO_3$ (mg/L) | 9.99 | Ortho-$PO_4$ (mg/L) | 1.487 |
| pH (pH units) | 8.1 | TURB (NTU) | 9.17 | $NO_3$-N (mg/L) | 2.26 | Ortho-$PO_4$-P (mg/L) | 0.485 |
| COND (mS/cm) | 1.51 | MBAS (mg/L) | 0.25 | DO (mg/L) | 5.36 | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | ponded | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

SITE ID: 040b

DATE: 05/20/2009

LOCATION: Abraham way, South of San Diego River

TIME: 9:20

OBSERVER: MD/AK

PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE): Optimal

ESTIMATED AREA OF ASSESSMENT L x W (FT): 20 x 10

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ Optimal | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ~~☒ Suboptimal~~ | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ Marginal | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Submarginal | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Poor | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ Potential Threat to Human Health | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ Potential Threat to Aquatic Health | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

a8

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☒ Confirmation For Bacteria ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | 040b | | Latitude | 32.84851 | Watershed | Hydrologic Unit | 907 |
| Location | Abraham Way, South of San Diego River | | Longitude | -116.96397 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-F5 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 06/02/2009 | Time 9:50 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☐ Sunny ☒ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☒ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☐ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☐ Flowing ☒ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ~~☒ No~~ **Photo #** ~~22-23~~ 72,73

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 19.1 | $NH_3$-N (mg/L) | NA | $NO_3$ (mg/L) | NA | Ortho-$PO_4$ (mg/L) | NA |
| pH (pH units) | 8.2 | TURB (NTU) | NA | $NO_3$-N (mg/L) | NA | Ortho-$PO_4$-P (mg/L) | NA |
| COND (mS/cm) | 1.68 | MBAS (mg/L) | NA | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | ponded | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** Small amount of trash in area. Surrounding location

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | P15b | | Latitude | 32.83704 | Watershed | Hydrologic Unit | 907 |
| Location | Northeast of Magnolia Avenue and Rockvill Street intersection | | Longitude | -116.96633 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231 E6 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/21/2009 | Time 1515 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☒ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☐ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |

**Biology** ~~☒ None~~ ☐ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☒ Other cockroach

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No Photo # 40-42

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | ~~25.1~~ 24.6 | $NH_3$-N (mg/L) | 0.130 | $NO_3$ (mg/L) | 30.97 | Ortho-$PO_4$ (mg/L) | 0.386 |
| pH (pH units) | 7.67 | TURB (NTU) | 0.79 | $NO_3$-N (mg/L) | 7.00 | Ortho-$PO_4$-P (mg/L) | 0.126 |
| COND (mS/cm) | 1.62 | MBAS (mg/L) | 0.13 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 4 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** P15b **DATE:** 05/21/2009

**LOCATION:** Northeast of Magnolia Avenue and Rockvill street intersection **TIME:** 1515

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Optimal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 8 x 5

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☒ **MS4** ☐ **RECEIVING WATER** ☐ **BOTH** | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | P20f | | Latitude | 32.84674 | Watershed | Hydrologic Unit | 907 |
| Location | Magnolia Ave, East of Chubb Lane | | Longitude | -116.96920 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-E5 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/21/2009 | Time 1140 | Observer | MD/AK | | Discharge Area (Optional) | ~~907.12~~ |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☐ Outlet ☒ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** ____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☐ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☒ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☐ Insects ☒ Algae ☐ Fish ☒ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 36, 37

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 23.8 | $NH_3$-N (mg/L) | 0.232 | $NO_3$ (mg/L) | 11.47 | Ortho-$PO_4$ (mg/L) | 0.149 |
| pH (pH units) | 8.8 | TURB (NTU) | 10.3 | $NO_3$-N (mg/L) | 2.59 | Ortho-$PO_4$-P (mg/L) | 0.049 |
| COND (mS/cm) | 1.36 | MBAS (mg/L) | 0.13 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | 20 | in |
| Depth | 0.25 | in |
| Velocity | 10/10 | ft/sec |
| Flow | 15.5 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** P2Of **DATE:** 05/21/2009

**LOCATION:** Magnolia Ave, East of Chubb Lane **TIME:** 1140

**OBSERVER:** MD / AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Optimal

**ESTIMATED AREA OF ASSESSMENT L X W (FT):** 20 x 12

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | Q5l | | Latitude | 32.83121 | Watershed | Hydrologic Unit | 907 |
| Location | Northside of Prospect Ave, East of Railroad ave. | | Longitude | -116.97090 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231, E7 | | Hydrologic Subarea (Optional) | 907.13 |
| Date | 05/21/09 | Time 0925 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only) ☐ Manhole ☒ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☐ Sunny ☒ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☐ None ☒ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☐ Clear ☒ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☒ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☒ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other

**Biology** ☒ None ☐ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ~~☒ Ponded~~ ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☒ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 31-32

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 19.8 | $NH_3$-N (mg/L) | 0.568 | $NO_3$ (mg/L) | 28.17 | Ortho-$PO_4$ (mg/L) | 2.214 |
| pH (pH units) | 8.2 | TURB (NTU) | 49.91 | $NO_3$-N (mg/L) | 6.37 | Ortho-$PO_4$-P (mg/L) | 0.722 |
| COND (mS/cm) | 1.84 | MBAS (mg/L) | 0.5 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** Q5L

**DATE:** 05/21/2009

**LOCATION:** North side of Prospect Ave, East of Railroad Ave.

**TIME:** 0925

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Optimal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 6 x 4

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

✓

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | RCP1 | | Latitude | 32.84949 | Watershed | Hydrologic Unit | 907 |
| Location | North bank of the San Diego River, in the RCP brick factory South of an open field with radio antenna | | Longitude | -116.96666 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-E5 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/21/2009 | Time 1045 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☐ Sunny ☒ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☐ None ☐ Trash ☒ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☒ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☒ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other:

**Photo Taken** ☒ Yes ☐ No **Photo #** 33-35 (3)

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 21.5 | $NH_3$-N (mg/L) | 0.059 | $NO_3$ (mg/L) | 41.41 | Ortho-$PO_4$ (mg/L) | 0.29 |
| pH (pH units) | 8.3 | TURB (NTU) | 0.64 | $NO_3$-N (mg/L) | 9.27 | Ortho-$PO_4$-P (mg/L) | 0.09 |
| COND (mS/cm) | 1.60 | MBAS (mg/L) | 0.25 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 5 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** RCP1 **DATE:** 05/21/2009

**LOCATION:** North bank of the San Diego River in the RCP brick factory, South of an open field with radio antennae **TIME:** 1045

**OBSERVER:** MD / AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Suboptimal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 15 x 6

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☒ **MS4** ☐ **RECEIVING WATER** ☐ **BOTH** | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

✓

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | RCP3 | | Latitude | 32.84982 | Watershed | Hydrologic Unit | 907 |
| Location | North bank of the San Diego River, in the RCP brick factory, across from the southeast corner of the Antennae field | | Longitude | -116.96342 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231. E5 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/26/2009 | Time 10:25 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

Weather: ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

Tide: ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: ____ ft.

Last Rain: ☒ > 72 hours ☐ < 72 hours

Rainfall: ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

Odor: ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

Color: ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

Clarity: ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

Floatables: ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

Deposits: ☐ None ☒ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

Vegetation: ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other

Biology: ☐ None ☒ Insects ☒ Algae ☐ Fish ☒ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

Water Flow: ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☒ Yes ☐ No ☐ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other:

Photo Taken ☒ Yes ☐ No Photo # 3 6163

Field Screening Samples Collected? ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 21.8 | $NH_3$-N (mg/L) | 0.172 | $NO_3$ (mg/L) | 3.828 | Ortho-$PO_4$ (mg/L) | 0.316 |
| pH (pH units) | 8.2 | TURB (NTU) | 0.42 | $NO_3$-N (mg/L) | 0.865 | Ortho-$PO_4$-P (mg/L) | 0.103 |
| COND (mS/cm) | 1.84 | MBAS (mg/L) | 0.25 | DO (mg/L) | NA | | |

Analytical Lab Samples Collected? ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

Flowing Creek or Box Culvert

| | | |
|---|---|---|
| Width | 10 | in |
| Depth | 0.25 | m |
| Velocity | 10/10 | ft/sec |
| Flow | 7.7 | gpm |

Filling a Bottle or Known Volume

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

Flowing Pipe

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

**SITE ID:** RCP3 **DATE:** 05/26/2009

**LOCATION:** North bank of the San Diego River, in the RCP brick factory, across from the southeast corner of Antennae Field **TIME:** 10:25

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** ~~Suboptimal~~ N/A

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 25 x 15

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☒ **MS4** ☐ **RECEIVING WATER** ☐ **BOTH** | |
| ☐ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☒ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

✓

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | S15h | | Latitude | 32.84324 | Watershed | Hydrologic Unit | 907 |
| Location | Mission Gorge Road, Town center Pkwy, North of Walmart west of trail | | Longitude | -116.98969 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231, 66 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/26/2009 | Time 1410 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☐ None | ☒ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☐ None | ☒ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |

**Biology** ☐ None ☒ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 70, 71

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 24.6 | $NH_3$-N (mg/L) | 0.194 | $NO_3$ (mg/L) | 5.823 | Ortho-$PO_4$ (mg/L) | 1.363 |
| pH (pH units) | 8.7 | TURB (NTU) | 15.00 | $NO_3$-N (mg/L) | 1.316 | Ortho-$PO_4$-P (mg/L) | 0.444 |
| COND (mS/cm) | 1.64 | MBAS (mg/L) | 0.38 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

**SITE ID:** S15h **DATE:** 05/26/2009

**LOCATION:** Mission Gorge rd. Town Center Pkwy, North of Walmart, west of trail **TIME:** 1410

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Suboptimal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 25 x 10

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☒ **MS4** ☐ **RECEIVING WATER** ☐ **BOTH** | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | S5c | | Latitude | 32.84371 | Watershed | Hydrologic Unit | 907 |
| Location | Mission Gorge Rd, Town Center Parkway, West of Michael's | | Longitude | -116.98798 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231, C6 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/20/2009 | Time 12:45 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☐ Sunny ☒ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☐ None | ☐ Trash | ☒ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☒ Insects | ☒ Algae | ☐ Fish | ☐ Snails | ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 25, 26

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | ~~25.7~~ 24.7 | $NH_3$-N (mg/L) | 0.038 | $NO_3$ (mg/L) | 1.449 | Ortho-$PO_4$ (mg/L) | 0.132 |
| pH (pH units) | 8.1 | TURB (NTU) | 2.59 | $NO_3$-N (mg/L) | 0.327 | Ortho-$PO_4$-P (mg/L) | 0.043 |
| COND (mS/cm) | 1.02 | MBAS (mg/L) | 0.13 | DO (mg/L) | 6.53 | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 2 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** S5c **DATE:** 05/20/2009

**LOCATION:** Mission Gorge Rd., Town Center Parkway, West of Michael's **TIME:** 12:45

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Submarginal

**ESTIMATED AREA OF ASSESSMENT L X W (FT):** 20 x 6

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | T5e | | Latitude | 32.83392 | Watershed | Hydrologic Unit | 907 |
| Location | Prospect Avenue, across the street from Argent street, south of Forester creek | | Longitude | -116.98960 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231,07 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/26/2009 | Time 1300 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/~~Gravel~~ | ☐ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☒ Insects ☐ Algae | ☐ Fish ☐ Snails | ☐ Mussels/ Barnacles | ☐ Insect/ Algae | ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 69

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 24.4 | $NH_3$-N (mg/L) | 0.146 | $NO_3$ (mg/L) | 1.585 | Ortho-$PO_4$ (mg/L) | 1.195 |
| pH (pH units) | 8.2 | TURB (NTU) | 5.89 | $NO_3$-N (mg/L) | 0.358 | Ortho-$PO_4$-P (mg/L) | 0.390 |
| COND (mS/cm) | 1.05 | MBAS (mg/L) | 0.25 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** T5e **DATE:** 05/26/2009

**LOCATION:** Prospect Avenue, across the Street from Argent st., South of Forester creek **TIME:** 1300

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** N/A

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 12 x 6

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | U10a | | **Latitude** | 32.83745 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | South bank of Forester Creek ~200 yards south of the Mission Gorge rd. and Carlton Hill intersection | | **Longitude** | -116.99586 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231, B6 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 05/22/2009 | **Time** 0910 | **Observer** | MD/AK | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

## ATMOSPHERIC CONDITIONS

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

## RUNOFF CHARACTERISTICS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Odor** | ☐ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | | ☒ Other N/A | |
| **Color** | ☐ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | | ☒ Other N/A | |
| **Clarity** | ☐ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | | ☒ Other N/A | |
| **Floatables** | ☒ ~~None~~ | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | | ☒ Other N/A | |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☐ Fine Particulates | ☐ Stains | ☐ Oily Deposits | | ☐ Other | |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | | ☐ Other | |
| **Biology** | ☒ None | ☐ Insects | ☐ Algae | ☐ Fish | ☐ Snails | ☐ Mussels/ Barnacles | ☐ Insect/ Algae | ☐ Insect/ Snail | ☐ Other |

**Water Flow** ☐ Flowing ☐ Ponded ☒ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 45, 46

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | NS | $NH_3$-N (mg/L) | NS | $NO_3$ (mg/L) | NS | Ortho-$PO_4$ (mg/L) | NS |
| pH (pH units) | NS | TURB (NTU) | NS | $NO_3$-N (mg/L) | NS | Ortho-$PO_4$-P (mg/L) | NS |
| COND (mS/cm) | NS | MBAS (mg/L) | NS | DO (mg/L) | NS | | |

**Analytical Lab Samples Collected?** ☐ Yes ☐ No

## FLOW ESTIMATION WORKSHEETS

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | Dry | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** U10a **DATE:** 05/22/2009

**LOCATION:** South bank of Forester creek, ~200 yards south of Mission Gorge & Carlton Hill intersection **TIME:** 0910

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** N/A

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 20 x 5

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | V40d | | Latitude | 32.83375 | Watershed | Hydrologic Unit | 907 |
| Location | Prospect Avenue, East of Fanita Drive | | Longitude | -117.00005 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231, B7 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/22/2009 | Time 11:10 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☐ Outlet ☒ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |

**Biology** ☐ None ☒ Insects ☒ Algae ☐ Fish ☒ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 49, 50

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 27.9 | $NH_3$-N (mg/L) | 0.138 | $NO_3$ (mg/L) | 0.626 | Ortho-$PO_4$ (mg/L) | 0.011 |
| pH (pH units) | 8.16 | TURB (NTU) | 1.68 | $NO_3$-N (mg/L) | 0.141 | Ortho-$PO_4$-P (mg/L) | 0.004 |
| COND (mS/cm) | 4.19 | MBAS (mg/L) | 0.5 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | 43 | in |
| Depth | 0.25 | in |
| Velocity | 10/10 | ft/sec |
| Flow | 33.5 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** V40d **DATE:** 05/22/2009

**LOCATION:** Prospect Avenue, East of Fanita Drive **TIME:** 11:10

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Suboptimal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 40 x 10

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

✓

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | V45k | | Latitude | 32.83878 | Watershed | Hydrologic Unit | 907 |
| Location | North of Mission Gorge rd, East of Freeway 125 | | Longitude | -117.00268 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231, A6 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/22/2009 | Time 12:00 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☒ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | | | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | | | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | | | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | | | ☐ Other |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | | | ☐ Other |
| **Biology** | ☐ None | ☒ Insects | ☒ Algae | ☐ Fish | ☒ Snails | ☐ Mussels/ Barnacles | ☐ Insect/ Algae | ☐ Insect/ Snail ☒ Other crayfish |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 51-56

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 21.6 | $NH_3$-N (mg/L) | 0.152 | $NO_3$ (mg/L) | ~~7.5~~ 0.617 | Ortho-$PO_4$ (mg/L) | 0.058 |
| pH (pH units) | 7.8 | TURB (NTU) | 0.01 | $NO_3$-N (mg/L) | 0.139 | Ortho-$PO_4$-P (mg/L) | 0.019 |
| COND (mS/cm) | 4.55 | MBAS (mg/L) | 0.5 | DO (mg/L) | 7.51 | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 6 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** V45k **DATE:** 05/22/2009

**LOCATION:** South of Mission Gorge Rd, East of Freeway 125 **TIME:** 12:00

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** N/A

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 30 x 15

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | Y15e | | Latitude | 32.83670 | Watershed | Hydrologic Unit | 907 |
| Location | Mission Gorge rd, West of Big Rock rd across from a shopping center | | Longitude | -117.02156 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1230, H7 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/26/2009 | Time 1235 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☐ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☒ Other N/A |
| **Color** | ☐ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☒ Other N/A |
| **Clarity** | ☐ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☒ Other N/A |
| **Floatables** | ☐ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☒ Other N/A |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☐ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other |

**Biology** ☒ None ☐ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☐ Flowing ☐ Ponded ☒ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 68

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | NS | $NH_3$-N (mg/L) | NS | $NO_3$ (mg/L) | NS | Ortho-$PO_4$ (mg/L) | NS |
| pH (pH units) | NS | TURB (NTU) | NS | $NO_3$-N (mg/L) | NS | Ortho-$PO_4$-P (mg/L) | NS |
| COND (mS/cm) | NS | MBAS (mg/L) | NS | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** Y 15e **DATE:** 05/26/2009

**LOCATION:** Mission Gorge Rd., West of Big Rock ~~MD/AK~~ Rd. across from a shopping center **TIME:** 1235

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Marginal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** ~~10~~ 20 x 10

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☐ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☒ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

✓

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | Z156 | | Latitude | 32.83370 | Watershed | Hydrologic Unit | 907 |
| Location | North of Mission Gorge Road, East of Father Junipero Serra Trail | | Longitude | -117.02997 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1230, G7 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 05/26/2009 | Time 9:20 | Observer | MD/AK | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☐ Sunny ☒ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☐ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☒ Insects | ☐ Algae ☐ Fish ☐ Snails | ☐ Mussels/ Barnacles | ☐ Insect/ Algae | ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 59, 60

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 19.8 | $NH_3$-N (mg/L) | 0.034 | $NO_3$ (mg/L) | 4.332 | Ortho-$PO_4$ (mg/L) | 0.929 |
| pH (pH units) | 8.1 | TURB (NTU) | 5.14 | $NO_3$-N (mg/L) | 0.979 | Ortho-$PO_4$-P (mg/L) | 0.303 |
| COND (mS/cm) | 1.13 | MBAS (mg/L) | 0.13 | DO (mg/L) | NA | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** 215 b **DATE:** 05/26/2009

**LOCATION:** North of Mission Gorge Rd., East of Father Junipero Serra Trail **TIME:** 9:20

**OBSERVER:** MD/AK

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** Optimal

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 15 x 8

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☒ **MS4** ☐ **RECEIVING WATER** ☐ **BOTH** | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries, or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# Round Two

LW

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | A5c | | Latitude | 32.84081 | Watershed | Hydrologic Unit | 907 |
| Location | Carlton Oaks Drive across from Cadorette Avenue, next to 8335 | | Longitude | -117.02160 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1230-H6 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/8/09 | Time 12:30 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☐ None | ☒ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects ☐ Algae | ☐ Fish ☐ Snails | ☐ Mussels/ Barnacles | ☒ Insect/ Algae ☐ Insect/ Snail | ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 43, 44

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 25.1 | $NH_3$-N (mg/L) | 0.432 | $NO_3$ (mg/L) | 5.878 | Ortho-$PO_4$ (mg/L) | 2.184 |
| pH (pH units) | 8.0 | TURB (NTU) | 18.10 | $NO_3$-N (mg/L) | 1.328 | Ortho-$PO_4$-P (mg/L) | 0.712 |
| COND (mS/cm) | 2.16 | MBAS (mg/L) | 0.75 | DO (mg/L) | | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

| Flowing Creek or Box Culvert | | | Filling a Bottle or Known Volume | | | Flowing Pipe | | |
|---|---|---|---|---|---|---|---|---|
| Width | | in | Volume | | mL | Diameter | | ft |
| Depth | | in | Time to Fill | | sec | Depth | | ft |
| Velocity | | ft/sec | Flow | | gpm | Velocity | | ft/sec |
| Flow | <1 | gpm | | | | Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

**SITE ID:** A5c **DATE:** 9/8/09

**OBSERVER:** JL/MD **TIME:** 12:30

**LOCATION:** Carlton Oaks Drive across from Cardorette Avenue, next to 8335

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** _____

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 25x25

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☑ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

## GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | E59 | | Latitude | 32.84854 | Watershed | Hydrologic Unit | 907 |
| Location | Santee Recreation Lakes, west of the Southern Lake, east of Sycamore Creek | | Longitude | -117.00723 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-A5 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/8/09 | Time 16:00 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

## ATMOSPHERIC CONDITIONS

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

## RUNOFF CHARACTERISTICS

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☐ None | ☒ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other |

**Biology** ☐ None ☒ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☒ Other Frogs

**Water Flow** ☐ Flowing ☒ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 46,47

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 24.8 | $NH_3$-N (mg/L) | 0.693 | $NO_3$ (mg/L) | 2.419 | Ortho-$PO_4$ (mg/L) | 1.427 |
| pH (pH units) | 7.4 | TURB (NTU) | 12.68 | $NO_3$-N (mg/L) | 0.547 | Ortho-$PO_4$-P (mg/L) | 0.465 |
| COND (mS/cm) | 3.26 | MBAS (mg/L) | 0.50 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

## FLOW ESTIMATION WORKSHEETS

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | Ponded | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

**SITE ID:** E5g **DATE:** 9/8/09

**OBSERVER:** JL/MD **TIME:** 14:00

**LOCATION:** Santee Recreation Lakes, west of the Southern Lake, east of Sycamore Creek

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):**

**ESTIMATED AREA OF ASSESSMENT L X W (FT):** 20x20

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☑ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400). Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LW

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☑ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☑ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | G30c ~~G30E~~ | **Latitude** | 32.84501 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | North of San Diego River, Silver Creek Drive, south of River Trail Place | **Longitude** | -116.99122 | | **Hydrologic Area** | 907.1 |
| | | **TB Page** | 1231-B5 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/2/09 **Time** 15:50 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☑ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☑ Open ☐ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☑ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☑ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☑ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☑ > 72 hours ☐ < 72 hours

**Rainfall** ☑ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☑ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☑ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☑ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☐ None | ☑ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☑ Sediment/Gravel | ☑ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☑ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects ☐ Algae | ☐ Fish ☐ Snails | ☐ Mussels/ Barnacles | ☑ Insect/ Algae ☐ Insect/ Snail | ☐ Other |

**Water Flow** ☑ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☑ N/A

**Evidence of Overland Flow?** ☐ Yes ☑ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☑ Yes ☐ No **Photo #** 11, 12

**Field Screening Samples Collected?** ☑ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 33.0 | $NH_3$-N (mg/L) | 0.214 | $NO_3$ (mg/L) | 12.67 | Ortho-$PO_4$ (mg/L) | 0.570 |
| pH (pH units) | 8.8 | TURB (NTU) | 3.46 | $NO_3$-N (mg/L) | 2.863 | Ortho-$PO_4$ -P (mg/L) | 0.186 |
| COND (mS/cm) | 2.58 | MBAS (mg/L) | 0.25 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☑ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** ~~G30E~~ G30c **DATE:** 9/2/09

**OBSERVER:** JL/MD **TIME:** 15:50

**LOCATION:** North of San Diego River, Silver Creek Drive, south of River Trail Place

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):**

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 15x15

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☑ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LW

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☑ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☑ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | H5e | | **Latitude** | 32.84561 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | North of San Diego River, 100 feet west of Whispering Willow Drive and River Park Place intersection | | **Longitude** | -116.98769 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-C5 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/4/09 | **Time** 14:50 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☑ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☑ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☑ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☑ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☑ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☑ > 72 hours ☐ < 72 hours

**Rainfall** ☑ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☑ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☑ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☑ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☐ None | ☑ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☑ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☑ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☐ Algae | ☐ Fish | ☑ Snails | ☐ Mussels/ Barnacles ☑ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☑ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☑ N/A

**Evidence of Overland Flow?** ☐ Yes ☑ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☑ Yes ☐ No **Photo #** 33

**Field Screening Samples Collected?** ☑ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 27.9 | $NH_3$-N (mg/L) | 0.285 | $NO_3$ (mg/L) | 3.597 | Ortho-$PO_4$ (mg/L) | 1.271 |
| pH (pH units) | 7.9 | TURB (NTU) | 1.14 | $NO_3$-N (mg/L) | 0.813 | Ortho-$PO_4$-P (mg/L) | 0.414 |
| COND (mS/cm) | 2.70 | MBAS (mg/L) | 0.25 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☑ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

**SITE ID:** H5e **DATE:** 9/4/09

**OBSERVER:** JL/MD **TIME:** 14:50

**LOCATION:** North of SD River, 100 feet west of Whispering Willow Drive and River Park Place intersection

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):**

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 20x20

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☐ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☑ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☑ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☑ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | ~~J25C~~ J25c | **Latitude** | 32.85813 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | West end of Carefree Drive, at the west side of channel | **Longitude** | -116.97601 | | **Hydrologic Area** | 907.1 |
| | | **TB Page** | 1231-D4 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/3/09 **Time** 11:10 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☒ None | ☐ Sediment/Gravel | ☐ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☐ Algae | ☐ Fish | ☐ Snails | ☐ Mussels/ Barnacles ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 15, 16

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 26.4 | $NH_3$-N (mg/L) | 0.221 | $NO_3$ (mg/L) | 35.14 | Ortho-$PO_4$ (mg/L) | 0.600 |
| pH (pH units) | 8.3 | TURB (NTU) | 0.18 | $NO_3$-N (mg/L) | 7.942 | Ortho-$PO_4$ -P (mg/L) | 0.196 |
| COND (mS/cm) | 4.36 | MBAS (mg/L) | 0.38 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** ~~J25E~~ J25c **DATE:** 9/3/09

**OBSERVER:** JL/MD **TIME:** 11:10

**LOCATION:** West end of Carefree Drive, at the west side of channel

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** _____

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 5x5

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☑ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LW

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☑ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☑ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | J25c2 ~~J25E2~~ | **Latitude** | 32.85639 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Conejo Road, at the end of Country Scenes | **Longitude** | -116.97598 | | **Hydrologic Area** | 907.1 |
| | | **TB Page** | 1231-D4 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/2/09 **Time** 15:00 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only): ☑ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☑ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☑ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☑ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☑ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☑ > 72 hours ☐ < 72 hours

**Rainfall** ☑ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☑ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☑ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☑ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☐ None | ☑ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☑ Sediment/Gravel | ☑ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☑ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☑ Algae | ☐ Fish | ☑ Snails | ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☑ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☑ N/A

**Evidence of Overland Flow?** ☐ Yes ☑ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☑ Yes ☐ No **Photo #** 9,10

**Field Screening Samples Collected?** ☑ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 30.1 | $NH_3$-N (mg/L) | 0.240 | $NO_3$ (mg/L) | 26.58 | Ortho-$PO_4$ (mg/L) | 0.165 |
| pH (pH units) | 7.9 | TURB (NTU) | 0.41 | $NO_3$-N (mg/L) | 6.007 | Ortho-$PO_4$ -P (mg/L) | 0.054 |
| COND (mS/cm) | 5.42 | MBAS (mg/L) | 0.38 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☑ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** ~~J25C2~~ J25c2 **DATE:** 9/2/09

**OBSERVER:** JL/MD **TIME:** 15:00

**LOCATION:** Conejo Road, at the end of Country Scenes

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** _____

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 15x15

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☑ **MS4** ☐ **RECEIVING WATER** ☐ **BOTH** | |
| ☐ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☑ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LN

# San Diego Stormwater Copermittees
## City of Santee
## Dry Weather Monitoring Field Datasheet

☑ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☑ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | J30d | | Latitude | 32.85485 | Watershed | Hydrologic Unit | 907 |
| Location | Woodglen Vista Channel, south of Mast Blvd | | Longitude | -116.97588 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-D4 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/4/09 | Time 11:30 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☑ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☑ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☑ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☑ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☑ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☑ > 72 hours ☐ < 72 hours

**Rainfall** ☑ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☑ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☑ None | ☑ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☑ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☑ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☑ Sediment/Gravel | ☑ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☑ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☐ Algae | ☐ Fish | ☐ Snails | ☐ Mussels/ Barnacles ☑ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☑ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☑ N/A

**Evidence of Overland Flow?** ☐ Yes ☑ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☑ Yes ☐ No **Photo #** 29, 30

**Field Screening Samples Collected?** ☑ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 30.8 | $NH_3$-N (mg/L) | 0.643 | $NO_3$ (mg/L) | 10.76 | Ortho-$PO_4$ (mg/L) | 0.135 |
| pH (pH units) | 8.0 | TURB (NTU) | 8.66 | $NO_3$-N (mg/L) | 2.432 | Ortho-$PO_4$-P (mg/L) | 0.044 |
| COND (mS/cm) | 3.11 | MBAS (mg/L) | 0.25 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☑ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 10 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

SITE ID: J30d DATE: 9/4/09

OBSERVER: JL/MD TIME: 11:30

LOCATION: Woodglen Vista channel, south of Mast Blvd

PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE): _____

ESTIMATED AREA OF ASSESSMENT L x W (FT): 20x20

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☑ Optimal | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ Suboptimal | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ Marginal | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Submarginal | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Poor | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ Potential Threat to Human Health | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ Potential Threat to Aquatic Health | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☒ Confirmation For Bacteria ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | J30d | **Latitude** | 32.85485 | **Watershed** | **Hydrologic Unit** | 907 ~~12~~ |
| **Location** | Woodglen Vista Channel, South of Mast Blvd | **Longitude** | -116.97588 | | **Hydrologic Area** | 907.1 |
| | | **TB Page** | 1231-D4 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/15/09 **Time** 14:45 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☐ Algae | ☒ Fish ☒ Snails | ☐ Mussels/ Barnacles ☒ Insect/ Algae | ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 60, 61

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 29.9 | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | 8.9 | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$-P (mg/L) | na |
| COND (mS/cm) | 2.82 | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 3 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☒ Confirmation For Bacteria ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | J30d | | Latitude | 32.85485 | Watershed | Hydrologic Unit | 907 |
| Location | Woodglen Vista channel, South of Mast Blvd | | Longitude | -116.97588 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-D4 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/21/09 | Time 14:00 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☐ None | ☒ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☐ Algae | ☐ Fish | ☒ Snails ☐ Mussels/ Barnacles | ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 29.5 | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | 8.7 | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$ -P (mg/L) | na |
| COND (mS/cm) | 2.45 | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 5 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LW

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☒ Confirmation For Bacteria ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | J30d | | Latitude | 32.85485 | Watershed | Hydrologic Unit | 907 |
| Location | In the Woodglen Vista channel, south of Mast Blvd, 100 feet east of San Remo Road | | Longitude | -116.97588 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-D4 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/23/09 | Time 16:00 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☒ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects ☐ Algae | ☐ Fish | ☒ Snails | ☐ Mussels/ Barnacles ☒ Insect/ Algae | ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 27.4 | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | 8.6 | TURB (NTU) | 15.65 | $NO_3$-N (mg/L) | na | Ortho-$PO_4$ -P (mg/L) | na |
| COND (mS/cm) | 2.92 | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 2 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☒ IC/ID Follow-Up For Bacteria

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | J30d-1 | | **Latitude** | 32.85639 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Primary site J25c2, Conejo Road, at the end of Country Scenes | | **Longitude** | -116.97598 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-D4 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/15/09 | **Time** 15:05 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☐ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☒ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☐ Insects ☐ Algae ☐ Fish ☒ Snails ☐ Mussels/ Barnacles ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | na | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | na | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$ -P (mg/L) | na |
| COND (mS/cm) | na | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006. 3/13/2008

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☒ IC/ID Follow-Up For Bacteria

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | J30d-2 | | **Latitude** | 32.85817 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Primary site J25c, West end of Carefree Drive, at the west side of channel | | **Longitude** | -116.97604 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-D4 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/15/09 | **Time** 15:20 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects ☐ Algae | ☐ Fish | ☒ Snails | ☐ Mussels/ Barnacles ☒ Insect/ Algae | ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | na | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | na | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$ -P (mg/L) | na |
| COND (mS/cm) | na | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☒ IC/ID Follow-Up For Bacteria

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | J30d-3 | | **Latitude** | 32.85820 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | West end of Carefree Drive, channel from the north | | **Longitude** | -116.97607 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-D4 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/15/09 | **Time** 15:35 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☒ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☐ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☒ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☐ Insects ☐ Algae ☐ Fish ☒ Snails ☐ Mussels/ Barnacles ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | na | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | na | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$-P (mg/L) | na |
| COND (mS/cm) | na | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 2 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LW

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☑ IC/ID Follow-Up For Bacteria

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | J30d-4 | | **Latitude** | 32.85896 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Outlet from Beck Drive and Woodrose Avenue area to channel. Access via apartment complex at Carefree Drive and Woodpark Dr. | | **Longitude** | -116.97427 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-D3 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/21/09 | **Time** 11:30 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects ☐ Algae | ☐ Fish | ☒ Snails | ☐ Mussels/ Barnacles | ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☐ Flowing ☒ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 62-65

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | na | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | na | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$ -P (mg/L) | na |
| COND (mS/cm) | na | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 2 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☒ IC/ID Follow-Up For Bacteria

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | J30d-4-2 | | **Latitude** | 32.85896 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Outlet from Beck Drive and Woodrose Avenue area to channel. Access via apartment complex @ Carefree Drive/Woodpark Drive | | **Longitude** | -116.97427 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-D3 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/23/09 | **Time** 15:40 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☐ Algae | ☐ Fish | ☒ Snails | ☐ Mussels/ Barnacles ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | na | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | na | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$ -P (mg/L) | na |
| COND (mS/cm) | na | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☑ IC/ID Follow-Up For Bacteria

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☑ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | J30d-5 | | **Latitude** | 32.86596 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Woodglen Vista Drive, east of Woodrose Avenue south side of park. Primary Site K15;2 | | **Longitude** | -116.97418 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-D2 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/21/09 | **Time** 12:05 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☒ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☐ Outlet ☒ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☐ None | ☒ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects ☐ Algae | ☐ Fish | ☒ Snails | ☐ Mussels/ Barnacles ☒ Insect/ Algae | ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☑ Yes ☒ No **Photo #** 66, 67

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | na | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | na | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$ -P (mg/L) | na |
| COND (mS/cm) | na | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 2 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☒ IC/ID Follow-Up For Bacteria

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | J30d-6 | | **Latitude** | 32.86572 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | 24 inch outlet pipe on west side of channel, south of Woodglen Vista Drive | | **Longitude** | -116.97416 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-D2 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/23/09 | **Time** 15:10 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☒ Parks ☐ Open ☐ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |

**Biology** ☐ None ☐ Insects ☐ Algae ☐ Fish ☒ Snails ☐ Mussels/ Barnacles ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | na | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | na | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$ -P (mg/L) | na |
| COND (mS/cm) | na | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LW

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☒ IC/ID Follow-Up For Bacteria

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | J30d-7 | | **Latitude** | 32.86583 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Small outlet under bridge, under Woodglen Vista Drive | | **Longitude** | -116.97426 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-D2 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/23/09 | **Time** 15:20 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☒ Parks ☐ Open ☐ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☐ Algae | ☐ Fish | ☒ Snails | ☐ Mussels/ Barnacles ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | na | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | na | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$ -P (mg/L) | na |
| COND (mS/cm) | na | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☒ IC/ID Follow-Up For Bacteria

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | J30d-8 | | **Latitude** | 32.86582 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Small outlet next to J30d-6. South of Woodglen Vista Drive | | **Longitude** | -116.97417 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-D2 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/23/09 | **Time** 15:30 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☒ Parks ☐ Open ☐ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |

**Biology** ☐ None ☐ Insects ☐ Algae ☐ Fish ☒ Snails ☐ Mussels/ Barnacles ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | na | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | na | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$ -P (mg/L) | na |
| COND (mS/cm) | na | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☑ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☑ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | K15J2 ~~K15J2~~ | | **Latitude** | 32.86596 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Woodglen Vista Drive, east of Woodrose Avenue south side of the park | | **Longitude** | -116.97418 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-D2 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/3/09 | **Time** 14:40 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☑ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☑ Parks ☐ Open ☐ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☑ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☑ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☑ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☑ > 72 hours ☐ < 72 hours

**Rainfall** ☑ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☑ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☑ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☑ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☑ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☐ Sediment/Gravel ☑ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☑ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☐ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☑ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☑ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☑ N/A

**Evidence of Overland Flow?** ☐ Yes ☑ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☑ Yes ☐ No **Photo #** 21, 22

**Field Screening Samples Collected?** ☑ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 29.9 | $NH_3$-N (mg/L) | 0.210 | $NO_3$ (mg/L) | 23.72 | Ortho-$PO_4$ (mg/L) | 0.115 |
| pH (pH units) | 7.7 | TURB (NTU) | 0.80 | $NO_3$-N (mg/L) | 5.361 | Ortho-$PO_4$ -P (mg/L) | 0.037 |
| COND (mS/cm) | 2.02 | MBAS (mg/L) | 0.13 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☑ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** ~~K15 J2~~ K15;2 **DATE:** 9/3/09

**OBSERVER:** JL/MD **TIME:** 14:40

**LOCATION:** Woodglen Vista Drive, east of Woodrose Avenue, south side of park

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** _____

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 10x10

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☑ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400). Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | O40b | | Latitude | 32.84851 | Watershed | Hydrologic Unit | 907 |
| Location | Abraham Way, south of San Diego River | | Longitude | -116.96392 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-F5 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/8/09 | Time 14:15 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☒ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects ☐ Algae | ☐ Fish ☐ Snails | ☐ Mussels/ Barnacles | ☒ Insect/ Algae ☐ Insect/ Snail | ☐ Other |

**Water Flow** ☐ Flowing ☒ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 45

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 26.2 | $NH_3$-N (mg/L) | 0.430 | $NO_3$ (mg/L) | 3.125 | Ortho-$PO_4$ (mg/L) | 0.700 |
| pH (pH units) | 8.0 | TURB (NTU) | 1.21 | $NO_3$-N (mg/L) | 0.706 | Ortho-$PO_4$-P (mg/L) | 0.228 |
| COND (mS/cm) | 1.36 | MBAS (mg/L) | 0.25 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | ponded | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** 040b **DATE:** 9/8/09

**OBSERVER:** JL/MD **TIME:** 14:15

**LOCATION:** Abraham Way, south of San Diego River

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):**

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 10x10

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☐ MS4 ☐ RECEIVING WATER ☑ BOTH | |
| ☐ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☑ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

## GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | P15b | | | Latitude | 32.83704 | Watershed: Hydrologic Unit | 907 |
| Location | Northeast of Magnolia Avenue and Rockvill Street intersection | | | Longitude | -116.96633 | Hydrologic Area | 907.1 |
| | | | | TB Page | 1231-E6 | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/4/09 | Time | 13:45 | Observer | JL/MD | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☒ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

## ATMOSPHERIC CONDITIONS

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

## RUNOFF CHARACTERISTICS

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☒ Insects | ☐ Algae | ☐ Fish | ☐ Snails | ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 31, 32

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 30.5 | $NH_3$-N (mg/L) | 0.202 | $NO_3$ (mg/L) | 59.38 | Ortho-$PO_4$ (mg/L) | 0.480 |
| pH (pH units) | 7.7 | TURB (NTU) | 0.82 | $NO_3$-N (mg/L) | 13.42 | Ortho-$PO_4$-P (mg/L) | 0.156 |
| COND (mS/cm) | 1.60 | MBAS (mg/L) | 0.13 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

## FLOW ESTIMATION WORKSHEETS

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 3 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

SITE ID: P15b DATE: 9/4/09

OBSERVER: JL/MD TIME: 13:45

LOCATION: Northeast of Magnolia Avenue and Rockwell Street intersection

PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE): _____

ESTIMATED AREA OF ASSESSMENT L x W (FT): 5x5

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☑ Optimal | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ Suboptimal | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ Marginal | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Submarginal | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Poor | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ Potential Threat to Human Health | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ Potential Threat to Aquatic Health | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☒ Confirmation For Nitrate ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | P15b | | Latitude | 32.83704 | Watershed | Hydrologic Unit | 907 |
| Location | Northeast of Magnolia Avenue and Rockvill Street intersection | | Longitude | -116.96633 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-E6 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/8/09 | Time 15:00 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☒ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☒ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☒ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☒ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 27.7 | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | 33.47 | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | 7.4 | TURB (NTU) | 6.70 | $NO_3$-N (mg/L) | 7.564 | Ortho-$PO_4$ -P (mg/L) | na |
| COND (mS/cm) | 1.61 | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 3 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☒ IC/ID Follow-Up For Nitrate

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | P15b-1 | | | Latitude | 32.83704 | Watershed: Hydrologic Unit | 907 |
| Location | South line to P15b | | | Longitude | -116.96633 | Hydrologic Area | 907.1 |
| | | | | TB Page | 1231-E6 | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/8/09 | Time | 15:20 | Observer | JL/MD | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☒ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** ____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☒ Insects | ☐ Algae | ☐ Fish | ☐ Snails | ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | na | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | 32.12 | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | na | TURB (NTU) | na | $NO_3$-N (mg/L) | 7.259 | Ortho-$PO_4$-P (mg/L) | na |
| COND (mS/cm) | na | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

| Flowing Creek or Box Culvert | | | Filling a Bottle or Known Volume | | | Flowing Pipe | | |
|---|---|---|---|---|---|---|---|---|
| Width | | in | Volume | | mL | Diameter | | ft |
| Depth | | in | Time to Fill | | sec | Depth | | ft |
| Velocity | | ft/sec | Flow | | gpm | Velocity | | ft/sec |
| Flow | 2 | gpm | | | | Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☒ IC/ID Follow-Up For Nitrate

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | P15b-2 | | Latitude | 32.83704 | Watershed | Hydrologic Unit | 907 |
| Location | East line to P15b | | Longitude | -116.96633 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-E6 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/8/09 | Time 15:40 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only) ☒ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☒ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☒ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☒ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | na | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | 39.49 | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | na | TURB (NTU) | na | $NO_3$-N (mg/L) | 8.925 | Ortho-$PO_4$-P (mg/L) | na |
| COND (mS/cm) | na | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LN

# San Diego Stormwater Copermittees
## City of Santee
## Dry Weather Monitoring Field Datasheet

☑ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☑ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | P20f | | Latitude | 32.84674 | Watershed | Hydrologic Unit | 907 |
| Location | Magnolia Avenue, east of Chubb Lane | | Longitude | -116.96920 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-E5 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/4/09 | Time 10:40 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☒ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☐ None | ☒ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☐ Algae | ☐ Fish | ☒ Snails | ☐ Mussels/ Barnacles ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 27, 28

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 28.0 | $NH_3$-N (mg/L) | 0.268 | $NO_3$ (mg/L) | 25.04 | Ortho-$PO_4$ (mg/L) | 0.049 |
| pH (pH units) | 8.2 | TURB (NTU) | 3.50 | $NO_3$-N (mg/L) | 5.659 | Ortho-$PO_4$ -P (mg/L) | 0.016 |
| COND (mS/cm) | 1.53 | MBAS (mg/L) | 0.25 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☒ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 3 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

**SITE ID:** P20f **DATE:** 9/4/09

**OBSERVER:** JL/MD **TIME:** 10:40

**LOCATION:** Magnolia Avenue, east of Chubb Lane

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** _____

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 20x20

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☐ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☑ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☑ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | Q51 | | Latitude | 32.83121 | Watershed | Hydrologic Unit | 907 |
| Location | North side of Prospect Avenue, east of Railroad Avenue | | Longitude | -116.97090 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-E7 | | Hydrologic Subarea (Optional) | 907.13 |
| Date | 9/8/09 | Time 11:20 | Observer | JC/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only) ☐ Manhole ☒ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☐ None | ☐ Musty | ☒ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☒ Other ~~Trash~~ Decomposing organic waste |
| **Color** | ☐ None | ☒ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☐ Clear | | ☐ Slightly Cloudy | ☒ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☒ None | ☐ Insects ☐ Algae | ☐ Fish ☐ Snails | ☐ Mussels/ Barnacles | ☐ Insect/ Algae | ☐ Insect/ Snail ☐ Other |

**Water Flow** ☐ Flowing ☒ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 37-42

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 25.2 | $NH_3$-N (mg/L) | 0.595 | $NO_3$ (mg/L) | 12.75 | Ortho-$PO_4$ (mg/L) | 28.66 |
| pH (pH units) | 8.0 | TURB (NTU) | 112 | $NO_3$-N (mg/L) | 2.882 | Ortho-$PO_4$-P (mg/L) | 9.343 |
| COND (mS/cm) | 1.86 | MBAS (mg/L) | 0.75 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | Ponded | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** Q51 **DATE:** 9/8/09

**OBSERVER:** JL/MD **TIME:** 11:20

**LOCATION:** North side of Prospect Avenue, east of Railroad Avenue

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):**

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 15x15

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☐ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☑ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400). Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LN

# San Diego Stormwater Copermittees
## City of Santee
## Dry Weather Monitoring Field Datasheet

☐ Field Screening ☒ Confirmation For Phosphorus ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | Q51 | | Latitude | 32.83121 | Watershed | Hydrologic Unit | 907 |
| Location | North side of Prospect Avenue, east of Railroad Avenue | | Longitude | -116.97090 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-E7 | | Hydrologic Subarea (Optional) | 907.13 |
| Date | 9/9/09 | Time 10:35 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only) ☐ Manhole ☒ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☐ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☒ Other Decomposing organic waste ~~Trash~~ |
| **Color** | ☐ None | ☒ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☐ Clear | | ☐ Slightly Cloudy | ☒ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☐ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☒ None | ☐ Insects ☐ Algae | ☐ Fish ☐ Snails | ☐ Mussels/ Barnacles | ☐ Insect/ Algae | ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☒ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 26.1 | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | 36.05 |
| pH (pH units) | 8.2 | TURB (NTU) | 148 | $NO_3$-N (mg/L) | na | Ortho-$PO_4$-P (mg/L) | 11.75 |
| COND (mS/cm) | 1.79 | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow ponded | | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☐ Field Screening ☐ Confirmation For _____ ☒ IC/ID Follow-Up For Phosphorus

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | Q51-1 | | Latitude | 32.83211 | Watershed | Hydrologic Unit | 907 |
| Location | North of Prospect Ave, between Tumbleweed Terrace and Siesta Rd, water coming out of ground near fence in Caltrans worksite | | Longitude | -116.96727 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-E7 | | Hydrologic Subarea (Optional) | 907.13 |
| Date | 9/9/09 | Time 11:00 | Observer | JC/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only) Other ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☒ None | ☐ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☒ Algae | ☐ Fish | ☐ Snails | ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☐ Flowing ☒ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 50-52

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | na | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | 0.244 |
| pH (pH units) | na | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$-P (mg/L) | 0.080 |
| COND (mS/cm) | na | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | Ponded | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☑ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☑ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | RCP1 | | **Latitude** | 32.84959 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | North bank of the San Diego River in the RCP Brick Factory, south of an open field with radio antennae | | **Longitude** | -116.96659 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-E5 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/3/09 | **Time** 12:00 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☑ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☑ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☑ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☑ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☑ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☑ > 72 hours ☐ < 72 hours

**Rainfall** ☑ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☑ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☑ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☑ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☐ None | ☑ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☑ None | ☑ Sediment/Gravel | ☑ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☐ Limited | ☑ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects ☐ Algae | ☐ Fish ☐ Snails | ☐ Mussels/ Barnacles | ☑ Insect/ Algae ☐ Insect/ Snail | ☐ Other |

**Water Flow** ☑ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☑ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☑ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☑ Yes ☐ No **Photo #** 17, 18

**Field Screening Samples Collected?** ☑ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 28.0 | $NH_3$-N (mg/L) | 0.170 | $NO_3$ (mg/L) | 44.05 | Ortho-$PO_4$ (mg/L) | 0.317 |
| pH (pH units) | 8.2 | TURB (NTU) | 8.50 | $NO_3$-N (mg/L) | 9.96 | Ortho-$PO_4$ -P (mg/L) | 0.103 |
| COND (mS/cm) | 1.50 | MBAS (mg/L) | 0.13 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☑ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 3 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** RCP1 **DATE:** 9/3/09

**OBSERVER:** JL/MD **TIME:** 12:00

**LOCATION:** North bank of SD River, inside RCP Brick Factory, south of an open field with radio antennae

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):**

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 5x5

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☑ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LW

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

## GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | RCP3 | | Latitude | 32.84975 | Watershed | Hydrologic Unit | 907 |
| Location | North bank of the San Diego River in the RCP Brick Factory, across from the southeast corner of the antennae field | | Longitude | -116.96341 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-E5 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/9/09 | Time 9:45 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

## ATMOSPHERIC CONDITIONS

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

## RUNOFF CHARACTERISTICS

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☐ None | ☒ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects ☐ Algae | ☐ Fish ☐ Snails | ☐ Mussels/ Barnacles | ☒ Insect/ Algae ☐ Insect/ Snail | ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 48, 49

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 23.6 | $NH_3$-N (mg/L) | 0.177 | $NO_3$ (mg/L) | 43.94 | Ortho-$PO_4$ (mg/L) | 0.466 |
| pH (pH units) | 8.0 | TURB (NTU) | 0.49 | $NO_3$-N (mg/L) | 9.93 | Ortho-$PO_4$-P (mg/L) | 0.152 |
| COND (mS/cm) | 1.73 | MBAS (mg/L) | 0.25 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

## FLOW ESTIMATION WORKSHEETS

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 3 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** ~~[illegible]~~ by people ~~[illegible]~~ Inhabited

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

SITE ID: RCP 3 DATE: 9/9/09

OBSERVER: JL/MD TIME: 9:45

LOCATION: North bank of SD River in RCP Brick Factory, across from southeast corner of antennae field

PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):

ESTIMATED AREA OF ASSESSMENT L x W (FT): 25x25

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☐ MS4 ☐ RECEIVING WATER ☒ BOTH | |
| ☐ Optimal | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ Suboptimal | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☒ Marginal | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Submarginal | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Poor | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ Potential Threat to Human Health | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ Potential Threat to Aquatic Health | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LN

# San Diego Stormwater Copermittees
## City of Santee
## Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | S15h | | Latitude | 32.84326 | Watershed | Hydrologic Unit | 907 |
| Location | Mission Gorge Rd, Town Center Pkwy, north of Walmart, west of trail | | Longitude | -116.98969 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-C6 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/9/09 | Time 11:20 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☐ None | ☐ Yellow | ☒ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☐ Clear | | ☒ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☐ None | ☒ Trash | ☒ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☒ Insects | ☐ Algae | ☐ Fish | ☐ Snails | ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other:

**Photo Taken** ☒ Yes ☐ No **Photo #** 53,54

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 27.1 | $NH_3$-N (mg/L) | 0.750 | $NO_3$ (mg/L) | 5.609 | Ortho-$PO_4$ (mg/L) | 2.573 |
| pH (pH units) | 7.9 | TURB (NTU) | 16.76 | $NO_3$-N (mg/L) | 1.268 | Ortho-$PO_4$-P (mg/L) | 0.839 |
| COND (mS/cm) | 1.46 | MBAS (mg/L) | 0.75 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

Flowing Creek or Box Culvert

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

Filling a Bottle or Known Volume

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

Flowing Pipe

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

SITE ID: S15h DATE: 9/9/09

OBSERVER: JL/MD TIME: 11:20

LOCATION: Mission Gorge Rd, Town Center Pkwy, north of Walmart, west of trail

PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE): _____

ESTIMATED AREA OF ASSESSMENT L x W (FT): 15x15

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☐ Optimal | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☒ Suboptimal | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ Marginal | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Submarginal | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400). Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Poor | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ Potential Threat to Human Health | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ Potential Threat to Aquatic Health | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LW

# San Diego Stormwater Copermittees
## City of Santee
## Dry Weather Monitoring Field Datasheet

☑ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☑ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | ~~S5E~~ S5c | | **Latitude** | 32.84371 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Mission Gorge Rd, Town Center Pkwy, west of Michaels | | **Longitude** | -116.98798 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-C6 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/3/09 | **Time** 16:10 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☐ Residential ☑ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☑ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☑ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☑ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☑ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☑ > 72 hours ☐ < 72 hours

**Rainfall** ☑ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☑ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☑ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☑ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☑ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☑ Sediment/Gravel | ☑ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☑ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects ☐ Algae | ☐ Fish ☐ Snails | ☐ Mussels/ Barnacles | ☑ Insect/ Algae ☐ Insect/ Snail | ☐ Other |

**Water Flow** ☑ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☑ N/A

**Evidence of Overland Flow?** ☐ Yes ☑ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☑ Yes ☐ No **Photo #** 23, 24

**Field Screening Samples Collected?** ☑ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 28.8 | $NH_3$-N (mg/L) | 0.273 | $NO_3$ (mg/L) | 5.765 | Ortho-$PO_4$ (mg/L) | 0.818 |
| pH (pH units) | 7.8 | TURB (NTU) | 1.60 | $NO_3$-N (mg/L) | 1.303 | Ortho-$PO_4$ -P (mg/L) | 0.267 |
| COND (mS/cm) | 2.48 | MBAS (mg/L) | 0.25 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☑ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006. 3/13/2008

# 2009 Trash Assessment Form

**SITE ID:** ~~S5C~~ S5c **DATE:** 9/3/09

**OBSERVER:** JL/MD **TIME:** 16:10

**LOCATION:** Mission Gorge Rd, Town Center Parkway, west of Michaels

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):** _____

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 10x5

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☑ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400). Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LW

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | T5e | | Latitude | 32.83393 | Watershed | Hydrologic Unit | 907 |
| Location | Prospect Avenue, across from Argent Street, south of Forester Creek | | Longitude | -116.98956 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1231-L7 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/8/09 | Time 10:05 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** ____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

**Odor** ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

**Color** ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

**Clarity** ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

**Floatables** ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other

**Deposits** ☐ None ☒ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

**Vegetation** ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other

**Biology** ☐ None ☒ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other

**Water Flow** ☐ Flowing ☒ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 35

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 23.0 | $NH_3$-N (mg/L) | 0.110 | $NO_3$ (mg/L) | 0.783 | Ortho-$PO_4$ (mg/L) | 0.175 |
| pH (pH units) | 7.5 | TURB (NTU) | 7.68 | $NO_3$-N (mg/L) | 0.177 | Ortho-$PO_4$-P (mg/L) | 0.057 |
| COND (mS/cm) | 1.59 | MBAS (mg/L) | 0.25 | DO (mg/L) | | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | ponded | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** TSe **DATE:** 9/8/09

**OBSERVER:** JL/MD **TIME:** 10:05

**LOCATION:** Prospect Avenue, across from Argent Street, south of Forester Creek

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):**

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 20x20

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☐ MS4 ☐ RECEIVING WATER ☑ BOTH | |
| ☑ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | U10a | Latitude | 32.83745 | Watershed | Hydrologic Unit | 907 |
| Location | South bank of Forester Creek, ~200 yards south of the Mission Gorge Rd and Carlton Hill intersection | Longitude | -116.99586 | | Hydrologic Area | 907.1 |
| | | TB Page | 1231-B6 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/8/09 | Time | ~~10:00~~ 10:50 | Observer | JL/MD | Discharge Area (Optional) |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Odor** | ☐ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☒ Other | na |
| **Color** | ☐ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☒ Other | na |
| **Clarity** | ☐ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☒ Other | na |
| **Floatables** | ☐ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☒ Other | na |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other | |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other | |
| **Biology** | ☐ None | ☒ Insects | ☐ Algae | ☐ Fish | ☐ Snails | ☐ Mussels/ Barnacles | ☐ Insect/ Algae | ☐ Insect/ Snail | ☐ Other |

**Water Flow** ☐ Flowing ☐ Ponded ☒ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other:

**Photo Taken** ☒ Yes ☐ No **Photo #** 36

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | ns | $NH_3$-N (mg/L) | ns | $NO_3$ (mg/L) | ns | Ortho-$PO_4$ (mg/L) | ns |
| pH (pH units) | ns | TURB (NTU) | ns | $NO_3$-N (mg/L) | ns | Ortho-$PO_4$-P (mg/L) | ns |
| COND (mS/cm) | ns | MBAS (mg/L) | ns | DO (mg/L) | ns | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

| Flowing Creek or Box Culvert | | | Filling a Bottle or Known Volume | | | Flowing Pipe | | |
|---|---|---|---|---|---|---|---|---|
| Width | | in | Volume | | mL | Diameter | | ft |
| Depth | | in | Time to Fill | | sec | Depth | | ft |
| Velocity | | ft/sec | Flow | | gpm | Velocity | | ft/sec |
| Flow | dry | gpm | | | | Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

**SITE ID:** U10a **DATE:** 9/8/09

**OBSERVER:** JL/MD **TIME:** 10:50

**LOCATION:** South Bank of Forester Creek, 200 yds south of the Mission Gorge Rd and Carlton Hill intersection

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):**

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 20x20

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☐ MS4 ☐ RECEIVING WATER ☑ BOTH | |
| ☐ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☑ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☑ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☑ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | V400 | | **Latitude** | 32.83375 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Prospect Avenue, east of Fanita Drive | | **Longitude** | -117.00005 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-B7 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/3/09 | **Time** 12:40 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☑ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☑ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☑ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☑ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☑ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☑ > 72 hours ☐ < 72 hours

**Rainfall** ☑ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☑ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☑ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☑ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☑ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☑ Sediment/Gravel | ☑ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☑ None | ☑ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects ☐ Algae | ☐ Fish | ☑ Snails | ☐ Mussels/ Barnacles ☑ Insect/ Algae | ☐ Insect/ Snail ☐ Other |

**Water Flow** ☑ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☑ N/A

**Evidence of Overland Flow?** ☐ Yes ☑ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☑ Yes ☐ No **Photo #** 19, 20

**Field Screening Samples Collected?** ☑ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 34.4 | $NH_3$-N (mg/L) | 0.177 | $NO_3$ (mg/L) | 0.374 | Ortho-$PO_4$ (mg/L) | 0.045 |
| pH (pH units) | ~~7.0~~ 9.1 | TURB (NTU) | 1.95 | $NO_3$-N (mg/L) | 0.085 | Ortho-$PO_4$ -P (mg/L) | 0.015 |
| COND (mS/cm) | 3.00 | MBAS (mg/L) | 0.25 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☑ Yes ☐ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | 30 | in |
| Depth | 0.25 | in |
| Velocity | 10/10 | ft/sec |
| Flow | 25 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

# 2009 Trash Assessment Form

**SITE ID:** ~~V40D~~ V40d **DATE:** 9/3/09

**OBSERVER:** JL/MD **TIME:** 12:40

**LOCATION:** Prospect Avenue, east of Fanita Drive

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):**

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 15x15

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☒ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☒ Field Screening ☒ Confirmation For pH ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site ID** | V40D | | **Latitude** | 32.83375 | **Watershed** | **Hydrologic Unit** | 907 |
| **Location** | Prospect Avenue, east of Fanita Drive | | **Longitude** | -117.00005 | | **Hydrologic Area** | 907.1 |
| | | | **TB Page** | 1231-B7 | | **Hydrologic Subarea** (Optional) | 907.12 |
| **Date** | 9/4/09 | **Time** 10:05 | **Observer** | JL/MD | | **Discharge Area** (Optional) | |

**Land Use (Primary)** (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☒ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☒ Limited | ☐ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☐ Algae | ☐ Fish | ☒ Snails ☐ Mussels/ Barnacles | ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☐ Yes ☒ No **Photo #** _____

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 27.4 | $NH_3$-N (mg/L) | na | $NO_3$ (mg/L) | na | Ortho-$PO_4$ (mg/L) | na |
| pH (pH units) | 8.0 | TURB (NTU) | na | $NO_3$-N (mg/L) | na | Ortho-$PO_4$-P (mg/L) | na |
| COND (mS/cm) | 3.62 | MBAS (mg/L) | na | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | 40 | in |
| Depth | 0.25 | in |
| Velocity | 10/10 | ft/sec |
| Flow | 31 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

4N

# San Diego Stormwater Copermittees
## City of Santee
## Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | V45k | | | Latitude | 32.83878 | Watershed: Hydrologic Unit | 907 |
| Location | North of Mission Gorge Rd, east of Freeway 125 | | | Longitude | -117.00268 | Hydrologic Area | 907.1 |
| | | | | TB Page | 1231-A6 | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/9/09 | Time | 12:30 | Observer | JL/MD | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☒ Open ☐ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☒ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☐ Insects | ☐ Algae | ☒ Fish ☐ Snails | ☐ Mussels/ Barnacles | ☒ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☒ Yes ☐ No ☐ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 55-59

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 26.1 | $NH_3$-N (mg/L) | 0.271 | $NO_3$ (mg/L) | 0.528 | Ortho-$PO_4$ (mg/L) | 0.197 |
| pH (pH units) | 7.7 | TURB (NTU) | 3.70 | $NO_3$-N (mg/L) | 0.119 | Ortho-$PO_4$-P (mg/L) | 0.064 |
| COND (mS/cm) | 2.60 | MBAS (mg/L) | 0.25 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | 5 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

SITE ID: V45k DATE: 9/9/09

OBSERVER: JL/MD TIME: 12:30

LOCATION: North of Mission Gorge Rd, east of Freeway 125

PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE): _____

ESTIMATED AREA OF ASSESSMENT L x W (FT): 15x15

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☒ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☒ Optimal | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☐ Suboptimal | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ Marginal | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Submarginal | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400). Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Poor | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ Potential Threat to Human Health | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ Potential Threat to Aquatic Health | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LN

# San Diego Stormwater Copermittees
## City of Santee
## Dry Weather Monitoring Field Datasheet

☒ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☒ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | Y15e | | Latitude | 32.83670 | Watershed | Hydrologic Unit | 907 |
| Location | West of Big Rock Road, across from a shopping center | | Longitude | -117.02158 | | Hydrologic Area | 907.1 |
| | | | TB Page | 1230-H7 | | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/8/09 | Time 9:35 | Observer | JL/MD | | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

**Conveyance** (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☒ Other na | |
| **Color** | ☐ None | ☐ Yellow | ☐ Brown | ☐ White | ☐ Gray | ☒ Other na | |
| **Clarity** | ☐ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☒ Other na | |
| **Floatables** | ☐ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☒ Other na | |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other | |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other | |
| **Biology** | ☐ None | ☒ Insects | ☐ Algae | ☐ Fish | ☐ Snails | ☐ Mussels/ Barnacles | ☐ Insect/ Algae | ☐ Insect/ Snail | ☐ Other |

**Water Flow** ☐ Flowing ☐ Ponded ☒ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 34

**Field Screening Samples Collected?** ☐ Yes ☒ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | ns | $NH_3$-N (mg/L) | ns | $NO_3$ (mg/L) | ns | Ortho-$PO_4$ (mg/L) | ns |
| pH (pH units) | ns | TURB (NTU) | ns | $NO_3$-N (mg/L) | ns | Ortho-$PO_4$-P (mg/L) | ns |
| COND (mS/cm) | ns | MBAS (mg/L) | ns | DO (mg/L) | ns | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | dry | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

SITE ID: Y15e DATE: 9/8/09

OBSERVER: JL/MD TIME: 9:35

LOCATION: West of Big Rock Road, across from a shopping center

PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE): _____

ESTIMATED AREA OF ASSESSMENT L x W (FT): 15x15

| Amount and Extent of Trash | |
|---|---|
| EVALUATION OF TRASH INCLUDES*: ☑ MS4 ☐ RECEIVING WATER ☐ BOTH | |
| ☐ Optimal | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☑ Suboptimal | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ Marginal | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Submarginal | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ Poor | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ Potential Threat to Human Health | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ Potential Threat to Aquatic Health | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |

LN

# San Diego Stormwater Copermittees
# City of Santee
# Dry Weather Monitoring Field Datasheet

☑ Field Screening ☐ Confirmation For _____ ☐ IC/ID Follow-Up For _____

**GENERAL SITE DESCRIPTION** (NAD 83 decimal degrees to 5th place) ☑ MS4 ☐ Receiving Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site ID | ~~Z15B~~ Z15b | | | Latitude | 32.83770 | Watershed: Hydrologic Unit | 907 |
| Location | North of Mission Gorge Rd, east of Father Junipero Serra Trail | | | Longitude | -117.02997 | Hydrologic Area | 907.1 |
| | | | | TB Page | 1230-G7 | Hydrologic Subarea (Optional) | 907.12 |
| Date | 9/4/09 | Time | 9:20 | Observer | JL/MD | Discharge Area (Optional) | |

**Land Use (Primary)** (Check one only): ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

**Land Use (Secondary)** (Optional, greater than 10%): ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☒ None

**Conveyance** (Check one only): ☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

**ATMOSPHERIC CONDITIONS**

**Weather** ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

**Tide** ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.

**Last Rain** ☒ > 72 hours ☐ < 72 hours

**Rainfall** ☒ None ☐ < 0.1" ☐ > 0.1"

**RUNOFF CHARACTERISTICS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Odor** | ☒ None | ☐ Musty | ☐ Rotten Eggs | ☐ Chemical | ☐ Sewage | ☐ Other |
| **Color** | ☐ None | ☐ Yellow | ☒ Brown | ☐ White | ☐ Gray | ☐ Other |
| **Clarity** | ☒ Clear | | ☐ Slightly Cloudy | ☐ Opaque | | ☐ Other |
| **Floatables** | ☒ None | ☐ Trash | ☐ Bubbles/Foam | ☐ Sheen | ☐ Fecal Matter | ☐ Other |
| **Deposits** | ☐ None | ☒ Sediment/Gravel | ☒ Fine Particulates | ☐ Stains | ☐ Oily Deposits | ☐ Other |
| **Vegetation** | ☐ None | ☐ Limited | ☒ Normal | ☐ Excessive | | ☐ Other |
| **Biology** | ☐ None | ☒ Insects | ☐ Algae | ☐ Fish | ☐ Snails | ☐ Mussels/ Barnacles ☐ Insect/ Algae ☐ Insect/ Snail ☐ Other |

**Water Flow** ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

**Does the storm drain flow reach the Receiving Water?** ☐ Yes ☐ No ☒ N/A

**Evidence of Overland Flow?** ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

**Photo Taken** ☒ Yes ☐ No **Photo #** 25, 26

**Field Screening Samples Collected?** ☒ Yes ☐ No

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Water Temp (°C) | 25.9 | $NH_3$-N (mg/L) | 0.256 | $NO_3$ (mg/L) | 2.654 | Ortho-$PO_4$ (mg/L) | 0.499 |
| pH (pH units) | 7.6 | TURB (NTU) | 7.79 | $NO_3$-N (mg/L) | 0.600 | Ortho-$PO_4$ -P (mg/L) | 0.163 |
| COND (mS/cm) | 2.35 | MBAS (mg/L) | 0.50 | DO (mg/L) | na | | |

**Analytical Lab Samples Collected?** ☐ Yes ☒ No

**FLOW ESTIMATION WORKSHEETS**

**Flowing Creek or Box Culvert**

| | | |
|---|---|---|
| Width | | in |
| Depth | | in |
| Velocity | | ft/sec |
| Flow | <1 | gpm |

**Filling a Bottle or Known Volume**

| | | |
|---|---|---|
| Volume | | mL |
| Time to Fill | | sec |
| Flow | | gpm |
| | | |

**Flowing Pipe**

| | | |
|---|---|---|
| Diameter | | ft |
| Depth | | ft |
| Velocity | | ft/sec |
| Flow | | gpm |

**COMMENTS:** _____

Revised 4/20/2004. 4/15/2005. 4/19/2006, 3/13/2008

# 2009 Trash Assessment Form

**SITE ID:** ~~Z15B~~ Z15b **DATE:** 9/4/09

**OBSERVER:** JL/MD **TIME:** 9:20

**LOCATION:** North of Mission Gorge Rd, east of Father Junipero Serra Trail

**PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):**

**ESTIMATED AREA OF ASSESSMENT L x W (FT):** 10x10

| Amount and Extent of Trash | |
|---|---|
| **EVALUATION OF TRASH INCLUDES*:** ☑ **MS4** ☐ **RECEIVING WATER** ☐ **BOTH** | |
| ☑ **Optimal** | On first glance, no trash visible. Little or no trash (<10 pieces) evident when evaluated area is closely examined for litter and debris. |
| ☑ **Suboptimal** | On first glance, little or no trash visible. After close inspection small levels of trash (~10-50 pieces) evident in evaluated area. |
| ☐ **Marginal** | Trash is evident in low to medium levels (~51-100 pieces) on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Submarginal** | Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris (>100- 400) . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present. |
| ☐ **Poor** | Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris (>400 pieces). |

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

| Site Evaluation for Potential Threat to Human Health and/or Aquatic Health (applies to area of assessment) | |
|---|---|
| ☐ **Potential Threat to Human Health** | Presence of more than one of, or a combination of the following items: hypodermic needles or other medical waste; used diapers, animal waste, or human feces; any toxic substance such as chemical containers, vehicle batteries, or fluorescent light bulbs. Alternatively high prevalence of any one item (e.g. Greater than 50 items that present a puncture or laceration hazard); or observations of mosquito larvae directly observed in water ponded due to trash. All subject to best professional judgment. Describe potential threat on back of form. |
| ☐ **Potential Threat to Aquatic Health** | Large amount* of persistent, buoyant litter such as: hard or soft plastics, balloons, Styrofoam (equivalent to a cup), or large amount of settleable, degradable and nontoxic debris; cigarette butts. Presence of more than one of, or a combination of the following items: toxic items such as vehicle batteries or spray cans; any evidence large clumps of yard waste from landscape maintenance such as yard waste or dumped leaf litter (not naturally occurring). All subject to best professional judgment. Describe potential threat on back of form. *Large amount is defined as 50 pieces or more. |