2007-2008 Annual Report

Storm Water Discharges Associated with Industrial Activity

prepared for the State of California
State Water Resources Control Board

BERKELEY LAB
ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY

June 30, 2008

Environment, Health & Safety Division
Environmental Services Group

June 30, 2008
ES-08-031

San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

ATTENTION: Mr. David Elias

SUBJECT: 2007/2008 Storm Water Annual Report for Facility WDID #2 01I002421

In accordance with the terms of the California *Industrial Storm Water General Permit*, Berkeley Lab submits it's 2007/2008 Annual Report for discharges of storm water associated with industrial activities. Included in this submission are all forms and supporting documentation required for the report. If you have any questions on the report, please contact Patrick Thorson at 510-486-5852.

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

Sincerely,

Ron Pauer
Group Leader
Environmental Services Group

ROP:pt

Enclosures

cc: (w/enclosures)
K. Abbott, DOE/BSO
N. Al-Hadithy, City of Berkeley
S. Black
K. Fletcher
M. Gross, DOE/BSO
H. Hatayama
J. Jelinski
J. Krupnick
D. Lucas
J. Ohearn
J. Ridgeway
P. Thorson
N. Ware

Ernest Orlando Lawrence Berkeley National Laboratory
One Cyclotron Road | Berkeley, California 94720 | Tel: 510-486-7614 | Fax: 510-486-6603 | e-mail:ropauer@lbl.gov

ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION

Lawrence Berkeley National Laboratory
Berkeley, California
WDID 201I002421

June 2008

TABLE OF CONTENTS

SECTION **PAGE**

1.0 INTRODUCTION....1

1.1 BACKGROUND....1

2.0 SITE COMPLIANCE EVALUATION....2

2.1 PERSONNEL AND INSPECTION DATE....2
2.2 REVIEW OF INSPECTION RECORDS....2
2.3 STORM WATER SAMPLING....2
2.3.1 Sample Locations....3
2.3.2 Sample Collection and Analysis....3
2.4 STORM WATER SAMPLE RESULTS....4
2.4.1 Discharge Point STW3 (B69 Manhole Influent)....4
2.4.2 Discharge Point STW2 (North Strawberry Creek Effluent)....5
2.4.3 Discharge Point STW4 (Chicken Creek Effluent)....7
2.4.4 Discharge Point STW5 (East Canyon Effluent)....8
2.5 VISUAL OBSERVATIONS OF NON-STORM WATER AND STORM WATER DISCHARGES....10
2.5.1 Authorized Non-Storm Water Discharges....10
2.5.2 Unauthorized Non-Storm Water Discharges....10
2.5.3 Wet Season Storm Water Discharges....10
2.6 INCIDENTS OF NON-COMPLIANCE....10

3.0 SWPPP REVISIONS....12

3.1 REVIEW OF EXISTING BEST MANAGEMENT PRACTICES....12
3.2 ADDITIONAL BMPS....12
3.3 REVISIONS TO STORM WATER POLLUTION PREVENTION PLAN....12

4.0 REFERENCES....13

5.0 DISTRIBUTION LIST....14

TABLES

FIGURES

APPENDICES

LIST OF TABLES

Table 2-1 Summary of Storm Water Monitoring Data

Table 3-1 Summary of Best Management Practices

LIST OF FIGURES

Figure 1-1 Facility Location Map

Figure 1-2 Facility Plan and Storm Water Monitoring Locations

LIST OF APPENDICES

Appendix A 2007-2008 Annual Report

Appendix B Laboratory Data Certificates and Chain-of-Custody Forms – Storm 1

Appendix C Laboratory Data Certificates and Chain-of-Custody Forms – Storm 2

1.0 INTRODUCTION

This *Annual Comprehensive Site Compliance Evaluation* (ACSCE) has been prepared for the Lawrence Berkeley National Laboratory (LBNL) located at 1 Cyclotron Road in Berkeley, Alameda County, California ("the Facility;" Figure 1-1). The ACSCE was conducted pursuant to the requirements of the California State Water Resources Control Board Order No. 97-03-DWQ *National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001 (General Permit), Waste Discharge Requirements (WDRs) for the Discharge of Storm Water Associated with Industrial Activities Excluding Construction Activities* ("General Permit;" SWRCB, 1997).

The ACSCE, in conjunction with the *Storm Water Pollution Prevention Plan* (SWPPP; ESG, 2006) and the *Storm Water Monitoring Plan* (SWMP; ESG, 2005) for the Facility, provides the basis for improved management of storm water to reduce the potential for contaminants to be released to surface water. This report also includes explanations, as required, to the *2007-2008 Annual Report for Storm Water Discharges Associated with Industrial Activities* ("2007-2008 Annual Report;" Appendix A). A copy of this ACSCE will be kept at the Facility.

1.1 BACKGROUND

LBNL is managed by the University of California for the United States Department of Energy and conducts basic and applied science research. Industrial operations conducted at LBNL to facilitate research include: transportation services; fabrication of metal and wood parts; and hazardous waste storage and handling. The Facility occupies approximately 203 acres in Alameda and Oakland Counties, California. Approximately 80 permanent buildings, 108 trailers, and temporary structures are located at the Facility. Approximately 110 acres of the Facility are undeveloped, with vegetated steep slopes. Topography at the Facility slopes south to southwest. The Facility layout is shown on Figure 1-2.

The Facility is regulated by the General Permit under Standard Industrial Classification (SIC): 4173 – Terminal and Service Facilities for Motor Vehicle Passenger Transportation; 3499 – Fabricated Metal Products, Not Elsewhere Classified; 2499 – Wood Products, Not Elsewhere Classified; and 4953– Hazardous Waste Treatment Storage or Disposal. The Waste Discharge Identification number for the Facility is 201I002421. The Facility's corporate ownership, street address and other industrial information appear on the Notice of Intent processed on April 1, 1992.

The most recent SWPPP and SWMP for the Facility were prepared in March 2006 (ESG, 2006) and November 2005 (ESG, 2005), respectively. The SWPPP identified the Best Management Practices (BMPs) to be implemented for reduction of storm water pollution. The SWPPP also established that an annual inspection would be conducted to identify areas associated with industrial activity that have a potential to contribute a storm water discharge and to evaluate whether BMPs to reduce pollutant discharge have been adequately and properly implemented. In accordance with the General Permit requirements, an ACSCE was conducted for the 2007-2008 wet-weather season. The findings of the ACSCE have been used to identify whether additional BMPs are needed to address potential sources of pollution to storm water. The scope and findings of the ACSCE are presented below.

2.0 SITE COMPLIANCE EVALUATION

The ACSCE conducted at the Facility included a review of visual observations, inspection records, and storm water analytical results. Visual inspections were conducted of potential pollutant sources for evidence of, or the potential for, pollutants entering the storm drainage system. Inspections have been conducted since obtaining coverage under the General Permit in April 1992.

2.1 PERSONNEL AND INSPECTION DATE

Ms. Sharon Squire, Ph.D., Senior Project Scientist at West Environmental Services and Technology Inc. and Mr. John Jelinsky, Quality Coordinator for the Environmental Services Group of the Environment, Health, and Safety division at LBNL, conducted the field inspection for the ACSCE on June 6, 2008. The ACSCE included an inspection of the Facility for potential pollutant sources and areas of industrial activities. The areas inspected included undeveloped vegetated areas, authorized non-storm water discharge areas, industrial activity areas, and downstream monitoring locations as depicted on Figure 1-2.

2.2 REVIEW OF INSPECTION RECORDS

The completed inspection forms required for the *Annual Report Forms for Storm Water Discharges Associated with Industrial Activity* (Appendix A) were reviewed and the results are summarized under the relevant sections below. The following forms were prepared by LBNL and WEST personnel and reviewed for this report:

- Form 1: Sampling and Analysis Results;
- Form 2: Quarterly Visual Observations of Authorized Non-Storm Water Discharges;
- Form 3: Quarterly Visual Observations of Unauthorized Non-Storm Water Discharges;
- Form 4: Monthly Visual Observations of Storm Water Discharges; and
- Form 5: Annual Comprehensive Site Compliance Evaluation.

2.3 STORM WATER SAMPLING

Samples were collected from two rainfall events resulting in discharge during the 2007-2008 wet-weather season: October 9, 2007 and February 19, 2008. The surface water sampled on October 9, 2007 was the first storm of the 2007-2008 wet-weather season that resulted in runoff. However, the collection of storm water samples on October 9, 2007 did not satisfy the General Permit requirements, as they were not collected during working hours. Storm water samples were collected on February 19, 2008 under the following conditions: (1) it resulted in runoff during operating hours; (2) the sample was collected within the first hour of discharge from the Facility; and (3) rainfall had not been reported at the Facility within three working days prior to the sampling event.

2.3.1 Sample Locations

The sample locations for compliance monitoring at the Facility are identified as: influent sampling location, B69 Manhole (STW3); and outlet sampling locations North Fork Strawberry (STW2), Chicken Creek (STW4) and East Canyon (STW5; Figure 1-2). The influent sampling is conducted at B69 Manhole, which receives storm water run-on from the predominantly undeveloped hillside above the Facility. Storm water entering the Facility ultimately flows via storm drains, surface drains and concrete lined ditches, to the following locations: North Fork of Strawberry Creek, Chicken Creek, or East Canyon. Authorized non-storm water discharges, e.g., from hydraugers, commingles with storm water discharges associated with industrial activity and from areas without industrial activity at the surface water sampling locations.

2.3.2 Sample Collection and Analysis

Surface water samples were collected using a composite sampler into laboratory prepared sample containers following Environment, Health, and Safety division Standard Operating Procedures (SOPs) 263 (ESG, 2008) and 252 (ESG, 2007). Analytical laboratories used by LBNL include: Eberline Services of Richmond, California; GEL Laboratories of Charleston, South Carolina; Paragon Analytics of Fort Collins, Colorado; and BC Laboratories, Inc. of Bakersfield, California.

2.3.2.1 BASIC ANALYTICAL PARAMETERS

The storm water samples were analyzed for the standard storm water parameters as stipulated in the General Permit (5.c.i.) and included: Total Suspended Solids (TSS) by United States Environmental Protection Agency (USEPA) Method SM-2540D2; pH by testing a 100-ml aliquot from the composited sampler with a calibrated, temperature-compensating pH sampler; specific conductance using SM-2510B or 120.1; and total oil and grease using USEPA Method 1664 (HEM-SGT).

2.3.2.2 SECTOR REQUIRED ANALYSES

Based on SIC 3499 – Fabricated Metal Products, the samples were also analyzed for the following sector parameters: nitrite and nitrate (as nitrogen) using USEPA 353.2; and total aluminum, total iron and total zinc using USEPA 200.7.

Pursuant to the General Permit requirements, the samples were also analyzed for SIC 4953 - Hazardous Waste Treatment Storage or Disposal sector required parameters including: ammonia as nitrogen using USEPA 350.1; magnesium using USEPA 200.7; mercury using USEPA 245.1; and chemical oxygen demand (COD) using USEPA 410.4.

The General Permit also requires analysis of arsenic, cadmium, cyanide, lead, selenium and silver under SIC 4953. However, arsenic, cadmium, cyanide, lead, selenium and silver data collected at the Facility over at least two consecutive sampling events between 1992 to 1995 did not reveal concentrations above the laboratory-reporting limits (ESG, 2007). Therefore, these chemicals were removed as sector required analyses pursuant to Section B.5.c.iii of the General Permit.

2.3.2.3 OTHER SUSPECTED CHEMICALS

Other suspected chemicals of concern that were analyzed included: total petroleum hydrocarbons as diesel (TPHd) using USEPA Method 8015M or USEPA Method 3510C LUFT/TPHd; tritium using Method E906EP; gross alpha using USEPA Method 900.0; and gross beta using USEPA Method 900.0.

2.4 STORM WATER SAMPLE RESULTS

Results of the laboratory analyses were compared to the applicable parameter benchmark values established by the USEPA (USEPA, 1998). A comparison of the reported general and sector required analytical data with the USEPA benchmarks is presented below. Laboratory analytical data and chain-of-custody forms are provided in Appendix B (storm 1) and Appendix C (storm 2).

2.4.1 Discharge Point STW3 (B69 Manhole Influent)

Analytical results for the samples collected at the influent sampling location STW3 (B69 Manhole Influent) are summarized in Table 2-1 and Appendix A (Forms 1 and 2) and discussed below.

2.4.1.1 BASIC PARAMETERS

Laboratory analysis of the October 9, 2007 (first sampling event) and February 19, 2008 (second sampling event) surface water samples revealed: pH at 7.69 standard units (S.U.) and 8.28 S.U., respectively; within the USEPA benchmark of 6.0 S.U. to 9.0 S.U.; TSS at 1.2 milligrams per liter (mg/l) and 63 mg/l, respectively; below the USEPA benchmark of 100 mg/l for both sampling events; and oil and grease at less than the laboratory-reporting limit of 5.0 mg/l for both sampling events; below the USEPA benchmark of 15 mg/l. Specific conductance of surface water samples collected during the first and second sampling events was reported at 251 micromhos per centimeter (µmhos/cm) and 135 µmhos/cm, respectively.

2.4.1.2 SECTOR REQUIRED ANALYSES – SIC 3499

Nitrate and nitrite as nitrogen in surface water samples collected during the first and second sampling events was reported at 2.4 mg/l and 1.3 mg/l, respectively; above the USEPA benchmark of 0.68 mg/l for both sampling events.

Total aluminum in the surface water samples collected during the first and second sampling events was reported at 0.054 mg/l and 0.55 mg/l, respectively; below the USEPA benchmark of 0.75 mg/l for both sampling events.

Total iron in the surface water samples collected during the first and second sampling events was reported at 0.066 mg/l and 0.81 mg/l, respectively; below the USEPA benchmark of 1.0 mg/l for both sampling events.

Total zinc in the surface water samples collected during the first and second sampling events was reported at 0.13 mg/l and 0.17 mg/l, respectively; above the USEPA benchmark of 0.117 mg/l for both sampling events.

2.4.1.3 SECTOR REQUIRED ANALYSES – SIC 4953

Ammonia as nitrogen in surface water samples collected during the first and second sampling events was reported at 0.24 mg/l and 0.22 mg/l, respectively; below the USEPA benchmark of 15.62 mg/l for both sampling events (where the USEPA benchmark of 19 mg/l for ammonia was converted to a USEPA benchmark of 15.62 mg/l for ammonia as nitrogen).

Total magnesium in surface water samples collected during the first and second sampling events was reported at 1.6 mg/l and 1.4 mg/l, respectively; above the USEPA benchmark of 0.00636 mg/l for both sampling events.

Total mercury in surface water samples collected during the first and second sampling events was reported at less than the laboratory-reporting limit of 0.00020 mg/l for both sampling events; below the USEPA benchmark of 0.0024 mg/l.

COD in surface water samples collected during the first and second sampling events was reported at 48 mg/l and 97 mg/l, respectively; below the USEPA benchmark of 120 mg/l for both sampling events.

2.4.1.4 OTHER ANALYSIS

TPHd in surface water samples collected during the first and second sampling events was reported at 270 micrograms per liter (μg/l) and 200 μg/l, respectively; there is not a USEPA benchmark for TPHd.

Tritium in surface water samples collected during the first and second sampling events was reported at less than the laboratory-reporting limit of 200 Picocuries per liter (pCi/l) for both the first and second sampling events; there is not a USEPA benchmark for tritium.

Gross alpha in surface water samples collected during the first and second sampling events was reported at less than the laboratory-reporting limit of 2.00 pCi/l and 3.48 pCi/l, respectively; there are is not a USEPA benchmark for gross alpha.

Gross beta in surface water samples collected during the first and second sampling events was reported at 5.04 pCi/l and 5.73 pCi/l, respectively; there is not a USEPA benchmark for gross beta.

2.4.2 Discharge Point STW2 (North Strawberry Creek Effluent)

Analytical results for the samples collected at the discharge sampling location STW2 (North Strawberry Creek Effluent) are summarized in Table 2-1 and Appendix A (Forms 1 and 2) and discussed below.

2.4.2.1 BASIC PARAMETERS

Laboratory analysis of the October 9, 2007 (first sampling event) and February 19, 2008 (second sampling event) surface water samples revealed: pH at 7.85 S.U. and 8.16 S.U., respectively; within the USEPA benchmark of 6.0 S.U. to 9.0 S.U.; TSS at 310 mg/l and 65 mg/l, respectively; above the USEPA benchmark of 100 mg/l for the first event, but below the USEPA benchmark of 100 mg/l for the second sampling event; and oil and grease at less than the laboratory-

reporting limit of 5.0 milligram per liter (mg/l) for both sampling events; below the USEPA benchmark of 15 mg/l. Specific conductance of surface water samples collected during the first and second sampling events was reported at 462 µmhos/cm and 275 µmhos/cm, respectively.

2.4.2.2 SECTOR REQUIRED ANALYSES – SIC 3499

Nitrate and nitrite as nitrogen in surface water samples collected during the first and second sampling events was reported at 1.5 mg/l and 1.1 mg/l, respectively; above the USEPA benchmark of 0.68 mg/l for both sampling events.

Total aluminum in the surface water samples collected during the first and second sampling events was reported at 6.1 mg/l and 1.1 mg/l, respectively; above the USEPA benchmark of 0.75 mg/l for both sampling events.

Total iron in the surface water samples collected during the first and second sampling events was reported at 11 mg/l and 1.8 mg/l, respectively; above the USEPA benchmark of 1.0 mg/l for both sampling events.

Total zinc in the surface water samples collected during the first and second sampling events was reported at 0.56 mg/l and 0.25 mg/l, respectively; above the USEPA benchmark of 0.117 mg/l for both sampling events.

2.4.2.3 SECTOR REQUIRED ANALYSES – SIC 4953

Ammonia as nitrogen in surface water samples collected during the first and second sampling events was reported at 0.84 mg/l and 0.66 mg/l, respectively; below the USEPA benchmark of 15.62 mg/l for both sampling events (where the USEPA benchmark of 19 mg/l for ammonia was converted to a USEPA benchmark of 15.62 mg/l for ammonia as nitrogen).

Total magnesium in surface water samples collected during the first and second sampling events was reported at 24 mg/l and 11 mg/l, respectively; above the USEPA benchmark of 0.00636 mg/l for both sampling events.

Total mercury in surface water samples collected during the first and second sampling events was reported at 0.00061 mg/l and less than the laboratory-reporting limit of 0.00020 mg/l; below the USEPA benchmark of 0.0024 mg/l for both sampling events.

COD in surface water samples collected during the first and second sampling events was reported at 340 mg/l and 110 mg/l, respectively; above the USEPA benchmark of 120 mg/l for the first sampling event, but below the USEPA benchmark of 120 mg/l for the second sampling event.

2.4.2.4 OTHER ANALYSIS

TPHd in surface water samples collected during the first and second sampling events was reported at 730 µg/l and 320 µg/l, respectively; there is not a USEPA benchmark for TPHd.

Tritium in surface water samples collected during the first and second sampling events was reported at less than the laboratory-reporting limit of 200 pCi/l for both the first and second sampling events; there is not a USEPA benchmark for tritium.

Gross alpha in surface water samples collected during the first and second sampling events was reported at 8.55 pCi/l and 3.32 pCi/l; there is not a USEPA benchmark for gross alpha.

Gross beta in surface water samples collected during the first and second sampling events was reported at 16.2 pCi/l and 3.52 pCi/l, respectively; there is not a USEPA benchmark for gross beta.

2.4.3 Discharge Point STW4 (Chicken Creek Effluent)

Analytical results for the samples collected at the discharge sampling location STW4 (Chicken Creek Effluent) are summarized in Table 2-1 and Appendix A (Forms 1 and 2) and discussed below.

2.4.3.1 BASIC PARAMETERS

Laboratory analysis of the October 9, 2007 (first sampling event) and February 19, 2008 (second sampling event) surface water samples revealed: pH at 7.52 S.U. and 8.17 S.U., respectively; within the USEPA benchmark of 6.0 S.U. to 9.0 S.U.; TSS at 310 mg/l and 93 mg/l, respectively; above the USEPA benchmark of 100 mg/l for the first event, but below the USEPA benchmark of 100 mg/l for the second sampling event; and oil and grease at less than the laboratory-reporting limit of 5.0 mg/l for both sampling events; below the USEPA benchmark of 15 mg/l. Specific conductance of surface water samples collected during the first and second sampling events was reported at 328 µmhos/cm and 349 µmhos/cm, respectively.

2.4.3.2 SECTOR REQUIRED ANALYSES – SIC 3499

Nitrate and nitrite as nitrogen in surface water samples collected during the first and second sampling events was reported at 2.41 mg/l and 1.6 mg/l, respectively; above the USEPA benchmark of 0.68 mg/l for both sampling events.

Total aluminum in the surface water samples collected during the first and second sampling events was reported at 16 mg/l and 3.2 mg/l, respectively; above the USEPA benchmark of 0.75 mg/l for both sampling events.

Total iron in the surface water samples collected during the first and second sampling events was reported at 18 mg/l and 4.9 mg/l, respectively; above the USEPA benchmark of 1.0 mg/l for both sampling events.

Total zinc in the surface water samples collected during the first and second sampling events was reported at 1.2 mg/l and 0.47 mg/l, respectively; above the USEPA benchmark of 0.117 mg/l for both sampling events.

2.4.3.3 SECTOR REQUIRED ANALYSES – SIC 4953

Ammonia as nitrogen in surface water samples collected during the first and second sampling events was reported at 0.15 mg/l and 0.42 mg/l, respectively; below the USEPA benchmark of 15.62 mg/l for both sampling events (where the USEPA benchmark of 19 mg/l for ammonia was converted to a USEPA benchmark of 15.62 mg/l for ammonia as nitrogen).

Total magnesium in surface water samples collected during the first and second sampling events was reported at 21 mg/l and 16 mg/l, respectively; above the USEPA benchmark of 0.00636 mg/l for both sampling events.

Total mercury in surface water samples collected during the first and second sampling events was reported at less than the laboratory-reporting limit of 0.00020 mg/l for both sampling events; below the USEPA benchmark of 0.0024 mg/l.

COD in surface water samples collected during the first and second sampling events was reported at 460 mg/l and 150 mg/l, respectively; above the USEPA benchmark of 120 mg/l for both sampling events.

2.4.3.4 OTHER ANALYSIS

TPHd in surface water samples collected during the first and second sampling events was reported 1,400 µg/l and 490 ug/l, respectively; there is not a USEPA benchmark for TPHd.

Tritium in surface water samples collected during the first and second sampling events was reported at 250 pCi/l and less than the laboratory-reporting limit of 200 pCi/l; there is not a USEPA benchmark for tritium.

Gross alpha in surface water samples collected during the first and second sampling events was reported at 9.14 pCi/l and 2.13 pCi/l; there is not a USEPA benchmark for gross alpha.

Gross beta in surface water samples collected during the first and second sampling events was reported at 32.9 pCi/l and less than the laboratory-reporting limit of 3.00 pCi/l; there is not a USEPA benchmark for gross beta.

2.4.4 Discharge Point STW5 (East Canyon Effluent)

Analytical results for the samples collected at the discharge sampling location STW5 (East Canyon Effluent) are summarized in Table 2-1 and Appendix A (Forms 1 and 2) and discussed below.

2.4.4.1 BASIC PARAMETERS

Laboratory analysis of the October 9, 2007 (first sampling event) and February 19, 2008 (second sampling event) surface water samples revealed: pH at 7.71 S.U. and 8.10 S.U., respectively; within the USEPA benchmark of 6.0 S.U. to 9.0 S.U.; TSS at 280 mg/l and 9.4 mg/l, respectively; above the USEPA benchmark of 100 mg/l for the first event, but below the USEPA benchmark of 100 mg/l for the second sampling event; and oil and grease at less than the laboratory-reporting limit of 5.0 mg/l for both sampling events; below the USEPA benchmark of 15 mg/l. Specific conductance of surface water samples collected during the first and second sampling events were reported at 88.0 µmhos/cm and 291 µmhos/cm, respectively.

2.4.4.2 SECTOR REQUIRED ANALYSES – SIC 3499

Nitrate and nitrite as nitrogen in surface water samples collected during the first and second sampling events was reported at 0.62 mg/l and 1.2 mg/l, respectively; below the USEPA

benchmark of 0.68 mg/l for the first sampling event, but above the USEPA benchmark of 0.68 mg/l for the second sampling event.

Total aluminum in the surface water samples collected during the first and second sampling events was reported at 5.7 mg/l and 0.38 mg/l, respectively; above the USEPA benchmark of 0.75 mg/l for the first sampling event, but below the USEPA benchmark of 0.75 mg/l for the second sampling event.

Total iron in the surface water samples collected during the first and second sampling events was reported at 8.3 mg/l and 0.56 mg/l, respectively; above the USEPA benchmark of 1.0 mg/l for the first sampling event, but below the USEPA benchmark of 1.0 mg/l for the second sampling event.

Total zinc in the surface water samples collected during the first and second sampling events was reported at 0.37 mg/l and 0.43 mg/l, respectively; above the USEPA benchmark of 0.117 mg/l for both sampling events.

2.4.4.3 SECTOR REQUIRED ANALYSES – SIC 4953

Ammonia as nitrogen in surface water samples collected during the first and second sampling events was reported at 0.27 mg/l and 0.27 mg/l, respectively; below the USEPA benchmark of 15.62 mg/l for both sampling events (where the USEPA benchmark of 19 mg/l for ammonia was converted to a USEPA benchmark of 15.62 mg/l for ammonia as nitrogen).

Total magnesium in surface water samples collected during the first and second sampling events was reported at 4.8 mg/l and 15 mg/l, respectively; above the USEPA benchmark of 0.00636 mg/l for both sampling events.

Total mercury in surface water samples collected during the first and second sampling events was reported at less than the laboratory-reporting limit of 0.00020 mg/l for both events; below the USEPA benchmark of 0.0024 mg/l.

COD in surface water samples collected during the first and second sampling events was reported at 170 mg/l and 67 mg/l, respectively; above the USEPA benchmark of 120 mg/l for the first sampling event, but below the USEPA benchmark of 120 mg/l for the second sampling event.

2.4.4.4 OTHER ANALYSIS

TPHd in surface water samples collected during the first and second sampling events was reported at 250 μg/l and 250 ug/l, respectively; there is not a USEPA benchmark for TPHd.

Tritium in surface water samples collected during the first and second sampling events was reported at less than the laboratory-reporting limit of 200 pCi/l for both the first and second sampling events; there is not a USEPA benchmark for tritium.

Gross alpha in surface water samples collected during the first and second sampling events was reported at 4.37 pCi/l and less than the laboratory-reporting limit of 2.00 pCi/l, respectively; there is not a USEPA benchmark for gross alpha.

Gross beta in surface water samples collected during the first and second sampling events was reported at 15.0 pCi/l and 2.9 pCi/l, respectively; there is not a USEPA benchmark for gross beta.

2.5 VISUAL OBSERVATIONS OF NON-STORM WATER AND STORM WATER DISCHARGES

2.5.1 Authorized Non-Storm Water Discharges

Quarterly visual observations of authorized non-storm water discharges were conducted during the 2007-2008 dry-weather season to identify: groundwater discharge from hydraugers and retaining wall seep holes; and potable water from fire hydrant flushing; landscape watering; and condensate discharge from air conditioning units. Visual observations did not reveal cloudiness, discoloring, staining, floating objects or oil sheen in the discharges from hydraugers or weep holes. No discharge, or evidence of discharge, was visible from fire hydrant flushing, landscape watering, or air conditioning units. A summary of the authorized non-storm water quarterly visual observations is shown in Appendix A, Form 2.

2.5.2 Unauthorized Non-Storm Water Discharges

On April 10, 2008, a closed-loop low conductivity water (LCW) main ruptured near Building 10. The leak was discovered after an alarm notified staff that the water levels in the LCW tanks were at 80 percent capacity and that the water make-up sources were unable to keep up with the water loss. The total water discharged from the LCW main was approximately 11,200 gallons over an 18-hour period. The leak was repaired on April 11, 2008.

Quarterly visual observations conducted on June 13, 2008 revealed yellow staining and crystals at the cooling water tower serving building 67. The yellow staining was the result of a clogged water sensor that caused overtreating, resulting in foam being discharged from the cooling tower on June 12, 2008. A filter was installed in the cooling tower water line on June 26, 2008 to prevent further blow down events. A summary of the unauthorized non-storm water quarterly visual observations is presented in Appendix A, Form 3.

2.5.3 Wet Season Storm Water Discharges

Monthly visual observations were conducted during the 2007-2008 wet weather season between October 2007 and April 2008. The monthly visual observations did not reveal the presence of any discolorations, stains, odors, floating and suspended material, or oil and grease entering the creeks located at the Facility (Appendix A, Form 4). Monthly visual observations were not conducted during May of 2008, as there was no rainfall or discharge. Observations during October, December, January, and April did not explicitly meet the criteria specified in Section B.4.b of the General Permit. Beginning October 1, 2008, monthly wet-weather inspections will be conducted monthly, even if there has not been rainfall or runoff during that month.

2.6 INCIDENTS OF NON-COMPLIANCE

The unauthorized discharge of LCW and cooling tower water represent incidents of non-compliance. Both unauthorized non-storm water discharges were abated upon discovery. Additional BMPs were implemented to prevent cooling water blow down events. This ACSCE provides a 30-day notice to the California Regional Water Quality Control Board – San

Francisco Bay Region (Regional Board) of the non-compliant unauthorized discharge of cooling water, pursuant to the General Permit. The Facility currently complies with the General Permit.

3.0 SWPPP REVISIONS

3.1 REVIEW OF EXISTING BEST MANAGEMENT PRACTICES

The SWPPP identified the BMPs for the Facility. A summary of the current BMPs and status is presented in Table 3-1. Based on the 2007-2008 Facility inspections, BMPs appear adequate to control discharges of pH, oil and grease, ammonia and mercury.

3.2 ADDITIONAL BMPS

Based on the reporting forms provided in Appendix A, additional BMPs are required to control the concentrations of: TSS, nitrate and nitrite as nitrogen, total aluminum, total iron, total zinc, total magnesium and COD. The Facility has identified additional BMPs to be implemented to control the discharge of these pollutants. The proposed new BMPs include: outlet protection at selected hydraugers and slope drains, and regular sweeping of the fabrication area. The new BMPs, subject to review and approval from the Regional Board, will be implemented by October 31, 2008. A listing of the proposed new BMP is presented in Table 3-1.

In addition, alternative storm water monitoring locations are proposed that will allow generation of analytical data for pollutants closer to potential sources to aid in identifying if additional BMPs are necessary to control contributions of pollutants from industrial activity areas. The proposed storm water monitoring program modifications will be presented in an Alternative Storm Water Monitoring Plan (ASWMP). The ASWMP is recommended to provide the basis for improved management of storm water and to develop data for the evaluation of compliance with the General Permit and SWPPP. The ASWMP will identify sample locations at or near pollutant sources where industrial activities regulated by the General Permit have the potential to be exposed to surface water. In contrast, the current SWMP requires sampling entire drainage areas, where the discharge has commingled with storm water from areas with little or no industrial activity.

3.3 REVISIONS TO STORM WATER POLLUTION PREVENTION PLAN

The identified new BMPs will be implemented by October 31, 2008, subject to Regional Board approval. A revised SWPPP will be submitted within 90 days in accordance with the General Permit requirements.

4.0 REFERENCES

Environmental Services Group, Lawrence Berkeley National Laboratory, Berkeley, California, *Storm Water Monitoring Program*, November 2005 (ESG, 2005).

Environmental Services Group, Environmental, Health and Safety Division, Ernest Orlando Lawrence Berkeley National Laboratory, *Storm Water Pollution Prevention Plan, Revision 4*, March 2006 (ESG, 2006).

Environmental Services Group, Environmental, Health and Safety Division, *Data Quality Objectives and Assessment, Procedure 252*, August 6, 2007 (ESG, 2007).

Environmental Services Group, Environmental, Health and Safety Division, *Surface Water Sampling Procedure, Procedure 263*, April 1, 2008 (ESG, 2008).

State Water Resources Control Board (State Water Board), *Water Quality Order No. 97-03-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001 (General Permit), Waste Discharge Requirements (WDRs) For Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities*, Adopted 1997 (SWRCB, 1997).

United States Environmental Protection Agency (USEPA), *Final Modification of the National Pollutant Discharge Elimination Systems (NDPES) Storm Water Multi-Sector General Permit for Industrial Activities; Termination of the EPA NPDES Storm Water Baseline Industrial General Permit, Washington D.C Federal Register*, September 30, 1998 (USEPA, 1998).

5.0 DISTRIBUTION LIST

Mr. Ron Pauer
Lawrence Berkeley National Laboratory
1 Cyclotron Road Mail Stop 85B0198
Berkeley, CA 94720- 8272

Mr. David Elias
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Draft Privileged and Confidential
Attorney Client
Work Product

TABLE 2-1
SUMMARY OF STORM WATER MONITORING DATA
Lawrence Berkeley National Laboratory
Berkeley, California

Parameter	Units	Regulatory Standards	ACSCE 2007-2008								
			First Event					Second Event			
			10/09/07					02/19/08			
			STW3	STW2	STW 4		STW 5	STW3	STW2	STW 4	STW 5
			Influent	Effluent	Effluent	Effluent	Effluent	Influent	Effluent	Effluent	Effluent
		USEPA Benchmarks	B69 Manhole	North Fork of Strawberry Creek	Chicken Creek	Chicken Creek Duplicate	East Canyon Outlet	B69 Manhole	North Fork of Strawberry Creek	Chicken Creek	East Canyon Outlet
Basic Analyses											
pH	S.U.	6.0-9.0	7.69	7.85	7.52	--	7.71	8.25	8.16	8.17	8.10
TSS	mg/l	100	1.2	310	390	390	280	63	65	93	9.4
Specific Conductance	µmho/cm	--	251	462	328	332	88.0	135	275	349	291
Oil and Grease	mg/l	15	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Sector Required Analyses											
SIC 3499											
Nitrate + Nitrite as Nitrogen	mg/l	0.68	2.4	1.5	2.4	2.4	0.62	1.3	1.1	1.6	1.2
Total Aluminum	mg/l	0.75	0.054	6.1	16	19	5.7	0.55	1.1	3.2	0.38
Total Iron	mg/l	1.0	0.066	11	18	22	8.3	0.81	1.8	4.9	0.56
Total Zinc	mg/l	0.117	0.13	0.56	1.2	1.2	0.37	0.17	0.25	0.47	0.43
SIC 4953											
Ammonia as Nitrogen	mg/l	15.62	0.24	0.84	0.15	1.1	0.27	0.22	0.66	0.42	0.27
Total Magnesium	mg/l	0.00636	1.6	24	21	22	4.8	1.4	11	16	15
Total Mercury	mg/l	0.0024	<0.00020	0.00061	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
COD	mgO/l	120	48	340	460	540	170	97	110	150	67
Other Analysis											
TPH Diesel	µg/l	--	270	730	1,400	1,300	250	200	320	490	250
Tritium	pCi/l	--	<200	<200	250	<200	<200	<200	<200	<200	<200
Gross Alpha	pCi/l	--	<2.00	8.55	9.14	<2.00	4.37	3.48	3.32	2.13	<2.00
Gross Beta	pCi/l	--	5.04	16.2	32.9	2.53	15.0	5.73	3.52	<3.00	2.9

Notes:
USEPA: United States Environmental Protection Agency
--: Not analyzed or no standard established
S.U.: Standard Units
µmho/cm: Micromhos per centimeter
mg/l: Milligrams per liter
µg/l: Micrograms per liter
mgO/l: Milligrams of oxygen per liter
pCi/l: PicoCuries per liter
TPH: Total Petroleum Hydrocarbons

Draft Privileged and Confidential
Attorney Client
Work Product

TABLE 3-1
SUMMARY OF BEST MANAGEMENT PRACTICES
Lawrence Berkeley National Laboratory
Berkeley, California

ACTIVITY	BMPs	BMP Status		Implementation Schedule
		Current	New	
Bus Transportation	Regular inspection and cleaning of areas	X		
	Orderly storage of equipment/materials	X		
	Regular inspection, testing and maintenance of onsite equipment	X		
	Periodic inspections to confirm conformance with BMPs	X		
	Employee training	X		
	Prevent sediment migration to storm waters	X		
	Identify sampling location for this activity		X	October 1, 2008
Fueling Area	Regular inspection and cleaning of areas	X		
	Orderly storage of equipment/materials	X		
	Conduct vehicle washing under cover and discharge wash water to the sanitary sewer	X		
	Regular inspection, testing and maintenance of onsite equipment	X		
	Enable ready access to spill response equipment	X		
	Establish procedures for cleanup and reporting of spills	X		
	Periodic inspections to confirm conformance with BMPs	X		
	Employee training	X		
	Maintain storm drain inlet protection	X		
	Install sampling tap for new monitoring location		X	October 31, 2008
Carpentry/Paint Shop	Regular inspection and cleaning of areas	X		
	Orderly storage of equipment/materials	X		
	Store paint cans inside or under a roofed structure		X	October 31, 2008
	Periodic inspections to confirm conformance with BMPs	X		
	Install new sampling location		X	October 31, 2008
	Maintain storm drain inlet protection	X		
Metal Fabrication	Regular inspection and cleaning of areas	X		
	Orderly storage of equipment/materials	X		
	Periodic inspections to confirm conformance with BMPs	X		
	Employee training	X		
	Prevent sediment migration to storm waters	X		
	Sweeping, vacuuming and cleaning of paved surfaces as needed		X	October 31, 2008
	Improve covering of metal hoppers when not in active use		X	October 31, 2008

TABLE 3-1
SUMMARY OF BEST MANAGEMENT PRACTICES
Lawrence Berkeley National Laboratory
Berkeley, California

ACTIVITY	BMPs	BMP Status		Implementation Schedule
		Current	New	
Hazardous Waste Treatment and Storage	Regular inspection and cleaning of areas	X		
	Orderly storage of equipment/materials	X		
	Sweeping, vacuuming and cleaning of paved surfaces	X		
	Periodic inspections to confirm conformance with BMPs	X		
	Employee training	X		
	Collect storm water samples in this area		X	October 1, 2008
Erosion Control	Maintain existing vegetation	X		
	Clean concrete lined ditches and drop inlets prior to the wet-weather season and more frequently as needed	X		
	Maintain drop inlet protection	X		
	Maintain silt fences	X		
	Maintain fiber rolls	X		
	Maintain erosion control mats	X		
	Periodic inspections to confirm conformance with erosion control BMPs	X		
	Install and maintain outlet protection below hydruagers and slope drains that do not allow groundwater/storm water to be discharged onto concrete, asphalt, or trench drains, or into a drop inlets		X	October 31, 2008
	Sweeping and vacuuming of paved surfaces prior to the wet-weather season	X		

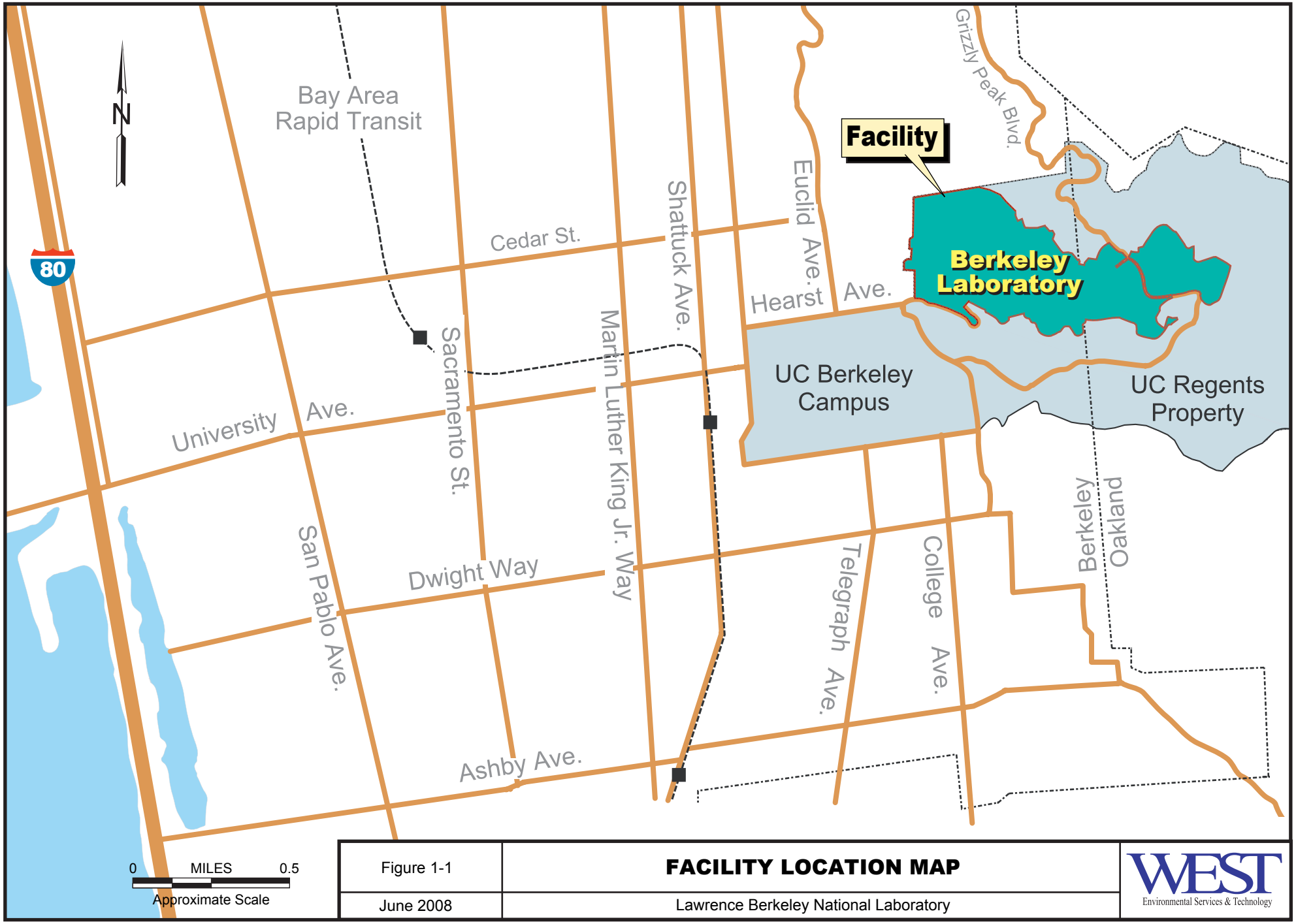

Figure 1-1	FACILITY LOCATION MAP	WEST Environmental Services & Technology
June 2008	Lawrence Berkeley National Laboratory	

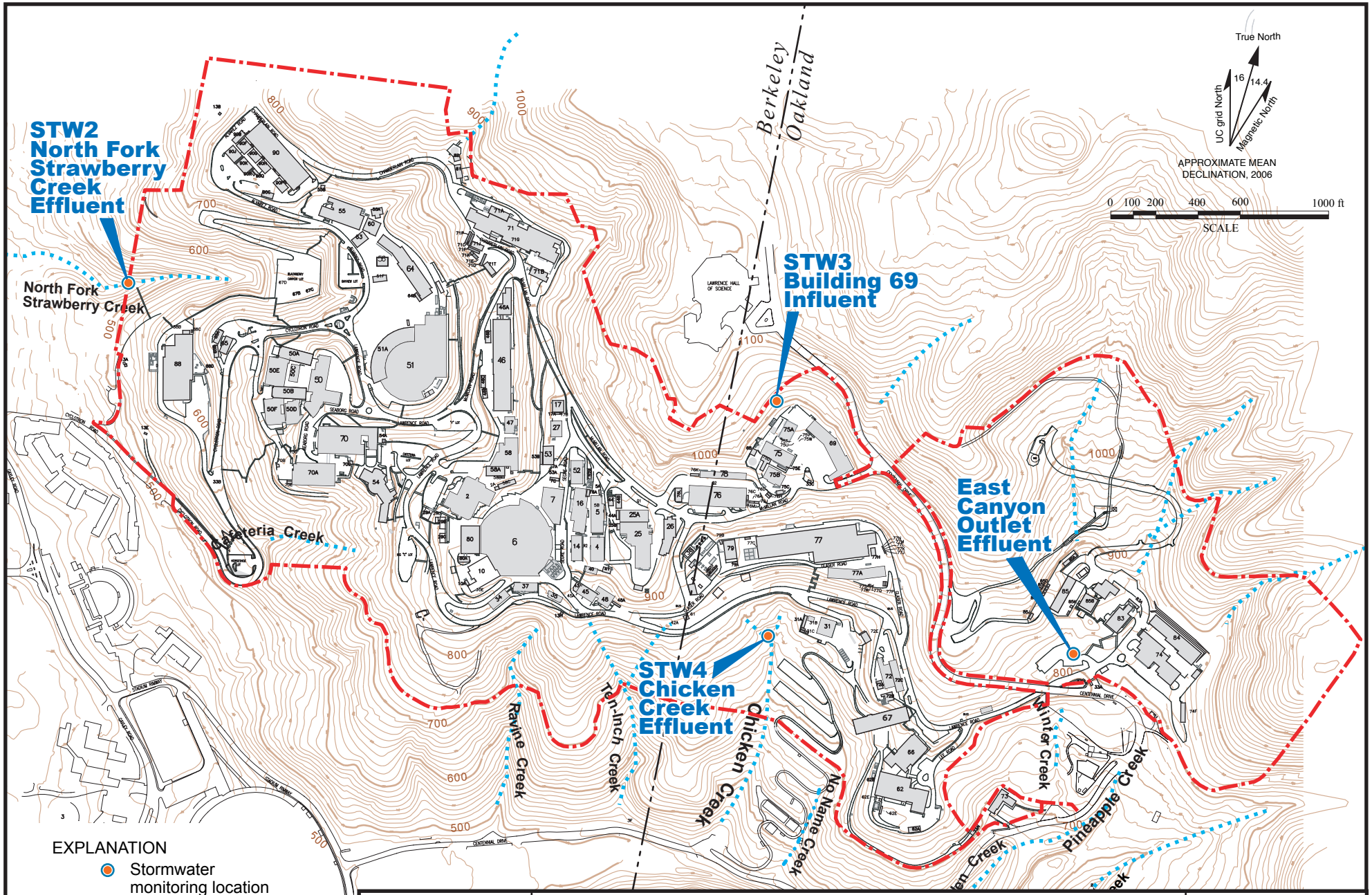

Figure 1-2	FACILITY PLAN AND STORMWATER MONITORING LOCATIONS	WEST Environmental Services & Technology
June 2008	Lawrence Berkeley National Laboratory	

APPENDIX A

2007-2008 ANNUAL REPORT

State Water Resources Control Board

Linda S. Adams
Secretary for
Environmental Protection

Division of Water Quality
1001 I Street • Sacramento, California 95814 • (916) 341-5538
Mailing Address: P.O. Box 1977 • Sacramento, California • 95812-1977
Fax (916) 341-5543 • http://www.waterboards.ca.gov/stormwtr

Arnold Schwarzenegger
Governor

To Interested Parties:

2007-2008 ANNUAL REPORT ANNUAL REPORT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

This year we are pleased to announce the availability of the Storm Water Annual Reporting Module (SWARM). SWARM allows an individual discharger to file their Annual Report electronically using the California Integrated Water Quality System (CIWQS).

Currently SWARM is not a mandatory reporting method, but we encourage all dischargers to register and use SWARM as soon as possible.

To register to use SWARM please visit http://www.waterboards.ca.gov/ciwqs/index.html and download the SWARM registration form and instructions. Please fill out the form and mail it back to: CIWQS Registration, P.O. Box 671, Sacramento, CA 95812. Once a complete registration form is received, a login name and password will be emailed to you.

For SWARM registration questions or information please contact the CIWQS help center at 1-866-792-4977 or by email at ciwqs@waterboards.ca.gov.

To receive email updates on Storm Water Industrial permitting issues, please sign up at http://www.waterboards.ca.gov/lyrisforms/swrcb_subscribe.html. The Storm Water program currently maintains five email lists:

- CIWQS Storm Water Annual Reporting Module (SWARM)
- Storm Water Construction Permitting Issues
- Storm Water Industrial Permitting Issues
- Storm Water Municipal Permitting Issues
- Sustainable Development

For all other permitting questions please contact the Storm Water Section at (916) 341-5538 or by email at stormwater@waterboards.ca.gov.

Sincerely,

Storm Water Section

State of California
STATE WATER RESOURCES CONTROL BOARD

2007-2008

ANNUAL REPORT

FOR
STORM WATER DISCHARGES ASSOCIATED
WITH INDUSTRIAL ACTIVITIES

Reporting Period July 1, 2007 through June 30, 2008

An annual report is required to be submitted to your local Regional Water Quality Control Board (Regional Board) by July 1 of each year. This document must be certified and signed, under penalty of perjury, by the appropriate official of your company. Many of the Annual Report questions require an explanation. Please provide explanations on a separate sheet as an attachment. **Retain a copy of the completed Annual Report for your records.**

Please circle or highlight any information contained in Items A, B, and C below that is new or revised so we can update our records. Please remember that a Notice of Termination and new Notice of Intent are required whenever a facility operation is relocated or changes ownership.

If you have any questions, please contact your Regional Board Industrial Storm Water Permit Contact. The names, telephone numbers and e-mail addresses of the Regional Board contacts, as well as the Regional Board office addresses can be found at http://www.waterboards.ca.gov/stormwtr/contact.html. To find your Regional Board information, match the first digit of your WDID number with the corresponding number that appears in parenthesis on the first line of each Regional Board office.

GENERAL INFORMATION:

Facility WDID No: 201I002421

A. Facility Information:

Facility Business Name: Lawrence Berkeley National Laboratory Contact Person: Ron Pauer

Physical Address: 1 Cyclotron Road e-mail: ROPauer@lbl.gov

City: Berkeley State: CA Zip: 94720 Phone: (510) 486-7614

Standard Industrial Classification (SIC) Code(s): 3499, 4173, 2499, 4953

B. Facility Operator Information:

Operator Name: Lawrence Berkeley National Laboratory Contact Person: Ron Pauer

Mailing Address: 1 Cyclotron Road, MS85B0198 e-mail: ROPauer@lbl.gov

City: Berkeley State: CA Zip: 94720 Phone: (510) 486-7614

C. Facility Billing Information:

Operator Name: Lawrence Berkeley National Laboratory Contact Person: Ron Pauer

Mailing Address: 1 Cyclotron Road, MS85B01898 e-mail: ROPauer@lbl.gov

City: Berkeley State: CA Zip: 94720 Phone: (510) 486-7614

2007-2008

ANNUAL REPORT

SPECIFIC INFORMATION

MONITORING AND REPORTING PROGRAM

D. SAMPLING AND ANALYSIS EXEMPTIONS AND REDUCTIONS

1. For the reporting period, was your facility exempt from collecting and analyzing samples from **two** storm events in accordance with sections B.12 or 15 of the General Permit?

   ☐ **YES** Go to Item D.2 ☒ **NO** Go to Section E

2. Indicate the reason your facility is exempt from collecting and analyzing samples from **two** storm events. Attach a copy of the first page of the appropriate certification if you check boxes ii, iii, iv, or v.

   i. ☐ Participating in an Approved Group Monitoring Plan **Group Name:**_____

   m_____

   ii. ☐ Submitted **No Exposure Certification (NEC)** Date Submitted**:** ____/____/____

   Re-evaluation Date**:** ___/___/____

   Does facility continue to satisfy NEC conditions? ☐ YES ☐ NO

   iii. ☐ Submitted **Sampling Reduction Certification (SRC)** Date Submitted**:** ____/____/____

   Re-evaluation Date**:** ___/___/____

   Does facility continue to satisfy SRC conditions? ☐ YES ☐ NO

   iv. ☐ Received Regional Board Certification Certification Date**:** ____/____/____

   v. ☐ Received Local Agency Certification Certification Date**:** ____/____/____

3. If you checked boxes i or iii above, were you scheduled to sample **one** storm event during the reporting year?

   ☐ **YES** Go to Section E ☐ **NO** Go to Section F

4. If you checked boxes ii, iv, or v, go to Section F.

E. SAMPLING AND ANALYSIS RESULTS

1. How many storm events did you sample? __2__ If less than 2, **attach explanation** (if you checked item D.2.i or iii. above, only attach explanation if you answer "0").

2. Did you collect storm water samples from the first storm of the wet season that produced a discharge during scheduled facility operating hours? (Section B.5 of the General Permit)

   ☒ **YES** ☐ **NO** **attach explanation** **(Please note that if you do not sample the first storm event, you are still required to sample 2 storm events)**

3. How many storm water discharge locations are at your facility? __3__

4. For each storm event sampled, did you collect and analyze a sample from each of the facility's' storm water discharge locations? ☒ YES, go to Item E.6 ☐ NO

5. Was sample collection or analysis reduced in accordance with Section B.7.d of the General Permit? ☐ YES ☐ NO, **attach explanation**

   If "YES", **attach documentation** supporting your determination that two or more drainage areas are substantially identical.

   Date facility's drainage areas were last evaluated ____/____/_____

6. Were all samples collected during the first hour of discharge? ☒ YES ☐ NO, **attach explanation**

7. Was all storm water sampling preceded by three (3) working days without a storm water discharge? ☒ YES ☐ NO, **attach explanation**

8. Were there any discharges of storm water that had been temporarily stored or contained? (such as from a pond) ☐ YES ☒ NO, go to Item E.10

9. Did you collect and analyze samples of temporarily stored or contained storm water discharges from two storm events? (or one storm event if you checked item D.2.i or iii. above) ☐ YES ☐ NO, **attach explanation**

10. Section B.5. of the General Permit requires you to analyze storm water samples for pH, Total Suspended Solids (TSS), Specific Conductance (SC), Total Organic Carbon (TOC) or Oil and Grease (O&G), other pollutants likely to be present in storm water discharges in significant quantities, and analytical parameters listed in Table D of the General Permit.

    a. Does Table D contain any additional parameters related to your facility's SIC code(s)? ☒ YES ☐ NO, Go to Item E.11

    b. Did you analyze all storm water samples for the applicable parameters listed in Table D? ☐ YES ☒ NO

    c. If you did not analyze all storm water samples for the applicable Table D parameters, check one of the following reasons:

       ___X___ In prior sampling years, the parameter(s) have not been detected in significant quantities from two consecutive sampling events. **Attach explanation**

       _____ The parameter(s) is not likely to be present in storm water discharges and authorized non-storm water discharges in significant quantities based upon the facility operator's evaluation. **Attach explanation**

       _____ Other. **Attach explanation**

11. For each storm event sampled, attach a copy of the laboratory analytical reports and report the sampling and analysis results using **Form 1** or its equivalent. The following must be provided for each sample collected:

- Date and time of sample collection
- Name and title of sampler
- Parameters tested
- Name of analytical testing laboratory
- Discharge location identification
- Testing results
- Test methods used
- Test detection limits
- Date of testing
- Copies of the laboratory analytical results

F. QUARTERLY VISUAL OBSERVATIONS

1. **Authorized Non-Storm Water Discharges**

Section B.3.b of the General Permit requires quarterly visual observations of all authorized non-storm water discharges and their sources.

a. Do authorized non-storm water discharges occur at your facility?

☒ **YES** ☐ **NO** Go to Item F.2

b. Indicate whether you visually observed all authorized non-storm water discharges and their sources during the quarters when they were discharged. **Attach an explanation for any "NO" answers**. Indicate "N/A" for quarters without any authorized non-storm water discharges.

July-September	☐ **YES**	☒ **NO**	☐ **N/A**	October-December	☐ **YES**	☒ **NO**	☐ **N/A**
January-March	☐ **YES**	☒ **NO**	☐ **N/A**	April-June	☐ **YES**	☒ **NO**	☐ **N/A**

c. Use **Form 2** to report quarterly visual observations of authorized non-storm water discharges or provide the following information:

i. name of each authorized non-storm water discharge
ii. date and time of observation
iii. source and location of each authorized non-storm water discharge
iv. characteristics of the discharge at its source and impacted drainage area/discharge location
v. name, title, and signature of observer
vi. **any** new or revised BMPs necessary to reduce or prevent pollutants in authorized non-storm water discharges. Provide new or revised BMP implementation date.

2. **Unauthorized Non-Storm Water Discharges**

Section B.3.a of the General Permit requires quarterly visual observations of all drainage areas to detect the presence of unauthorized non-storm water discharges and their sources.

a. Indicate whether you visually observed all drainage areas to detect the presence of unauthorized non- storm water discharges and their sources. **Attach an explanation for any "NO" answers**.

July-September	☒ **YES**	☐ **NO**	October-December	☒ **YES**	☐ **NO**
January-March	☒ **YES**	☐ **NO**	April-June	☒ **YES**	☐ **NO**

b. Based upon the quarterly visual observations, were any unauthorized non-storm water discharges detected?

☒ **YES** ☐ **NO** Go to Item F.2.d

c. Have each of the unauthorized non-storm water discharges been eliminated or permitted?

☒ **YES** ☐ **NO** **Attach explanation**

d. Use **Form 3** to report quarterly unauthorized non-storm water discharge visual observations or provide the following information:

i. name of each unauthorized non-storm water discharge
ii. date and time of observation
iii. source and location of each unauthorized non-storm water discharge
iv. characteristics of the discharge at its source and impacted drainage area/discharge location
v. name, title, and signature of observer
vi. **any** corrective actions necessary to eliminate the source of each unauthorized non-storm water discharge and to clean impacted drainage areas. Provide date unauthorized non-storm water discharge(s) was eliminated or scheduled to be eliminated.

G. MONTHLY WET SEASON VISUAL OBSERVATIONS

Section B.4.a of the General Permit requires you to conduct monthly visual observations of storm water discharges at all storm water discharge locations during the wet season. These observations shall occur during the first hour of discharge or, in the case of temporarily stored or contained storm water, at the time of discharge.

1. Indicate below whether monthly visual observations of storm water discharges occurred at all discharge locations. **Attach an explanation for any "NO" answers**. Include in this explanation whether any eligible storm events occurred during scheduled facility operating hours that did not result in a storm water discharge, and provide the date, time, name and title of the person who observed that there was no storm water discharge.

	YES	NO		YES	NO
October	☒	☐	February	☒	☐
November	☒	☐	March	☒	☐
December	☒	☐	April	☐	☒
January	☒	☐	May	☐	☒

2. Report monthly wet season visual observations using **Form 4** or provide the following information:

   a. date, time, and location of observation
   b. name and title of observer
   c. characteristics of the discharge (i.e., odor, color, etc.) and source of any pollutants observed
   d. **any** new or revised BMPs necessary to reduce or prevent pollutants in storm water discharges. Provide new or revised BMP implementation date.

ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION (ACSCE)

H. ACSCE CHECKLIST

Section A.9 of the General Permit requires the facility operator to conduct one ACSCE in each reporting period (July 1-June 30). Evaluations must be conducted within 8-16 months of each other. The SWPPP and monitoring program shall be revised and implemented, as necessary, within 90 days of the evaluation. The checklist below includes the minimum steps necessary to complete a ACSCE. Indicate whether you have performed each step below. **Attach an explanation for any "NO" answers.**

1. Have you inspected all potential pollutant sources and industrial activities areas? ☒ YES ☐ NO
   The following areas should be inspected:

   - areas where spills and leaks have occurred during the last year
   - outdoor wash and rinse areas
   - process/manufacturing areas
   - loading, unloading, and transfer areas
   - waste storage/disposal areas
   - dust/particulate generating areas
   - erosion areas
   - building repair, remodeling, and construction
   - material storage areas
   - vehicle/equipment storage areas
   - truck parking and access areas
   - rooftop equipment areas
   - vehicle fueling/maintenance areas
   - non-storm water discharge generating areas

2. Have you reviewed your SWPPP to assure that its BMPs address existing potential pollutant sources and industrial activities areas? ☒ YES ☐ NO

3. Have you inspected the entire facility to verify that the SWPPP's site map is up-to-date? The following site map items should be verified: ☒ YES ☐ NO

   - facility boundaries
   - outline of all storm water drainage areas
   - areas impacted by run-on
   - storm water discharges locations
   - storm water collection and conveyance system
   - structural control measures such as catch basins, berms, containment areas, oil/water separators, etc.

4. Have you reviewed all General Permit compliance records generated since the last annual evaluation? ☒ YES ☐ NO

   The following records should be reviewed:

   - quarterly authorized non-storm water discharge visual observations
   - monthly storm water discharge visual observation
   - records of spills/leaks and associated clean-up/response activities
   - quarterly unauthorized non-storm water discharge visual observations
   - Sampling and Analysis records
   - preventative maintenance inspection and maintenance records

5. Have you reviewed the major elements of the SWPPP to assure compliance with the General Permit? ☒ YES ☐ NO

   The following SWPPP items should be reviewed:

   - pollution prevention team
   - list of significant materials
   - description of potential pollutant sources
   - assessment of potential pollutant sources
   - identification and description of the BMPs to be implemented for each potential pollutant source

6. Have you reviewed your SWPPP to assure that a) the BMPs are adequate in reducing or preventing pollutants in storm water discharges and authorized non-storm water discharges, and b) the BMPs are being implemented? ☒ YES ☐ NO

   The following BMP categories should be reviewed:

   - good housekeeping practices
   - spill response
   - employee training
   - erosion control
   - quality assurance
   - preventative maintenance
   - material handling and storage practices
   - waste handling/storage
   - structural BMPs

7. Has all material handling equipment and equipment needed to implement the SWPPP been inspected? ☒ YES ☐ NO

I. ACSCE EVALUATION REPORT

The facility operator is required to provide an evaluation report that includes:

- identification of personnel performing the evaluation
- the date(s) of the evaluation
- necessary SWPPP revisions
- schedule for implementing SWPPP revisions
- any incidents of non-compliance and the corrective actions taken

Use **Form 5** to report the results of your evaluation or develop an equivalent form.

J. ACSCE CERTIFICATION

The facility operator is required to certify compliance with the Industrial Activities Storm Water General Permit. To certify compliance, both the SWPPP and Monitoring Program must be up to date and be fully implemented.

Based upon your ACSCE, do you certify compliance with the Industrial Activities Storm Water General Permit? ☒ YES ☐ NO

If you answered "NO" **attach an explanation** to the ACSCE Evaluation Report why you are not in compliance with the Industrial Activities Storm Water General Permit.

2007-2008

ANNUAL REPORT

ATTACHMENT SUMMARY

Answer the questions below to help you determine what should be attached to this annual report. Answer NA (Not Applicable) to questions 2-4 if you are not required to provide those attachments.

1.	Have you attached Forms 1,2,3,4, and 5 or their equivalent?	☒ YES (Mandatory)		
2.	If you conducted sampling and analysis, have you attached the laboratory analytical reports?	☒ YES	☐ NO	☐ NA
3.	If you checked box II, III, IV, or V in item D.2 of this Annual Report, have you attached the first page of the appropriate certifications?	☐ YES	☐ NO	☒ NA
4.	Have you attached an explanation for each "NO" answer in items E.1, E.2, E.5-E.7, E.9, E.10.c, F.1.b, F.2.a, F.2.c, G.1, H.1-H.7, or J?	☒ YES	☐ NO	☐ NA

ANNUAL REPORT CERTIFICATION

I am duly authorized to sign reports required by the INDUSTRIAL ACTIVITIES STORM WATER GENERAL PERMIT (see Standard Provision C.9) and I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those person directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: Ron Pauer

Signature: _____ Date: _____

Title: Environmental Services Group Leader

DESCRIPTION OF BASIC ANALYTICAL PARAMETERS

The Industrial Activities Storm Water General Permit (General Permit) requires you to analyze storm water samples for at least four parameters. These are pH, Total Suspended Solids (TSS), Specific Conductance (SC),and Total Organic Carbon (TOC). Oil and Grease (O&G) may be substituted for TOC. In addition, you must monitor for any other pollutants which you believe to be present in your storm water discharge as a result of industrial activity and analytical parameters listed in Table D of the General Permit. There are no numeric limitations for the parameters you test for.

The four parameters which the General Permit requires to be tested are considered *indicator* parameters. In other words, regardless of what type of facility you operate, these parameters are nonspecific and general enough to usually provide some indication whether pollutants are present in your storm water discharge. The following briefly explains what each of these parameters mean:

pH is a numeric measure of the hydrogen-ion concentration. The neutral, or acceptable, range is within 6.5 to 8.5. At values less than 6.5, the water is considered acidic; above 8.5 it is considered alkaline or basic. An example of an acidic substance is vinegar, and a alkaline or basic substance is liquid antacid. Pure rainfall tends to have a pH of a little less than 7. There may be sources of materials or industrial activities which could increase or decrease the pH of your storm water discharge. If the pH levels of your storm water discharge are high or low, you should conduct a thorough evaluation of all potential pollutant sources at your site.

Total Suspended Solids (TSS) is a measure of the undissolved solids that are present in your storm water discharge. Sources of TSS include sediment from erosion of exposed land, and dirt from impervious (i.e. paved) areas. Sediment by itself can be very toxic to aquatic life because it covers feeding and breeding grounds, and can smother organisms living on the bottom of a water body. Toxic chemicals and other pollutants also adhere to sediment particles. This provides a medium by which toxic or other pollutants end up in our water ways and ultimately in human and aquatic life. TSS levels vary in runoff from undisturbed land. It has been shown that TSS levels increase significantly due to land development.

Specific Conductance (SC) is a numerical expression of the ability of the water to carry an electric current. SC can be used to assess the degree of mineralization, salinity, or estimate the total dissolved solids concentration of a water sample. Because of air pollution, most rain water has a SC a little above zero. A high SC could affect the usability of waters for drinking, irrigation, and other commercial or industrial use.

Total Organic Carbon (TOC) is a measure of the total organic matter present in water. (All organic matter contains carbon) This test is sensitive and able to detect small concentrations of organic matter. Organic matter is naturally occurring in animals, plants, and man. Organic matter may also be man made (so called synthetic organics). Synthetic organics include pesticides, fuels, solvents, and paints. Natural organic matter utilizes the oxygen in a receiving water to biodegrade. Too much organic matter could place a significant oxygen demand on the water, and possibly impact its quality. Synthetic organics either do not biodegrade or biodegrade very slowly. Synthetic organics are a source of toxic chemicals that can have adverse affects at very low concentrations. Some of these chemicals bioaccumulate in aquatic life. If your levels of TOC are high, you should evaluate all sources of natural or synthetic organics you may use at your site.

Oil and Grease (O&G) is a measure of the amount of oil and grease present in your storm water discharge. At very low concentrations, O&G can cause a sheen (that floating "rainbow") on the surface of water (1 qt. of oil can pollute 250,000 gallons of water). O&G can adversely affect aquatic life and create unsightly floating material and film on water, thus making it undrinkable. Sources of O&G include maintenance shops, vehicles, machines and roadways.

If you have any questions regarding whether or not your constituent concentrations are too high, please contact your local Regional Board office. The United States Environmental Protection Agency (USEPA) has published stormwater discharge benchmarks for a number of parameters. These benchmarks may be helpful when evaluating whether additional BMPs are appropriate. These benchmarks can be accessed at our website at http://www.waterboards.ca.gov. It is contained in the Sampling and Analysis Reduction Certification.

See Storm Water Contacts at

http://www.waterboards.ca.gov/stormwtr/contact.html

2007-2008 Annual Report
Storm Water Discharges Associated With Industrial Activities
Lawrence Berkeley National Laboratory
Facility WDID No. 2 01I002421

EXPLANATIONS TO SPECIFIC 2007-2008 ANNUAL REPORT QUESTIONS

E.6
All of the LBNL stormwater sampling sites are equipped with automated sampling systems, which are set to trigger sample collection with the increase in stormwater discharge at the onset of a storm event. During the month of October 2007, there were no stormwater events that met the criteria of the NPDES stormwater general industrial permit. However, the first significant storm event of the stormwater season did occur after business hours on October 9th. LBNL staff was able to collect stormwater samples for this event. Therefore, this sampling event was used as the first stormwater collection even thou it did not meet the strict criteria of the stormwater industrial permit.

E.10.c
We monitor for all applicable parameters in Table D (NH_3, Mg, COD, TSS, Fe, Al, Zn, and N+ N), except cyanide and the metals As, Cd, Pb, Se, and Ag. As explained in previous years, cyanide is no longer monitored because:

1) It is not in general use on this site
2) Previous site wide stormwater sampling between 1992 and 1995 showed no significant results
3) Baseline monitoring at the Hazardous Waste Handling Facility in 1997, which is the only potential outfall where cyanide monitoring would be required by the permit, showed no cyanide in runoff

Similarly, as discussed in previous years, the above listed metals are not monitored because:

1) These metals had not been detected in the past several years of site wide storm water sampling,
2) Additional analysis of both total and dissolved metals under an agreement with the City of Berkeley had shown no detectable levels of these metals for at least two years
3) Starting with the 2001/2002 storm water season, and in accordance with B.5.c.iii of the General Permit, metals analyses had been reduced to four metals (Mg, Al, Fe, and Zn)

F.1.b
All areas of the LBNL are included in quarterly observations, though only the authorized discharges that were occurring during the time of the quarterly observation itself were inspected. It is possible that authorized non-storm water discharges may occur at other times when no quarterly observations are taking place.

G.1
For October, December, and April, there were no storm events that met the criteria of the NPDES stormwater industrial permit, however, monthly observations were conducted during the best available storm event for each of those months. For January, 2008, we were not able to conduct observations for the only permit acceptable storm event on 01/03/2008 due to staffing issues and holiday schedules. Observations were made during the next available storm event on 01/07/2008, even thou this storm event did not meet the required permit criteria of three (3) working days without a storm water discharge.

Monthly visual observations were not conducted for May of 2008, as there was no rainfall or discharge during that entire month. Beginning October 1, 2008, monthly wet-weather inspections will be conducted monthly, even if there has not been rainfall or runoff during that month.

SIDE A

FORM 1-SAMPLING & ANALYSIS RESULTS

FIRST STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): John Jelinski **TITLE:** Quality Coordinator **SIGNATURE:**

DESCRIBE DISCHARGE LOCATION	DATE / TIME OF SAMPLE LOCATION	TIME DISCHARGE STARTED	pH	SC	TSS	Oil & Grease	TPH Diesel	Al	Fe	Mg	Zn	Hg	Nitrate+ Nitrite (as N)	NH_3 (as N)	COD	Tritium	Gross Alpha	Gross Beta
STW 2 N. Fork Straw Crk. Effluent	10/9/07 23:00 to 23:30 [X] AM [ ] PM	10/9/07 22:00 to 23:00 [ ] AM [X] PM	7.85	462	310	<5.0	730	6.10	11	24	0.56	0.00061	1.5	0.84	340	<200	8.55	16.2
STW 3 B69 Manhole Influent	10/9/07 23:29 To 23:59 [ ] AM [X] PM	10/9/07 22:00 to 23:00 [ ] AM [X] PM	7.69	251	1.2	<5.0	270	0.054	0.066	1.6	0.13	<0.0002	2.4	0.24	48	<200	<2.00	5.04
STW 4 Chicken Crk. Effluent	10/9/07 22:45 to 23:15 [ ] AM [X] PM	10/9/07 22:00 to 23:00 [ ] AM [X] PM	7.52	328	390	<5.0	1,400	16	18	21	1.2	<0.0002	2.4	0.15	460	250	9.14	32.9
STW 5 East Canyon Effluent	10/9/07 23:25 To 23:55 [ ] AM [X] PM	10/9/07 22:00 to 23:00 [ ] AM [X] PM	7.71	88.0	280	<5.0	250	5.7	8.3	4.8	0.37	<0.0002	0.62	0.27	170	<200	4.37	15
TEST REPORTING UNITS:			S.U.	µmho/cm	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mgO/L	PCi/L	PCi/L	PCi/L
TEST METHOD DETECTION LIMIT:			0.01	1.0	1-10	5.0	50-100	0.05	0.05	0.05	0.05	0.0002	0.44	0.05	25	200	2	3
TEST METHOD USED:			SM 4500 HB	USEPA 120.1 / SM 2510B	SM 2540D	USEPA 1664	USEPA 8015M	USEPA 200.7	USEPA 200.7	USEPA 200.7	USEPA 200.7	USEPA 245.1	USEPA 353.2	USEPA 350.1	USEPA 410.4	E 906EP	EPA 900	EPA 900
ANALYZED BY (SELF/LAB):			SELF	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB

Notes: SC = Specific Conductance; TSS = Total Suspended Solids; Al = Aluminum; Fe = Iron; Mg = Magnesium; Zn = Zinc; Hg = Mercury; N = Nitrogen; NH_3 = Ammonia; COD = Chemical Oxygen Demand

FORM 1-SAMPLING & ANALYSIS RESULTS

SECOND STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.

NAME OF PERSON COLLECTING SAMPLE(S): John Jelinski **TITLE:** Quality Coordinator **SIGNATURE:**

DESCRIBE DISCHARGE LOCATION	DATE / TIME OF SAMPLE LOCATION	TIME DISCHARGE STARTED	pH	SC	TSS	Oil & Grease	TPH Diesel	Al	Fe	Mg	Zn	Hg	Nitrate+ Nitrite (as N)	NH_3 (as N)	COD	Tritium	Gross Alpha	Gross Beta
STW 2 N. Fork Straw Crk. Effluent	02/19/08 09:50 [X] AM [ ] PM	02/19/08 09:00 [X] AM [ ] PM	8.16	275	65	<5.0	320	1.1	1.8	11	0.25	<0.0002	1.1	0.66	110	<200	3.32	3.52
STW 3 B69 Manhole Influent	02/19/08 09:50 [X] AM [ ] PM	02/19/08 09:00 [X] AM [ ] PM	8.25	135	63	<5.0	200	0.55	0.81	1.4	0.17	<0.0002	1.3	0.22	97	<200	3.48	5.73
STW 4 Chicken Crk. Effluent	02/19/08 09:40 [X] AM [ ] PM	02/19/08 09:00 [X] AM [ ] PM	8.17	349	93	<5.0	490	3.2	4.9	16	0.47	<0.0002	1.6	0.42	150	<200	2.13	<3.00
STW 5 East Canyon Effluent	02/19/08 09:40 [X] AM [ ] PM	2/19/08 09:00 [X] AM [ ] PM	8.10	291	9.4	<5.0	250	0.38	0.56	15	0.43	<0.0002	1.2	0.27	67	<200	<2.00	2.9
TEST REPORTING UNITS:			S.U.	µmho/cm	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mgO/L	PCi/L	PCi/L	PCi/L
TEST METHOD DETECTION LIMIT:			0.01	1.0	1-10	0.05	50-100	0.05	0.05	0.05	0.05	0.0002	0.44	0.05	25	200	2	3
TEST METHOD USED:			SM 4500 HB	USEPA 120.1 / SM 2510B	SM 2540D	USEPA 1664	USEPA 8015M	USEPA 200.7	USEPA 200.7	USEPA 200.7	USEPA 200.7	USEPA 245.1	USEPA 353.2	USEPA 350.1	USEPA 410.4	E 906EP	EPA 900	EPA 900
ANALYZED BY (SELF/LAB):			SELF	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB

Notes: SC = Specific Conductance; TSS = Total Suspended Solids; Al = Aluminum; Fe = Iron; Mg = Magnesium; Zn = Zinc; Hg = Mercury; N = Nitrogen; NH_3 = Ammonia; COD = Chemical Oxygen Demand

SIDE A

FORM 2-QUARTERLY VISUAL OBSERVATIONS OF AUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

* Quarterly dry weather visual observations are required of each authorized NSWD.
- Observe each authorized NSWD source, impacted drainage area, and discharge location.
- Authorized NSWDs must meet the conditions provided in Section D (pages 5-6), of the General Permit.
- Make additional copies of this form as necessary.

QUARTER: JULY- SEPTEMBER DATE: July 24th, 2007	Observers Name: Thomas Donovan Title: Sample Collector Signature: Thomas Donovan	WERE ANY AUTHORIZED NSWD'S DISCHARGED DURING THIS QUARTER?	[X] YES [ ] NO	If YES, Complete the reverse side of this form
QUARTER: OCTOBER-DECEMBER DATE: October 24th & 25th, 2007	Observers Name: Thomas Donovan Title: Sample Collector Signature: Thomas Donovan	WERE ANY AUTHORIZED NSWD'S DISCHARGED DURING THIS QUARTER?	[X] YES [ ] NO	If YES, Complete the reverse side of this form
QUARTER: JANUARY-MARCH DATE: February 14th, 2008	Observers Name: Thomas Donovan Title: Sample Collector Signature: Thomas Donovan	WERE ANY AUTHORIZED NSWD'S DISCHARGED DURING THIS QUARTER?	[X] YES [ ] NO	If YES, Complete the reverse side of this form
QUARTER: APRIL-JUNE DATE: June 6, 2008	Observers Name: Sharon Squire (WEST) Title: Senior Project Scientist Signature:	WERE ANY AUTHORIZED NSWD'S DISCHARGED DURING THIS QUARTER?	[X] YES [ ] NO	If YES, Complete the reverse side of this form

SIDE A

FORM 2-QUARTERLY VISUAL OBSERVATIONS OF AUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

- Quarterly dry weather visual observations are required of each authorized NSWD.
- Observe each authorized NSWD source, impacted drainage area, and discharge location.
- Authorized NSWDs must meet the conditions provided in Section D (pages 5-6), of the General Permit.
- Make additional copies of this form as necessary.

QUARTER: JULY- SEPTEMBER DATE: July 24th, 2007	Observers Name: Thomas Donovan Title: Sample Collector Signature:	WERE ANY AUTHORIZED NSWD'S DISCHARGED DURING THIS QUARTER?	[X] YES [ ] NO If YES, Complete the reverse side of this form
QUARTER: OCTOBER-DECEMBER DATE: October 24th & 25th, 2007	Observers Name: Thomas Donovan Title: Sample Collector Signature:	WERE ANY AUTHORIZED NSWD'S DISCHARGED DURING THIS QUARTER?	[X] YES [ ] NO If YES, Complete the reverse side of this form
QUARTER: JANUARY-MARCH DATE: February 14th, 2008	Observers Name: Thomas Donovan Title: Sample Collector Signature:	WERE ANY AUTHORIZED NSWD'S DISCHARGED DURING THIS QUARTER?	[X] YES [ ] NO If YES, Complete the reverse side of this form
QUARTER: APRIL-JUNE DATE: June 6, 2008	Observers Name: Sharon Squire (WEST) Title: Senior Project Scientist Signature: Squire	WERE ANY AUTHORIZED NSWD'S DISCHARGED DURING THIS QUARTER?	[X] YES [ ] NO If YES, Complete the reverse side of this form

FORM 2-QUARTERLY VISUAL OBSERVATIONS OF AUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

DATE /TIME OF OBSERVATION	SOURCE AND LOCATION OF AUTHORIZED NSWD EXAMPLE: Air conditioner Units on Building C	NAME OF AUTHORIZED NSWD EXAMPLE: Air conditioner condensate	DESCRIBE AUTHORIZED NSWD CHARACTERISTICS Indicate whether authorized NSWD is clear, cloudy, or discolored, causing staining, contains floating objects or oil sheen, has odors, etc.		DESCRIBE ANY REVISED OR NEW BMPs AND PROVIDE THEIR IMPLEMENTATION DATE
			At the NSWD Source	At the NSWD Drainage Area and Discharge Location	
07/24/2007 10:00 to 13:00 [X] AM [X] PM	Hydrauger Discharge	Groundwater.	Clear, no staining, no floating objects, no oil sheen, no odor.	Clear, no staining, no floating objects, no oil sheen, no odor.	N/A
07/24/2007 10:00 to 13:00 [X] AM [X] PM	Hillside Seepage	Groundwater/ Surface Water	Clear, no staining, no floating objects, no oil sheen, no odor.	Clear, no staining, no floating objects, no oil sheen, no odor.	N/A
10/24/2007 10:00 to 13:00 [X] AM [X] PM	Hydrauger Discharge	Groundwater.	Clear, no staining, no floating objects, no oil sheen, no odor.	Clear, no staining, no floating objects, no oil sheen, no odor.	N/A
10/24/2007 10:00 to 13:00 [X] AM [X] PM	Hillside Seepage	Groundwater/ Surface Water	Clear, no staining, no floating objects, no oil sheen, no odor.	Clear, no staining, no floating objects, no oil sheen, no odor.	N/A

FORM 2-QUARTERLY VISUAL OBSERVATIONS OF AUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

DATE /TIME OF OBSERVATION	SOURCE AND LOCATION OF AUTHORIZED NSWD EXAMPLE: Air conditioner Units on Building C	NAME OF AUTHORIZED NSWD EXAMPLE: Air conditioner condensate	DESCRIBE AUTHORIZED NSWD CHARACTERISTICS Indicate whether authorized NSWD is clear, cloudy, or discolored, causing staining, contains floating objects or oil sheen, has odors, etc.		DESCRIBE ANY REVISED OR NEW BMPs AND PROVIDE THEIR IMPLEMENTATION DATE
			At the NSWD Source	At the NSWD Drainage Area and Discharge Location	
02/14/2008 10:00 to 13:00 [X] AM [X] PM	Hydrauger Discharge.	Groundwater.	Clear, no staining, no floating objects, no oil sheen, no odor.	Clear, no staining, no floating objects, no oil sheen, no odor.	N/A.
02/14/2008 10:00 to 13:00 [X] AM [X] PM	Hillside Seepage.	Groundwater/ Surface Water.	Clear, no staining, no floating objects, no oil sheen, no odor.	Clear, no staining, no floating objects, no oil sheen, no odor.	N/A.
06/06/08 10:00 to 14:00 [X] AM [X] PM	Hydrauger Discharge.	Groundwater.	Clear, no staining, no floating objects, no oil sheen, no odor.	Clear, no staining, no floating objects, no oil sheen, no odor.	Install outlet protection where discharges from hydraugers have the potential to erode slopes, i.e., where outlet does not drain directly into a storm drain or onto a paved surface. Re-plumb hydraugers behind Building 64 and Building 77, where hydraugers drain onto concrete or into a metal grate. Implement new BMPs by October 31, 2008, pursuant to Regional Board approval
06/06/08 10:00 to 14:00 [X] AM [X] PM	Hillside Seepage.	Groundwater/ Surface Water.	Clear, no staining, no floating objects, no oil sheen, no odor.	Clear, no staining, no floating objects, no oil sheen, no odor.	N/A.

FORM 2-QUARTERLY VISUAL OBSERVATIONS OF AUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

DATE /TIME OF OBSERVATION	SOURCE AND LOCATION OF AUTHORIZED NSWD EXAMPLE: Air conditioner Units on Building C	NAME OF AUTHORIZED NSWD EXAMPLE: Air conditioner condensate	DESCRIBE AUTHORIZED NSWD CHARACTERISTICS Indicate whether authorized NSWD is clear, cloudy, or discolored, causing staining, contains floating objects or oil sheen, has odors, etc.		DESCRIBE ANY REVISED OR NEW BMPs AND PROVIDE THEIR IMPLEMENTATION DATE
			At the NSWD Source	At the NSWD Drainage Area and Discharge Location	
06/06/08 10:00 to 14:00 [X] AM [X] PM	Fire Hydrant Flushing.	Potable Water.	No discharge observed. No staining, no oil residue, no sheen, and no odor.	Clear, no staining, no floating objects, no oil sheen, no odor.	N/A.
06/06/08 10:00 to 14:00 [X] AM [X] PM	Landscape Watering.	Potable Water.	No discharge observed. No staining, no oil residue, no sheen, and no odor.	Clear, no staining, no floating objects, no oil sheen, no odor.	N/A.
06/06/08 10:00 to 14:00 [X] AM [ ] PM	Air Conditioning Units.	Air Conditioner Condensate.	No discharge observed. No staining, no oil residue, no sheen, and no odor.	Clear, no staining, no floating objects, no oil sheen, no odor.	N/A.

FORM 3-QUARTERLY VISUAL OBSERVATIONS OF UNAUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

- Unauthorized NSWDs are discharges (such as wash or rinse waters) that do not meet the conditions provided in Section D (pages 5-6) of the General Permit.
- Quarterly visual observations are required to observe current and detect prior unauthorized NSWDs.
- Quarterly visual observations are required during dry weather and at all facility drainage areas.
- Each unauthorized NSWD source, impacted drainage area, and discharge location must be identified and observed.
- Unauthorized NSWDs that can not be eliminated within 90 days of observation must be reported to the Regional Board in accordance with Section A.10.e of the General Permit.
- Make additional copies of this form as necessary.

QUARTER:	Observers Name: Thomas Donovan Title: Sample Collector Signature: Thomas Donovan	WERE UNAUTHORIZED NSWD'S OBSERVED? [ ] YES [X] NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWD'S? [ ] YES [X] NO	If **YES** to either question, complete the reverse side of this form
JULY - SEPTEMBER Date/Time of Observations July 24th 2007 1000 [X] AM 1300 [X] PM			
QUARTER:	Observers Name: Thomas Donovan Title: Sample Collector Signature: Thomas Donovan	WERE UNAUTHORIZED NSWD'S OBSERVED? [ ] YES [X] NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWD'S? [ ] YES [X] NO	If **YES** to either question, complete the reverse side of this form
OCTOBER-DECEMBER Date/Time of Observations October 24th 2007 1000 [X] AM 1300 [X] PM			
QUARTER:	Observers Name: Thomas Donovan Title: Sample Collector Signature: Thomas Donovan	WERE UNAUTHORIZED NSWD'S OBSERVED? [ ] YES [X] NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWD'S? [ ] YES [X] NO	If **YES** to either question, complete the reverse side of this form
JANUARY - MARCH Date/Time of Observations February 14th 2008 1000 [X] AM 1300 [X] PM			
QUARTER:	Observers Name: Sharon Squire (WEST) Title: Senior Project Scientist Signature:	WERE UNAUTHORIZED NSWD'S OBSERVED? [ ] YES [X] NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWD'S? [X] YES [ ] NO	If **YES** to either question, complete the reverse side of this form
APRIL - JUNE Date/Time of Observations 6/6 & 6/13 2008 9:00 [X] AM 1300 [X] PM			

SIDE B

FORM 3 QUARTERLY VISUAL OB RVATIONS OF UNAUTHORIZED

SIDE A

FORM 3-QUARTERLY VISUAL OBSERVATIONS OF UNAUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

- Unauthorized NSWDs are discharges (such as wash or rinse waters) that do not meet the conditions provided in Section D (pages 5-6) of the General Permit.
- Quarterly visual observations are required to observe current and detect prior unauthorized NSWDs.
- Quarterly visual observations are required during dry weather and at all facility drainage areas.
- Each unauthorized NSWD source, impacted drainage area, and discharge location must be identified and observed.
- Unauthorized NSWDs that can not be eliminated within 90 days of observation must be reported to the Regional Board in accordance with Section A.10.e of the General Permit.
- Make additional copies of this form as necessary.

QUARTER:	Observers Name:	WERE UNAUTHORIZED NSWD'S OBSERVED?	If YES to either question, complete the reverse side of this form
JULY - SEPTEMBER Date/Time of Observations July 24th 2007 1000 [X] AM 1300 [X] PM	Title: Sample Collector Signature:	[ ] YES [X] NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWD'S? [ ] YES [X] NO	
QUARTER:	Observers Name:	WERE UNAUTHORIZED NSWD'S OBSERVED?	If YES to either question, complete the reverse side of this form
OCTOBER-DECEMBER Date/Time of Observations October 24th 2007 1000 [X] AM 1300 [X] PM	Title: Sample Collector Signature:	[ ] YES [X] NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWD'S? [ ] YES [X] NO	
QUARTER:	Observers Name:	WERE UNAUTHORIZED NSWD'S OBSERVED?	If YES to either question, complete the reverse side of this form
JANUARY - MARCH Date/Time of Observations February 14th 2008 1000 [X] AM 1300 [X] PM	Title: Sample Collector Signature:	[ ] YES [X] NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWD'S? [ ] YES [X] NO	
QUARTER:	Observers Name:	WERE UNAUTHORIZED NSWD'S OBSERVED?	If YES to either question, complete the reverse side of this form
APRIL - JUNE Date/Time of Observations 6/6 & 6/13 2008 9:00 [X] AM 1300 [X] PM	Title: Senior Project Scientist Signature:	[ ] YES [X] NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWD'S? [X] YES [ ] NO	

NON-STORM WATER DISCHARGES (NSWDs)

OBSERVATION DATE (FROM REVERSE SIDE)	NAME OF UNAUTHORIZED NSWD EXAMPLE: Vehicle Wash Water	SOURCE AND LOCATION OF UNAUTHORIZED NSWD EXAMPLE: NW Corner of Parking Lot	DESCRIBE UNAUTHORIZED NSWD CHARACTERISTICS Indicate whether unauthorized NSWD is clear, cloudy, discolored, causing stains; contains floating objects or an oil sheen, has odors, etc.		DESCRIBE CORRECTIVE ACTIONS TO ELIMINATE UNAUTHORIZED NSWD AND TO CLEAN IMPACTED DRAINAGE AREAS. PROVIDE UNAUTHORIZED NSWD ELIMINATION DATE.
			AT THE UNAUTHORIZED NSWD SOURCE	AT THE UNAUTHORIZED NSWD AREA AND DISCHARGE LOCATION	
4/10/08 10:00 ☒ AM ☐ PM	Low conductivity water	Water line break near Building B10.	Clear, no floating objects, no oil sheen, no odor.	Clear, no floating objects, no oil sheen, no odor.	Water line leak repaired and eliminated on April 11, 2008. An alarm system is installed to identify water level capacity.
6/13/08 13:00 ☐ AM ☒ PM	Cooling water blow down.	Cooling tower serving Building 67.	Indication of prior unauthorized NSWD - yellow staining and crystals around the cooling tower, no oil sheen, no odor. Yellow staining from the cooling tower to approximately 100 feet downgradient.	No discoloration, no floating objects, no oil, no sheen, and no odor.	The NSWD was eliminated at the time of inspection. Blow down was the result of clogging of the system. A filter has been installed to prevent further clogging. Visual observations indicated that the drainage area was not impacted.
/ / : ☐ AM ☐ PM					
/ / : ☐ AM ☐ PM					

FORM 4-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

SIDE A

- Storm water discharge visual observations are required for at least one storm event per month between October 1 and May 31.
- Visual observations must be conducted during the first hour of discharge at all discharge locations.
- Discharges of temporarily stored or contained storm water must be observed at the time of discharge.
- Indicate "None" in the first column of this form if you did not conduct a monthly visual observation.
- Make additional copies of this form as necessary.
- Until a monthly visual observation is made, record any eligible storm events that do not result in a storm water discharge and note the date, time, name, and title of who observed there was no storm water discharge.

Observation Date: October 10 2007	Drainage Location Description	STW 2 N. Fork Strawberry	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Observers Name: John Jelinski	Observation Time	10/10/07 10:00 X AM PM	10/10/07 09:30 X AM PM	10/10/07 09:00 X AM PM	10/10/07 08:30 X AM PM
Title: Quality Coordinator	Time Discharge Began	10/9/07 22:00 X AM PM	10/9/07 22:00 X AM PM	10/9/07 22:00 X AM PM	10/9/07 22:00 X AM PM
Signature:	Were Pollutants observed (if YES, complete reverse side)	YES NO X	YES NO X	YES NO X	YES NO X

Observation Date: November 19 2007	Drainage Location Description	STW 2 N. Fork Strawberry	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Observers Name: John Jelinski	Observation Time	13:00 X AM PM	12:45 X AM PM	12:30 X AM PM	12:00 X AM PM
Title: Quality Coordinator	Time Discharge Began	12:00 X AM PM	12:00 X AM PM	12:00 X AM PM	12:00 X AM PM
Signature:	Were Pollutants observed (if YES, complete reverse side)	YES NO X	YES NO X	YES NO X	YES NO X

Observation Date: December 4 2007	Drainage Location Description	STW 2 N. Fork Strawberry	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Observers Name: Patrick Thorson	Observation Time	08:15 X AM PM	08:20 X AM PM	08:05 X AM PM	08:00 X AM PM
Title: Program Manager	Time Discharge Began	X 05:00 AM PM	X 05:00 AM PM	X 05:00 AM PM	X 05:00 AM PM
Signature:	Were Pollutants observed (if YES, complete reverse side)	YES NO X	YES NO X	YES NO X	YES NO X

Observation Date: January 7 2008	Drainage Location Description	STW 2 N. Fork Strawberry	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Observers Name: John Jelinski	Observation Time	09:45 X AM PM	10:30 X AM PM	10:00 X AM PM	10:15 X AM PM
Title: Quality Coordinator	Time Discharge Began	09:45 X AM PM	09:45 X AM PM	09:45 X AM PM	09:45 X AM PM
Signature:	Were Pollutants observed (if YES, complete reverse side)	YES NO X	YES NO X	YES NO X	YES NO X

FORM 4-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

DATE/TIME OF OBSERVATION (From Reverse Side)	DRAINAGE AREA DESCRIPTION EXAMPLE: Discharge from material storage Area #2	DESCRIBE STORM WATER DISCHARGE CHARACTERISTICS Indicate whether storm water discharge is clear, cloudy, or discolored; causing staining; containing floating objects or an oil sheen, has odors, etc.	IDENTIFY AND DESCRIBE SOURCE(S) OF POLLUTANTS EXAMPLE: Oil sheen caused by oil dripped by trucks in vehicle maintenance area.	DESCRIBE ANY REVISED OR NEW BMPs AND THEIR DATE OF IMPLEMENTATION
10/10/07 0830 [X] AM to 1000 [ ] PM	STW2, STW3, STW5. STW4.	Clear, no staining, no floating objects, no sheen, no odor, slight turbidity. Brown, no staining, no floating objects, no sheen, no odor, significant turbidity.	Turbidity caused by sediment remobilization within the creek. Turbidity caused by: sediment entering drop inlets, concrete lined ditches and slope drains; and from erosion of soil below select slope drains and hydruagers.	N/A. Install outlet protection at slope drains and hydraugers; clean sediment from concrete lined ditches prior to the wet-weather season Implement new BMPS by October 31, 2008.
11/19/07 1200 [X] AM to 1300 [X] PM	STW2, STW3,STW4, STW5.	Clear, no staining, no floating objects, no sheen, no odor, slight turbidity.	N/A.	N/A.
12/4/07 0805 [X] AM to 0820 [ ] PM	STW2, STW3,STW4, STW5.	Clear, no staining, foam suds, no sheen, no odor, slight turbidity.	Suds (foam) observed at STW2, STW4 and STW5. The foam appears natural – formed from fatty acids of decomposing plants and animals that act as surfactants, reducing the surface tension of the surface film of water.	N/A.
01/7/08 0945 [X] AM to 1030 [ ] PM	STW2, STW3, STW4, STW5.	Clear, no staining, no floating objects, no sheen, no odor, slight turbidity.	N/A.	N/A.
/ / : [ ] AM [ ] PM				

FORM 4 (Continued)-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

SIDE A

- Storm water discharge visual observations are required for at least one storm event per month between October 1 and May 31.
- Visual observations must be conducted during the first hour of discharge at all discharge locations.
- Discharges of temporarily stored or contained storm water must be observed at the time of discharge.
- Indicate "None" in the first column of this form if you did not conduct a monthly visual observation.
- Make additional copies of this form as necessary.
- Until a monthly visual observation is made, record any eligible storm events that do not result in a storm water discharge and note the date, time, name, and title of who observed there was no storm water discharge.

Observation Date: February 19 2008	Drainage Location Description	STW 2 N. Fork Strawberry	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Observers Name: John Jelinski	Observation Time	09:25 X AM PM	09:20 X AM PM	09:15 X AM PM	09:05 X AM PM
Title: Quality Coordinator	Time Discharge Began	09:00 X AM PM	09:00 X AM PM	09:00 X AM PM	09:00 X AM PM
Signature:	Were Pollutants observed (if YES, complete reverse side)	YES NO X	YES NO X	YES NO X	YES NO X

Observation Date: March 28 2008	Drainage Location Description	STW 2 N. Fork Strawberry	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Observers Name: John Jelinski	Observation Time	17:15 X AM PM	17:45 X AM PM	17:30 X AM PM	17::40 X AM PM
Title: Quality Coordinator	Time Discharge Began	17:00 X AM PM	17:00 X AM PM	17:00 X AM PM	17:00 X AM PM
Signature:	Were Pollutants observed (if YES, complete reverse side)	YES NO X	YES NO X	YES NO X	YES NO X

Observation Date: April 23 2008	Drainage Location Description	STW 2 N. Fork Strawberry	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Observers Name: John Jelinski	Observation Time	06:30 X AM PM	07:00 X AM	07:15 X AM PM	07:25 X AM PM
Title: Quality Coordinator	Time Discharge Began	4/22/08 08:30 X AM PM	4/22/08 08:30 X AM PM	4/22/08 08:30 X AM PM	4/22/08 08:30 X AM PM
Signature:	Were Pollutants observed (if YES, complete reverse side)	YES NO	YES NO	YES NO	YES NO

Observation Date: May 2008	Drainage Location Description	STW 2 N. Fork Strawberry	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Observers Name: John Jelinski	Observation Time	None AM PM	None AM PM	None AM PM	None AM PM
Title: Quality Coordinator	Time Discharge Began	None AM PM	None AM PM	None AM PM	None AM PM
Signature:	Were Pollutants observed (if YES, complete reverse side)	YES NO	YES NO	YES NO	YES NO

FORM 4 (Continued)-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

DATE/TIME OF OBSERVATION (From Reverse Side)	DRAINAGE AREA DESCRIPTION EXAMPLE: Discharge from material storage Area #2	DESCRIBE STORM WATER DISCHARGE CHARACTERISTICS Indicate whether storm water discharge is clear, cloudy, or discolored; causing staining; containing floating objects or an oil sheen, has odors, etc.	IDENTIFY AND DESCRIBE SOURCE(S) OF POLLUTANTS EXAMPLE: Oil sheen caused by oil dripped by trucks in vehicle maintenance area.	DESCRIBE ANY REVISED OR NEW BMPs AND THEIR DATE OF IMPLEMENTATION
2/19/08 0905 [X] AM to 0925 [ ] PM	STW2, STW3, STW4	Clear, no staining, foam suds, no sheen, no odor, slight turbidity	Suds (foam) observed at STW2, STW3 and STW4. The foam appears natural – formed from fatty acids of decomposing plants and animals that act as surfactants, reducing the surface tension of the surface film of water.	N/A
	STW5	Clear, no staining, no floating objects, no sheen, no odor, slight turbidity	N/A	N/A
3/28/08 1715 [X] AM to 1745 [ ] PM	STW2, STW3,STW4, STW5	Clear, no staining, no floating objects, no sheen, no odor, slight turbidity	N/A	N/A
4/23/08 0630 [X] AM to 0725 [ ] PM	STW2, STW3,STW4, STW5	Clear, no staining, no floating objects, no sheen, no odor, slight turbidity	N/A	N/A
May 2008 [ ] AM [ ] PM	STW2, STW3,STW4, STW5	No discharge.	N/A	Conduct the monthly wet-weather inspection on during the month even if there has not been rainfall during that month. Implement by October 1, 2008.
/ / [ ] AM [ ] PM				

FORM 5 (Continued)-ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS

EVALUATION DATE:	6/6/08	**INSPECTOR NAME:**	John Jelinski	**TITLE:**	Quality Coordinator	**SIGNATURE:**	
EVALUATION DATE:	6/6/08	**INSPECTOR NAME:**	Sharon Squire	**TITLE:**	Senior Project Scientist	**SIGNATURE:**	

POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)			Describe deficiencies in BMPs or BMP implementation	Describe additional/revised BMPs or corrective actions and their date(s) of implementation
Bus Transportation Area Bus Storage Adjacent to Building 51.	Have Any BMP's not been Fully Implemented? [ ] YES [X] NO Are Additional/revised BMP's Necessary? [X] YES [ ] NO	If YES to either question, complete the next two columns of this form.	Improve storm water sample collection by obtaining samples at an alternative location that is closer to the potential pollutant sources and prior to where the discharge has commingled with storm water from areas with little or no industrial activity.	Collect storm water samples in this area pursuant to the proposed *Alternative Storm Water Monitoring Plan.*
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) **Vehicle Fueling, Washing and Maintenance** Building 76.	Have Any BMP's not been Fully Implemented? [X] YES [ ] NO Are Additional/revised BMP's Necessary? [X] YES [ ] NO	If YES to either question, complete the next two columns of this form.	Improve storm water sample collection by obtaining samples at an alternative location that is closer to the potential pollutant sources and prior to where the discharge has commingled with storm water from areas with little or no industrial activity. A roof has not been placed over the fueling area.	Install sampling tap and collect storm water samples pursuant to the proposed *Alternative Storm Water Monitoring Plan.* A roof over the fueling area has been deemed unnecessary as analytical data does not indicate diesel above applicable USEPA benchmarks.
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) **Materials Storage and Use** Outdoor Equipment Containing Chemicals ▪ Transformers ▪ Cooling Towers ▪ Generators ▪ Groundwater Treatment Systems	Have Any BMP's not been Fully Implemented? [ ] YES [X] NO Are Additional/revised BMP's Necessary? [X] YES [ ] NO	If YES to either question, complete the next two columns of this form.	Clogging of piping at cooling tower serving Building 67 resulting in blow down NSWD.	Install filter to prevent clogging and blow down. Implement by 6/26/08.

SIDE A

FORM 5 - ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS

EVALUATION DATE:	6/6/08	**INSPECTOR NAME:**	John Jelinski	**TITLE:**	Quality Coordinator	**SIGNATURE:**	
EVALUATION DATE:	6/6/08	**INSPECTOR NAME:**	Sharon Squire	**TITLE:**	Senior Project Scientist	**SIGNATURE:**	

POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)			Describe deficiencies in BMPs or BMP implementation	Describe additional/revised BMPs or corrective actions and their date(s) of implementation
Metal Fabrication and Storage Buildings 77, 64.	Have Any BMP's not been Fully Implemented? [ ] YES [X] NO Are Additional/revised BMP's Necessary? [X] YES [ ] NO	If YES to either question, complete the next two columns of this form.	Improve storm water sample collection by obtaining samples at an alternative location that is closer to the potential pollutant sources and prior to where the discharge has commingled with storm water from areas with little or no industrial activity.	Collect storm water samples in this area pursuant to the proposed *Alternative Storm Water Monitoring Plan*.
Hazardous Waste Treatment Buildings 85 and 85A.	Have Any BMP's not been Fully Implemented? [ ] YES [X] NO Are Additional/revised BMP's Necessary? [X] YES [ ] NO	If YES to either question, complete the next two columns of this form.	Improve storm water sample collection by obtaining samples at an alternative location that is closer to the potential pollutant sources and prior to where the discharge has commingled with storm water from areas with little or no industrial activity.	Collect storm water samples in this area pursuant to the proposed *Alternative Storm Water Monitoring Plan*.
Carpentry and Paint Shop Building 76	Have Any BMP's not been Fully Implemented? [ ] YES [X] NO Are Additional/revised BMP's Necessary? [X] YES [ ] NO	If YES to either question, complete the next two columns of this form.	Improve storm water sample collection by obtaining samples at an alternative location that is closer to the potential pollutant sources and prior to where the discharge has commingled with storm water from areas with little or no industrial activity. Empty paint cans are outside and uncovered; potential for exposure to storm water during the wet-weather season.	Install a sampling location inlet downgradient of Building 76 and collect storm water samples pursuant to the proposed *Alternative Storm Water Monitoring Plan*. Relocate paint cans indoors or provide a structure to cover the paint cans during the wet-weather season.

APPENDIX B

LABORATORY DATA CERTIFICATES

AND CHAIN-OF-CUSTODY FORMS

– STORM 1

--Due to size limitations, analytical laboratory data are not included in this version--

APPENDIX C

LABORATORY DATA CERTIFICATES

AND CHAIN-OF-CUSTODY FORMS

– STORM 2

--Due to size limitations, analytical laboratory data are not included in this version--