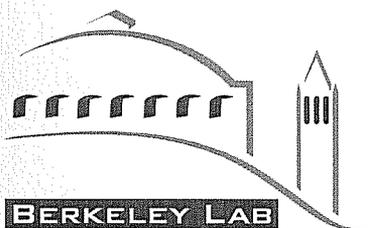


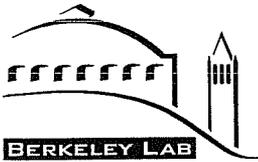
Stormwater Discharges Associated with Industrial Activity

prepared for the State of California
State Water Resources Control Board



ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY

July 1, 2003



Environment, Health & Safety Division
Environmental Services Group

Mr. Rico Duazo
San Francisco Bay Regional Water Quality Control Board
1515 Clay St., Suite 1400
Oakland, CA 94612

June 6, 2003
ES-03-024

HAND DELIVERED

Subject: Transmittal of Storm Water Annual Report
General Industrial Permit
Facility WDID No. 2 01S002421

Dear Mr. Duazo:

In accordance with the terms of the California general permit referenced above, enclosed you will find Berkeley Lab's 2002-2003 Annual Report for storm water discharges associated with industrial activities. We have used the forms provided by the State Water Resources Control Board on its website for this purpose, and have also included backup information on our own forms, plus the required analytical laboratory reports. If you have any further questions on the report, please call me at (510) 486-7413.

"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,

Regina Lackner
Environmental Specialist

REL
Attachment

cc: wo/attachment
J. Jelinski
R. Pauer
N. Ware
H. Carwell DOE/BSO

w/partial attachment
S. Benson
D. McGraw
S. Black DOE/OAK
C. Schwab DOE/BSO

w/attachment
R. Wendt
N. Al-Hadithy, COB

State of California
STATE WATER RESOURCES CONTROL BOARD

2002-2003
ANNUAL REPORT

FOR
STORM WATER DISCHARGES ASSOCIATED
WITH INDUSTRIAL ACTIVITIES

Reporting Period July 1, 2002 through June 30, 2003

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.**

If any information contained in Items A, B, C, and D below differs from the information provided in your Notice of Intent (NOI), circle or highlight the information that differs from your NOI so we can update our records. Please remember that a Notice of Termination and new Notice of Intent are required whenever a facility is relocated or changes ownership.

If you have any questions, please contact your Regional Board Storm Water Program Contact. The address of the Regional Board (where the Annual Report must be filed) along with the name, telephone number and e-mail address of the contact is indicated on page 9 of this Annual Report. 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: 2 01S002421

A. Facility Location:

Facility Name: Lawrence Berkeley National Laboratory

Address: 1 Cyclotron Road, 75B-101

City: Berkeley State: CA Zip: 94720 Phone: (510) 486-7413

B. Facility Operator Information:

Operator Name: Lawrence Berkeley National Laboratory Contact Person: Regina Lackner

Mailing Address: 1 Cyclotron Road, 75B-101 Title: Environmental Specialist

City: Berkeley State: CA Zip: 94720 Phone: (510) 486-7413

Standard Industrial Classification (SIC) Code(s): 8733, 3499, 4214

C. Facility Information: (Complete if different from facility mailing address in Item A above)

Street Address: _____

City: _____ State: _____ Zip: _____

2002-2003
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: _____

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 Discharge, 1 Influent

2002-2003
ANNUAL REPORT

4. For each storm event sampled, did you collect and analyze a sample from each of the facilities storm water discharge locations? YES 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 stormwater 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:

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.

2002-2003
ANNUAL REPORT

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.2D

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.

2002-2003
ANNUAL REPORT

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.

October	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/>	NO	February	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/>	NO
November	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/>	NO	March	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/>	NO
December	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/>	NO	April	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/>	NO
January	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/>	NO	May	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/>	NO

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 an 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? The following areas should be inspected: YES NO
- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • 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. | <ul style="list-style-type: none"> • 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
- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • facility boundaries • outline of all storm water drainage areas • areas impacted by run-on | <ul style="list-style-type: none"> • storm water discharges locations • storm water collection and conveyance system • structural control measures such as catch basins, berms, containment areas, oil/water separators, etc. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

2002-2003
ANNUAL REPORT

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.

2002-2003
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: Regina Lackner

Signature: Regina Lackner Date: June 5, 2003

Title: Environmental Specialist

2002-2003
ANNUAL REPORT

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.swrcb.ca.gov>. It is contained in the Sampling and Analysis Reduction Certification.

ATTACHMENTS/EXPLANATIONS

E.10.c

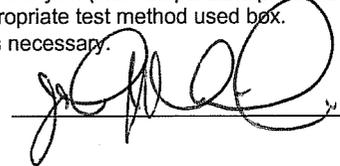
This question pertains to analysis of all storm water samples for applicable Table D parameters. We monitor for all applicable parameters (NH₃, Mg, COD, TSS, Fe, Al, Zn, N+N) except cyanide and the metals As, Cd, Pb, Hg, Se, and Ag. As explained in previous years, cyanide is no longer in general use on this site. The only outfall where cyanide monitoring would be required by the permit would be the outfall that drains the area where the Hazardous Waste Handling Facility (HWHF) is located. As stated in our Storm Water Monitoring Program, cyanide will not be monitored for at StW05 (East Canyon, the outfall that drains the area of the HWHF). Berkeley Lab had previously monitored the entire site for cyanide from 1992 through 1995 (3 storm water years, 6 samplings). The lack of any significant results justifies no further monitoring for this parameter in accordance with Section B.5.c.iii of the General Permit, and was first noted in our 1994/95 Annual Report. Additionally, baseline monitoring before the facility was built and placed in operation in 1997 showed no cyanide in runoff.

Similarly, during the review and revision of the Storm Water Monitoring Program in 2001, it was determined that many total metals had not been detected in several years. And under an agreement with the City of Berkeley, since 1996 LBL had been analyzing metals once a year for dissolved metals in addition to total metals as required by the permit. These analyses had also shown no detectable levels of these metals for at least two years, and in many cases longer. After the City of Berkeley had been duly notified and had raised no objections, the Storm Water Monitoring Program was revised to discontinue analysis of dissolved metals and of total arsenic, cadmium, lead, mercury, selenium, and silver. Starting with the 2001/2002 storm water season, and in accordance with B.5.c.iii of the General Permit, metals analyses have been reduced to four (Mg, Al, Fe, and Zn).

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	ANALYTICAL RESULTS (For First Storm Event)											
			BASIC PARAMETERS					OTHER PARAMETERS						
			pH	TSS	SC	O & G	TPH Diesel	Total Metals (Mg, Al, Fe, Zn)	Ammonia as NH3	Nitrate Nitrite	COD	Gross Alpha	Gross Beta	Tritium
STW 2 N. Fork Straw Crk. Effluent	11/7/2002 03:30 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	11/7/2002 01:00 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	6.75	27	146	ND	470	4.4 0.6 1.1 ND	0.4	0.73	100	ND	ND	ND
STW 3 B69 Manhole Influent	11/7/2002 03:50 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	11/7/2002 01:00 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	6.59	3	146	ND	280	1.1 ND ND ND	0.2	1.1	63	ND	3.1	ND
STW 4 Chicken Crk. Effluent	11/7/2002 03:47 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	11/7/2002 01:00 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	7.11	150	411	ND	1600	15 3.2 4.8 0.84	1.6	3.3	365	ND	4.5	435
STW 5 East Canyon Effluent	11/7/2002 03:13 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	11/7/2002 01:00 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	6.71	60	73	ND	860	1.9 0.7 1 ND	0.3	0.52	82	ND	ND	ND
TEST REPORTING UNITS:			pH Units	mg/L	umho/cm	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	pCi/L
TEST METHOD DETECTION LIMIT:			0.01	2-5	1.0	5.0	50	0.05	0.04	0.1	25	2	3	200
TEST METHOD USED:			PA	EPA 160.2	EPA 120.1	EPA 1664	EPA 8015M	EPA 200.7	EPA 350.1	EPA 353.2	EPA 410.4	E 900	E 900	E 906EP
ANALYZED BY (SELF/LAB):			SELF	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB

TSS - Total Suspended Solids

SC - Specific Conductance

O&G - Oil & Grease

TOC - Total Organic Carbon

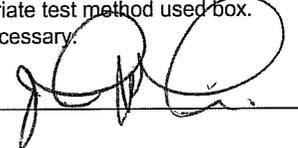
ND = Non Detected

NA = Not Sampled

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.
- Make additional copies of this form as necessary.

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

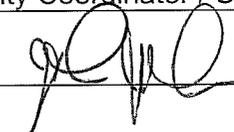
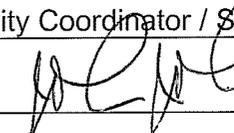
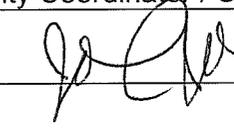
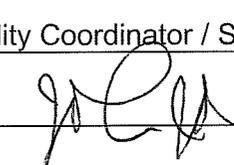
DESCRIBE DISCHARGE LOCATION	DATE / TIME OF SAMPLE LOCATION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS (For Second Storm Event)											
			BASIC PARAMETERS					OTHER PARAMETERS						
			pH	TSS	SC	O & G	TPH Diesel	Total Metals (Mg, Al, Fe, Zn)	Ammonia as NH3	Nitrate Nitrite	COD	Gross Alpha	Gross Beta	Tritium
STW 2 N. Fork Straw Crk. Effluent	02/12/2003 08:55 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	02/12/2003 08:44 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	6.56	19	110	ND	390	3.6 0.57 0.83 ND	0.4	0.96	86	ND	ND	ND
STW 3 B69 Manhole Influent	02/12/2003 09:00 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	02/12/2003 08:44 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	6.20	18	58	ND	140	0.95 0.83 1 ND	0.2	0.42	42	ND	ND	ND
STW 4 Chicken Crk. Effluent	02/12/2003 09:15 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	02/12/2003 08:44 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	6.45	28	147	ND	370	4.9 0.73 0.99 ND	0.4	0.59	72	ND	ND	ND
STW 5 East Canyon Effluent	02/12/2003 09:20 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	02/12/2003 08:44 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	6.80	19	102	ND	230	4.1 1.2 1.5 ND	0.5	0.62	60	ND	ND	ND
TEST REPORTING UNITS:			pH Units	mg/L	umho/cm	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	pCi/L
TEST METHOD DETECTION LIMIT:			0.01	2-5	1.0	5.0	50	0.05-0.5	0.04-0.1	0.1	25	2	3	200
TEST METHOD USED:			PA	EPA 160.2	EPA 120.1	EPA 1664	EPA 8015M	EPA 200.7	EPA 350.1	EPA 353.2	EPA 410.4	E 900	E 900	E 906EP
ANALYZED BY (SELF/LAB):			SELF	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB

TSS - Total Suspended Solids SC - Specific Conductance O&G - Oil & Grease TOC - Total Organic Carbon ND = Non Detected NA = Not Sampled

**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.

<p>QUARTER: JULY - SEPTEMBER</p> <p>DATE: 9/30/01</p>	<p>Observers Name: <u>John Jelinski</u></p> <p>Title: <u>Quality Coordinator / Sampler</u></p> <p>Signature: </p>	<p>WERE ANY AUTHORIZED NSWD'S DISCHARGED DURING THIS QUARTER?</p> <p><input type="checkbox"/> YES If YES, Complete the reverse side of this form</p> <p><input checked="" type="checkbox"/> NO</p> <p>The SWPP includes a number of possible authorized NSWDs, however, none were observed at this time</p>
<p>QUARTER: OCTOBER - DECEMBER</p> <p>DATE: 10/25/2002, 11/13/2002 & 12/06/2002</p>	<p>Observers Name: <u>John Jelinski</u></p> <p>Title: <u>Quality Coordinator / Sampler</u></p> <p>Signature: </p>	<p>WERE ANY AUTHORIZED NSWD'S DISCHARGED DURING THIS QUARTER?</p> <p><input checked="" type="checkbox"/> YES If YES, Complete the reverse side of this form</p> <p><input type="checkbox"/> NO</p> <p>YES, at North Fork of Strawberry Creek Storm Drain</p>
<p>QUARTER: JANUARY - MARCH</p> <p>DATE: 02/10/2003 03/27/2003</p>	<p>Observers Name: <u>John Jelinski</u></p> <p>Title: <u>Quality Coordinator / Sampler</u></p> <p>Signature: </p>	<p>WERE ANY AUTHORIZED NSWD'S DISCHARGED DURING THIS QUARTER?</p> <p><input type="checkbox"/> YES If YES, Complete the reverse side of this form</p> <p><input checked="" type="checkbox"/> NO</p> <p>The SWPP includes a number of possible authorized NSWDs, however, none were observed at this time</p>
<p>QUARTER: APRIL - JUNE</p> <p>DATE: 05/14/2003</p>	<p>Observers Name: <u>John Jelinski</u></p> <p>Title: <u>Quality Coordinator / Sampler</u></p> <p>Signature: </p>	<p>WERE ANY AUTHORIZED NSWD'S DISCHARGED DURING THIS QUARTER?</p> <p><input type="checkbox"/> YES If YES, Complete the reverse side of this form</p> <p><input checked="" type="checkbox"/> NO</p> <p>The SWPP includes a number of possible authorized NSWDs, however, none were observed at this time</p>

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

DATE /TIME OF OBSERVATION	SOURCE AND LOCATION OF AUTHORIZED NSWD <i>EXAMPLE:</i> Air conditioner Units on Building C	NAME OF AUTHORIZED NSWD <i>EXAMPLE:</i> Air conditioner condensate	DESCRIBE AUTHORIZED NSWD CHARACTERISTICS Indicate whether authorized NSWD is clear, cloudy, or discolored, causing staining, contains floating objects or an 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	
10/25/2002 10:00 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	North Fork of Strawberry Creek Storm Drain	Water main upgrade project	Water from the main water line. Water was clear.	Water coming from drain was foamy, cloudy with a hydrocarbon smell, presumably from running over paved roadway	This was a one-time unavoidable discharge from a construction project during tie-in of a water supply line. Thiosulfate tablets were in use to neutralize the chloramine in the potable water.
<input type="checkbox"/> AM <input type="checkbox"/> PM					
<input type="checkbox"/> AM <input type="checkbox"/> PM					
<input type="checkbox"/> AM <input type="checkbox"/> PM					
<input type="checkbox"/> AM <input type="checkbox"/> PM					

**Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program**

Date: July-September 2002
Observer: J. JELINSKI
Observation Dates: 9/30/02 1300

Quarterly Visual Observations of Authorized Non-Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon	Sitewide
Visual Observations	Runoff: low flow	Runoff: NO FLOW	Runoff: low-flow	Runoff: Slight flow	Runoff: NONE
	Sheen: NO	Sheen: NO	Sheen: NO	Sheen: NO	Sheen: NO
	Water Stains: NO	Water Stains: NO	Water Stains: NO	Water Stains: NO	Water Stains: NO
	Other: —	Other: —	Other: —	Other: —	Other: —
Non-Stormwater Discharge Observed (Y/N)	NO	NO	NO	NO	NO
Corrective Action Taken	—	—	—	—	—

Comments:

Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date:	OCTOBER - DECEMBER 2002
Observer:	JOHN JELINSKI
Observation Dates:	(1) 10/25/02 10:00 (2) 11/13/02 11:00 (3) 12/6/02 10:00

Quarterly Visual Observations of Authorized Non-Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon	Sitewide
Visual Observations	Runoff: (1) low flow (2) moderate flow (3) trash flow Sheen: (1) YES (2) NO (3) NO Water Stains: (1) NO (2) NO (3) NO Other: (1) Hydrocarbon smell (2) NO (3) NO	Runoff: NO flow low flow trash flow Sheen: NO NO NO Water Stains: NO NO NO Other: NO NO NO	Runoff: low flow moderate flow trash flow Sheen: NO NO NO Water Stains: NO NO NO Other: — — —	Runoff: slight flow low flow moderate flow Sheen: NO NO NO Water Stains: NO NO NO Other: — — —	Runoff: slight slight slight Sheen: NO NO NO Water Stains: NO NO NO Other: — — —
Non-Stormwater Discharge Observed (Y/N)	(1) YES (200 gal) (2) NO (3) NO	NO NO NO	NO NO NO	NO NO NO	NO NO NO
Corrective Action Taken	(1) — (2) — (3) —	— — —	— — —	— — —	— — —

Comments:

Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date: JANUARY-MARCH 2-03
Observer: John JECINSKI
Observation Dates: (1) 2/10/03 ~1000 (2) 3/10/03 ~0900

Quarterly Visual Observations of Authorized Non-Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon	Sitewide
Visual Observations	Runoff: (1) slight-mod (2) mod-heavy Sheen: (1) NONE (2) NONE Water Stains: (1) NONE (2) NONE Other: (1) — (2) —	Runoff: (1) Moderate (2) HEAVY Sheen: (1) NONE (2) NONE Water Stains: (1) NO (2) NO Other: =	Runoff: (1) slight-mod (2) Moderate Sheen: (1) NONE (2) NONE Water Stains: (1) NO (2) NO Other: =	Runoff: (1) slight/mod (2) Moderate Sheen: (1) NONE (2) NONE Water Stains: (1) NO (2) NO Other: =	Runoff: (1) slight-mod (2) Moderate Sheen: (1) NONE (2) NONE Water Stains: (1) NO (2) NO Other: =
Non-Stormwater Discharge Observed (Y/N)	(1) NO (2) NO	(1) NO (2) NO	(1) NO (2) NO	(1) NO (2) NO	(1) NO (2) NO
Corrective Action Taken	NA	NA	NA	NA	NA

Comments:

**Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program**

Date: April - June 2003
Observer: JELINSKI
Observation Dates: 5/14/03 ~ 10am

Quarterly Visual Observations of Authorized Non-Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon	Sitewide
Visual Observations	Runoff: SLIGHT FLOW Sheen: NONE Water Stains: NONE Other: —	Runoff: NO FLOW Sheen: NO Water Stains: NONE Other: —	Runoff: SLIGHT FLOW Sheen: NONE Water Stains: NONE Other: —	Runoff: NO FLOW Sheen: — Water Stains: NONE Other: —	Runoff: — Sheen: NONE Water Stains: NONE Other: —
Non-Stormwater Discharge Observed (Y/N)	NO	NO	NO	NO	NO
Corrective Action Taken	—	—	—	—	—

Comments:

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

OBSERVATION DATE (FROM REVERSE SIDE)	NAME OF UNAUTHORIZED NSWD <u>EXAMPLE:</u> Vehicle Wash Water	SOURCE AND LOCATION OF UNAUTHORIZED NSWD <u>EXAMPLE:</u> 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	
<input type="checkbox"/> AM <input type="checkbox"/> PM					
<input type="checkbox"/> AM <input type="checkbox"/> PM					
<input type="checkbox"/> AM <input type="checkbox"/> PM					
<input type="checkbox"/> AM <input type="checkbox"/> PM					
<input type="checkbox"/> AM <input type="checkbox"/> PM					

Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date:	July-SEPTEMBER 2002
Observer:	J. JELINSKI
Observation Dates:	9/30/02 1300

Quarterly Visual Observations of NON-Authorized Non-Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon	Sitewide
Visual Observations	Runoff: slight flow Sheen: NONE Water Stains: NONE Other: —	Runoff: NO flow Sheen: NONE Water Stains: NONE Other: —	Runoff: low flow Sheen: NONE Water Stains: NONE Other: —	Runoff: slight flow Sheen: NONE Water Stains: NONE Other: —	Runoff: NO storms Sheen: NONE Water Stains: NONE Other: —
Non-Stormwater Discharge Observed (Y/N)	NO	NO	NO	NO	NO
Corrective Action Taken	—	—	—	—	—

Comments:

**Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program**

Date: October - December 2002
 Observer: J. Jeluszka
 Observation Dates: 10/25/02 10AM 12/16/02 11AM
11/13/02 11AM

Quarterly Visual Observations of NON-Authorized Non-Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon	Sitewide
Visual Observations	Runoff: 10/25 low 11/13 Medium 12/16 High	Runoff: NONE Low Medium	Runoff: low Medium High	Runoff: Slight low Medium	Runoff: Slight low Medium
	Sheen: 10/25 YES 11/13 NO 12/16 NO	Sheen: NO NO NO	Sheen: NO NO NO	Sheen: NO NO NO	Sheen: NO NO NO
	Water Stains: 10/25 NO 11/13 NO 12/16 NO	Water Stains: NO NO NO	Water Stains: NO NO NO	Water Stains: NO NO NO	Water Stains: NO NO NO
	Other: 	Other: 	Other: 	Other: 	Other:
Non-Stormwater Discharge Observed (Y/N)	10/25 Y NO 11/13 NO 12/16 NO	NO NO NO	NO NO NO	NO NO NO	NO NO NO
Corrective Action Taken	 	 	 	 	

Comments:

Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date: JANUARY - MARCH 2003
Observer: J. JENKINS
Observation Dates: (1) 02/10/03 ~1000 (2) 03/27/03 - 0900

Quarterly Visual Observations of NON-Authorized Non-Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon	Sitewide
Visual Observations	Runoff: (1) slight-moderate (2) moderate-heavy Sheen: (1) NONE (2) NONE Water Stains: (1) NONE (2) NONE Other: (1) — (2) —	Runoff: slight heavy Sheen: NONE NONE Water Stains: NONE NONE Other: — —	Runoff: slight moderate Sheen: NONE NONE Water Stains: NONE NONE Other: — —	Runoff: slight moderate Sheen: NONE NONE Water Stains: NONE NONE Other: — —	Runoff: slight none Sheen: slight slight Water Stains: NONE NONE Other: — —
Non-Stormwater Discharge Observed (Y/N)	(1) NO (2) NO	NO NO	NO NO	NO NO	NO NO
Corrective Action Taken	(1) — (2) —	— —	— —	— —	— —

Comments:

Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date: April - June 2002
Observer: JELINSKI
Observation Dates: 5/14/03 - 10AM

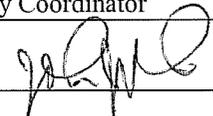
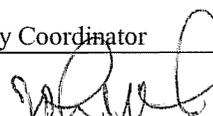
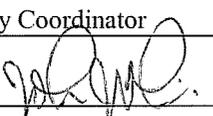
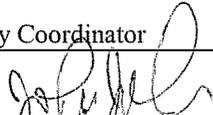
Quarterly Visual Observations of NON-Authorized Non-Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon	Sitewide
Visual Observations	Runoff: Small light flow	Runoff: NO FLOW	Runoff: Small light flow	Runoff: NO FLOW	Runoff: —
	Sheen: NONE	Sheen: —	Sheen: NONE	Sheen: —	Sheen: NONE
	Water Stains: NONE	Water Stains: NONE	Water Stains: NONE	Water Stains: NONE	Water Stains: NONE
	Other: —	Other: —	Other: —	Other: —	Other: —
Non-Stormwater Discharge Observed (Y/N)	NO	NO	NO	NO	NO
Corrective Action Taken	—	—	—	—	—

Comments:

FORM 4-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

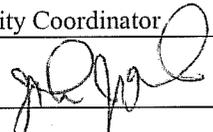
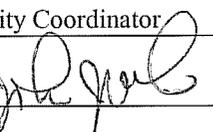
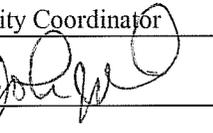
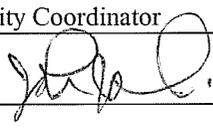
- Storm water discharge visual observations are required for at least one storm event per month between October 1 and May 31.
- Visual observations must be conducted during the first hour of discharge at all discharge locations.
- Discharges of temporarily stored or contained storm water must be observed 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 24 2002	Drainage Location Description	STW 2	STW 3	STW 4	STW 5	
Observers Name: John Jelinski	Observation Time	N. Fork Strawberry	B69 Manhole	Chicken Creek	East Canyon	
Title: Quality Coordinator	10/24/02 14:45	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/>	10/24/02 13:40	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/>	10/24/02 14:15	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/>
Signature: 	Time Discharge Began	No Discharges	No Discharge	No Discharges	No Discharges	
Were Pollutants observed (if YES, complete reverse side)		YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
Observation Date: November 7 2002	Drainage Location Description	STW 2	STW 3	STW 4	STW 5	
Observers Name: John Jelinski	Observation Time	N. Fork Strawberry	B69 Manhole	Chicken Creek	East Canyon	
Title: Quality Coordinator	11/07/02 08:30	AM <input checked="" type="checkbox"/> PM <input type="checkbox"/>	11/07/02 08:30	AM <input checked="" type="checkbox"/> PM <input type="checkbox"/>	11/07/02 08:30	AM <input checked="" type="checkbox"/> PM <input type="checkbox"/>
Signature: 	Time Discharge Began	11/07/02 01:00	11/07/02 01:00	11/07/02 01:00	11/07/02 01:00	
Were Pollutants observed (if YES, complete reverse side)		YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
Observation Date: December 13 2002	Drainage Location Description	STW 2	STW 3	STW 4	STW 5	
Observers Name: John Jelinski	Observation Time	N. Fork Strawberry	B69 Manhole	Chicken Creek	East Canyon	
Title: Quality Coordinator	12/13/02 12:00	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/>	12/13/02 12:00	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/>	12/13/02 12:00	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/>
Signature: 	Time Discharge Began	12/13/02 01:30	12/13/02 01:30	12/13/02 01:30	12/13/02 01:30	
Were Pollutants observed (if YES, complete reverse side)		YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
Observation Date: January 9 2003	Drainage Location Description	STW 2	STW 3	STW 4	STW 5	
Observers Name: John Jelinski	Observation Time	N. Fork Strawberry	B69 Manhole	Chicken Creek	East Canyon	
Title: Quality Coordinator	01/09/03 15:00	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/>	01/09/03 15:00	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/>	01/09/03 15:00	AM <input type="checkbox"/> PM <input checked="" type="checkbox"/>
Signature: 	Time Discharge Began	01/09/03 14:30	01/09/03 14:30	01/09/03 14:30	01/09/03 14:30	
Were Pollutants observed (if YES, complete reverse side)		YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	

FORM 4-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

- 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 12 2003	Drainage Location Description	STW 2	STW 3	STW 4	STW 5
Observers Name: John Jelinski		N. Fork Strawberry	B69 Manhole	Chicken Creek	East Canyon
Title: Quality Coordinator	Observation Time	02/12/03 09:00	x AM PM	02/12/03 09:00	x AM PM
Signature: 	Time Discharge Began	02/12/03 08:45	x AM PM	02/12/03 08:45	x AM PM
	Were Pollutants observed (if YES, complete reverse side)	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>			
Observation Date: March 14 2003	Drainage Location Description	STW 2	STW 3	STW 4	STW 5
Observers Name: John Jelinski		N. Fork Strawberry	B69 Manhole	Chicken Creek	East Canyon
Title: Quality Coordinator	Observation Time	03/14/03 09:00	x AM PM	03/14/03 09:00	x AM PM
Signature: 	Time Discharge Began	03/13/03 23:00	x AM PM	03/13/03 23:00	x AM PM
	Were Pollutants observed (if YES, complete reverse side)	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>			
Observation Date: April 25 2003	Drainage Location Description	STW 2	STW 3	STW 4	STW 5
Observers Name: John Jelinski		N. Fork Strawberry	B69 Manhole	Chicken Creek	East Canyon
Title: Quality Coordinator	Observation Time	04/25/03 11:00	x AM PM	04/25/03 11:00	x AM PM
Signature: 	Time Discharge Began	04/25/03 08:30	x AM PM	04/25/03 08:30	x AM PM
	Were Pollutants observed (if YES, complete reverse side)	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>			
Observation Date: May 2 2003	Drainage Location Description	STW 2	STW 3	STW 4	STW 5
Observers Name: John Jelinski		N. Fork Strawberry	B69 Manhole	Chicken Creek	East Canyon
Title: Quality Coordinator	Observation Time	05/02/03 11:15	x AM PM	05/02/03 11:15	x AM PM
Signature: 	Time Discharge Began	05/02/03 03:30	x AM PM	05/02/03 03:30	x AM PM
	Were Pollutants observed (if YES, complete reverse side)	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>			

ND = No significant storm events occurred for that month

Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date / Time: 10/24/2002
 Observer: John JELINSKI
 Date / Time Discharge Began: No Discharges
This Month

Monthly Visual Observations of Stormwater Discharges

Site	STW 1 SITEWIDE	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Weather Observations	cloudy foggy NO RAIN	→	→	→	→
Flow	—	Small flow	Trickle	Trickle	low flow
Total Discharge	NA	NA	NA	NA	NA
Floating or Suspended Material Present	—	NO	NO	NO	NO
Oil and Grease Observed	—	NO	NO	NO	NO
Discolorations	NONE	NO	NO	NO	NO
Turbidity	—	NO	NO	NO	NO
Odor	NONE	NONE	NONE	NONE	NONE
Measurements	pH: /	pH: /	pH: /	pH: /	pH: /
	Air Temp: /	Air Temp: /	Air Temp: /	Air Temp: /	Air Temp: /
	Water Temp: /	Water Temp: /	Water Temp: /	Water Temp: /	Water Temp: /
	Conductivity: /	Conductivity: /	Conductivity: /	Conductivity: /	Conductivity: /
Comments	/	/	/	/	/

Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date / Time: 11/7/02 0830

Observer: J. JELINSKI

Date / Time Discharge Began: 11/7/02 1am

Monthly Visual Observations of Stormwater Discharges

Site	STW 1 —	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Weather Observations		cloudy not raining →	→	→	→
Flow		Light-Moderate	light	Light-Moderate	Light
Total Discharge		NA	NA	NA	NA
Floating or Suspended Material Present		small amount	NO	small amount	NA
Oil and Grease Observed		NO	NO	NO	NO
Discolorations		NO	NO	Slight	Slight
Turbidity		NO	NO	Slight	YES
Odor		NO	NO	NO	NO
Measurements	pH:	pH: 6.75	pH: 6.59	pH: 7.11	pH: 6.71
	Air Temp: 57°F	Air Temp: 57°F	Air Temp: 57°F	Air Temp: 57°F	Air Temp: 57°F
	Water Temp: =	Water Temp: =	Water Temp: =	Water Temp: =	Water Temp: =
	Conductivity: =	Conductivity: =	Conductivity: =	Conductivity: =	Conductivity: =
Comments		Collected 1st Stormwater Event →	→	→	→

Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date / Time: 12/13/2002 12:00
 Observer: J. JELENSKI
 Date / Time Discharge Began: 12/13/02 01:30 AM

Monthly Visual Observations of Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Weather Observations	HEAVY storm Raining →	→	→	→
Flow	HIGH	Moderate	HIGH	HIGH
Total Discharge	NA	NA	NA	NA
Floating or Suspended Material Present	NO	NO	NO	NO
Oil and Grease Observed	NO	NO	NO	NO
Discolorations	NO	NO	NO	NO
Turbidity	NONE	NONE	NONE	NONE
Odor	NONE	NONE	NONE	NONE
Measurements	pH: —	pH: —	pH: —	pH: —
	Air Temp: 55°F	Air Temp: 55°F	Air Temp: 55°F	Air Temp: 55°F
	Water Temp: —	Water Temp: —	Water Temp: —	Water Temp: —
	Conductivity: —	Conductivity: —	Conductivity: —	Conductivity: —
Comments	—	—	—	—

Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date / Time: JANUARY 9, 2003 15:00
 Observer: JOHN JELINSKI
 Date / Time Discharge Began: 1/9/2003 14:30

Monthly Visual Observations of Stormwater Discharges

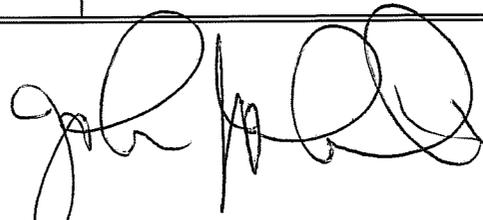
Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Weather Observations	CLOUDY, RAINING	CLOUDY, RAINING	CLOUDY, RAINING	CLOUDY, RAINING
Flow	LOW	NONE	LOW	TRICKLE
Total Discharge	NA	NA	NA	NA
Floating or Suspended Material Present	NO	NA	NO	NO
Oil and Grease Observed	NO	NA	NO	NO
Discolorations	NO	NO	NO	NO
Turbidity	NONE	NA	NONE	NONE
Odor	NONE	NONE	NONE	NONE
Measurements	pH: <u> </u>	pH: <u> </u>	pH: <u> </u>	pH: <u> </u>
	Air Temp: <u>51° F</u>	Air Temp: <u>51° F</u>	Air Temp: <u>51° F</u>	Air Temp: <u>51° F</u>
	Water Temp: <u> </u>	Water Temp: <u> </u>	Water Temp: <u> </u>	Water Temp: <u> </u>
	Conductivity: <u> </u>	Conductivity: <u> </u>	Conductivity: <u> </u>	Conductivity: <u> </u>
Comments	—	—	—	—

Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date / Time: Feb 12/2003 09:00
 Observer: JOHN JELINSKI
 Date / Time Discharge Began: 2/12/2003 845

Monthly Visual Observations of Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Weather Observations	RAINING, WINDY	RAINING, WINDY	RAINING, WINDY	RAINING, WINDY
Flow	High	High	High	High
Total Discharge	—	—	—	—
Floating or Suspended Material Present	NONE	NONE	NONE	NONE
Oil and Grease Observed	little bit of white foam on surface	NO	NO	NO
Discolorations	slight	NONE	NONE	NONE
Turbidity	YES	YES	YES	NO
Odor	NO	NO	NO	NO
Measurements	pH: 6.56	pH: 6.20	pH: 6.45	pH: 6.80
	Air Temp: 50°F	Air Temp: 50°F	Air Temp: 50°F	Air Temp: 50°F
	Water Temp: —	Water Temp: —	Water Temp: —	Water Temp: —
	Conductivity: —	Conductivity: —	Conductivity: —	Conductivity: —
Comments	—	—	—	—



Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date / Time: MARCH 3/14/03 0900
 Observer: JOHN JEUNSKI
 Date / Time Discharge Began: 3/13/03 ~ 2300

Monthly Visual Observations of Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Weather Observations	CLOUDY, HEAVY WIND RAVET but currently not raining	→	→	→
Flow	Moderate	Moderate - Heavy	Moderate	Moderate
Total Discharge	NA	NA	NA	NA
Floating or Suspended Material Present	YES small twigs, leaves	NO	NO	NO
Oil and Grease Observed	NO	NO	NO	NO
Discolorations	NONE	NONE	NONE	NONE
Turbidity	Slight	Slight	NONE	NONE
Odor	NONE (Normal)	NONE (Normal)	NONE (Normal)	NONE (Normal)
Measurements	pH: —	pH: —	pH: —	pH: —
	Air Temp: —	Air Temp: —	Air Temp: —	Air Temp: —
	Water Temp: —	Water Temp: —	Water Temp: —	Water Temp: —
	Conductivity: —	Conductivity: —	Conductivity: —	Conductivity: —
Comments	—	—	—	—



Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date / Time: 4/25/2003 11:00 AM
 Observer: John JELINSKI
 Date / Time Discharge Began: 4/25/2003 8-9 AM

Monthly Visual Observations of Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Weather Observations	Cloudy, RAINING windy →	→	→	→
Flow	Moderate	Moderate	Moderate	Medium-Moderate
Total Discharge	NA	NA	NA	NA
Floating or Suspended Material Present	NONE	NONE	NONE	NONE
Oil and Grease Observed	NO	NO	NO	NO
Discolorations	NONE	NONE	NONE	NONE
Turbidity	NO	slight	NO	NO
Odor	NONE	NONE	NONE	NONE
Measurements	pH: <u> </u>	pH: <u> </u>	pH: <u> </u>	pH: <u> </u>
	Air Temp: <u> </u>	Air Temp: <u> </u>	Air Temp: <u> </u>	Air Temp: <u> </u>
	Water Temp: <u> </u>	Water Temp: <u> </u>	Water Temp: <u> </u>	Water Temp: <u> </u>
	Conductivity: <u> </u>	Conductivity: <u> </u>	Conductivity: <u> </u>	Conductivity: <u> </u>
Comments	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Lawrence Berkeley National Laboratory
Environmental Services Group
Stormwater Monitoring Program

Date / Time: 5/2/03 11:15
 Observer: John JELINSKI
 Date / Time Discharge Began: 5/2/03 03:30 AM

Monthly Visual Observations of Stormwater Discharges

Site	STW 2 North Fork Strawberry Creek	STW 3 B69 Manhole	STW 4 Chicken Creek	STW 5 East Canyon
Weather Observations	cloudy, light rain →	→	→	→
Flow	low-moderate	low	low-moderate	low
Total Discharge	NA	NA	NA	NA
Floating or Suspended Material Present	NONE	NONE	NONE	NONE
Oil and Grease Observed	NO	NO	NO	NO
Discolorations	NONE	NONE	NONE	NONE
Turbidity	NONE	NONE	NONE	NONE
Odor	NONE	NONE	NONE	NONE
Measurements	pH: <u> </u>	pH: <u> </u>	pH: <u> </u>	pH: <u> </u>
	Air Temp: <u> </u>	Air Temp: <u> </u>	Air Temp: <u> </u>	Air Temp: <u> </u>
	Water Temp: <u> </u>	Water Temp: <u> </u>	Water Temp: <u> </u>	Water Temp: <u> </u>
	Conductivity: <u> </u>	Conductivity: <u> </u>	Conductivity: <u> </u>	Conductivity: <u> </u>
Comments	<u> </u>	<u> </u>	<u> </u>	<u> </u>

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

EVALUATION DATE: 5/14/03 INSPECTOR NAME: John Jelinski TITLE: Quality Coordinator SIGNATURE: 

5/15/03

<p>POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)</p> <p>Loading and Unloading 69 77D WAA's Various 85 (HWHF) FTU's</p>	<p>Have Any BMP's not been Fully Implemented? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>Are Additional/revised BMP's Necessary? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>	<p>If YES to either question, complete the next two columns of this form.</p>	<p>Describe deficiencies in BMPs or BMP implementation</p> <p align="center">No deficiencies found</p>	<p>Describe additional/revised BMPs or corrective actions and their date(s) of implementation</p> <p align="center">Not Applicable</p>
<p>POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)</p> <p>Materials Storage and Use WAA's, DSA's, HWHF UST's AST's Outdoor Equipment</p>	<p>Have Any BMP's not been Fully Implemented? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>Are Additional/revised BMP's Necessary? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>If YES to either question, complete the next two columns of this form.</p>	<p>Describe deficiencies in BMPs or BMP implementation</p> <p align="center">No deficiencies found</p>	<p>Describe additional/revised BMPs or corrective actions and their date(s) of implementation</p> <p align="center">Not Applicable</p>
<p>POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)</p> <p>Vehicle Washing (Fueling) and Maintenance 76 48</p>	<p>Have Any BMP's not been Fully Implemented? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>Are Additional/revised BMP's Necessary? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>If YES to either question, complete the next two columns of this form.</p>	<p>Describe deficiencies in BMPs or BMP implementation</p> <p align="center">There is no roof over the fueling station at Building 76.</p>	<p>Describe additional/revised BMPs or corrective actions and their date(s) of implementation</p> <p align="center">No funding for such capital projects exists at this time. No implementation date can be given, however, vehicle washing was moved into a covered bay as of 9/2002. See attached article.</p>
<p>POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)</p> <p>Vehicle Parking / Driving Parking Lots</p>	<p>Have Any BMP's not been Fully Implemented? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>Are Additional/revised BMP's Necessary? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>	<p>If YES to either question, complete the next two columns of this form.</p>	<p>Describe deficiencies in BMPs or BMP implementation</p> <p align="center">No deficiencies found</p>	<p>Describe additional/revised BMPs or corrective actions and their date(s) of implementation</p> <p align="center">Not Applicable</p>

Facilities Quarterly

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY ♦ FACILITIES DEPARTMENT NEWSLETTER

OCTOBER
2002

GEORGE REYES TO HEAD FACILITIES DIVISION

On November 1, George Reyes will become Berkeley Lab's first Facilities Division Director. A longtime employee of the University of California, Reyes is a seasoned leader, with 21 years of facility management experience.

Reyes began his career in 1979 as a building and grounds supervisor for the Sacramento Municipal Utility District. In 1985 he went to work for UC Davis as Manager of Custodial Services, progressing to Manager of Custodial and Grounds and, in 1993, to Deputy Director of Facilities Services. In that capacity, he managed the custodial, fire, grounds, production control, and plant operations programs, which had a total budget of \$40 million and over 600 employees.

In 2000, Reyes moved on to UC Irvine as Assistant Vice Chancellor, Facilities Management. At Irvine, his management responsibilities included the Buildings and Grounds, Engineering Services, Plant Operations, Production Control/Information Technology, and Skilled Trades divisions.

Last year Reyes returned to UC Davis. Working in an advisory capacity, he assisted the Facilities organization in developing budget retrenchment strategies for the anticipated 2002-2003 state budget shortfalls, and in addressing other concerns, including staffing, program analysis, and employee development.

Reyes' career has encompassed all aspects of facilities management, and he has participated in a number of progressive programs, including benchmarking, cogeneration, facilities renewal models, and self-assessment. A hallmark of his facilities management philosophy is his use of a "customer-driven" model. Reyes describes this model as "one in which the needs and priorities of the end-user are integrated into the service delivery model of the facilities organization."

"It is my goal," he adds, "to bring this concept to the Berkeley Lab with the objective of providing the maximum support to the research mission and developing strategic partnerships with the scientific divisions."

BRIGHT IDEA LEADS TO SHINY BUSES

At the beginning of September, Fleet Operations unveiled a long-hoped-for covered facility for washing buses and small trucks. Remarkably, no construction of any kind was required, the cost was minimal, and, as a bonus, many unneeded items were retired or scrapped. This minor miracle was the result of creative, outside-the-box thinking by some people in Site Services.

Previously, buses and trucks couldn't be washed conveniently at the Building 76 motor pool, because the wash bay was too small. The vehicles extended beyond a gutter that channels the wash water through an oil/water separator before it enters the sanitary sewer. Since Berkeley Lab's storm water permit prohibits sending such runoff down storm drains, buses had to be washed one-half at a time, then turned around to get the other half.

Working with EH&S, Fleet Operations manager Don Prestella considered several options: a

contractor with a mobile wash operation who would dispose of the wash water off-site, turnkey truck washing facilities – for close to \$100,000, and building our own facility. Nothing quite seemed to work, either because of the expense or lack of space.

Don finally realized that the solution was

continued on page 2

INSIDE

DOE Observes Energy Awareness Month	2
EPA Recognizes Building 69	
Energy Performance	2
Focus on Service: Holiday Shutdown	3
Compliments	3
Construction and You	4
Projects	5

Facilities Quarterly is available online at
<http://www.lbl.gov/Workplace/Facilities>.

DOE OBSERVES ENERGY AWARENESS MONTH

Rolling blackouts may seem a distant memory, but the need to use energy wisely is as great now as it was two years ago. This year, DOE's energy awareness theme is "A Secure Energy Future: Conserve Energy to Ensure Affordable, Reliable Power Supplies." Special promotional materials are available at the Federal Energy Management Program (FEMP) website: http://www.eren.doe.gov/femp/newsevents/energy_aware.html

By the way, here are some tips for saving those precious watts:

- Turn off printers, copiers, personal computers, and monitors when they are idle.
- Turn off lights when leaving a room for more than a minute.
- Turn on task lights; turn off general and overhead lights.
- Turn off display and decorative lights.
- Activate and use the Energy Star "power saver" and "sleep" features.
- Shut off coffee pots, radios, fans, and other appliances.
- Set thermostats to pre-cool spaces at off-peak times.
- Loosen clothing and dress casually during the warmest hours.
- Make certain vent grills are not blocked by plants, books, or furnishings.
- Close fume hood sashes.

EPA RECOGNIZES BUILDING 69 ENERGY PERFORMANCE

The US Environmental Protection Agency has awarded Building 69 an Energy Star® label for "demonstrating energy performance in the top 25% of the office buildings market while maintaining indoor environment requirements for air quality, thermal comfort, and lighting performance..."

According to Antonia Reaves, Mechanical-IHEM's energy analyst, the energy savings in Building 69 were achieved through installation of an automated control system, lighting retrofits, and Berkeley lamps.

SHINY BUSES *continued from page 1*

right in front of his own office. With Rich Gano's help, he found the best location for an additional wash station, just east of the existing wash bay. Site Services manager Bill Llewellyn gave the go-ahead and funding to reconfigure the area to accommodate the buses. An old storage area was cleaned out, opening up a new area next to the present wash bay. Larger vehicles could now be driven in under a roof and behind the gutter that needs to capture the water.

With one stroke, they accomplished several goals: capturing 100 percent of the wash water; reducing the need for off-site commercial washing, thus saving money; providing a more efficient staging area for contracted vendor oil changes; and reducing traffic congestion in the 76 Motor Pool area. As a bonus, unnecessary old equipment and racking were eliminated and the space has been productively reused, helping the Lab comply with environmental regulations.

According to Bus Supervisor Tammy Brown, things are working well, and two to three buses are washed every day. Because our air quality permit restricts use of the oil/water separator, that's about the limit of what could be done anyway. The bus drivers are happy because it's easier to wash the buses and nicer to drive a clean bus. Don Prestella is happy because vehicle washing is no longer an issue with EH&S.

And EH&S is happy, too. Says Environmental Services' Ginny Lackner, "This is a great solution to something that had been a compliance issue for some time. Now we are able to add another Best Management Practice to our list." Credit goes to both Facilities and EH&S for demonstrating an ongoing commitment to the environment and for working together to come up with a creative, positive, and low-cost solution.



Bus gets a bath in new wash area.

photo by Roy Katschmidt