

# Appendix A: BMP Details

## Part 1: Public Education and Outreach on Storm Water Impacts

BMP Number	BMP Name
1	Electronic Brochures and Flyers: General Storm Water Awareness and Targeted Topics
2	Reserved
3	Reserved
4	Reserved
5	Reserved
6	Reserved
7	Reserved
8	Storm Water Survey
9	Reserved
10	Reserved
11	Reserved
12	Web Page
13	Mark Storm Drains
14	Access to SWMP

## Part 2: Public Involvement / Participation

BMP Number	BMP Name
15	BMP Development Team: Illicit Discharge Detection and Elimination
16	BMP Development Team: Construction Sites
17	BMP Development Team: New Development
18	BMP Development Team: Food Service Facilities
19	BMP Development Team: Parking Services
20	BMP Development Team: Grounds Services
21	Reserved
22	Reserved
23	BMP Development Team: Management Controls to Prevent Illicit Discharges
24	Reserved
25	BMP Development Team: Investigation of Non-Storm Water Discharges
26	Reserved
27	Reserved
28	Reserved
29	Reserved
30	Reserved
31	Reserved
32	Reserved
33	Reserved
34	BMP Development Team: Building Exterior Maintenance
35	Storm Water Advisory Committee
36	Reserved
37	Reserved
38	Site Stewardship Program
39	Volunteers and Internships

**Part 3: Illicit Discharge Detection and Elimination**

BMP Number	BMP Name
40	Water Protection Policy
41	Dry Weather Outfall Screening Program
42	Management Controls to Prevent Cross Connections
43	Management Controls to Prevent Illicit Discharges
44	Storm Drain System Maps
45	Illicit Discharge Reporting System
46	Illicit Discharge Brochures and Flyers
47	Review of Non-storm Water Discharges

**Part 4: Construction Site Storm Water Runoff Control**

BMP Number	BMP Name
48	Campus Standards Handbook and Construction Contracts for Storm Water Management
49	Reserved
50	Reserved
51	Construction Site Inspection Procedures
52	Plan Review for Storm Water Quality Impacts
53	Reserved
54	Construction Site Storm Water BMP Training

**Part 5: New Development Design Requirements for Storm Water Management**

BMP Number	BMP Name
55	Main Campus Planning and Design Requirements for Storm Water Management and Watershed Protection
56	Pervious Paving Pilot Project
57	MSC Planning and Design Requirements for Storm Water Management and Watershed Protection
58	MBEST Planning and Design Requirements for Storm Water Management and Watershed Protection
59	Staff Training on Hydromodification and Low Impact Development
60	Operation and Maintenance of New Development BMPs
61	Reserved

**Part 6: Pollution Prevention for Operations and Maintenance**

BMP Number	BMP Name
62	BMP Training
63	Equipment and Materials Storage Areas
64	Washing University Owned Vehicles
65	Reserved
66	Reserved
67	Reserved
68	Street and Parking Lot Maintenance in Faculty/Staff Housing
69	Food Service BMPs
70	Reserved
71	Reserved
72	Reserved
73	Reserved
74	Reserved

BMP Number	BMP Name
75	Fleet Services BMPs from SWPPP
76	Integrated Pest Management Program
77	Cleaning Streets and Parking Lots
78	Storm Drain Systems Inspection and Preventative Maintenance
79	Campus Refuse/Recycling Program
80	Reserved
81	Grounds Services: Landscape Maintenance and Turf Management
82	Maintenance of Fountains and Decorative Water Bodies
83	Household Hazardous Waste Minimization
84	Reserved
85	Custodial Services BMPs
86	Building Exterior Maintenance BMPs
87	Reserved
88	Reserved
89	Reserved
90	Water Line Flushing
91	Vehicle Maintenance Prohibitions
92	Reserved
93	Pet Prohibitions
94	Homeless Encampments
95	Hazardous Waste Management Program
96	Hazardous Materials Emergency Response Organization
97	Reserved
98	Reserved
99	Reserved

### **Part 7: UCSC Specific Measures to Reduce Storm Water Impacts**

BMP Number	BMP Name
100	Stormwater Infrastructure Improvements
101	Reserved
102	Reserved
103	Reserved
104	Encourage Alternative Transportation
105	Reserved
106	Reserved
107	Existing Storm Water System Review
108	Annual Program Review

### **Part 8: BMP Task Table, Effectiveness Measurements and Measurable Goals**

**BMP # 1      Electronic Brochures and Flyers: General Storm Water Awareness and Targeted Topics****Permit Section:** D.2.a; D.2.d.2; D.2.d.3; D.2.c.5; D.2.f.1; D.2.f.2**Hyperlink:** <http://cleanwater.ucsc.edu/documents.html>**Description**

To increase awareness of storm water issues and promote pollution prevention, UCSC will develop and distribute electronic brochures. Brochure topics will include: general storm water information and awareness; storm water management at construction sites; storm water management for contractors, outside service providers and lessees; storm water management for Food Service Facilities; and storm water management for Custodial Services.

Develop basic storm water electronic brochure/flyer. In Year 1 materials will primarily focus on Main Campus storm water conditions. As needed, publications will be added/modified to address other sites and emerging storm water issues. Brochure/flyer(s) delivered to campus community segments primarily via email and web page. As needed, live presentations, tabling events and other distribution measures may be used.

A second brochure will be developed for storm water management at construction sites. The brochure shall emphasize the importance of and methods for reducing impacts from construction activities. Content shall be coordinated with PP&C Civil Engineering Project Manager. As needed, publications will be added/modified to address emerging construction related storm water issues. This brochure targets a specific community: construction project managers, construction inspectors and construction contractors. Brochure/flyer(s) delivered to construction community primarily via email and web page. As needed, this brochure may also be distributed at training sessions. This brochure will be targeted at construction site storm water quality concerns including erosion, sediment, non-visible contaminant management and litter.

A third brochure will be developed to be used in conjunction with contractual language for certain small projects contractors, service providers and lessees. This brochure is intended to document and support the management controls developed under BMP#43 and will describe discharge prohibitions and proper waste and waste water management. This brochure targets a specific community: companies and persons who lease space from UCSC and companies and persons who perform services for UCSC under purchase orders. The Storm Water Manager is responsible for brochure/flyer design and content coordination with BMP Development Team: Management Controls to Prevent Illicit Discharges (BMP #23). Initially expect that distribution will be via web page and that contract language includes web address.

A fourth brochure will be used to communicate BMPs for Food Service facilities. This brochure to incorporate food service BMP #69 requirements as well as basic storm water information regarding the importance of clean storm water, basic storm water protection practices and reporting of storm water concerns. The brochure will be available to CUHS-Dining and other food service-related operations via email, department newsletter, live presentations, web page, etc. EH&S to post flyer on web page and to notify food facility managers of its availability. CUHS-Dining Services and Food Service Contractors are responsible for posting / dissemination to affected employees. This brochure can be utilized when providing training as required by BMP #69. The Main Campus is the only facility with food service operations. This brochure targets a specific community: persons involved in food service operations at UCSC. The storm water quality concerns addressed include litter, organic materials (food wastes) and fats, oil and grease. Storm Water Manager is responsible for brochure design. Content shall be coordinated with Food Service BMP Development Team.

A fifth brochure will be used to communicate BMPs for custodial activities. This brochure to incorporate custodial services BMP #85 requirements as well as basic storm water information regarding the importance of clean storm water, basic storm water protection practices and reporting of storm water concerns. The brochure will be available via email, department newsletter, employee meetings, web page, etc. This brochure can be utilized when providing

training, as required by BMP # 85. This BMP targets a specific community: persons providing custodial services at UCSC. The storm water quality concerns addressed include toxic and organic materials (from cleaning solutions). Storm Water Manager is responsible for brochure design. Content shall be coordinated with PP-Custodial. Distribute brochure for custodial operations. Flyer available via email, department newsletter, live presentations, web page, etc. EH&S to post flyer on web page and to notify Custodial Services of its availability. Custodial Services is responsible for dissemination among affected employees.

In an effort to reduce offsite storm water impacts associated with paper production, UCSC will rely primarily on electronic brochures and flyers. The unique UCSC public generally has ready access to the internet. EH&S has email access to much of the UCSC public. And all materials will be printable, as needed.

Whenever useful, the brochures and flyers will rely on existing material developed for other storm water management programs.

This BMP was selected because implementation of a public education program is specifically required by the General Permit; because EPA guidance documents state that the public education program should inform the public about the steps they can take to reduce storm water contamination; and because UCSC believes that brochures are one of a combination of effective means for achieving compliance with the Public Education Minimum Control Measure as well as providing support for various other control measures and their BMPs including illicit discharge detection and elimination, construction site storm water runoff control and pollution prevention for operations and maintenance. EPA recommends that the public education program be tailored to target specific audiences and communities, using a mix of locally appropriate strategies. Examples of strategies include distributing brochures or fact sheets.

At UCSC, the "public" for Public Education and Outreach overlaps significantly with other control measures such as pollution prevention and construction site controls. This is because the entire public for potentially polluting activities such as construction, landscape maintenance, building maintenance, and food facility operation is a relatively small number of organizations and/or people all under employment or contract to the university.

This BMP is intended to be one of several means of public education and outreach and can be expected to address a variety of storm water quality concerns including litter, illicit discharges, erosion, etc.

The written communications will primarily be provided only in English because most segments of the UCSC public are comfortable with communications in English. However, two departments (Dining Services and Custodial Services) have a number of employees who may prefer to receive communications in Spanish. For these two departments, the written materials will be translated into Spanish.

Pollution prevention training / public education and outreach documents will discuss permissible and impermissible activities as well as how to report concerns.

#### **Effectiveness Measurement**

Determine awareness of brochures when conducting the survey described in BMP #8.

1.1

**Implementation Plan**

Storm Water Manager will be responsible for the development of the 5 specified storm water electronic brochures/flyers.

**Measurable Goals**

A general information brochure is available by end of Permit Year 1. This goal was met in the Fall of 2006. A second brochure was added in Spring 2007.

A brochure for Construction Site Controls is available by the end of Permit Year 1.

A brochure for Outside Services, Contractors and Lessees is available by the end of Permit Year 2.

A brochure for Food Service Facilities is available by the end of Permit Year 1.

A brochure for Custodial Services is available by the end of Permit Year 1.

**Frequency:** several one time actions

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** Varies

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

1.2

**Implementation Plan**

Distribute brochures.

Brochure/flyer(s) delivered to campus community segments via web page and email.

Depending upon need and opportunity, also distribute via presentations or tabling events.

Track all distribution methods used.

**Measurable Goal**

By the end of Year 1 the 4 specified brochures are available on web page. (The general information brochure was posted in the Fall of 2006. A second general information brochure on erosion from informal paths was added in 2007.)

By the end of Year 2 the fifth specified brochure is available on the web page.

At least one time per year each of the 5 required brochures is emailed to targeted audiences.

By the end of Permit Year 2, the custodial services brochure will be distributed to 100% of current employees.

At least 100 hard copies of the brochures will be distributed annually. The 100 hard copies may be a mix of any of the 5 specified brochures.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** All members of campus community: students, faculty, and staff.

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

1.3

**Implementation Plan**

Review the 5 specified brochures annually and revise as needed to address emerging campus storm water issues.

**Measurable Goal**

By end of each permit year, the 5 specified brochures have been reviewed and updated as needed.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** All members of campus community: students, faculty, and staff.

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

1.4

**Implementation Plan**

CUHS-Dining Services and Custodial Services to determine if brochures targeted to their audiences should be translated into additional languages. If yes, the affected departments or the Storm Water Manager will provide the translation. The Storm Water Manager will web post and provide initial email distribution of the translated brochures.

**Measurable Goal**

Translation need determined by the end of Permit Year 1. If translation needed, translated brochure available by October of Permit Year 2.

**Frequency:** one time

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** Non-English speaking employees in food service or custodial services.

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 2      Reserved**

**BMP # 3      Reserved**

**BMP # 4      Reserved**

**BMP # 5      Reserved**

**BMP # 6      Reserved**

**BMP # 7      Reserved**

**BMP # 8 Storm Water Survey****Permit Section:** F.1.b**Hyperlink:****Description**

Utilize surveys to determine baseline knowledge and attitudes regarding storm water within the campus community with periodic resurveys to assist in measuring and improving the effectiveness of various storm water BMPs.

In its web page discussion of attitude surveys, EPA says: ...surveys of how the public perceives storm water management can foster better planning and management programs. The results of these attitude surveys can enlighten both storm water managers and the public on pollution sources, storm water effects, and control options. Public attitude surveys can also reveal issues important to stakeholders. Program planners can use this information to determine how best to incorporate the public's needs and desires into the overall goals of a storm water management program. Attitudes toward storm water and the best management practices (BMPs) can influence the effectiveness of control measures and clean-up efforts. Determining public perceptions, expectations, and desires is an important place to start. Attitude surveys of interested parties can enlighten storm water managers about appropriate steps to take and misconceptions to dispel.

Survey(s) to be developed, designed, administered and analyzed by student interns. This BMP was selected because implementation of a public participation program is specifically required by the General Permit and because EPA guidance documents recommend attitude surveys. This BMP is intended to be one of several means of public education, outreach, participation and involvement. This BMP may be utilized to target specific audiences. This BMP may be used to address any or all storm water quality concerns.

**Effectiveness Measurement**

Track the number of surveys completed, the number of targeted surveys conducted, the number of targeted surveys completed, and the number of findings that result in changes to the SWMP.

8.1

**Implementation Plan**

Develop survey development plan: student intern(s) determine options such as availability and applicability of existing surveys, etc.

**Measurable Goal**

Survey development plan complete by December of Permit Year 2

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

8.2

**Implementation Plan**

Student intern to develop and beta test survey.

**Measurable Goal**

Survey beta tested by March 31 of Permit Year 2

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

8.3

**Implementation Plan**

Student intern to administer survey and analyze results.

**Measurable Goal**

Survey administered by April 20 of Permit Year 2. Results analyzed by June 30 of Permit Year 2.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** Entire campus community**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

8.4

**Implementation Plan**

During Permit Years 3, 4 and 5, develop and administer either a broad-based or targeted survey (as determined by the Storm Water Manager and student intern) following the guidelines established for surveys during Permit Year 2

**Measurable Goal**

Survey administered and results analyzed by June 30 of Permit Years 3, 4 and 5.

**Frequency:** annually**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** will vary**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 9      Reserved**

**BMP # 10      Reserved**

**BMP # 11      Reserved**

**BMP # 12      Web Page****Permit Section:** D.2.a.**Hyperlink:** <http://cleanwater.ucsc.edu/>**Description**

The previous UCSC storm water web page was moved to its own domain, <http://cleanwater.ucsc.edu/>, and substantially revamped in the summer of 2006. Since then, periodic updates have occurred. As of September 2008, the website includes pages on storm water concern reporting, the SWMP, an interactive map of storm drains on Scince Hill, 2 general awareness brochures, internship and volunteer opportunities and other features. The intent is for the web pages to serve as the major portal for information dissemination regarding the SWMP. Once the SWMP is approved, web page updates will be made quarterly during the permit term. This BMP was selected because EPA recommends that the Public Education Outreach strategy should make materials and activities relevant to local situations and issues, and incorporate a variety of strategies to ensure maximum coverage. A web page is a listed example of a locally appropriate strategy.

For UCSC a web site is particularly important to connect with this very "wired" community and to make materials available on a 24/7 basis, not just at single moments in time such as a mailing or participation in a single community event.

While this BMP primarily informs the public about storm water quality concerns, it can ultimately be expected to influence all aspects of storm water quality.

**Effectiveness Measurement**

Track number of web page visits.

12.1

**Implementation Plan**

On a quarterly basis, update web page with current SWMP information: SWMP, brochures/flyer, annual reports, notices for upcoming activities, etc.

Maintain and track the number of hits to the existing storm water web page.

**Measurable Goal**

Web page updated at least quarterly with current SWMP activities (copies of brochures/flyers, annual reports, notices for upcoming activities, etc.).

**Frequency:** quarterly**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** All members of campus community: students, faculty, staff and neighbors.**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 13      Mark Storm Drains**

**Permit Section:** D.2.a.; D.2.b.

**Hyperlink:** <http://cleanwater.ucsc.edu/stencil.html>

**Description**

Increase storm drain visibility to help prevent contamination of storm water.

EPA's web page discussion of storm drain stenciling includes the following:

Storm drain marking involves labeling storm drain inlets with plaques, tiles, painted or pre-cast messages warning citizens not to dump pollutants into the drain. The messages are generally a simple phrase or graphic to remind those passing by that the storm drains connect to local water bodies and that dumping will pollute those waters. Some storm drain markers specify which water body the inlet drains to or name the particular river, lake, or bay. Common messages include: "No Dumping. Drains to Water Source," "Drains to River," and "You Dump It, You Drink It. No Waste Here." In addition, storm drain markers often have pictures to convey the message, including common aquatic fauna or a graphic depiction of the path from drain to water body. Communities with a large Spanish-speaking population might wish to develop markers in both English and Spanish, or use a graphic alone.

Municipalities can undertake storm drain marking projects throughout the entire community, especially in areas with sensitive waters or where trash, nutrients, or biological oxygen demand (BOD) have been identified as high priority pollutants. However, regardless of the condition of the water body, these signs can raise awareness about the connection between storm drains and receiving waters and can help to deter littering, excess fertilizer use, dumping, and other practices that contribute to storm water pollution. Municipalities should prioritize drains for marking because marking all drains within a municipality would be prohibitively expensive. The drains should be carefully selected to send the message to the maximum number of citizens (for example, in areas of high pedestrian traffic) and to target drains leading to water bodies where illegal dumping has been identified as a source of pollution.

In 2007, a Storm Drain Marking Team was convened. The team included representatives from Physical Plant, Colleges and University Housing Services, Transportation and Parking Services, EH&S, and PP&C-Campus Architect. The team selected markers and designated locations to be marked. Markers were installed at several locations in the summer of 2007. Markers will be installed at additional locations during the permit term.

Volunteers will be sought to identify locations where markers are missing or damaged.

This BMP was selected because implementation of a public education program is specifically required by the General Permit; because EPA fact sheets suggest that MS4s should strive to make their materials and activities relevant to local situations and issues; and because EPA recommends incorporating a variety of strategies including storm drain stenciling.

This BMP is one of several selected strategies for public education, outreach, involvement and participation. The intent of this BMP is primarily to educate and to help avert illegal discharges.

**Effectiveness Measurement**

Track % of drains marked.

13.1

**Implementation Plan**

Establish storm drain marking team with members from PP&C, PP-Grounds, CUHS, TAPS, and EH&S. During Permit Year 1, storm drain marking team to meet and select markers and designate locations to be marked.

**Measurable Goal**

Markers selected and marker purchase made prior to end of Permit Year 1. This goal was met in September 2007

**Frequency:** one time

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

13.2

**Implementation Plan**

Implement the marking schedule during Permit Years 1-3.

**Measurable Goal**

By the end of Permit Year 3, mark 100% of storm drains located on Primary and Secondary roads.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** All members of campus community: students, faculty, staff and neighbors.

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

13.3

**Implementation Plan**

Implement the marking schedule during Permit Years 1-4.

**Measurable Goal**

By the end of Year 3, mark 80% of storm drains on CUHS service roads.

By the end of Year 4, mark 100% of storm drains on CUHS service roads.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** All members of campus community: students, faculty, staff and neighbors.

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** CUHS-Facilities

13.4

**Implementation Plan**

Implement the marking schedule during Permit Years 1-4.

**Measurable Goal**

By the end of Year 3, mark 80% of storm drains in main campus parking lots.

By the end of Year 4, mark 100% of all parking lots.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** All members of campus community: students, faculty, staff and neighbors.**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** TAPS

13.5

**Implementation Plan**

Utilize volunteers/interns to identify locations where the markers are missing or damaged.

**Measurable Goal**

By the end of Permit Year 3, mark 100% of storm drains located on Primary and Secondary roads.

By the end of Year 3, mark 80% of storm drains on CUHS service roads.

By the end of Year 4, mark 100% of storm drains on CUHS service roads.

By the end of Year 3, mark 80% of storm drains in main campus parking lots.

By the end of Year 4, mark 100% of all parking lots.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** All members of campus community: students, faculty, staff and neighbors.**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

13.6

**Implementation Plan**

Storm drain marking team to determine additional locations for storm drain marker installation and schedule for installation. Storm Water Manager to seek a student representative to join the team.

**Measurable Goal**

By the end of year 3, marking team has reconvened and developed an action plan for any additional marking.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** All members of campus community: students, faculty, staff and neighbors.**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 14 Access to SWMP****Permit Section:** D.2.a.; D.2.b.**Hyperlink:****Description**

Engage campus community in implementing SWMP. Make SWMP and annual reports available at EH&S Office, McHenry Library and on web page.

This BMP was selected because implementation of a public education program is specifically required by the General Permit; because EPA fact sheets suggest that MS4s should strive to make their materials and activities relevant to local situations and issues; and EPA recommends incorporating a variety of strategies to ensure maximum coverage.

The intent of this BMP is to inform the public about the Storm Water Management Program.

**Effectiveness Measurement**

Track # of complaints to Public Information Office and Storm Water Manager from people who cannot access the SWMP.

14.1

**Implementation Plan**

Make SWMP available at EH&S Office, McHenry Library and on web page.

**Measurable Goal**

SWMP available at designated locations within 30 days of RWQCB approval.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** All members of campus community: students, faculty, staff and neighbors.**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

14.2

**Implementation Plan**

Make annual reports available at EH&S Office, McHenry Library and on web page.

**Measurable Goal**

Annual reports available at designated locations within 30 days of completion. At same time, verify SWMP still available at all locations.

**Frequency:** annually**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** All members of campus community: students, faculty, staff and neighbors.**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 15      BMP Development Team: Illicit Discharge Detection and Elimination****Permit Section:** D.2.b.; D.2.c.1; D.2.c.2; D.2.c.3; D.2.c.4; D.2.c.5; D.2.c.6**Hyperlink:****Description**

Increase BMP buy-in by having affected groups develop their own BMPs.

During the development of the SWMP, EH&S communicated with many groups (via email and meetings) to develop the illicit discharge and elimination program element (BMPs: #41, 42, 43, 44, 45, 46, and 47).

This BMP was selected because implementation of a public participation and involvement program is specifically required by the General Permit; and because EPA guidance suggests partnering with stakeholders for both the development and implementation of BMPs to maximize effectiveness.

This BMP directly involved the affected UCSC public in the development of BMPs.

BMPs developed by this team are selected to address storm water quality concerns from potential illicit discharges such as organic and toxic materials.

**Effectiveness Measurement**

Team members included departments and/or persons with significant impact on Illicit Discharge Detection and Elimination. Team has developed BMPs that meet MEP.

15.1

**Implementation Plan**

During the development of the SWMP, EH&S communicated with many groups (via email and meetings) to develop the illicit discharge and elimination program element.

**Measurable Goal**

BMPs selected prior to Permit Year 1. BMP selection completed as of March 2006.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 16      BMP Development Team: Construction Sites****Permit Section:** D.2.b.; D.2.d.1; D.2.d.2; D.2.d.3; D.2.d.4; D.2.d.5; D.2.d.6**Hyperlink:****Description**

Increase BMP buy-in by having affected groups develop their own BMPs.

During the development of the SWMP, EH&S communicated with PP&C and PP-Work Management (via email and meetings) to develop BMPs for construction sites. The team developed the following BMPs: #48, 51, 52 and 54.

This BMP was selected because implementation of a public participation and involvement program is specifically required by the General Permit; because EPA guidance suggests partnering with stakeholders for both the development and implementation of BMPs to maximize effectiveness.

This BMP directly involved the affected UCSC public in the development of BMPs.

BMPs developed by this team are selected to address storm water quality concerns from construction sites such as erosion, sediment, litter and toxic materials.

**Effectiveness Measurement**

Team members included departments and/or persons with significant impact on construction sites. Team has developed BMPs that meet MEP.

16.1

**Implementation Plan**

During the development of the SWMP, EH&S communicated with PP&C and PP-Work Management (via email and meetings) to develop BMPs for construction sites.

**Measurable Goal**

BMPs selected prior to Permit Year 1. BMP selection completed as of March 2006.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 17      BMP Development Team: New Development****Permit Section:** D.2.b.; D.2.e.1; D.2.e.2; D.2.e.3; D.2.e.4**Hyperlink:****Description**

Increase BMP buy-in by having affected groups develop their own BMPs.

During the development of the SWMP, EH&S communicated with PP&C and PP-Grounds (via email and meetings) to develop the New Development Design Requirement for Storm Water Management. The team developed the following BMPs: #55, 56, 57, 58, 59 and 60.

This BMP was selected because implementation of a public participation and involvement program is specifically required by the General Permit; because EPA guidance suggests partnering with stakeholders for both the development and implementation of BMPs to maximize effectiveness.

This BMP directly involved the affected UCSC public in the development of BMPs.

BMPs developed by this team are selected to address storm water quality concerns from new developments including increased flow rates and volume.

**Effectiveness Measurement**

Team members included departments and/or persons with significant impact on new development standards. Team has developed BMPs that meet MEP.

17.1

**Implementation Plan**

During the development of the SWMP, EH&S communicated with PP&C and PP-Grounds (via email and meetings) to develop the New Development Design Requirement for Storm Water Management.

**Measurable Goal**

BMPs selected prior to Permit Year 1. Initial BMP selection completed December 2006.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** PP&C, PP-Grounds**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 18      BMP Development Team: Food Service Facilities****Permit Section:** D.2.b.; D.2.f.1**Hyperlink:****Description**

In order to increase BMP buy-in and to ensure the selection of appropriate and effective BMPs, a food service facilities BMP Development Team was formed. The team consisted of representatives from: EH&S, CUHS-Dining Services, CUHS-Facilities, PP-Custodial and PP-Grounds. The team had an initial meeting and follow-up email discussions. The team developed BMP #69.

This BMP was selected because implementation of a public participation and involvement program is specifically required by the General Permit; because EPA guidance suggests partnering with stakeholders for both the development and implementation of BMPs to maximize effectiveness.

This BMP directly involved the affected UCSC public in the development of BMPs.

BMPs developed by this team are selected to address storm water quality concerns from fats, oil and grease (FOG), litter and toxic materials.

**Effectiveness Measurement**

Team members included departments and/or persons with significant impact on food service facilities.

18.1

**Implementation Plan**

Team members identified.

Team meeting held.

Draft BMPs discussed.

BMPs selected.

**Measurable Goal**

BMPs selected prior to Permit Year 1. BMP selection completed August 2005.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** CUHS-Dining Services, CUHS-Facilities, PP-Custodial, PP-Grounds, PP-Plumbing

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 19      BMP Development Team: Parking Services****Permit Section:** D.2.b.; D.2.f.1**Hyperlink:****Description**

Increase BMP buy-in by having affected groups develop their own BMPs.

During the development of the SWMP, EH&S communicated with TAPS-Parking Services (via email and meetings) to develop BMPs for parking lots and bus stops.

This BMP was selected because implementation of a public participation and involvement program is specifically required by the General Permit; and because EPA guidance suggests partnering with stakeholders for both the development and implementation of BMPs to maximize effectiveness.

This BMP directly involved the affected UCSC public in the development of BMPs.

BMPs developed by this team are selected to address storm water quality concerns associated with discharges from parking lots and bus stops such as oil and grease, litter and toxic materials.

**Effectiveness Measurement**

Team members included departments and/or persons with significant impact on parking services. Team has developed BMPs that meet MEP.

19.1

**Implementation Plan**

Team members identified.

Team meeting held.

Draft BMPs discussed.

BMPs selected.

**Measurable Goal**

BMPs selected prior to Permit Year 1. BMP selection completed August 2005.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** TAPS-Parking Services**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 20      BMP Development Team: Grounds Services****Permit Section:** D.2.b.; D.2.f.1**Hyperlink:****Description**

Increase BMP buy-in by having affected groups develop their own BMPs.

During the development of the SWMP, EH&S communicated with PP-Grounds Services (via email and meetings) to document existing practices and, where needed, to develop BMPs for Integrated Pest Management, Turf Management, Landscape Management, Street Sweeping and Recycling. The team developed the following BMPs: #76, 77, 79 and 81.

This BMP was selected because implementation of a public participation and involvement program is specifically required by the General Permit, because EPA guidance suggests partnering with stakeholders for both the development and implementation of BMPs to maximize effectiveness.

This BMP directly involved the affected UCSC public in the development of BMPs.

BMPs developed by this team are selected to address storm water quality concerns from litter, toxic materials, organic materials and erosion.

**Effectiveness Measurement**

Team members included departments and/or persons with significant impact on Grounds Services. Team has developed BMPs that meet MEP.

20.1

**Implementation Plan**

Team members identified.

Team meeting held.

Draft BMPs discussed.

BMPs selected.

**Measurable Goal**

BMPs selected prior to Permit Year 1. Initial BMP selection completed December 2006.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** PP-Grounds**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 21      Reserved**

**BMP # 22      Reserved**

**BMP # 23      BMP Development Team: Management Controls to Prevent Illicit Discharges**

**Permit Section:** D.2.b.; D.2.c.1; D.2.c.3; D.2.c.4; D.2.c.5

**Hyperlink:**

**Description**

Prevent illicit discharges from outside small contractors, outside services and lessees. For UCSC, this population is equivalent to independent businesses operating within a traditional MS4. Because this population is under contract at UCSC, it is appropriate to prohibit illicit discharges from this population by contract rather than by ordinance. During Permit Years 1 and 2, EH&S to communicate with Purchasing and PP-Work Management and other affected departments to develop boilerplate contract language prohibiting illicit discharges to storm water (as described in BMP #43). This BMP was selected because implementation of a public participation and involvement program is specifically required by the General Permit; because EPA guidance suggests partnering with stakeholders for both the development and implementation of BMPs to maximize effectiveness. This BMP will directly involve the affected UCSC public in the development of BMPs. BMPs developed by this team will be selected to address storm water quality concerns associated with illicit discharges such as organic and toxic materials.

**Effectiveness Measurement**

Team members include departments and/or persons with significant impact on contractual controls to prevent illicit discharges. Team develops BMPs that meet MEP.

23.1

**Implementation Plan**

During Permit Years 1 and 2, EH&S to communicate with Purchasing, PP-Work Management and other affected departments to develop boilerplate contract language prohibiting illicit discharges to storm water (as described in BMP #43).

**Measurable Goal**

Boilerplate contract language adopted by the end of Permit Year 2.

**Frequency:** one time

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 24      Reserved**

**BMP # 25      BMP Development Team: Investigation of Non-Storm Water Discharges**

**Permit Section:** D.2.b.; D.2.c.6

**Hyperlink:**

**Description**

As described in BMP #47 (Review of Non-Storm Water Discharges), during the development of the SWMP, 17 categories of non-storm water flows were examined to determine if UCSC has these flows at the facilities covered by the SWMP and if so, whether these flows might impact storm water quality. That review identified 7 flows requiring additional investigation. During Permit Years 2 and 3, teams will investigate these 7 flows. The team will determine if the flows occur, and if so, how they should be addressed. This BMP was selected because implementation of a public participation and involvement program is specifically required by the General Permit; because EPA guidance suggests partnering with stakeholders for both the development and implementation of BMPs to maximize effectiveness. This BMP will directly involve the affected UCSC public in the development of BMPs. This investigation will be designed to ensure that non-storm water discharges do not lead to storm water quality concerns such as erosion and organic or toxic material discharges.

**Effectiveness Measurement**

All potential non-storm water flows characterized and where needed a BMP is in place.

25.1

**Implementation Plan**

During Permit Year 2, the 3 water line flushing flows (Main Campus, MSC and 2300 Delaware) and 2 potential flows from 2300 Delaware (uncontaminated ground water infiltration, and air conditioning condensation) will be investigated. The team will determine if the flows occur, and if so, how they should be addressed. If an action plan is needed to abate or to treat flows, it shall be implemented as soon as possible and shall include interim control measures for any actions which will require more than 6 months to implement.

**Measurable Goal**

By the end of Permit Year 2, investigation and an action plan are complete for water line flushing and for potential flows at 2300 Delaware.

**Frequency:** one time

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

25.2

**Implementation Plan**

During Permit Year 3, the potential non-storm water flows from residential car washing at MSC, Family Student Housing and Faculty/Staff Housing will be investigated. The team will determine if the flows occur, and if so, how they should be addressed. If an action plan is needed to abate or to treat flows, it shall be implemented as soon as possible and shall include interim control measures for any actions which will require more than 6 months to implement.

**Measurable Goal**

By the end of Permit Year 3, investigation and an action plan are complete for residential car washing flows.

**Frequency:** one time

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** Campus residents

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 26      Reserved**

**BMP # 27      Reserved**

**BMP # 28**      **Reserved**

**BMP # 29      Reserved**

**BMP # 30      Reserved**

**BMP # 31      Reserved**

**BMP # 32      Reserved**

**BMP # 33      Reserved**

**BMP # 34      BMP Development Team: Building Exterior Maintenance**

**Permit Section:** D.2.b.; D.2.f.1

**Hyperlink:**

**Description**

During Permit Year 1, EH&S will communicate with PP-Paint Shop, CUHS-Facilities, PP-Custodial and other affected departments to develop BMPs for exterior building maintenance. This is an effort to increase BMP buy-in by having affected groups develop their own BMPs. Generally recognized applicable BMPs will be reviewed. BMPs will be selected and an implementation plan developed by the end of Permit Year 1. This will apply to the main campus, MSC and 2300 Delaware.

This BMP was selected because implementation of a public participation and involvement program is specifically required by the General Permit; because EPA guidance suggests partnering with stakeholders for both the development and implementation of BMPs to maximize effectiveness.

This BMP will directly involve the affected UCSC public in the development of BMPs.

The BMPs selected by this team will be intended to address storm water quality concerns associated with building exterior maintenance such as organic and toxic material discharges.

**Effectiveness Measurement**

Team members included departments and/or persons with significant impact on building exterior maintenance. Team has developed an implementation plan to meet MEP.

34.1

**Implementation Plan**

During Permit Year 1, EH&S to communicate with PP-Paint Shop, CUHS-Facilities, PP-Custodial and other affected departments to develop BMPs for exterior building maintenance.

**Measurable Goal**

Generally recognized applicable BMPs reviewed. BMPs selected and implementation plan developed by the end of Permit Year 1.

**Frequency:** one time

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** All staff who maintain building exteriors

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 35 Storm Water Advisory Committee****Permit Section:** D.2.b.**Hyperlink:****Description**

CLUMAC (Campus Land Use Management Advisory Committee) will be informed of SWMP-related activities and may offer guidance and assistance in implementing the SWMP. EH&S will make semi-annual presentations to CLUMAC on the SWMP. Interested parties may bring issues to CLUMAC for recognition and guidance.

**Campus Land Use Management Advisory Committee**

**Charge:** The Campus Land Use Management Advisory Committee (CLUMAC) advises the Senior Superintendent of Grounds Services in the management of campus lands within the context of the current Long Range Development Plan, LRDP-EIR and the campus's Long Range Development Plan Implementation Program (LRDPIP); reviews and advises on the direction set forth and the implementation of the Landscape Management Program; and recommends the use of campus natural resources. The committee reviews proposals for land uses and management issues or other changes in campus resource lands and protected landscapes. The committee reviews current management practices in the developed campus, undeveloped campus land and transition areas and provides recommendations for grounds and land management. The committee works closely with the UCSC Natural Reserves Advisory Committee and is advised as to the status of the environmental reserve lands. The committee reviews management procedures dealing with sensitive land management issues, such as vegetation management for fire protection, storm water management, wildlife protection and control, pesticide use, grassland and forest management, off-road bicycle use, etc.

Membership includes representative(s) from staff, faculty, graduate students, and undergraduate students. Ex-officio members include: Senior Superintendent Grounds Services, Natural Reserves Director, Environmental Programs Manager and representatives from Campus Police and Campus Fire. Graduate student representative(s) and undergraduate student representative(s) are normally designated by the Graduate Student Union Assembly and Student Union Assembly, respectively.

Meeting Frequency: Quarterly.

This BMP was selected because implementation of a public participation and involvement program is specifically required by the General Permit; because EPA guidance suggests partnering with stakeholders for both the development and implementation of BMPs to maximize effectiveness.

This BMP will directly involve the affected UCSC public in the implementation of BMPs.

**Effectiveness Measurement**

Tally the number of issues brought to CLUMAC for consideration and recommendation.

35.1

**Implementation Plan**

CLUMAC will be informed of SWMP-related activities and may offer guidance and assistance in implementing the SWMP. EH&S will make at least semi-annual presentations to CLUMAC on the SWMP. Interested parties may bring issues to CLUMAC for recognition and guidance.

**Measurable Goal**

At least twice a year, SWMP issues will be included in the CLUMAC agenda.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** CLUMAC Committee Chair

**BMP # 36      Reserved**

**BMP # 37      Reserved**

**BMP # 38 Site Stewardship Program****Permit Section:** D.2.a.; D.2.b.**Hyperlink:** [http://ucscplant.ucsc.edu/ucscplant/Grounds/index.jsp?page=Stewardship\\_Program](http://ucscplant.ucsc.edu/ucscplant/Grounds/index.jsp?page=Stewardship_Program)**Description**

The UCSC Site Stewardship Program is an ongoing program within the PP-Grounds department. The Site Stewardship Program organizes a team of interns and volunteers to take on ecological restoration and guardianship for sensitive natural areas within the UCSC campus. More details can be found on the web site (see hyperlink).

A summary of program activities will be included in the annual report. This BMP was selected because implementation of a public participation program is specifically required by the General Permit and because EPA guidance suggests a mix of locally appropriate strategies be used. Site restoration work days are one example of a locally appropriate participation event.

This BMP addresses storm water quality concerns such as erosion and sediment and improves the ecological services of the local environment.

**Effectiveness Measurement**

NA

38.1

**Implementation Plan**

Continue the UCSC Site Stewardship Program.

**Measurable Goal**

A minimum of 2 work days will be held each year with at least 8 participants per work day.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** All members of campus community: students, faculty, staff and neighbors.**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

**BMP # 39**      **Volunteers and Internships****Permit Section:** D.2.a.; D.2.b.**Hyperlink:****Description**

Involve students and possibly others in developing and implementing the SWMP with a focus on unique solutions due to their areas of interest/expertise.

Recruit volunteers and student interns to assist in developing and implementing BMPs.

Potential projects: creating electronic documents; web page design; inspecting storm drain markings; clean-up events; landscape restoration; survey design, administration and analysis; and creative projects (visual or performance-based) to increase storm water awareness.

Volunteers and interns will be sought on an as-needed basis, but at least twice per year. Sources that may be used to locate volunteers and interns include: the Environmental Studies Major Internship Program, Student Career Center Internship Program, ARC Center Volunteer Connection, Student Environmental Center, and targeted classroom announcements. This BMP was selected as a key component of the public participation program to fulfill the General Permit requirement for public involvement in a locally appropriate way that builds upon the interests and special knowledge of a University community to spread the storm water message in both typical and unique ways. As of Fall 2006, volunteers and interns have already made significant contributions. Completed student projects include an information brochure, a survey of litter in campus drainages, designing new web pages for the storm water program, and a student attitude survey of environmental impacts of ad hoc paths. The potential for this program is limited only by the interests of the volunteers and interns who participate in the program.

**Effectiveness Measurement**

At least 2 definable projects implementing the SWMP are completed per year.

39.1

**Implementation Plan**

Recruit volunteers and student interns to assist in developing and implementing BMPs.

**Measurable Goal**

Interns perform at least 200 hours per year of service for the storm water program.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** Faculty and students**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 40 Water Protection Policy****Permit Section:** B.1; B.2; B.3; D.2.c.1; D.2.c.3; D.2.c.6**Hyperlink:****Description**

UCSC will develop and adopt a water protection policy. This policy will apply to both storm water and wastewater discharges. The storm water provisions of the policy will include the discharge prohibitions described in the MS4 general permit as well as procedures for enforcement of policy provisions including penalty provisions.

Appendix E: University Authority, describes the legal authority of UCSC to adopt policies and procedures regulating environmental health and safety on campus.

The policy will be developed in accordance with guidelines established by the UCSC Policy Coordination Office.

The policy will be drafted to include the following storm water elements:

1. Definitions
2. Applicability
3. Responsibilities
4. Prohibitions for Illicit Discharges, Illicit Connections, and Non-Storm Water Discharges
5. Requirements to Implement SWMP BMPs
6. Requirement to Eliminate Illegal Discharges
7. Enforcement

**Effectiveness Measurement**

Track the number of policy violations. Track the enforcement mechanisms used to resolve policy violations.

40.1

**Implementation Plan**

Storm Water Manager will work with the Policy Coordination Office to develop a draft policy for campus review and adoption by Chancellor.

**Measurable Goal**

Water Protection Policy adopted during permit Year 1.

**Frequency: Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** All persons on campus.

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** Chancellor

40.2

**Implementation Plan**

Once the policy is adopted, the Water Protection Policy shall be implemented in accordance with campus guidelines.

**Measurable Goal**

A publicity mechanism such as campus wide email will be used to inform all members of the campus community of the new policy.

**Frequency:** one time for publicity; ongoing for implementation

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** All persons on campus.

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** Environmental Programs Manager

**BMP # 41 Dry Weather Outfall Screening Program**

**Permit Section:** D.2.c.4

**Hyperlink:** [http://www.epa.gov/npdes/pubs/idde\\_manualwithappendices.pdf](http://www.epa.gov/npdes/pubs/idde_manualwithappendices.pdf)

**Description**

After outfall maps are completed, a field screening program will be developed to monitor all outfalls for non-storm water discharges. The outfall screening program will be based upon the EPA Guidance Manual Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments by the Center for Watershed Protection( hyperlink: [http://www.epa.gov/npdes/pubs/idde\\_manualwithappendices.pdf](http://www.epa.gov/npdes/pubs/idde_manualwithappendices.pdf).) An outfall screening team in conjunction with PP-Plumbing and EH&S will investigate the source of all dry weather flows and follow-up to eliminate any discovered illicit discharges. Elimination of detected discharges is anticipated to generally be simpler than for a typical municipal program due to several factors:

- UCSC primarily relies on small discrete storm water piping systems. Therefore, most outfalls are served by a small number of inlets. The short piping runs and small number of inlets facilitate tracking. UCSC staff will have access to inlets; UCSC staff will not need to enter private property to access inlets.
- Due to climate and site conditions, the majority of outfalls will be dry during dry weather. Therefore, any flow not expected to be groundwater or spring flow should be investigated.
- A high level of institutional cooperation exists for correction of problem conditions.

Field test kits may be utilized for sources not identified by visual investigation. This BMP was selected because it is part of an illicit discharge detection program and is recommended by the EPA in Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments by the Center for Watershed Protection. The storm water quality concerns addressed by this BMP are related to illicit and improper discharges such as organic and toxic materials.

**Effectiveness Measurement**

Screening identifies and eliminates discharges or provides verification that non-storm water discharges are not occurring. This shall be measured by comparing the number of outfalls screened with the number of discharges found, the number of illicit discharges found, and the number of illicit discharges eliminated.

41.1

**Implementation Plan**

Outfall screening team is developed and trained. Storm Water Manager shall coordinate the team. EHS, PP-Grounds, PP-Plumbing, LML-Facilities and MBEST shall participate.

**Measurable Goal**

Team developed and trained during Permit Year 3.

**Frequency:** one time

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

41.2

**Implementation Plan**

Main Campus outfalls screened by outfall screening team. Actual responsibilities shall be determined.

**Measurable Goal**

All outfalls screened during Permit Years 4 and 5. Detected non-storm water discharges are investigated.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

41.3

**Implementation Plan**

MBEST outfalls screened.

**Measurable Goal**

All outfalls screened in Permit Years 3, 4 and 5. Detected non-storm water discharges are investigated.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:**

**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** MBEST

41.4

**Implementation Plan**

MSC and Delaware outfalls screened by outfall screening team. Responsibilities to be determined.

**Measurable Goal**

All outfalls screened in Permit Years 3, 4 and 5. Detected non-storm water discharges are investigated.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:**

**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

**BMP # 42 Management Controls to Prevent Cross Connections**

Permit Section: D.2.c.1

Hyperlink: [http://ucscplant.ucsc.edu/ucscplant/Building\\_Utility/index.jsp?page=Commissioning](http://ucscplant.ucsc.edu/ucscplant/Building_Utility/index.jsp?page=Commissioning)**Description**

Prevent cross connections between the sanitary sewer and storm drain systems.

UCSC utilizes a rigorous planning, design, construction management and commissioning process to ensure cross connections do not occur. This existing process ensures that proper connections are made for the sanitary sewer and storm drains. It is effective and comprehensive because UCSC either performs all plumbing connections or contracts for the plumbing work. MBEST lessees may undertake minor plumbing connections only after approval by UCSC. during the design process, Physical Plant staff reviews construction plans. During construction, PP&C or PP-Work Management has oversight for all construction. See process flow chart on SWMP page 39. Additionally, new construction is subject to commissioning prior to use, as described in the hyperlink above.

This BMP was drafted because it explains the activities routinely utilized by UCSC to ensure that cross connections do not occur.

The storm water quality concerns addressed by this BMP is the prevention of sewage discharges containing organic and toxic materials.

**Effectiveness Measurement**

Cross connections are not detected by BMP #41 Dry Weather Outfall Screening Program.

42.1

**Implementation Plan**

Continue the existing rigorous planning, design, construction management and commissioning process for new construction to ensure cross connections or other illicit connections do not occur.

**Measurable Goal**

All new plumbing work is verified either through the building commissioning process or by the PP-Plumbing Department.

Frequency: ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

Targeted audience: NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Primary Implementers: PP-Work Management

42.2

**Implementation Plan**

For new construction, the City of Marina will provide planning, design, permitting and construction inspections to ensure cross connections or other illicit connections do not occur.

**Measurable Goal**

All plumbing work associated with new construction will be permitted through the City of Marina.

Frequency: ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

Targeted audience: NA

**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Primary Implementers: MBEST

**BMP # 43 Management Controls to Prevent Illicit Discharges**

**Permit Section:** D.2.c.1; D.2.c.3; D.2.c.4; D.2.c.5

**Hyperlink:****Description**

In order to prevent the occurrence of unpermitted discharges from small projects, outside contractors/service personnel and at MBEST from lessees: boilerplate language will be adopted to be included in work/service contracts and leases prohibiting improper, outside or storm drain disposal of wastes, wastewaters etc. The outside contractors and personnel are typically retained through either Purchasing or Physical Plant Work Management. Purchasing also participates in the development of the MBEST leases. During Permit Year 2, EH&S will work with these two groups to select appropriate language to prevent illicit storm water discharges. This language will be used in affected documents beginning in Permit Year 3. This language will be supported by an electronic brochure developed under BMP #1, Electronic Brochures and Flyers: General Storm Water Awareness and Targeted Topics.

Management controls to prevent illicit discharges from various campus operations and student activities, are addressed as Pollution Prevention for Operations and Maintenance BMPs. Discharges from construction projects are controlled by the requirements of BMPs #48, #51, and #52. This BMP was selected because as a non-traditional MS4, outside contractors and service personnel are one of the more likely potential sources for illicit discharges. Contract language prohibiting such discharges is an effective mechanism for prohibiting and eliminating such discharges.

The storm water quality concerns addressed by this BMP are related to illicit and improper discharges such as organic and toxic materials.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

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43.1

**Implementation Plan**

The Storm Water Manager shall work with Purchasing, PP-Work Management, and MBEST to develop boilerplate language for leases and work/service contracts prohibiting improper, outside or storm drain disposal of wastes. The group shall determine applicable situations and develop language during Permit Year 2. The contractor brochure developed for BMP #1, Electronic Brochures and Flyers: General Storm Water Awareness and Targeted Topics, will be referred to in the contract language.

**Measurable Goal**

During Permit Year 2, applicable situations identified and boilerplate contract language adopted.

**Frequency:** one time

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** Service providers, contractors, lessees

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** Purchasing

43.2

**Implementation Plan**

Boilerplate storm water language used in affected documents beginning in Permit Year 3.

**Measurable Goal**

During Permit Years 3-5, boilerplate contract language used.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** Service providers, contractors, lessees**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** Purchasing

**BMP # 44 Storm Drain System Maps**

**Permit Section:** D.2.c.2

**Hyperlink:**

**Description**

Storm drain system maps are intended to aid in identifying illicit discharges and targeting system maintenance and monitoring. The UCSC Main Campus, MSC, 2300 Delaware and MBEST storm drain outfall maps will be reviewed and updated to show all existing storm drain outfalls. Receiving waters shall also be identified and located. This BMP was selected to comply with General Permit Requirement D.2.c.2. This BMP is not intended to address any specific storm water quality concern. It does serve as an important tool for describing the storm water conveyance systems and implementing other BMPs.

**Effectiveness Measurement**

Once initial maps are completed, annual review verifies 100% of changes have been incorporated.

44.1

**Implementation Plan**

The UCSC Main Campus storm drain infrastructure map will be reviewed by PP-Grounds to indicate all existing outfalls; receiving waters shall be identified and located.

**Measurable Goal**

During Permit Year 1, the storm drain map for Main Campus is completed.

**Frequency:** one time

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

44.2

**Implementation Plan**

The UCSC Main Campus storm drain infrastructure map will be updated by PP&C to reflect changes indicated by PP-Grounds.

**Measurable Goal**

During Permit Year 1, the storm drain map for Main Campus is completed.

**Frequency:** one time

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP&C

44.3

**Implementation Plan**

The MSC and 2300 Delaware storm drain infrastructure maps will be reviewed by PP-Grounds to show existing outfalls; receiving waters shall be identified and located.

**Measurable Goal**

During Permit Year 2, storm drain maps for 2300 Delaware and MSC are completed.

**Frequency:** one time

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

44.4

**Implementation Plan**

The MSC and 2300 Delaware storm drain infrastructure maps will be updated by PP&C to reflect changes indicated by PP-Grounds.

**Measurable Goal**

During Permit Year 2, storm drain maps for 2300 Delaware and MSC are completed.

**Frequency:** one time

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP&C

44.5

**Implementation Plan**

The MBEST storm drain infrastructure maps will be reviewed and updated by MBEST to show existing outfalls; receiving waters shall be identified and located.

**Measurable Goal**

During Permit Year 3, storm drain map for MBEST is completed.

**Frequency:** one time

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** MBEST

44.6

**Implementation Plan**

During May or June of each year, storm drain maps for the Main campus, 2300 Delaware and MSC will be reviewed by PP-Grounds to ensure 100% of changes have been incorporated. Main Campus review to begin in Year 2. MSC and 2300 Delaware review to begin in Year 3.

**Measurable Goal**

Affected departments verify that maps are complete.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

44.7

**Implementation Plan**

PP&C will update the storm drain maps for the Main campus, 2300 Delaware and MSC to incorporate changes due to completion of capital projects and as indicated by PP-Grounds review.

**Measurable Goal**

Affected departments verify that maps are complete.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP&C

44.8

**Implementation Plan**

During May or June of each year, storm drain maps for MBEST will be reviewed by MBEST to ensure 100% of changes have been incorporated. MBEST will update the storm drain maps to incorporate changes due to completion of capital projects and as indicated by facility review. MBEST review to begin in Year 4.

**Measurable Goal**

Affected departments verify that maps are complete.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** MBEST

**BMP # 45 Illicit Discharge Reporting System**

**Permit Section:** D.2.a.; D.2.c.1; D.2.c.4; D.2.d.5

**Hyperlink:**

**Description**

In the fact sheet for Illicit Discharge Detection and Elimination Program Development EPA states: Sources of illicit discharges in urban areas are numerous and seemingly ever-present. All urban municipalities can benefit from establishing a comprehensive program to address these non-storm water discharges, including reporting hotlines and response procedures. Establishing a strong municipal program with clear policies and procedures will ensure that individual incidents are addressed consistently.

EH&S will establish a storm water illicit discharge reporting system with the following components: a telephone number staffed during regular working hours by a trained attendant; 24-hour emergency reporting to 9-1-1; web-based reporting monitored during regular working hours by a trained attendant; written procedures for collecting reports and conducting follow-up investigations and/or corrective actions; a system for tracking all reports made and their disposition; publicizing the reporting system in outreach materials/activities. The reporting system will additionally provide for public input/complaints regarding construction site storm water.

The system will be established during Permit Year 1. In addition to directing timely and effective responses to concerns about storm water management and providing an ongoing connection to the public, the reporting system will assist in measuring the effectiveness for many of the BMPs in the SWMP and may identify areas requiring additional BMPs.

This BMP was selected as one of the measures to comply with General Permit requirement to establish an illicit discharge detection system.

The storm water quality concerns addressed by this BMP are related to improper and illicit discharges such as sediment from construction sites, as well as spills and illegal dumping of organic and toxic materials.

**Effectiveness Measurement**

Track number of reports received. Track % of reports that represent an illicit discharge or threat of illicit discharge. Track % of reports closed and number of days to closure. Track types of publicity used.

45.1

**Implementation Plan**

Establish an illicit discharge reporting system with the following components: telephone number with trained attendant; emergency reporting to 9-1-1; web-based reporting; written reporting, investigation and corrective action procedures; and report tracking.

The system will include provisions for input/complaints regarding construction site storm water runoff concerns.

**Measurable Goal**

The system will be established during Permit Year 1.

**Frequency:** one time

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** All members of the campus community.

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

45.2

**Implementation Plan**

Operate the illicit discharge reporting system

**Measurable Goal**

All components of the system are in place.  
100% of reports are investigated.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** All members of the campus community.**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

45.3

**Implementation Plan**

All new construction sites with a construction site sign, as specified in the Campus Standards Division II, Section 02800 (<http://ppc.ucsc.edu/standards/specifications/02000.pdf>), shall include a notice about how to report storm water concerns, which includes the illicit discharge reporting phone number.

**Measurable Goal**

A storm water concerns reporting notice is included in the signage at all applicable construction sites.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** All members of the campus community.**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP&C

45.4

**Implementation Plan**

Publicize the illicit discharge reporting system. Publicity mechanisms may include: web information, employee training sessions, PSAs (Public Service Announcements), tabling events, dining hall table tent-type brochures and other postings, etc.

**Measurable Goal**

Publicity mechanisms are employed annually.

**Frequency:** annually**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** All members of the campus community.**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

45.5

**Implementation Plan**

Annually review reports to the system to determine system effectiveness and opportunities for improvements.

**Measurable Goal**

Annual review is completed and documented.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** All members of the campus community.

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 46 Illicit Discharge Brochures and Flyers****Permit Section:** D.2.a.; D.2.c.1; D.2.c.4; D.2.c.5**Hyperlink:****Description**

As described in Control Measure 1: Public Education and Outreach, electronic brochures and flyers will be produced for a number of storm water topics.

During Permit Year 4, brochures specifically for illicit discharge may be produced where a need has been identified. Otherwise, during Permit Year 4 review all brochures/flyers and where applicable add illicit discharge identification and reporting component to existing brochures/flyers. This BMP was selected to ensure that illicit discharge detection and elimination is adequately addressed in public education and outreach efforts.

**Effectiveness Measurement**

NA

46.1

**Implementation Plan**

During Permit Year 4, an additional brochure addressing illicit discharge will be produced if a specific need has been identified. Otherwise, a review will be made of all other brochures and where applicable an illicit discharge component will be added.

**Measurable Goal**

New brochure produced or other brochures updated to include illicit discharge by the end of Permit Year 4.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 47      Review of Non-Storm Water Discharges****Permit Section:** D.2.c.6**Hyperlink:****Description**

During the development of the SWMP, EH&S worked with various staff to ensure that for all facilities covered by this SWMP, the 17 categories of potential non-storm water discharges identified in General Permit section D.2.c.6. were reviewed and existing conditions were characterized. For each of the potential flows, a classification was applied: the flow is not a source of constituents of concern or detrimental to beneficial uses of water; or effective BMPs are in place to ensure such flows are not a source of constituents of concern or detrimental to beneficial uses of water; or a potential flow requiring further investigation; or UCSC does not have these flows. The classifications applied to each type of potential flow at each facility is found in Appendix D.

Seven potential flows were identified for further investigation. These flows will be investigated and follow-up actions taken, as described in BMP #25, BMP Development Team: Investigation of Non-Storm Water Discharges.

This BMP was selected to implement the Central Coast Regional Water Quality Control Board directive for all permittees to review the 17 categories of non-storm water discharges and determine if they are a significant source of contaminants to the storm drain system.

This BMP addresses storm water quality concerns associated with improper discharges containing toxic or organic constituents.

**Effectiveness Measurement**

All applicable flows identified and classified.

47.1

**Implementation Plan**

During the development of the SWMP, 17 categories of potential non-storm water discharges were reviewed and existing conditions classified as either: a flow covered by a BMP, a flow that is not a significant source of constituents of concern, a potential flow requiring further investigation, or no flow.

**Measurable Goal**

All applicable flows identified and classified. Appendix D is the completed work product for this BMP.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** EH&S: Storm Water Manager

**BMP # 48      Campus Standards Handbook and Construction Contracts for Storm Water Management****Permit Section:** D.2.d.1; D.2.d.2; D.2.d.3**Hyperlink:** <http://ppc.ucsc.edu/standards>**Description**

Because UCSC serves as both the public agency and project proponent for construction sites on University properties, a successful Construction Site Storm Water Runoff Control Program will vary from a program established by entities serving as only the public agency.

The Campus Standards Handbook serves many of the same purposes as municipal building codes and ordinances. The Campus Standards Handbook incorporates significant language to ensure erosion and sediment controls, as well as construction site waste controls. See current versions of Section 2 Building Requirements, Section 3 Site Requirements, Appendix D Erosion and Sediment Control Standards for Projects Under 1 Acre and Appendix E Best Management Practices for Projects Less Than One Acre in Area Involving Soil Disturbance Greater Than 50 Cubic Yards. The Campus Standards Handbook is supplemented by the UCSC Division 1 Specifications which become a part of every large (currently set to include all projects over \$100,000) construction contract. Division 1, Section 01560 requires compliance with the SWRCB General Permit for Discharges of Storm Water Runoff Associated with Construction Activity for construction sites that result in land disturbance of an acre or more or requires compliance with UCSC Campus Standards Handbook Appendix D and E for construction activities that disturb less than an acre of land.

Because all applicable construction is performed under contract with the University of California, provisions for appropriate sanctions and penalties are included in the standard construction contract documents provided by the UCOP (University of California Office of the President). <http://www.ucop.edu/facil/fmc/facilman/volume4/part2/long/gc.pdf>. Sanctions include the ability for the University representative to stop work as provided in General Conditions Article 2.3, and the University's ability to complete any work not completed by the Contractor and to deduct costs from Contractor's payments per General Conditions Article 2.4.

UCSC requires its contractor to comply with the law and with the SWRCB General Permit for Discharges of Storm Water Runoff Associated with Construction Activity in its contract with the contractor. UCSC does not contract directly with subcontractors, but does require in the contract with the contractor that the subcontractors comply with all requirements imposed upon the contractor. If there is a violation, UCSC can hold its contractor in breach of contract, requiring the contractor to remedy the violation either through the action of the contractor itself, or by the contractor declaring its subcontractor to be in violation of the subcontract.

As the landowner, UCSC applies for coverage under the SWRCB General Permit for Discharges of Storm Water Runoff Associated with Construction Activity for all applicable sites. Prior to applying for coverage, UCSC reviews all SWPPPs for completeness using the SWPPP monitoring program checklist provided by SWRCB.

This BMP was selected because it implements the Municipal General Permit requirements for erosion and sediment controls as well as construction site waste controls with enforceable consequences for non-compliance by utilizing existing mechanisms. This follows the EPA and SWRCB directive that selected BMPs should be locally appropriate.

The primary storm water quality concerns addressed by this BMP are sediment, litter and toxic materials.

**Effectiveness Measurement**

Track number of reports to illicit discharge reporting system, BMP #45, related to construction sites. Track number of formal and informal NOV's received related to this item.

48.1

**Implementation Plan**

Continue existing Erosion and Sediment Control program elements.

**Measurable Goal**

Erosion Control Standards and related requirements incorporated into all applicable new construction contracts.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP&C

48.2

**Implementation Plan**

For all construction projects subject to the Construction General Permit, PP&C reviews the contractor prepared SWPPP and related documents. All SWPPP and related documents are reviewed for completeness before endorsing the NOI.

**Measurable Goal**

All SWPPP and related documents are reviewed for completeness before the NOI is submitted.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** PP&C, contractors

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP&C

48.3

**Implementation Plan**

Continue to include in all construction contracts provisions for penalties and breach of contract provisions.

**Measurable Goal**

All new construction contracts contain standard provisions for penalties and breach of contract.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** PP&C, PP-Work Management, contractors

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP&C

**BMP # 49      Reserved**

**BMP # 50      Reserved**

**BMP # 51 Construction Site Inspection Procedures**

Permit Section: D.2.d.6

Hyperlink:

**Description**

The University Representative has the authority to stop work on construction projects that are not implementing Erosion Control or SWPPP requirements. To improve the inspection and enforcement process, PP&C will develop and implement inspection procedures and checklists for storm water management. The inspection procedure will apply to all sites that disturb more than 50 cubic yards of dirt and projects over one acre. The procedures and checklist will be developed during Permit Year 1 and implementation will begin no later than the beginning of Permit Year 2. This BMP was selected because it implements the Municipal General Permit requirements for construction site inspections.

The primary storm water quality concerns addressed by this BMP are sediment, litter and toxic materials.

**Effectiveness Measurement**

Track number of reports to illicit discharge reporting system, BMP #45, related to construction sites. Track number of formal and informal NOVs received related to this item.

51.1

**Implementation Plan**

During Permit Year 1, PP&C will develop inspection procedures and checklists for storm water management. The inspection procedure will apply to all sites that disturb more than 50 cubic yards of dirt and projects over one acre.

**Measurable Goal**

Procedures and checklists developed during Permit Year 1.

Frequency: one time

Permit Year(s):

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Targeted audience: PP&amp;C staff, PP-Work Management and construction contractors

Sites:

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Primary Implementers: PP&amp;C

51.2

**Implementation Plan**

PP&C will implement inspection procedures and checklists no later than the beginning of Permit Year 2. Inspections during the non rainy season will be, at a minimum, once for projects disturbing more than 50 cy of dirt and once every two months for projects over an acre.

Inspections during the rainy season will be once a month for all projects disturbing over 50 cy of dirt or over an acre.

**Measurable Goal**

Procedures and checklists implemented.

Frequency: ongoing

Permit Year(s):

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Targeted audience: PP&amp;C staff and construction contractors

Sites:

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Primary Implementers: PP&amp;C

51.3

**Implementation Plan**

PP-Work Management will implement inspection procedures and checklists no later than the beginning of Permit Year 2. Inspections during the non rainy season will be, at a minimum, once for projects disturbing more than 50 cy of dirt and once every two months for projects over an acre. Inspections during the rainy season will be once a month for all projects disturbing over 50 cy of dirt or over an acre.

**Measurable Goal**

Procedures and checklists implemented.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** PP-Work Management and construction contractors

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP-Work Management

**BMP # 52 Plan Review for Storm Water Quality Impacts****Permit Section:** D.2.d.4**Hyperlink:** [http://www.ucop.edu/facil/pd/CEQA-Handbook/uc\\_ceqaw.doc](http://www.ucop.edu/facil/pd/CEQA-Handbook/uc_ceqaw.doc)**Description**

UCSC follows the procedures and initial study checklist adopted by the University of California for the implementation of CEQA. During Permit Year 2, UCSC will review its procedures for preparing CEQA documents and, if necessary, revise these procedures to ensure that impacts on storm water runoff quality and quantity are considered and that BMPs and mitigations proposed for each project meet performance standards consistent with the SWMP.

This BMP was drafted to ensure that the environmental analysis required for those projects that fall under CEQA review consider runoff quality and quantity.

**Effectiveness Measurement**

All Initial Studies and EIRs consider impacts on storm water runoff quality and quantity, assess the effectiveness of proposed BMPs, and, if necessary, identify mitigation measures to ensure that project BMPs meet the campus' performance standards.

52.1

**Implementation Plan**

Review and, if necessary, revise, all CEQA documents to ensure that storm water runoff quality and quantity are considered.

**Measurable Goal**

By the end of Permit Year 2, CEQA documents have been reviewed and revised if necessary. After Permit Year 2, Storm water runoff quality and quantity are considered in all CEQA documents.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP&C

**BMP # 53      Reserved**

**BMP # 54 Construction Site Storm Water BMP Training****Permit Section:** D.2.d.2; D.2.d.3; D.2.d.4; D.2.d.5; D.2.d.6**Hyperlink:****Description**

On an annual basis, PP&C will train/retrain affected staff on the construction site storm water management BMPs. Training will utilize electronic brochures and flyers and other BMP documents such as construction site inspection procedures. Training will be conducted prior to October 1 of each year. This BMP was selected because it aids in the implementation of the construction BMPs.

The primary storm water quality concerns addressed by this BMP are sediment, litter and toxic materials.

**Effectiveness Measurement**

Track number of reports to illicit discharge reporting system, BMP #45, related to construction sites.

54.1

**Implementation Plan**

Annual training for impacted PP&C staff on construction site storm water management BMPs, including construction site inspection procedures. Provide training to impacted PP&C staff annually prior to October 1 of each year.

**Measurable Goal**

100% of affected PP&C and PP-Work Management staff have participated in training before October 1 of Permit Year 1.

Not less than 70% of affected PP&C and PP-Work Management staff participate in annual retraining.

**Frequency:** annually**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** PP&C staff, PP-Work Management**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP&C

**BMP # 55      Main Campus Planning and Design Requirements for Storm Water Management and Watershed Protection**

**Permit Section:** D.2.e.1; D.2.e.2; D.2.e.3

**Hyperlink:** <http://ppc.ucsc.edu/standards>

**Description**

SWMP sections 4.2.5.1 to 4.2.5.4 describe the context and approach for planning and development at the main campus. This BMP details the implementation tasks that UCSC will take to realize the described approach.

This BMP was selected to describe tasks being implemented as part of the LRDP mitigation measures and as part of the recommendations found in the Stormwater & Drainage Master Plan (other BMPs, such as BMP# 100, implement other recommendations) and are primarily intended to provide locally appropriate hydromodification and source controls on new development, in order to respond to erosion and sedimentation concerns. The Campus Standards Handbook contains additional design guidelines for all development and redevelopment project designs. All campus projects must follow the Campus Standards.

**Effectiveness Measurement**

Evaluate percent of completed projects that meet design requirements.

55.1

**Implementation Plan**

For applicable new construction, continue to: provide for runoff rate control from new development; require various measures for erosion control, drainage, and landscaping to protect post-development storm water quality; limit the number of parking spaces constructed; and equip applicable new landscaping with computer-controlled irrigation system linked to a weather station as currently included in the Campus Standards Handbook. See current version of Section 2 Building Requirements and Section 3 Site Requirements.

**Measurable Goal**

PP&C and PP-Work Management shall each document that applicable measures are included in all completed construction projects.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP&C, PP-Work Management

55.2

**Implementation Plan**

Implement Civil and Site Design Guidelines Supplement. The October 2007 Civil and Site Design Guidelines Supplement drafted by PP&C shall be added to the campus standards. These requirements shall apply for all projects receiving design funding after July 2009. A working copy of the Civil and Site Design Guidelines Supplement is included as Appendix F.

**Measurable Goal**

For all projects funded for design after July 2009, PP&C and Work Management shall each document that Civil and Site Design Guidelines Supplement have been included in the completed projects.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP&C, PP-Work Management

55.3

**Implementation Plan**

Main campus projects funded for design after July 2009 that increase impervious surface will be required to provide volume control to the maximum extent practicable.

The campus has set the applicability level for this task to capital projects that increase impervious surface. In order to ensure maximum extent practicable is achieved the campus plans to have design professionals utilize a narrative checklist of LID practices. This checklist will become part of the project file. The draft checklist is attached as Appendix G. It is expected that the evaluation shall be tiered to require a less extensive evaluation for smaller projects. As of Spring 2008, it is planned that projects creating less than 5000 square feet of impervious surface may use the LID checklist for small projects, attached as Appendix H.

**Measurable Goal**

Prior to July 2009, PP&C shall finalize the protocol for a project-specific evaluation of the LID Practices. After July 2009, PP&C and Work Management shall document that all capital projects creating new impervious surfaces include an evaluation of LID practices and incorporate feasible LID practices.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP&C, PP-Work Management

55.4

**Implementation Plan**

Beginning July 2009, all RFPs for design professionals for applicable capital projects shall state that incorporating LID practices is an important campus goal.

**Measurable Goal**

Applicable RFPs state that incorporating LID practices is an important campus goal.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** Design professionals

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP&C

55.5

**Implementation Plan**

All new development and redevelopment projects that add or replace greater than 5000 sf of impervious surface will be designed to control for the pre and post rate and duration for a range of flows that exert the most work on the channel.

**Measurable Goal**

All applicable capital projects funded for design after January 2010 incorporate these hydromodification restrictions.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP&C

55.6

**Implementation Plan**

Study water quality and watershed issues specific to Campus drainages including types of land use for development of long term hydromodification criteria for all new development and redevelopment projects that add or replace greater than 5000 sf of impervious surface.

**Measurable Goal**

Long term hydromodification requirements submitted to the Board with the year five annual report.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP&C

55.7

**Implementation Plan**

In accordance with recommendations contained in the Stormwater & Drainage Master Plan, adopt additional source control requirements for erosion and sediment control with an emphasis on potential pollutants from vehicles and from food service facilities.

PP&C shall adopt the following design requirements to provide source control:

1. Design loading docks to minimize storm water run-on and run-off through the use of grading design and berms or their equivalent.
2. Culverts are a minimum 8" diameter and designed for a 10-year storm to minimize system overcapacity events to prevent overflow erosion.
3. Where new development drains to existing outfalls, the existing outfalls shall be upgraded as necessary to extend to toe of slope and provide energy dissipation.
4. Drainage plans shall be approved, signed and stamped by a licensed Civil Engineer or an Approved Erosion Control Specialist (as defined in the UCSC Erosion Control Standards), certifying that the design is adequate to prevent erosion.
5. Label storm drain inlets and catch basins to indicate prohibition of illegal discharge.
6. Outdoor materials storage areas shall be designed to prevent storm water contamination from loose, particulate or dissolved materials. Design features will include covering or enclosing storage areas and preventing run-on and run-off through the use of berms or grading design or their equivalent.
7. To prevent wind-blown trash, provide trash container areas screened or walled on 3 sides and require container lids or equivalent.
8. Dumpster areas designed with storm water run-on diversion.
9. Vehicle wash racks to include closed-loop, recycled water system.
10. Food facilities designed with the following:
  - a. Oil and grease interceptor design approved by jurisdiction overseeing sanitary waste water discharge.
  - b. Wash area for cleaning of equipment and accessories. Wash area connected to the oil and grease interceptor and the sanitary sewer.
  - c. If the wash area is outdoors, it must be covered and designed to prevent storm water run-on and run-off.
11. Liquid vehicle fuel dispensing areas covered with an overhanging roof structure. The fuel dispensing pad designed to prevent storm water run-on and run-off and to contain the worst-case, reasonably anticipated fuel spill.
12. Maintenance procedures and maintenance schedules will be provided to the University Representative for all pre-engineered storm water treatment structures.
13. Minimize the size of parking lots and minimize the impervious land coverage of parking lots.
14. To encourage storm water infiltration in small parking lots eliminate curbs or provide curb openings and slope parking lots to encourage storm water infiltration into vegetation islands and strips where the potential for erosion or a hazardous material spill is not expected.
15. Encourage on-site absorption, including porous pavers, vegetative strips, grassy swales, detention ponds and infiltration strips. Feasibility may be limited by constraints such as topography, vegetative detritus, accessibility compliance under ADA, provisions for emergency vehicle access, soil permeability as well as sufficient sunlight to permit plant growth.
16. Vegetate slopes disturbed by construction with native or drought-tolerant plants, as appropriate where environmental conditions allow plant growth and mulch or other control measures where vegetation is not viable.
17. Whenever armoring is needed in drainages, soft (rather than hard) armoring shall be used if environmental conditions and engineering analysis determine soft armoring to be appropriate.
18. Oil/water/sediment catch basins at loading docks and all parking lots not equipped with a pre-engineered oil/water/sediment separator.
19. Runoff from parking lots > 5,000 sq. ft. will be treated for oil, grease and sediment before being released. Volume based treatment will be calculated using either the 85th percentile,

- 24-hour storm event or 80 percent of the annual runoff volume. Flow based treatment will be calculated using either the 85<sup>th</sup> percentile hourly rainfall intensity, multiplied by a factor of two or 10 percent of the 50 year peak flow.
20. Storm water discharge from new roads will be treated for oil, grease and sediment before being released. Volume based treatment will be calculated using either the 85<sup>th</sup> percentile, 24-hour storm event or 80 percent of the annual runoff volume. Flow based treatment will be calculated using either the 85<sup>th</sup> percentile hourly rainfall intensity, multiplied by a factor of two or 10 percent of the 50 year peak flow.
21. Provide 12" deep sediment trap in bottom of all drain inlets and catch basins. Special access provisions will be required where the invert exceeds 36". Catch basins to be minimum 24" wide to allow cleanout.

For any of the above proposals that are modified or not adopted, UCSC will provide justification in the annual report.

#### Measurable Goal

Design requirements added to Campus Standards during Permit Year 1.

Frequency: one time

Permit Year(s):

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Targeted audience: NA

Sites:

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Primary Implementers: PP&C

55.8

#### Implementation Plan

Once the Campus Standards Handbook has been amended to include the source control requirements established in Task 55.7, all newly-funded capital projects shall include these requirements to the extent applicable.

#### Measurable Goal

Projects funded after campus standards are updated shall include all applicable requirements.

Frequency: ongoing

Permit Year(s):

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Targeted audience: NA

Sites:

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Primary Implementers: PP&C, PP-Work Management

55.9

**Implementation Plan**

In accordance with the LRDP study the feasibility of reclaimed water use, including rainwater and other sources. The study shall include a plan to utilize reclaimed water in new development as feasible and effective in water conservation and shall include an implementation schedule.

**Measurable Goal**

Implement LRDP UTIL-9G and summarize findings and planned implementation schedule.

**Frequency:** one time

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP&C

**BMP # 56 Pervious Paving Pilot Project****Permit Section:** D.2.e.2**Hyperlink:****Description**

It is in the ongoing interest of UCSC to maximize storm water infiltration and to continue to experiment with pervious paving/surfaces. UCSC will continue to evaluate new products and new applications. During Permit Years 3 and 4, UCSC will identify a pilot project for pervious paving. A thorough post-construction evaluation of the pilot project will determine if the following or its equivalent shall be added to the Campus Standards Handbook: Pervious pavement should be used in parking lots or in walkways except where limited by constraints such as vegetative detritus, accessibility compliance under ADA, emergency vehicle access, soil permeability or other constraints.

This BMP was drafted to document UCSC's continued interest in exploring lower impact options for new development.

The storm water quality concerns addressed by this BMP is minimization in increases of runoff volume and biological mitigation of contaminants associated with automobiles.

**Effectiveness Measurement**

NA

56.1

**Implementation Plan**

During Permit Years 3 and 4, UCSC will identify a pilot project for pervious paving. A thorough post-construction evaluation of the pilot project will determine if requirements for pervious paving shall be added to the Campus Standards Handbook.

**Measurable Goal**

Pervious paving pilot project(s) completed and evaluated. Changes made to Campus Standards or justification for rejection included in annual report.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP&C

**BMP # 57 MSC Planning and Design Requirements for Storm Water Management and Watershed Protection**

**Permit Section:** D.2.e.1; D.2.e.2; D.2.e.3; D.2.e.4

**Hyperlink:** <http://ppc.ucsc.edu/cp/projects/11407/planning/CLRDP%20July%202007>

**Description**

The CLRDP is the land use plan for the physical development of the 98-acre Marine Science Campus (formerly Long Marine Lab), including Younger Lagoon Reserve. The CLRDP contains comprehensive provisions for storm water management and watershed protection as the Marine Science Campus is developed. Included in the CLRDP are policies, policy implementation measures, a Resource Management Plan and a Drainage Concept Plan that taken together will ensure that development will protect and in some areas enhance the watershed.

This BMP was selected to describe tasks being implemented as part of the CLRDP and is primarily intended to provide locally appropriate hydromodification and source controls on new development in order to protect and enhance the local watershed.

**Effectiveness Measurement**

The CLRDP Drainage Concept Plan requires an Annual Water Quality report. UCSC shall annually assess the effectiveness of this BMP in accordance with the Annual Water Quality Report requirements.

57.1

**Implementation Plan**

Implement the storm water components of the CLRDP, including policies, policy implementation measures, a Resource Management Plan and a Drainage Concept Plan. Annually summarize all related activities. The annual summary may follow a reporting year established by the CLRDP rather than the reporting year of the SWMP.

**Measurable Goal**

Implement the storm water components of the CLRDP. Annually provide a summary of implementation.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP&C

**BMP # 58 MBEST Planning and Design Requirements for Storm Water Management and Watershed Protection**

**Permit Section:** D.2.e.1; D.2.e.2; D.2.e.3

**Hyperlink:**

**Description**

The Master plan for the MBEST Center requires that all surface runoff from new development to be directed to 10-year retention basins for infiltration with any overflow directed to a 100-year retention basin. Ten-year retention basins are owned and operated by MBEST. Hundred-year retention basins are maintained by the City of Marina. Ten-year retention basins are inspected monthly and maintained as needed.

This BMP was selected to describe tasks being implemented as part of the MBEST Center Master Plan and is primarily intended to provide locally appropriate hydromodification controls on new development in order to protect the local watershed.

**Effectiveness Measurement**

All new development includes design provisions to ensure runoff from the 10 year storm is retained on site.

58.1

**Implementation Plan**

Include infiltration basins in all new development at the MBEST Center.

**Measurable Goal**

Infiltration basins are included in all new development.

**Frequency:** ongoing

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** MBEST

**BMP # 59 Staff Training on Hydromodification and Low Impact Development****Permit Section:** D.2.e.1; D.2.e.2; D.2.e.3; D.2.e.4**Hyperlink:****Description**

All Project Managers in PP&C and in PP-Work Management, as well as PP&C inspectors shall be trained in LID and Hydromodification. As of Fall 2007 all current affected staff had participated in some training related to LID. As the LID checklist and other measures are phased in the training will be updated to reflect evolving wisdom and requirements. Efforts will be made to retrain all affected staff annually, at a minimum 50% of affected staff shall participate in annual retraining. This BMP was selected to provide staff training on LID and hydromodification to staff involved in design, construction and structural control operation to enable the full implementation of BMPs for new development.

**Effectiveness Measurement**

BMPs 55, 56, 57 and 58 are implemented as described.

59.1

**Implementation Plan**

On an annual basis, PP&C qualified staff shall coordinate training for affected staff on hydromodification and Low Impact Development. The training shall be updated as needed to cover UCSC specific requirements as well evolving practices in hydromodification and LID. This training may be held in conjunction the training required by BMP #54.

**Measurable Goal**

At a minimum 50% of affected staff participate in annual retraining.

**Frequency:** annually**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** PP&C, PP-Work Management**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP&C

**BMP # 60      Operation and Maintenance of New Development BMPs****Permit Section:** D.2.e.4**Hyperlink:****Description**

As a non traditional MS4 UCSC is the final owner of nearly all structural BMPs.

To ensure long term maintenance of BMPs installed in new construction, UCSC will add new structural BMPs to BMP #78: Storm Drain Systems Inspection and Preventative Maintenance. If Grounds Services is not identified as the responsible department, the identified department will adopt an appropriate inspection and maintenance schedule. Or for BMPs installed in areas which will be leased by others, long term maintenance will be assured by including an operation and maintenance requirement in the governing documents, such as the Covenants, Conditions and Restrictions (CC&R) or other appropriate documents.

This BMP was selected to comply with the General Permit requirement to ensure adequate long term operation and maintenance of BMPs installed under the New Development Minimum Control Measure (UCSC BMPs #55, 56, 57, 58 and 59) using a strategy similar to that employed by other non-traditional MS4s.

The storm water concerns primarily addressed by this BMP are volume and rate control, sediment, erosion, litter, organic materials and toxic materials.

**Effectiveness Measurement**

Track number and type of reports to the illicit discharge reporting system or other communications regarding maintenance of structural BMPs.

60.1

**Implementation Plan**

During construction, PP&C identifies all structural BMPs included in each project. For each structural BMP a responsible party is identified and agrees to assume long term maintenance of structural BMPs prior to final completion of project.

**Measurable Goal**

Prior to final completion of project, responsibility for long term maintenance of all new structural BMPs has been assigned and accepted.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** Grounds, MSC, MBEST, CUHS, Student Affairs, TAPS, Arboretum and CASFS**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** PP&C

**BMP # 61      Reserved**

**BMP # 62 Storm Water BMP Training**

**Permit Section:** D.2.a.; D.2.f.1; D.2.f.2

**Hyperlink:**

**Description**

On an annual basis, key employees receive training on general storm water awareness and on applicable BMPs to protect storm water quality. All pollution prevention training / public education and outreach documents will discuss permissible and impermissible activities as well as how to report concerns.

Training may utilize the Electronic Brochures and Flyers described in BMP #1.

This BMP was selected because the General Permit requires employee training to prevent and reduce storm water contamination. Training for employees will reinforce their key role in preventing storm water concerns such as erosion, litter, discharge of toxic materials, discharge of organic materials, storm drain system malfunctions, etc.

**Effectiveness Measurement**

The effectiveness of training will be assessed either by reviewing participant post-training evaluations or by reviewing participant responses to post-training quizzes.

BMP effectiveness may also be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

62.1

**Implementation Plan**

On an annual basis, PP-Grounds Services shall receive training on BMPs to reduce storm water constituents of concern. Training may utilize electronic brochures General Storm Water Awareness (BMP #1).

**Measurable Goal**

At least 90% of applicable PP-Grounds employees will participate in initial training. At least 90% of applicable PP-Grounds employees will be retrained annually.

**Frequency:** annually

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>				

**Targeted audience:** PP-Grounds

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

62.2

**Implementation Plan**

On an annual basis, CUHS-Facilities shall receive training on BMPs to reduce storm water constituents of concern. Training may utilize electronic brochures General Storm Water Awareness (BMP #1).

**Measurable Goal**

At least 90% of applicable CUHS-Facilities employees will participate in initial training. At least 90% of applicable CUHS-Facilities employees will be retrained annually. Training conducted annually by responsible department.

**Frequency:** annually**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** CUHS-Facilities**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** CUHS-Facilities

62.3

**Implementation Plan**

On an annual basis, LML Facilities staff shall receive training on BMPs to reduce storm water constituents of concern. Training may utilize the electronic brochure for General Storm Water Awareness (BMP #1).

**Measurable Goal**

At least 90% of applicable LML-Facilities employees will participate in initial training. At least 90% of applicable LML-Facilities employees will be retrained annually.

**Frequency:** annually**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** LML-Facilities**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** LML-Facilities

62.4

**Implementation Plan**

On an annual basis, MBEST staff shall receive training on BMPs to reduce storm water constituents of concern. Training may utilize electronic brochure for General Storm Water Awareness (BMP #1).

**Measurable Goal**

Participation by 100% of applicable MBEST staff in Year1. Participation by at least 50% of applicable MBEST staff in Years 2-5.

**Frequency:** annually**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** MBEST**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** MBEST

62.5

**Implementation Plan**

On an annual basis, TAPS-Maintenance employees shall receive training on BMPs to reduce storm water constituents of concern. Training may utilize the electronic brochure for General Storm Water Awareness (BMP #1).

**Measurable Goal**

At least 90% of applicable TAPS Maintenance employees will participate in initial training. At least 90 % of applicable TAPS Maintenance employees will be retrained annually.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** TAPS Maintenance

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** TAPS Maintenance

**BMP # 63      Equipment and Materials Storage Areas****Permit Section:** D.2.f.1; D.2.f.2**Hyperlink:****Description**

This BMP applies to equipment and material storage areas for UCSC facilities operations.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to facilities equipment and materials storage areas and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to facilities equipment and materials storage areas.

63.1

**Implementation Plan**

- Facilities equipment and material storage areas shall be maintained in a clean and orderly manner.
- Containers shall have legible labels indicating contents.
- Hazardous materials will be stored in covered areas and be provided with secondary containment to prevent releases of hazardous materials to storm drains.
- Spills and leaks will be cleaned up in an expedient manner for disposal in accordance with State and Federal regulations.
- Lidded outdoor waste and recycling receptacles will be stored shut to shed storm water and prevent animals from scattering trash.
- Hazardous materials and hazardous wastes will be handled in accordance with State and Federal regulations.
- Hazardous materials storage areas are inspected by the local CUPA (Certified Unified Program Agency). Departments shall promptly correct any CUPA inspection deficiencies.

**Measurable Goal**

Equipment and material storage requirements are included in all training required by BMP #62. 100% of noted CUPA inspection deficiencies corrected within 30 days.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** staff**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** various staff

**BMP # 64 Washing University Owned Vehicles**

**Permit Section:** D.2.f.1; D.2.f.2

**Hyperlink:**  
**Description**

Most University vehicles are washed at the Fleet Services wash station, which discharges to the sanitary sewer. Grounds Services also maintains a wash station connected to the sanitary sewer; however, this station is primarily intended for cleaning Grounds Services equipment. OPERS (Office of Physical Education, Recreation, Sports, and Wellness) has been using a dry cleaning method with good success for more than a year to clean the exteriors of nine vehicles. Private vehicles are not routinely washed at UCSC. Student residents generally do not have access to washing equipment. In BMP # 25, UCSC has made commitments to reviewing the limited instances where private vehicles might be washed.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to vehicle washing and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to vehicle washing.

64.1

**Implementation Plan**

University Vehicle washing shall be limited to one of the following methods:

1. Vehicle exteriors may be washed at the Fleet Services wash station in conformance with current procedures at that location;
2. Vehicle exteriors may be washed at the Grounds Services wash station with prior approval from Grounds Services Superintendent and in conformance with current procedures at that location;
3. With prior approval from the Storm Water Manager, vehicle exteriors may be washed with water only-- no soaps, detergents or other cleaners may be used and engines and undercarriages may not be cleaned --provided the wash water drains to the landscape without causing erosion or damage to vegetation;
4. At the Marine Science Campus, marine vehicles may be washed with water only-- no soaps, detergents or other cleaners may be used; or
5. Vehicles may be washed using dry cleaning methods.

**Measurable Goal**

Vehicle washing requirements are included in all training required by BMP #62.

**Frequency:** ongoing

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>				

**Targeted audience:** staff

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** various staff

**BMP # 65      Reserved**

**BMP # 66      Reserved**

**BMP # 67      Reserved**

**BMP # 68 Street and Parking Lot Maintenance in Faculty/Staff Housing****Permit Section:** D.2.f.1**Hyperlink:****Description**

Prevent storm water contamination from roads and parking lots. Streets and parking lots associated with Faculty/Staff Housing shall be cleaned not less than once annually. One cleaning shall occur prior to the wet season.

This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations. This BMP is one of many that is designed to implement this requirement. This BMP is intended to address the following storm water quality concerns: litter, oil and grease, organic materials and toxic materials.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

68.1

**Implementation Plan**

Streets and parking lots associated with Faculty/Staff Housing shall be cleaned not less than once annually. One cleaning shall occur prior to the wet season.

**Measurable Goal**

Cleaning is performed according to established schedule.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** CUHS

**BMP # 69 Food Service BMPs**

**Permit Section:** D.2.f.1

**Hyperlink:**  
**Description**

To ensure storm water quality is not negatively affected by food service activities, BMPs were selected by the BMP Development Team for Food Service Facilities (refer to BMP #18). The practices selected cover the following activities: washing of equipment, cleaning loading docks, cleaning outdoor dining areas, handling and disposal for fats, oil and grease (FOG), and handling of solid wastes and recyclable materials. These practices are to be implemented starting in Year 1. Where current facilities are inadequate to fully implement these BMPs a plan for future improvements (such as capital projects) will be developed and implemented. This BMP was selected to prevent storm water contamination from food service operations. Campus dining halls, cafes and other eateries have operations similar to commercial restaurants. Areas of concern for food service facilities include organic materials (food wastes), oil and grease, and wash waters containing either cleaning chemicals or organic materials. A significant difference is that these operations are either owned and operated by UCSC or they are tenants of UCSC. This difference allows for a simpler structure to ensure entities are informed of and implement their obligations. BMP #1 requires that a brochure be developed for Food Service Facilities.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

69.1

**Implementation Plan**

By the end of Permit Year 1, CUHS-Dining Services will implement the Best Management Practices described in Appendix I: Storm Water Related Best Management Practices for Food Service Facilities. The selected BMPs cover the following activities: equipment washing, loading dock cleaning, outdoor dining area cleaning, handling and disposal of fats, oil and grease (FOG), and handling of solid wastes and recyclable materials. Where the above procedures cannot be fully implemented by the end of Permit Year 1, a plan for future improvements, such as capital projects, will be developed and implemented.

**Measurable Goal**

Operating procedures developed and implemented at each facility. Where current facilities are inadequate to fully implement these BMPs, a plan for future improvements (such as capital projects) was developed and is being implemented.

**Frequency:** ongoing

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>				

**Targeted audience:** CUHS-Dining

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** CUHS-Dining

69.2

**Implementation Plan**

By the end of Permit Year 1, Food Service Contractors will implement the Best Management Practices described in Appendix I: Storm Water Related Best Management Practices for Food Service Facilities. The BMPs cover the following activities: equipment washing, loading dock cleaning, outdoor dining area cleaning, handling and disposal of fats, oil and grease (FOG), and handling of solid wastes and recyclable materials.

Where the above procedures cannot be fully implemented by the end of Permit Year 1, a plan for future improvements, such as capital projects, will be developed and implemented.

**Measurable Goal**

Operating procedures developed and implemented. Where current facilities are inadequate to fully implement these BMPs, a plan for future improvements (such as capital projects) was developed and is being implemented.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** Food Service Contractors**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** Food Service Contractors

69.3

**Implementation Plan**

On an annual basis, applicable CUHS-Dining employees receive training on BMPs to reduce storm water constituents of concern. Training may utilize electronic brochures for General Storm Water Awareness (BMP #1). All pollution prevention training / public education and outreach documents will discuss permissible and impermissible activities as well as how to report concerns.

Training shall be documented.

**Measurable Goal**

Training conducted annually by responsible department.

**Frequency:** annually**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** CUHS-Dining and any food service contractor**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** CUHS-Dining

69.4

**Implementation Plan**

On an annual basis, applicable food service contractor employees receive training on BMPs to reduce storm water constituents of concern. Training may utilize electronic brochures for General Storm Water Awareness (BMP #1). All pollution prevention training / public education and outreach documents will discuss permissible and impermissible activities as well as how to report concerns.

Training shall be documented.

**Measurable Goal**

Training conducted annually by food service contractor.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** Food Service Contractors

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** Food Service Contractors

69.5

**Implementation Plan**

On an annual basis, applicable CUHS-Facilities staff receive training on BMPs to reduce storm water constituents of concern. Training may utilize electronic brochures for General Storm water Awareness (BMP #1). All pollution prevention training / public education and outreach documents will discuss permissible and impermissible activities as well as how to report concerns.

Training shall be documented.

**Measurable Goal**

Training conducted annually by responsible department.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** CUHS-Facilities

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** CUHS-Facilities

69.6

**Implementation Plan**

Add storm water training to applicable CUHS-Dining food service new employee orientation.

**Measurable Goal**

Training conducted by responsible department.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** CUHS-Dining

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** CUHS-Dining

69.7

**Implementation Plan**

Add storm water training to applicable food service contractor new employee orientation.

**Measurable Goal**

Training conducted by responsible department.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** Food Service Contractors

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** Food Service Contractors

69.8

**Implementation Plan**

Add storm water training to applicable CUHS-Facilities new employee orientation.

**Measurable Goal**

Training conducted by responsible department.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** CUHS-Facilities

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** CUHS-Facilities

69.9

**Implementation Plan**

Food facilities are inspected by EH&S quarterly, when in operation. The existing program will be amended to include observations regarding implementation of storm water management BMPs. Findings will be provided to both the Unit Manager and Assistant Director for Dining. Food facilities shall promptly correct any storm water related inspection observations reported by the EH&S inspector.

**Measurable Goal**

100% of observations corrected within 30 days of notification by EH&S.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** Food Facilities

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S

**BMP # 70      Reserved**

**BMP # 71      Reserved**

**BMP # 72      Reserved**

**BMP # 73      Reserved**

**BMP # 74      Reserved**

**BMP # 75 Fleet Services BMPs from SWPPP****Permit Section:** D.2.f.1**Hyperlink:****Description**

The Central Garage is covered under the General Permit for Industrial Facilities. Therefore, the Central Garage shall continue the BMPs described in the SWPPP developed for compliance with the Industrial General Permit. These BMPs include: good housekeeping measures, protection of storm drain inlets during working hours, spill response preparations, performing most vehicle maintenance work inside, precautionary fueling operations, proper material handling and storage, employee training, proper waste handling and storage, inspections by trained personnel, proper recordkeeping and internal reporting, and use of secondary containment structures.

This BMP was selected to document that the Central Garage has an existing comprehensive program in place to protect storm water quality.

**Effectiveness Measurement**

NA

75.1

**Implementation Plan**

Fleet Services shall continue to implement their SWPPP developed for the Industrial General Permit. EHS shall conduct annual compliance review.

**Measurable Goal**

The effectiveness of BMPs and their implementation to be reviewed during annual compliance review inspection.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Environmental Programs Manager

**BMP # 76      Integrated Pest Management Program****Permit Section:** D.2.f.1**Hyperlink:****Description**

UCSC practices an Integrated Pest Management Program (IPM) led by the Physical Plant Grounds Department. The Physical Plant Pest Management Office identifies which alternative pest control strategies can be used effectively, and is continually researching safer alternative pest control methods and products. The IPM program requires the least toxic and effective means for use are utilized.

Any use of a pesticide by UCSC and/or contracted private firms must obtain prior approval from the Environmental Health & Safety Office. This approval is specific to the pesticide, the application method and the application situation. The EH&S Environmental Programs Manager reviews the request and either approves (with usage and safety recommendations) or denies the request.

This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations. This BMP is one of many that is designed to implement this requirement. This BMP is intended to address the following storm water quality concerns: toxic materials.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

76.1

**Implementation Plan**

Continue Integrated Pest Management Program (IPM). Research effective alternative pest control strategies, methods and products; utilize the least toxic and effective means. Any use of a pesticide by UCSC and/or contracted private firms must obtain prior approval from EH&S.

**Measurable Goal**

Campus pesticide use complies with campus IPM program.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** PP Grounds, Arboretum, Farm, CUHS-Facilities**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

**BMP # 77      Cleaning Streets and Parking Lots****Permit Section:** D.2.f.1**Hyperlink:****Description**

Streets and parking lots are cleaned to remove vehicle contaminants, leaf litter, sediment, and litter in order to prevent them from being carried into drainage channels during the rainy season.

**STREETS**

Main Campus: UCSC has an existing Street Sweeping Program. This service is provided by Physical Plant-Grounds Services on all Main Campus roads. Primary roads are swept monthly. Secondary roads are swept on a bimonthly basis. During the fall and spring seasons, street sweeping may be conducted more frequently to respond to seasonal requirements.

Marine Science Campus: This service is provided by Physical Plant-Grounds Services for the one road.

2300 Delaware: There are no streets at 2300 Delaware.

MBEST: Streets at MBEST are maintained by the City of Marina.

**PARKING LOTS**

Main Campus: TAPS will continue to maintain parking lots and bus stops on the Main Campus.

Marine Science Campus: PP-Grounds or TAPS will maintain MSC parking lots.

2300 Delaware: PP-Grounds or TAPS will maintain 2300 Delaware parking lots.

MBEST: MBEST has two parking lots. Both parking lots have low-usage. MBEST will maintain both parking lots.

This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations. This BMP is one of many that is designed to implement this requirement. This BMP is intended to address the following storm water quality concerns: litter, oil and grease, organic materials and toxic materials.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

77.1

**Implementation Plan**

Main Campus streets: Primary roads are swept monthly. Secondary roads are swept on a bimonthly basis. During the fall and spring seasons, street sweeping may be conducted more often to respond to seasonal requirements. This will continue Permit Years 1-5.

**Measurable Goal**

Main Campus streets: Primary roads are swept monthly. Secondary roads are swept on a bimonthly basis.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

77.2

**Implementation Plan**

MSC: Street sweeping is conducted 4 times per year.

**Measurable Goal**

MSC: Street sweeping is conducted 4 times per year.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

77.3

**Implementation Plan**

Main Campus Parking Lots: All lots are scheduled to be maintained and cleaned on a monthly basis, done in lot numerical order, or as needed.

**Measurable Goal**

All parking lots shall be cleaned at least 10 times per year.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** TAPS Maintenance

77.4

**Implementation Plan**

In Permit Year 2, TAPS will evaluate new equipment potentially providing higher performance cleaning.

**Measurable Goal**

Evaluate new equipment in Permit Year 2.

**Frequency:** one time

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** TAPS Maintenance

77.5

**Implementation Plan**

PP-Grounds or TAPS will maintain MSC and 2300 Delaware parking lots.

**Measurable Goal**

Establish and maintain a schedule for servicing parking lots.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

77.6

**Implementation Plan**

MBEST will clean parking lots once per year. Catch basins will be maintained once per year.

**Measurable Goal**

MBEST will clean parking lots once per year. Catch basins will be maintained once per year.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** MBEST

**BMP # 78 Storm Drain Systems Inspection and Preventative Maintenance**

**Permit Section:** D.2.f.1; D.2.f.2

**Hyperlink:**

**Description**

UCSC Storm Drain Preventative Maintenance (PM) Program’s purpose is to address infiltration, sediment, oil and grease. UCSC will continue to inspect and maintain engineered storm drain systems in developed areas. A three-faceted approach is utilized for the storm drain inspection and preventative maintenance:

**Grounds Equipment Operators:** The equipment operators’ annual PM inspections encompass over 400 storm drain systems. The process includes reviewing maps and logs, a visual inspection, changing oil absorbent socks, and checking flow as needed. Deficiencies are logged and prioritized from 1 to 3. 1’s are considered DINs (do it now) and the 2&3s are performed as follow-up PMs scheduled by supervision. An annual inspection is also performed for engineered detention tanks/vaults/oil separators, drainage swales, and detention basins. Engineered detention facilities are cleaned as needed by contract with private vendors.

**Groundskeepers:** A second level of inspections is performed by area-assigned groundskeepers. Each year, groundskeepers receive updated maps and logs of their area assigned storm drain systems and an orientation of their area if needed. The groundskeepers perform weekly inspections of the systems from October through March and monthly or as needed the remainder of the year. The groundskeepers clean the catch basin grates and outfalls as needed, sign-off that the inspections were completed and contact their supervisor if they have any problems.

**Storm Event:** During a storm event, the groundskeepers check their area storm drains several times a day and the equipment operators respond to area concerns as needed with specialized storm drain clearing equipment. Natural drainages are included in the storm event inspections whenever possible.

This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations. This BMP is one of many that is designed to implement this requirement. This BMP is intended to address the following storm water quality concerns: litter, oil and grease, organic materials and toxic materials.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

78.1

**Implementation Plan**

Continue to inspect and maintain engineered storm drain systems in developed areas.

**Measurable Goal**

Inspection and maintenance is implemented according to schedule.

**Frequency:** ongoing

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>				

**Targeted audience:** PP-Grounds

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

**BMP # 79      Campus Refuse / Recycling Program****Permit Section:** D.2.f.1**Hyperlink:** [http://ucscplant.ucsc.edu/ucscplant/Grounds/index.jsp?page=Recycling\\_Refuse](http://ucscplant.ucsc.edu/ucscplant/Grounds/index.jsp?page=Recycling_Refuse)**Description**

The Refuse / Recycling Program currently collects material throughout all areas of campus. Members of the UCSC community can easily discard their materials in readily available containers, thus reducing the amount of litter otherwise carried into drainage channels during the rainy season. The campus waste management program works to preserve natural resources by encouraging recycling and reuse of materials. Currently, Grounds' Refuse / Recycling operations utilizes 9 different trucks, with a team of 9 FTE staff ( and 5 student employees in recycling) to collect materials from conveniently located bins all over campus. Additionally, Grounds personnel patrol campus roads, paths and landscapes collecting litter. This program will continue throughout Permit Years 1-5.

This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations. This BMP is one of many that is designed to implement this requirement. This BMP is intended to address the following storm water quality concerns: litter.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

79.1

**Implementation Plan**

The Waste Management Program will continue to collect and re-direct discarded material. Refuse / Recycling containers will be readily available and regularly serviced.

**Measurable Goal**

The Grounds Services waste management program continues to provide recycling services for the Main Campus and MSC.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

**BMP # 80      Reserved**

**BMP # 81      Grounds Services: Landscape Maintenance and Turf Management****Permit Section:** D.2.f.1; D.2.f.2**Hyperlink:****Description**

Grounds Maintenance provides a variety of outdoor maintenance services. Primary duties include litter collection, hard surface blowing/sweeping and general garden maintenance.

In addition to these tasks, staff practices integrated pest management, irrigation repairs, turf maintenance, as well as landscape design, construction and planting projects.

The Tree Crew currently performs tree evaluation and corrective trimming, seasonal pruning, hazardous tree evaluation, tree removal, tree planting, and tree protection consultation.

Grounds Services also provides trash and recycling containers and clean-up services for special events.

Grounds Maintenance seeks to control the storm water impacts of lawn care practices at UCSC's Main Campus, MSC and 2300 Delaware. The key procedures include:

- . - Water management (including computerized controllers linked to a weather station and equipped with leak detection) for turf health, reduction of excess water-related diseases and soil compaction.
- . - Fertility management for turf health, reduction of nutritional or poor growth-related diseases, and to increase turf competition with weedy species.
- . - Soil compaction reduction to improve water, nutrient, and gas exchange to turf root system for increased vigor.
- . - Sanitation.
- . - Mowing height, frequency, and orientation.

PP-Grounds Services will continue its Landscape Maintenance and Turf Management Program throughout Permit Years 1-5. This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations. This BMP is one of many that is designed to implement this requirement. This BMP is intended to address the following storm water quality concerns: litter, oil and grease, organic materials and toxic materials.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

81.1

**Implementation Plan**

Groundskeepers and Tree Maintenance Crew provide landscape maintenance. Hard surfaces will routinely be cleaned using dry methods. In situations where hard surfaces are cleaned with water, water shall be discharged to either the sanitary sewer or the landscape in a manner which does not cause erosion. If cleaning agents are used outdoors, the area will be rinsed and the wash water collected and discarded into the sanitary sewer or other applicable disposal site. Storm drains adjacent to the wet cleaning locations will be protected while activities are performed.

**Measurable Goal**

Grounds Maintenance continues existing practices including hazardous materials use minimization, mulching, and litter control.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

81.2

**Implementation Plan**

Continue existing turf program for water management (including computerized controllers linked to a weather station and equipped with leak detection), fertility management, soil compaction reduction, sanitation, and mowing practices to minimize storm water impacts.

**Measurable Goal**

Turf management program continues existing practices for water management, fertility management, soil aeration, sanitation and mowing to maximize turf utility with minimal off-turf impacts.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Grounds

**BMP # 82 Maintenance of Fountains and Decorative Water Bodies**

Permit Section: D.2.f.1

Hyperlink:

**Description**

CUHS and PP-Grounds will collaborate to develop and implement fountain and decorative pool maintenance processes and procedures that ensure discharges will not negatively impact storm water quality. CUHS Facilities and PP-Grounds will collaborate by the end of Permit Year 2. This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations. This BMP is one of many that is designed to implement this requirement. This BMP is intended to address the following storm water quality concerns: toxic materials.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

82.1

**Implementation Plan**

CUHS and PP-Grounds will collaborate to develop fountain and decorative pool maintenance processes and procedures that ensure discharges will not negatively impact storm water quality. The following requirements for fountain and decorative pool cleaning shall be implemented in the interim (Permit Years 1-2):  
Water shall be discharged to either the sanitary sewer or the landscape in a manner which does not cause erosion. If cleaning agents are used the wash water shall be collected and discarded into the sanitary sewer.

**Measurable Goal**

CUHS and PP-Grounds to develop maintenance BMPs for all water features by the end of Permit Year 2.

Frequency: one time

Permit Year(s):

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Targeted audience: NA

Sites:

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Primary Implementers: PP-Grounds

82.2

**Implementation Plan**

Maintenance BMPs are implemented for all water features.

**Measurable Goal**

Maintenance BMPs are implemented for all water features beginning in Permit Year 3.

Frequency: ongoing

Permit Year(s):

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Targeted audience: NA

Sites:

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Primary Implementers: PP-Grounds

**BMP # 83 Household Hazardous Waste Minimization****Permit Section:** D.2.c.1; D.2.c.4; D.2.c.5; D.2.f.1**Hyperlink:****Description**

For the primary purpose of minimizing abandoned and hard-to-handle household hazardous waste, CUHS will continue distribution of selected cleaning products to applicable student living areas; accept return of unused products at the end of the academic year; and as needed, provide for proper disposal of any unusable products. This is a combined effort from Student Residents and CUHS-Facilities to minimize waste and toxics normally produced by residential facilities. This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations. This BMP is one of many that is designed to implement this requirement. This BMP is intended to address the following storm water quality concerns: toxic materials.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

83.1

**Implementation Plan**

CUHS will continue distribution of selected cleaning products to applicable student living areas; accept return of unused products at the end of the academic year; and as needed, provide for proper disposal of any waste materials. CUHS will provide residents with information (brochures or electronic information) about proper use and disposal of household cleaning products as well as information about other hazardous and universal waste materials.

**Measurable Goal**

CUHS Facilities will report annually on the quantity of household hazardous waste collected.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** Student Residents and CUHS-Facilities**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** CUHS-Facilities

**BMP # 84      Reserved**

**BMP # 85 Custodial Services BMPs**

**Permit Section:** D.2.f.1

**Hyperlink:**

**Description**

Custodial Services has adopted the following BMPs:

- If carpet and upholstery cleaning is contracted outside of the university, the cleaning water tanks must be emptied into a sink, custodial sink or toilet, and not a storm drain.
- Keep lids on cleaning barrels and containers, and store them indoors or under a cover to reduce exposure to rain.
- Keep storage areas dry and clean. Conduct regular inspections in conformance with hazardous materials storage requirements so that leaks and spills are detected as soon as possible.
- All waste products of custodial services, including mop bucket water, cleaning solutions and other water mixtures must be disposed of in campus indoor drains (custodial sinks, floor drains, sinks, etc.). These drains connect to the sanitary sewer, which connects to the City wastewater treatment plant.

On an annual basis, PP-Custodial Services employees receive training on general storm water awareness and on applicable BMPs to reduce storm water contamination.

Training may utilize Electronic Brochures and Flyers for General Storm Water Awareness and Targeted Topics (BMP #1).

Training will begin Permit Year 1.

This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations. This BMP is one of many that is designed to implement this requirement. This BMP is intended to address the following storm water quality concerns: litter, organic materials and toxic materials.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

85.1

**Implementation Plan**

Custodial Services implements BMPs for storage of materials indoors in closed containers; inspection and maintenance of storage areas; sanitary sewer disposal of custodial waste waters, including those waste waters generated by outside service providers.

**Measurable Goal**

Custodial BMPs are integrated into the work routine.

**Frequency:** ongoing

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>				

**Targeted audience:** custodial staff

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Custodial

85.2

**Implementation Plan**

On an annual basis, applicable staff in PP-Custodial shall receive training on BMPs to reduce storm water constituents of concern. Training may utilize the electronic brochures for General Storm Water Awareness and Targeted Topics (BMP #1). All pollution prevention training / public education and outreach documents will discuss permissible and impermissible activities as well as how to report concerns.

Training conducted annually by responsible department.

**Measurable Goal**

At least 90% of applicable PP-Custodial employees will participate in initial training. At least 90 % of applicable PP-Custodial employees will be retrained annually.

**Frequency:** annually

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>				

**Targeted audience:** PP-Custodial

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Custodial

85.3

**Implementation Plan**

Add storm water training to applicable custodial services new employee orientation.

**Measurable Goal**

At least 90% of applicable PP-Custodial new employees receive storm water training during new employee orientation.

**Frequency:** ongoing

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>				

**Targeted audience:** PP-Custodial

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Custodial

**BMP # 86 Building Exterior Maintenance BMPs****Permit Section:** D.2.f.1**Hyperlink:****Description**

The BMPs affecting building exterior maintenance operations will be developed by the Building Exterior Maintenance BMP Development Team (BMP #34) during Permit Year 1 and will include an implementation schedule.

This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations. This BMP is one of many that is designed to implement this requirement. This BMP is intended to address the following storm water quality concerns: litter, organic materials and toxic materials.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

86.1

**Implementation Plan**

The BMPs affecting building exterior maintenance operations and procedures will be developed by the Building Exterior Maintenance BMP Development Team. BMP will be implemented starting in Permit Year 2.

**Measurable Goal**

BMPs implemented according to schedule.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Paint Shop

**BMP # 87      Reserved**

**BMP # 88      Reserved**

**BMP # 89      Reserved**

**BMP # 90 Water Line Flushing****Permit Section:** D.2.f.1**Hyperlink:****Description**

Water line flushing is performed by PP-Plumbing and by the UCSC Fire Department to maintain potable water supply and to verify hydrant flows. During water line flushing, diverters or other means will be used to avoid erosion or damage to landscaping (plantings, mulches, etc.). Water line flushing by PP-Plumbing and the campus Fire Department will continue through Permit Years 1-5 in a manner that prevents erosion and damage to landscaping.

This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations. This BMP is one of many that is designed to implement this requirement. This BMP is intended to address the following storm water quality concerns: erosion and sediment.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

90.1

**Implementation Plan**

During water line flushing diverters or other means will be used to avoid erosion or damage to landscaping (plantings, mulches, etc.)

**Measurable Goal**

Erosion or other landscape damage does not occur during water line flushing.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** Fire Department

90.2

**Implementation Plan**

During water line flushing diverters or other means will be used to avoid erosion or damage to landscaping (plantings, mulches, etc.)

**Measurable Goal**

Erosion or other landscape damage does not occur during water line flushing.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP-Plumbing

**BMP # 91      Vehicle Maintenance Prohibitions****Permit Section:** D.2.c.1; D.2.c.3**Hyperlink:****Description**

TAPS parking policies and residential rental agreements prohibit vehicle maintenance on campus, except at the campus Central Garage facility (covered by a SWPPP, see BMP #75). This policy and the rental agreements prevent oil, grease, heavy metals, and chemicals from being carried into storm water runoff.

This BMP was selected to document an existing UCSC program that prevents storm water contamination from vehicle repair.

**Effectiveness Measurement**

NA

91.1

**Implementation Plan**

Continue TAPS parking policy that prohibits vehicle maintenance on campus, except at the Central Garage facility.

**Measurable Goal**

Vehicle maintenance prohibitions remain in place in parking policies.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** All members of campus community: students, faculty, staff and neighbors.**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** TAPS

91.2

**Implementation Plan**

Continue University Residential Rental agreement requirements that prohibit vehicle maintenance on campus.

**Measurable Goal**

Vehicle maintenance prohibitions remain in place for residential rental agreements. CUHS will provide information about vehicle maintenance prohibition (and other storm water related policies) to residents in either electronic or paper format on an ongoing basis.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** student residents**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** CUHS

**BMP # 92      Reserved**

**BMP # 93      Pet Prohibitions****Permit Section:** D.2.c.3**Hyperlink:** <http://www2.ucsc.edu/police/awodut.html>**Description**

UCSC has a policy of prohibiting most pets on the Main Campus, the developed areas of the Marine Science Campus<sup>1</sup> and at 2300 Delaware. See:

<http://www.ucsc.edu/ppmanual/html/sps0005.htm>. This policy reduces the occurrence pathogen/coliform contamination in storm water from domestic animals.

This BMP was selected to document an existing UCSC program that prevents storm water contamination from pets.

**Effectiveness Measurement**

NA

93.1

**Implementation Plan**

Continue to implement UCSC Policy SPS0005: Non-Research Animals on Campus.

**Measurable Goal**

UCSC continues to have a policy that restricts domestic animals on campus.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** All members of campus community: students, faculty, staff and neighbors.**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** University Police

<sup>1</sup> Terrace Point field (undeveloped areas) is open to dogs on leash. Feces must be collected immediately.

**BMP # 94 Homeless Encampments****Permit Section:** D.2.c.1; D.2.c.3**Hyperlink:****Description**

The Main Campus, 2300 Delaware and the Marine Science Campus are all controlled access facilities. These three facilities are closed at night and access is restricted to those individuals with a stated purpose for being at the facility.

Homeless encampments have not been an issue at MBEST. Should encampments be found at any UCSC sites, a plan will be developed and implemented to control the activity.

This BMP addresses pathogen contamination of storm water, in addition to other potential constituents of concern, associated with homeless encampments.

This BMP was selected to document an existing program that demonstrates that UCSC has processes that prevent storm water contamination from homeless encampments.

**Effectiveness Measurement**

Is there evidence of homeless encampments at UCSC sites?

94.1

**Implementation Plan**

Continue night access practices.

Should homeless encampments be found at any UCSC sites, a plan will be developed and implemented to control the activity.

**Measurable Goal**

University Police enforce night access policies.

If homeless encampments are found, summary of control activities reported.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** University Police

**BMP # 95 Hazardous Waste Management Program****Permit Section:** D.2.c.1; D.2.c.4; D.2.c.5; D.2.f.1**Hyperlink:** [http://ehs.ucsc.edu/waste\\_management/](http://ehs.ucsc.edu/waste_management/)**Description**

EH&S operates a program for hazardous waste collection and disposal for all UCSC hazardous waste generators. This program does not apply to hazardous wastes generated by tenants. This program includes electronic container tracking to ensure timely labeling and disposal of materials generated. Materials are typically collected from generators within one week of receiving electronic notification of a full container or a container that is approaching the maximum accumulation time. All materials are disposed of in accordance with federal and state requirements. The simplicity and timeliness of this system helps to avert illegal disposal and related incidents.

This BMP applies to Main Campus, Marine Science Campus, 2300 Delaware and MBEST. At sites other than the Main Campus, collection may operate on a less frequent schedule; collection will be by personnel based at that facility; and collected materials are held at a central accumulation area at that facility.

Several times per year, EH&S offers to the UCSC community training for hazardous waste generators on proper classification and handling techniques for hazardous wastes. The training includes prohibitions on storm drain disposal of wastes and guidance on restrictions regarding sanitary sewer disposal of selected liquid wastes. This training ensures generators are aware of and know how to use safe and proper techniques for hazardous waste disposal. At sites other than the Main Campus, training is offered on an as-needed basis. Generators may also travel to the Main Campus for training.

This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations. This BMP is one of many that is designed to implement this requirement. The hazardous waste program also ensures that hazardous wastes generated in lab settings are properly handled. This BMP is intended to address the following storm water quality concerns: toxic materials.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

95.1

**Implementation Plan**

Continue existing hazardous waste management practices including electronic container tracking for all facilities and weekly hazardous waste pickup for the Main Campus.

**Measurable Goal**

On an annual basis, Hazardous Waste Manager summarizes program effectiveness and any changes made.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** All UCSC departments**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Hazardous Waste Manager

95.2

**Implementation Plan**

Several times per year, usually on a quarterly basis, EH&S offers the UCSC community training for hazardous waste generators on proper classification and generator handling techniques for hazardous waste.

**Measurable Goal**

On an annual basis, Hazardous Waste Manager will provide the number of campus community members that have successfully completed the hazardous waste training course.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** Generators of hazardous waste

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Hazardous Waste Manager

**BMP # 96      Hazardous Materials Emergency Response Organization**

**Permit Section:** D.2.c.1; D.2.c.4; D.2.c.5; D.2.f.1

**Hyperlink:**

**Description**

UCSC operates an emergency response team for hazardous materials that are in or may enter the storm drain system, as described in the UCSC Hazardous Materials Management Plan. EH&S is an integral component of this team. EH&S staff oversees the proper stabilization, clean-up and disposal of spilled hazardous materials and initiates corrective actions to prevent recurrences. This BMP applies to Main Campus, Marine Science Campus and 2300 Delaware. This BMP was selected because the General Permit requires the development and implementation of an operation and maintenance program that has the ultimate goal of preventing or reducing contaminated runoff from municipal operations as well as requiring a plan to address illicit discharges. This BMP is one of many that is designed to implement these requirements. This BMP is intended to address the following storm water quality concerns: toxic materials.

**Effectiveness Measurement**

BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

96.1

**Implementation Plan**

UCSC will continue to respond to reports of spilled hazardous materials that already are in or may enter the storm drain system. UCSC operates an emergency response team, as described in the Hazardous Materials Management Plan.

**Measurable Goal**

Hazardous Materials Emergency Response Organization continues to provide response to hazardous materials releases.

**Frequency:** ongoing

**Permit Year(s):**

<b>Yr1</b>	<b>Yr2</b>	<b>Yr3</b>	<b>Yr4</b>	<b>Yr5</b>
<input checked="" type="checkbox"/>				

**Targeted audience:** NA

**Sites:**

<b>Main</b>	<b>MSC</b>	<b>Delaware</b>	<b>MBEST</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S

**BMP # 97      Reserved**

**BMP # 98      Reserved**

**BMP # 99      Reserved**

**BMP # 100 Stormwater Infrastructure Improvements****Permit Section:**Hyperlink: <http://lrpd.ucsc.edu/final-eir.shtml>**Description**

This project includes infrastructure improvements, for issues identified in the Stormwater and Drainage Master Plan at locations along campus stream channels and drainages. Design and construction of the improvements are anticipated to take place in multiple phases over a multi-year period. Phase I will focus on erosion problems at the top of the drainage channels and some repairs in severely eroded areas. Phase II will focus on erosion problems within the drainage channels. Phases I and II of the Infrastructure Improvements Project storm water drainage components have a combined estimated construction cost of approximately \$5,400,000. This project is a state-funded project and Phase 1 is scheduled to start construction in 2008. Phase II has been funded for design and will need approval for construction in 2009. The 2004 Stormwater and Drainage Master Plan is available for review at <http://ppc.ucsc.edu/cp/projects/9065/>. A project description can be found in Volume III, Chapter 2 of: <http://lrpd.ucsc.edu/final-eir.shtml>.

**Effectiveness Measurement**

NA

100.1

**Implementation Plan**

Construction of Phase I improvements starting in 2008 with completion in summer 2009.

Construction of Phase II improvements targeted to start summer 2009 for completion in summer 2010.

**Measurable Goal**

Phases I and II are completed in 5 years.

Progress to be reported in annual SWMP report.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP&C

**BMP # 101    Reserved**

**BMP # 102    Reserved**

**BMP # 103    Reserved**

**BMP # 104 Encourage Alternative Transportation****Permit Section:****Hyperlink:****Description**

Reduce the use of personal automobile and associated impacts. UCSC will continue its existing and integrated approach to reduce the use of the personal automobile (and its associated impacts) by offering no-cost and low-cost commuting alternatives such as bus passes and vanpools, charging parking fees that reflect the costs of providing parking services, providing bike paths, providing showers for bike riders, frequent on-campus shuttle service (including bike shuttles), etc.

**Effectiveness Measurement**

NA

104.1

**Implementation Plan**

UCSC will continue its existing and integrated approach to reduce the use of the personal automobile (and its associated impacts) by offering no-cost and low-cost commuting alternatives such as bus passes and vanpools, charging parking fees that reflect the costs of providing parking services, providing bike paths, providing showers for bike riders, frequent on-campus shuttle service (including bike shuttles), etc.

**Measurable Goal**

Commuting alternatives continue to be supported by UCSC.

**Frequency:** ongoing**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** Entire UCSC community**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** TAPS

**BMP # 105    Reserved**

**BMP # 106    Reserved**

**BMP # 107 Existing Storm Water System Review****Permit Section:****Hyperlink:****Description**

UCSC will formalize the program to characterize and evaluate the potential for contaminants to enter sinkholes and develop a plan to institute controls where the evaluation indicates potential for significant contaminant transport to a sinkhole. This UCSC-specific BMP was selected to protect water quality by identifying and where needed correcting any potential contaminant transport to sinkholes.

**Effectiveness Measurement**

NA

107.1

**Implementation Plan**

During Permit Year 1: define proximity; identify all sinkholes in proximity to a potential contaminant source; and formalize a program to characterize and evaluate the potential for contaminants to enter sinkholes.

**Measurable Goal**

Proximity defined; sinkholes identified and program to characterize and evaluate formalized.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Environmental Programs Manager

107.2

**Implementation Plan**

During Permit Year 2, evaluate potential contaminant transport scenarios for individual sinkholes identified during Permit Year 1. For all significant, reasonably-anticipated, potential contaminant-transport scenarios, develop one or more BMP(s) and an implementation schedule.

**Measurable Goal**

Potential contaminant transport scenarios evaluated for identified sinkholes; where applicable, BMPs and implementation schedule developed.

**Frequency:** one time**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Targeted audience:** NA**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** EH&S: Environmental Programs Manager

107.3

**Implementation Plan**

In Permit Year 3, begin implementation of BMPs according to the schedule developed in Permit Year 2. In Permit Years 4-5, continue implementation of BMPs according to the schedule developed in Permit Year 2.

**Measurable Goal**

BMP Implementation Schedule is being met.

**Frequency:** ongoing

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** NA

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Primary Implementers:** PP&C

**BMP #108      Annual Program Review****Permit Section:** F.1.a; F.1.b;F.1.c; F.1.d; F.1.e; F.1.f; F.1.g**Hyperlink:****Description**

In accordance with the general permit requirements, UCSC will prepare an annual report. The annual report will include:

1. Status of compliance with permit conditions;
2. Status of the identified measurable goals;
3. An assessment of the appropriateness and effectiveness of the identified BMPs;
4. Evaluation of information collected and analyzed, including applicable monitoring data;
5. A summary of the storm water activities planned for the next permit year;
6. Recommended amendments to the SWMP along with a justification for such changes; and
7. Changes in responsibilities for implementing portions of the SWMP.

This BMP describes the process UCSC will use for reviewing program activities in order to generate the annual report.

Annual Review Process

The status of compliance with permit conditions and the status of the identified measurable goals shall be examined by reviewing the implementation of each BMP during the previous permit year. This effort shall occur near the end of each permit year. The Storm Water Manager (SWM) will facilitate this effort. The SWM shall generate a questionnaire and send it to each BMP task implementer. The implementer will complete and return the questionnaire and required documentation for each BMP task for which they are responsible. The SWM shall assemble these responses for inclusion in the annual report.

The annual report questionnaire shall include inquiries related to BMP effectiveness. BMP effectiveness shall be assessed as described below and as described in each BMP. Suggestions for improving BMP effectiveness or the effectiveness measure will be solicited. It is expected that some assessments will initially be qualitative. Qualitative responses can be very useful for directing future efforts.

As part of the annual review, the SWM will reflect/ assess in a larger context the direction and effectiveness of the SWMP, perhaps considering

- each control measure as a whole
- data collection and management
- internal communication with BMP implementers
- discussion of applicable monitoring data
- correlations between data and focus of SWMP
- and/or integration of new storm water management issues or techniques

Appropriateness and Effectiveness Assessments

The assessment of the appropriateness and effectiveness of the identified BMPs is a significant component of the annual report. This assessment is necessary to ensure appropriate and effective use of resources to achieve the Plan's desired outcomes. These outcomes include achieving and then maintaining permit compliance and protecting storm water quality to the maximum extent practicable.

It is expected that the appropriateness and effectiveness assessment procedures and parameters will evolve over time. In the early years of program implementation, a determination that the proposed activity was indeed completed or implemented may be appropriate. However as the program becomes established, effectiveness measurements should more closely reflect desired Plan outcomes in order to fully meet the general permit requirement of maximum extent practicable. A hierarchy of effectiveness measurements appropriate for storm water management from most basic to most significant is identified in CASQA's Municipal Stormwater Program Effectiveness Assessment Guide, May 2007 as:

1. documenting activities
2. raising awareness
3. changing behavior
4. reducing loads from sources
5. improving runoff quality
6. protecting receiving water quality

The efforts to measure effectiveness need to be judiciously chosen. Inappropriate effectiveness measurements can waste precious program resources while generating misleading data. Selection of effectiveness measurements must involve careful evaluation of proposed data collection and interpretation processes, to include an analysis of external variables that could significantly affect the results.

Three BMPs have been designed to provide substantial data for measuring the effectiveness of many Plan BMPs. These three BMPs are BMP #8 Storm Water Survey, BMP #41 Dry Weather Outfall Screening Program and BMP # 45 Illicit Discharge Reporting System. The exact components of the survey will be determined after the plan has been implemented for a year. The plan calls for surveys of both the general population and targeted audiences to better understand awareness and behaviors. The survey results will aid in assessing the effectiveness and appropriateness of BMPs and control measures aimed at raising awareness and changing behavior. The findings of the outfall-screening program may also be used to indicate if there are unaddressed areas in raising awareness and changing behavior. The illicit discharge reporting system will provide key information to indicate needs at all assessment levels. The information generated from these BMPs will be used in Permit Years 1-5 to quantitatively measure the effectiveness of most BMPs. The text of individual Plan BMPs indicates where these three BMPs will be used to measure effectiveness.

Those individuals selecting and implementing BMPs are critical to evaluating the appropriateness and effectiveness of the measures. BMP development teams will be reconvened to review incremental progress and recommend creating quantitative measures of assessment for reducing loads from sources, improving runoff quality, and/or protecting receiving water quality.

### Effectiveness Measurement

NA

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108.1

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### Implementation Plan

UCSC shall implement the annual SWMP review as described above.

During Permit Years 1, 2 and 3 UCSC will utilize the effectiveness measurements currently identified in text of the BMPs.

### Measurable Goal

Annual SWMP review is completed as described above.

**Frequency:** annually

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input checked="" type="checkbox"/>				

**Targeted audience:** All members of campus community: students, faculty, staff and neighbors.

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** Storm Water Manager

108.2

**Implementation Plan**

In Permit Year 3<sup>1</sup>, UCSC will reconvene the appropriate BMP development teams to identify assessment tools reflective of reducing loads from sources, improving runoff quality, and/or protecting receiving water quality as they relate to the UCSC SWMP.

Collection of the data needed to assess reducing loads from sources, improving runoff quality, and/or protecting receiving water quality will start no later than Permit Year 4. Data generated shall be included in each annual assessment.

The revised appropriateness and effectiveness plan will be documented.

**Measurable Goal**

The revised appropriateness and effectiveness plan is included in the Year 3 annual report.

**Frequency:** one time

**Permit Year(s):**

Yr1	Yr2	Yr3	Yr4	Yr5
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Targeted audience:** BMP implementers and BMP development team members

**Sites:**

Main	MSC	Delaware	MBEST
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Primary Implementers:** Storm Water Manager

<sup>1</sup> Permit Year 3 has been chosen for two primary reasons. First, Year 1 is expected to be especially busy and is already anticipated to require additional human resource allocations. Second, UCSC feels that at least two years of implementation knowledge, including CC RWQCB feedback on at least one annual report, is essential to a valid review and design for potentially costly tools to measure outcome levels 4 to 6.

BMP #	1	Electronic Brochures and Flyers: General Storm Water Awareness and Targeted Topics										
Effectiveness Measurement	Determine awareness of brochures when conducting the survey described in BMP #8.											
	Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)									
1.1	Storm Water Manager will be responsible for the development of the 5 specified storm water electronic brochures/flyers.	A general information brochure is available by end of Permit Year 1. This goal was met in the Fall of 2006. A second brochure was added in Spring 2007. A brochure for Construction Site Controls is available by the end of Permit Year 1. A brochure for Outside Services, Contractors and Lessees is available by the end of Permit Year 2. A brochure for Food Service Facilities is available by the end of Permit Year 1. A brochure for Custodial Services is available by the end of Permit Year 1.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Distribute brochures. Brochure/flyer(s) delivered to campus community segments via web page and email. Depending upon need and opportunity, also distribute via presentations or tabling events. Track all distribution methods used.	By the end of Year 1 the 4 specified brochures are available on web page. (The general information brochure was posted in the Fall of 2006. A second general information brochure on erosion from informal paths was added in 2007.) By the end of Year 2 the fifth specified brochure is available on the web page. At least one time per year each of the 5 required brochures is emailed to targeted audiences By the end of Permit Year 2, the custodial services brochure will be distributed to 100% of current employees. At least 100 hard copies of the brochures will be distributed annually. The 100 hard copies may be a mix of any of the 5 specified brochures.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>				
1.3	Review the 5 specified brochures annually and revise as needed to address emerging campus storm water issues.	By end of each permit year, the 5 specified brochures have been reviewed and updated as needed.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.4	CUHS-Dining Services and Custodial Services to determine if brochures targeted to their audiences should be translated into additional languages. If yes, the affected departments or the Storm Water Manager will provide the translation. The Storm Water Manager will web post and provide initial email distribution of the translated brochures.	Translation need determined by the end of Permit Year 1. If translation needed, translated brochure available by October of Permit Year 2.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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BMP #	8	Storm Water Survey										
Effectiveness Measurement	Track the number of surveys completed, the number of targeted surveys conducted, the number of targeted surveys completed, and the number of findings that result in changes to the SWMP.											
	Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)									
8.1	Develop survey development plan: student intern(s) determine options such as availability and applicability of existing surveys, etc.	Survey development plan complete by December of Permit Year 2	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.2	Student intern to develop and beta test survey.	Survey beta tested by March 31 of Permit Year 2	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.3	Student intern to administer survey and analyze results.	Survey administered by April 20 of Permit Year 2. Results analyzed by June 30 of Permit Year 2.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8.4	During Permit Years 3, 4 and 5, develop and administer either a broad-based or targeted survey (as determined by the Storm Water Manager and student intern) following the guidelines established for surveys during Permit Year 2	Survey administered and results analyzed by June 30 of Permit Years 3, 4 and 5.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

BMP #	12	Web Page						
Effectiveness Measurement	Track number of web page visits.		Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)			
12.1	On a quarterly basis, update web page with current SWMP information: SWMP, brochures/flyer, annual reports, notices for upcoming activities, etc. Maintain and track the number of hits to the existing storm water web page.	Web page updated at least quarterly with current SWMP activities (copies of brochures/flyers, annual reports, notices for upcoming activities, etc.).		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
				<input checked="" type="checkbox"/>				

BMP #	13	Mark Storm Drains						
Effectiveness Measurement	Track % of drains marked.		Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)			
13.1	Establish storm drain marking team with members from PP&C, PP-Grounds, CUHS, TAPS, and EH&S. During Permit Year 1, storm drain marking team to meet and select markers and designate locations to be marked.	Markers selected and marker purchase made prior to end of Permit Year 1. This goal was met in September 2007.		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.2	Implement the marking schedule during Permit Years 1-3.	By the end of Permit Year 3, mark 100% of storm drains located on Primary and Secondary roads.		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.3	Implement the marking schedule during Permit Years 1-4.	By the end of Year 3, mark 80% of storm drains on CUHS service roads. By the end of Year 4, mark 100% of storm drains on CUHS service roads.		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13.4	Implement the marking schedule during Permit Years 1-4.	By the end of Year 3, mark 80% of storm drains in main campus parking lots. By the end of Year 4, mark 100% of all parking lots.		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13.5	Utilize volunteers/interns to identify locations where the markers are missing or damaged.	By the end of Permit Year 3, mark 100% of storm drains located on Primary and Secondary roads. By the end of Year 3, mark 80% of storm drains on CUHS service roads. By the end of Year 4, mark 100% of storm drains on CUHS service roads. By the end of Year 3, mark 80% of storm drains in main campus parking lots. By the end of Year 4, mark 100% of all parking lots.		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
				<input checked="" type="checkbox"/>				
13.6	Storm drain marking team to determine additional locations for storm drain marker installation and schedule for installation. Storm Water Manager to seek a student representative to join the team.	By the end of year 3, marking team has reconvened and developed an action plan for any additional marking.		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>BMP #</b>	<b>14</b>	<b>Access to SWMP</b>							
<b>Effectiveness Measurement</b>	Track # of complaints to Public Information Office and Storm Water Manager from people who cannot access the SWMP.								
	<b>Implementation Plan</b>	<b>Measurable Goal(s)</b>	<b>Applicable Permit Year(s)</b>						
14.1	Make SWMP available at EH&S Office, McHenry Library and on web page.	SWMP available at designated locations within 30 days of RWQCB approval.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14.2	Make annual reports available at EH&S Office, McHenry Library and on web page.	Annual reports available at designated locations within 30 days of completion. At same time, verify SWMP still available at all locations.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>BMP #</b>	<b>15</b>	<b>BMP Development Team: Illicit Discharge Detection and Elimination</b>							
<b>Effectiveness Measurement</b>	Team members included departments and/or persons with significant impact on Illicit Discharge Detection and Elimination. Team has developed BMPs that meet MEP.								
	<b>Implementation Plan</b>	<b>Measurable Goal(s)</b>	<b>Applicable Permit Year(s)</b>						
15.1	During the development of the SWMP, EH&S communicated with many groups (via email and meetings) to develop the illicit discharge and elimination program element.	BMPs selected prior to Permit Year 1. BMP selection completed as of March 2006.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>BMP #</b>	<b>16</b>	<b>BMP Development Team: Construction Sites</b>							
<b>Effectiveness Measurement</b>	Team members included departments and/or persons with significant impact on construction sites. Team has developed BMPs that meet MEP.								
	<b>Implementation Plan</b>	<b>Measurable Goal(s)</b>	<b>Applicable Permit Year(s)</b>						
16.1	During the development of the SWMP, EH&S communicated with PP&C and PP-Work Management (via email and meetings) to develop BMPs for construction sites.	BMPs selected prior to Permit Year 1. BMP selection completed as of March 2006.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>BMP #</b>	<b>17</b>	<b>BMP Development Team: New Development</b>							
<b>Effectiveness Measurement</b>	Team members included departments and/or persons with significant impact on new development standards. Team has developed BMPs that meet MEP.								
	<b>Implementation Plan</b>	<b>Measurable Goal(s)</b>	<b>Applicable Permit Year(s)</b>						
17.1	During the development of the SWMP, EH&S communicated with PP&C and PP-Grounds (via email and meetings) to develop the New Development Design Requirement for Storm Water Management.	BMPs selected prior to Permit Year 1. Initial BMP selection completed as of December 2006	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>BMP #</b>	<b>18</b>	<b>BMP Development Team: Food Service Facilities</b>							
<b>Effectiveness Measurement</b>	Team members included departments and/or persons with significant impact on food service facilities.								
	<b>Implementation Plan</b>		<b>Measurable Goal(s)</b>						<b>Applicable Permit Year(s)</b>
18.1	Team members identified. Team meeting held. Draft BMPs discussed. BMPs selected.		BMPs selected prior to Permit Year 1. BMP selection completed August 2005.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	
				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<b>BMP #</b>	<b>19</b>	<b>BMP Development Team: Parking Services</b>							
<b>Effectiveness Measurement</b>	Team members included departments and/or persons with significant impact on parking services. Team has developed BMPs that meet MEP.								
	<b>Implementation Plan</b>		<b>Measurable Goal(s)</b>						<b>Applicable Permit Year(s)</b>
19.1	Team members identified. Team meeting held. Draft BMPs discussed. BMPs selected.		BMPs selected prior to Permit Year 1. BMP selection completed August 2005.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	
				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<b>BMP #</b>	<b>20</b>	<b>BMP Development Team: Grounds Services</b>							
<b>Effectiveness Measurement</b>	Team members included departments and/or persons with significant impact on Grounds Services. Team has developed BMPs that meet MEP.								
	<b>Implementation Plan</b>		<b>Measurable Goal(s)</b>						<b>Applicable Permit Year(s)</b>
20.1	Team members identified. Team meeting held. Draft BMPs discussed. BMPs selected.		BMPs selected prior to Permit Year 1. Initial BMP selection completed December 2006.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	
				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<b>BMP #</b>	<b>23</b>	<b>BMP Development Team: Management Controls to Prevent Illicit Discharges</b>							
<b>Effectiveness Measurement</b>	Team members include departments and/or persons with significant impact on contractual controls to prevent illicit discharges. Team develops BMPs that meet MEP.								
	<b>Implementation Plan</b>		<b>Measurable Goal(s)</b>						<b>Applicable Permit Year(s)</b>
23.1	During Permit Years 1 and 2, EH&S to communicate with Purchasing, PP-Work Management and other affected departments to develop boilerplate contract language prohibiting illicit discharges to storm water (as described in BMP #43).		Boilerplate contract language adopted by the end of Permit Year 2.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	
				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

BMP #	Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
25	BMP Development Team: Investigation of Non-Storm Water Discharges						
	Effectiveness Measurement: All potential non-storm water flows characterized and where needed a BMP is in place.						
25.1	During Permit Year 2, the 3 water line flushing flows (Main Campus, MSC and 2300 Delaware) and 2 potential flows from 2300 Delaware (uncontaminated ground water infiltration, and air conditioning condensation) will be investigated. The team will determine if the flows occur, and if so, how they should be addressed. If an action plan is needed to abate or to treat flows, it shall be implemented as soon as possible and shall include interim control measures for any actions which will require more than 6 months to implement.	By the end of Permit Year 2, investigation and an action plan are complete for water line flushing and for potential flows at 2300 Delaware.	Yr 1 <input type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input type="checkbox"/>	Yr 4 <input type="checkbox"/>	Yr 5 <input type="checkbox"/>
25.2	During Permit Year 3, the potential non-storm water flows from residential car washing at MSC, Family Student Housing and Faculty/Staff Housing will be investigated. The team will determine if the flows occur, and if so, how they should be addressed. If an action plan is needed to abate or to treat flows, it shall be implemented as soon as possible and shall include interim control measures for any actions which will require more than 6 months to implement.	By the end of Permit Year 3, investigation and an action plan are complete for residential car washing flows.	Yr 1 <input type="checkbox"/>	Yr 2 <input type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input type="checkbox"/>	Yr 5 <input type="checkbox"/>
34	BMP Development Team: Building Exterior Maintenance						
	Effectiveness Measurement: Team members included departments and/or persons with significant impact on building exterior maintenance. Team has developed an implementation plan to meet MEP.						
34.1	During Permit Year 1, EH&S to communicate with PP-Paint Shop, CUHS-Facilities, PP-Custodial and other affected departments to develop BMPs for exterior building maintenance.	Generally recognized applicable BMPs reviewed. BMPs selected and implementation plan developed by the end of Permit Year 1.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input type="checkbox"/>	Yr 3 <input type="checkbox"/>	Yr 4 <input type="checkbox"/>	Yr 5 <input type="checkbox"/>
35	Storm Water Advisory Committee						
	Effectiveness Measurement: Tally the number of issues brought to CLUMAC for consideration and recommendation.						
35.1	CLUMAC will be informed of SWMP-related activities and may offer guidance and assistance in implementing the SWMP. EH&S will make at least semi-annual presentations to CLUMAC on the SWMP. Interested parties may bring issues to CLUMAC for recognition and guidance.	At least twice a year, SWMP issues will be included in the CLUMAC agenda.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>

<b>BMP #</b>	<b>38</b>	<b>Site Stewardship Program</b>							
<b>Effectiveness Measurement</b>	NA								
	<b>Implementation Plan</b>		<b>Measurable Goal(s)</b>	<b>Applicable Permit Year(s)</b>					
38.1	Continue the UCSC Site Stewardship Program.		A minimum of 2 work days will be held each year with at least 8 participants per work day.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	
				<input checked="" type="checkbox"/>					
<b>BMP #</b>	<b>39</b>	<b>Volunteers and Internships</b>							
<b>Effectiveness Measurement</b>	NA								
	<b>Implementation Plan</b>		<b>Measurable Goal(s)</b>	<b>Applicable Permit Year(s)</b>					
39.1	Recruit volunteers and student interns to assist in developing and implementing BMPs.		Interns perform at least 200 hours per year of service for the storm water program.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	
				<input checked="" type="checkbox"/>					
<b>BMP #</b>	<b>40</b>	<b>Water Protection Policy</b>							
<b>Effectiveness Measurement</b>	Track the number of policy violations. Track the enforcement mechanisms used to resolve policy violations.								
	<b>Implementation Plan</b>		<b>Measurable Goal(s)</b>	<b>Applicable Permit Year(s)</b>					
40.1	Storm Water Manager will work with the Policy Coordination Office to develop a draft policy for campus review and adoption by Chancellor.		Water Protection Policy adopted during permit Year 1.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	
				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
40.2	Once the policy is adopted, the Water Protection Policy shall be implemented in accordance with campus guidelines.		A publicity mechanism such as campus wide email will be used to inform all members of the campus community of the new policy.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	
				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>BMP #</b>	<b>41</b>	<b>Dry Weather Outfall Screening Program</b>							
<b>Effectiveness Measurement</b>	Screening identifies and eliminates discharges or provides verification that non-storm water discharges are not occurring. This shall be measured by comparing the number of outfalls screened with the number of discharges found, the number of illicit discharges found, and the number of illicit discharges eliminated.								
	<b>Implementation Plan</b>		<b>Measurable Goal(s)</b>	<b>Applicable Permit Year(s)</b>					
41.1	Outfall screening team is developed and trained. Storm Water Manager shall coordinate the team. EHS, PP-Grounds, PP-Plumbing, LML-Facilities and MBEST shall participate.		Team developed and trained during Permit Year 3.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	
				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
41.2	Main Campus outfalls screened by outfall screening team. Actual responsibilities shall be determined.		All outfalls screened during Permit Years 4 and 5. Detected non-storm water discharges are investigated.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

41.3	MBEST outfalls screened.	All outfalls screened in Permit Years 3, 4 and 5. Detected non-storm water discharges are investigated.	Yr 1 <input type="checkbox"/>	Yr 2 <input type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
41.4	MSC and Delaware outfalls screened by outfall screening team. Responsibilities to be determined.	All outfalls screened in Permit Years 3, 4 and 5. Detected non-storm water discharges are investigated.	Yr 1 <input type="checkbox"/>	Yr 2 <input type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>

**BMP # 42 Management Controls to Prevent Cross Connections**

Effectiveness Measurement Cross connections are not detected by BMP #41 Dry Weather Outfall Screening Program.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
42.1 Continue the existing rigorous planning, design, construction management and commissioning process for new construction to ensure cross connections or other illicit connections do not occur.	All new plumbing work is verified either through the building commissioning process or by the PP-Plumbing Department.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
42.2 For new construction, the City of Marina will provide planning, design, permitting and construction inspections to ensure cross connections or other illicit connections do not occur	All plumbing work associated with new construction will be permitted through the City of Marina.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>

**BMP # 43 Management Controls to Prevent Illicit Discharges**

Effectiveness Measurement BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
43.1 The Storm Water Manager shall work with Purchasing, PP-Work Management, and MBEST to develop boilerplate language for leases and work/service contracts prohibiting improper, outside or storm drain disposal of wastes. The group shall determine applicable situations and develop language during Permit Year 2. The contractor brochure developed for BMP #1, Electronic Brochures and Flyers: General Storm Water Awareness and Targeted Topics, will be referred to in the contract language.	During Permit Year 2, applicable situations identified and boilerplate contract language adopted.	Yr 1 <input type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input type="checkbox"/>	Yr 4 <input type="checkbox"/>	Yr 5 <input type="checkbox"/>
43.2 Boilerplate storm water language used in affected documents beginning in Permit Year 3.	During Permit Years 3-5, boilerplate language used.	Yr 1 <input type="checkbox"/>	Yr 2 <input type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>

**BMP # 44 Storm Drain System Maps**

Effectiveness Measurement Once initial maps are completed, annual review verifies 100% of changes have been incorporated.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
44.1 The UCSC Main Campus storm drain infrastructure map will be reviewed by PP-Grounds to indicate all existing outfalls; receiving waters shall be identified and located.	During Permit Year 1, the storm drain map for Main Campus is completed.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input type="checkbox"/>	Yr 3 <input type="checkbox"/>	Yr 4 <input type="checkbox"/>	Yr 5 <input type="checkbox"/>

44.2	The UCSC Main Campus storm drain infrastructure map will be updated by PP&C to reflect changes indicated by PP-Grounds.	During Permit Year 1, the storm drain map for Main Campus is completed.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44.3	The MSC and 2300 Delaware storm drain infrastructure maps will be reviewed by PP-Grounds to show existing outfalls; receiving waters shall be identified and located.	During Permit Year 2, storm drain maps for 2300 Delaware and MSC are completed.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44.4	The MSC and 2300 Delaware storm drain infrastructure maps will be updated by PP&C to reflect changes indicated by PP-Grounds.	During Permit Year 2, storm drain maps for 2300 Delaware and MSC are completed.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44.5	The MBEST storm drain infrastructure maps will be reviewed and updated by MBEST to show existing outfalls; receiving waters shall be identified and located.	During Permit Year 3, storm drain map for MBEST is completed.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44.6	During May or June of each year, storm drain maps for the Main campus, 2300 Delaware and MSC will be reviewed by PP-Grounds to ensure 100% of changes have been incorporated. Main Campus review to begin in Year 2. MSC and 2300 Delaware review to begin in Year 3.	Affected departments verify that maps are complete.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
44.7	PP&C will update the storm drain maps for the Main campus, 2300 Delaware and MSC to incorporate changes due to completion of capital projects and as indicated by PP-Grounds review.	Affected departments verify that maps are complete.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				
44.8	During May or June of each year, storm drain maps for MBEST will be reviewed by MBEST to ensure 100% of changes have been incorporated. MBEST will update the storm drain maps to incorporate changes due to completion of capital projects and as indicated by facility review. MBEST review to begin in Year 4.	Affected departments verify that maps are complete.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**BMP # 45 Illicit Discharge Reporting System**

Effectiveness Measurement Track number of reports received. Track % of reports that represent an illicit discharge or threat of illicit discharge. Track % of reports closed and number of days to closure. Track types of publicity used.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
45.1 Establish an illicit discharge reporting system with the following components: telephone number with trained attendant; emergency reporting to 9-1-1; web-based reporting; written reporting, investigation and corrective action procedures; and report tracking. The system will include provisions for input/complaints regarding construction site storm water runoff concerns.	The system will be established during Permit Year 1.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45.2 Operate the illicit discharge reporting system	All components of the system are in place. 100% of reports are investigated.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>				
45.3 All new construction sites with a construction site sign, as specified in the Campus Standards Division II, Section 02800 ( <a href="http://ppc.ucsc.edu/standards/specifications/02000.pdf">http://ppc.ucsc.edu/standards/specifications/02000.pdf</a> ), shall include a notice about how to report storm water concerns, which includes the illicit discharge reporting phone number.	A storm water concerns reporting notice is included in the signage at all applicable construction sites.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>				

45.4	Publicize the illicit discharge reporting system. Publicity mechanisms may include: web information, employee training sessions, PSAs (Public Service Announcements), tabling events, dining hall table tent-type brochures and other postings, etc.	Publicity mechanisms are employed annually.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				
45.5	Annually review reports to the system to determine system effectiveness and opportunities for improvements.	Annual review is completed and documented.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				

**BMP # 46 Illicit Discharge Brochures and Flyers**

Effectiveness Measurement NA

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
46.1 During Permit Year 4, an additional brochure addressing illicit discharge will be produced if a specific need has been identified. Otherwise, a review will be made of all other brochures and where applicable an illicit discharge component will be added.	New brochure produced or other brochures updated to include illicit discharge by the end of Permit Year 4.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**BMP # 47 Review of Non-Storm Water Discharges**

Effectiveness Measurement All applicable flows identified and classified.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
47.1 During the development of the SWMP, 17 categories of potential non-storm water discharges were reviewed and existing conditions classified as either: a flow covered by a BMP, a flow that is not a significant source of constituents of concern, a potential flow requiring further investigation, or no flow.	All applicable flows identified and classified. Appendix D is the completed work product for this BMP.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**BMP # 48 Campus Standards Handbook and Construction Contracts for Storm Water Management**

Effectiveness Measurement Track number of reports to illicit discharge reporting system, BMP #45, related to construction sites. Track number of formal and informal NOVs received related to this item.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
48.1 Continue existing Erosion and Sediment Control program elements.	Erosion Control Standards and related requirements incorporated into all applicable new construction contracts.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>				
48.2 For all construction projects subject to the Construction General Permit, PP&C reviews the contractor prepared SWPPP and related documents. All SWPPP and related documents are reviewed for completeness before endorsing the NOI.	All SWPPP and related documents are reviewed for completeness before the NOI is submitted.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>				
48.3 Continue to include in all construction contracts provisions for penalties and breach of contract provisions.	All new construction contracts contain standard provisions for penalties and breach of contract.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>				

BMP #	Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
51	<b>Construction Site Inspection Procedures</b>						
Effectiveness Measurement	Track number of reports to illicit discharge reporting system, BMP #45, related to construction sites. Track number of formal and informal NOVs received related to this item.						
51.1	During Permit Year 1, PP&C will develop inspection procedures and checklists for storm water management. The inspection procedure will apply to all sites that disturb more than 50 cubic yards of dirt and projects over one acre.	Procedures and checklists developed during Permit Year 1.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input type="checkbox"/>	Yr 3 <input type="checkbox"/>	Yr 4 <input type="checkbox"/>	Yr 5 <input type="checkbox"/>
51.2	PP&C will implement inspection procedures and checklists no later than the beginning of Permit Year 2. Inspections during the non rainy season will be, at a minimum, once for projects disturbing more than 50 cy of dirt and once every two months for projects over an acre. Inspections during the rainy season will be once a month for all projects disturbing over 50 cy of dirt or over an acre.	Procedures and checklists implemented.	Yr 1 <input type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
51.3	PP-Work Management will implement inspection procedures and checklists no later than the beginning of Permit Year 2. Inspections during the non rainy season will be, at a minimum, once for projects disturbing more than 50 cy of dirt and once every two months for projects over an acre. Inspections during the rainy season will be once a month for all projects disturbing over 50 cy of dirt or over an acre.	Procedures and checklists implemented.	Yr 1 <input type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
52	<b>Plan Review for Storm Water Quality Impacts</b>						
Effectiveness Measurement	All Initial Studies and EIRs consider impacts on storm water runoff quality and quantity, assess the effectiveness of proposed BMPs, and, if necessary, identify mitigation measures to ensure that project BMP meet the campus' performance standards.						
52.1	Review and, if necessary, revise, all CEQA documents to ensure that storm water runoff quality and quantity are considered.	By the end of Permit Year 2, CEQA documents have been reviewed and revised if necessary. After Permit Year 2, Storm water runoff quality and quantity are considered in all CEQA documents.	Yr 1 <input type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
54	<b>Construction Site Storm Water BMP Training</b>						
Effectiveness Measurement	Track number of reports to illicit discharge reporting system, BMP #45, related to construction sites.						
54.1	Annual training for impacted PP&C staff on construction site storm water management BMPs, including construction site inspection procedures. Provide training to impacted PP&C staff annually prior to October 1 of each year.	100% of affected PP&C and PP-Work Management staff have participated in training before October 1 of Permit Year 1. Not less than 70% of affected PP&C and PP-Work Management staff participate in annual retraining.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>

BMP #	55	Main Campus Planning and Design Requirements for Storm Water Management and Watershed Protection										
Effectiveness Measurement	Evaluate percent of completed projects that meet design requirements.											
Implementation Plan	Measurable Goal(s)		Applicable Permit Year(s)									
55.1	For applicable new construction, continue to: provide for runoff rate control from new development; require various measures for erosion control, drainage, and landscaping to protect post-development storm water quality; limit the number of parking spaces constructed; and equip applicable new landscaping with computer-controlled irrigation system linked to a weather station as currently included in the Campus Standards Handbook. See current version of Section 2 Building Requirements and Section 3 Site Requirements.	PP&C and PP-Work Management shall each document that applicable measures are included in all completed construction projects.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>				
55.2	Implement Civil and Site Design Guidelines Supplement. The October 2007 Civil and Site Design Guidelines Supplement drafted by PP&C shall be added to the campus standards. These requirements shall apply for all projects receiving design funding after July 2009. A working copy of the Civil and Site Design Guidelines Supplement is included as Appendix F.	For all projects funded for design after July 2009, PP&C and Work Management shall each document that Civil and Site Design Guidelines Supplement have been included in the completed projects.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>				
55.3	Main campus projects funded for design after July 2009 that increase impervious surface will be required to provide volume control to the maximum extent practicable. The campus has set the applicability level for this task to capital projects that increase impervious surface. In order to ensure maximum extent practicable is achieved the campus plans to have design professionals utilize a narrative checklist of LID practices. This checklist will become part of the project file. The draft checklist is attached as Appendix G. It is expected that the evaluation shall be tiered to require a less extensive evaluation for smaller projects. As of Spring 2008, it is planned that projects creating less than 5000 square feet of impervious surface may use the LID checklist for small projects, attached as Appendix H.	Prior to July 2009, PP&C shall finalize the protocol for a project-specific evaluation of the LID Practices. After July 2009, PP&C and Work Management shall document that all capital projects creating new impervious surfaces include an evaluation of LID practices and incorporate feasible LID practices.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>				
55.4	Beginning July 2009, all RFPs for design professionals for applicable capital projects shall state that incorporating LID practices is an important campus goal.	Applicable RFPs state that incorporating LID practices is an important campus goal.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>				
55.5	All new development and redevelopment projects that add or replace greater than 5000 sf of impervious surface will be designed to control for the pre and post rate and duration for a range of flows that exert the most work on the channel.	All applicable capital projects funded for design after January 2010 incorporate these hydromodification restrictions.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
55.6	Study water quality and watershed issues specific to Campus drainages including types of land use for development of long term hydromodification criteria for all new development and redevelopment projects that add or replace greater than 5000 sf of impervious surface.	Long term hydromodification requirements submitted to the Board with the year five annual report.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

55.7	<p>In accordance with recommendations contained in the Stormwater &amp; Drainage Master Plan, adopt additional source control requirements for erosion and sediment control with an emphasis on potential pollutants from vehicles and from food service facilities.</p>	Design requirements added to Campus Standards during Permit Year 1.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<p>PP&amp;C shall adopt the following design requirements to provide source control:</p>						
	<ol style="list-style-type: none"> <li>1. Design loading docks to minimize storm water run-on and run-off through the use of grading design and berms or their equivalent.</li> <li>2. Culverts are a minimum 8" diameter and designed for a 10-year storm to minimize system overcapacity events to prevent overflow erosion.</li> <li>3. Where new development drains to existing outfalls, the existing outfalls shall be upgraded as necessary to extend to toe of slope and provide energy dissipation.</li> <li>4. Drainage plans shall be approved, signed and stamped by a licensed Civil Engineer or an Approved Erosion Control Specialist (as defined in the UCSC Erosion Control Standards), certifying that the design is adequate to prevent erosion.</li> <li>5. Label storm drain inlets and catch basins to indicate prohibition of illegal discharge.</li> <li>6. Outdoor materials storage areas shall be designed to prevent storm water contamination from loose, particulate or dissolved materials. Design features will include covering or enclosing storage areas and preventing run-on and run-off through the use of berms or grading design or their equivalent.</li> <li>7. To prevent wind-blown trash, provide trash container areas screened or walled on 3 sides and require container lids or equivalent.</li> <li>8. Dumpster areas designed with storm water run-on diversion.</li> <li>9. Vehicle wash racks to include closed-loop, recycled water system.</li> <li>10. Food facilities designed with the following:             <ol style="list-style-type: none"> <li>a. Oil and grease interceptor design approved by jurisdiction overseeing sanitary waste water discharge.</li> <li>b. Wash area for cleaning of equipment and accessories. Wash area connected to the oil and grease interceptor and the sanitary sewer.</li> <li>c. If the wash area is outdoors, it must be covered and designed to prevent storm water run-on and run-off.</li> </ol> </li> <li>11. Liquid vehicle fuel dispensing areas covered with an overhanging roof structure. The fuel dispensing pad designed to prevent storm water run-on and run-off and to contain the worst-case, reasonably anticipated fuel spill.</li> <li>12. Maintenance procedures and maintenance schedules will be provided to the University Representative for all pre-engineered storm water treatment structures.</li> <li>13. Minimize the size of parking lots and minimize the impervious land coverage of parking lots.</li> <li>14. To encourage storm water infiltration in small parking lots eliminate curbs or provide curb openings and slope parking lots to encourage storm water infiltration into vegetation islands and strips where the potential for erosion or a hazardous material spill is not expected.</li> <li>15. Encourage on-site absorption, including porous pavers, vegetative strips, grassy swales, detention ponds and infiltration strips. Feasibility may be limited by constraints such as topography, vegetative detritus, accessibility compliance under ADA, provisions for emergency vehicle access, soil permeability as well as sufficient sunlight to permit plant growth.</li> <li>16. Vegetate slopes disturbed by construction with native or drought-tolerant plants, as appropriate where environmental conditions allow plant growth and mulch or other control measures where vegetation is not viable.</li> <li>17. Whenever armoring is needed in drainages, soft (rather than hard) armoring shall be used if environmental conditions and engineering analysis determine soft armoring to be appropriate.</li> <li>18. Oil/water/sediment catch basins at loading docks and all parking lots not equipped with a pre-engineered oil/water/sediment separator.</li> <li>19. Runoff from parking lots &gt; 5,000 sq. ft. will be treated for oil, grease and sediment</li> </ol>						

before being released. Volume based treatment will be calculated using either the 85th percentile, 24-hour storm event or 80 percent of the annual runoff volume. Flow based treatment will be calculated using either the 85th percentile hourly rainfall intensity, multiplied by a factor of two or 10 percent of the 50 year peak flow.

20. Storm water discharge from new roads will be treated for oil, grease and sediment before being released. Volume based treatment will be calculated using either the 85th percentile, 24-hour storm event or 80 percent of the annual runoff volume. Flow based treatment will be calculated using either the 85th percentile hourly rainfall intensity, multiplied by a factor of two or 10 percent of the 50 year peak flow.

21. Provide 12" deep sediment trap in bottom of all drain inlets and catch basins. Special access provisions will be required where the invert exceeds 36". Catch basins to be minimum 24" wide to allow cleanout.

For any of the above proposals that are modified or not adopted, UCSC will provide justification in the annual report.

55.8	Once the Campus Standards Handbook has been amended to include the source control requirements established in Task 55.7, all newly-funded capital projects shall include these requirements to the extent applicable.	Projects funded after campus standards are updated shall include all applicable requirements.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
55.9	In accordance with the LRDP study the feasibility of reclaimed water use, including rainwater and other sources. The study shall include a plan to utilize reclaimed water in new development as feasible and effective in water conservation and shall include an implementation schedule.	Implement LRDP UTIL-9G and summarize findings and planned implementation schedule.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**BMP # 56 Pervious Paving Pilot Project**

Effectiveness Measurement NA

Implementation Plan

Measurable Goal(s)

Applicable Permit Year(s)

56.1	During Permit Years 3 and 4, UCSC will identify a pilot project for pervious paving. A thorough post-construction evaluation of the pilot project will determine if requirements for pervious paving shall be added to the Campus Standards Handbook.	Pervious paving pilot project(s) completed and evaluated. Changes made to Campus Standards or justification for rejection included in annual report.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**BMP # 57 MSC Planning and Design Requirements for Storm Water Management and Watershed Protection**

Effectiveness Measurement The CLRDP Drainage Concept Plan requires an Annual Water Quality report. UCSC shall annually assess the effectiveness of this BMP in accordance with the Annual Water Quality Report requirements.

Implementation Plan

Measurable Goal(s)

Applicable Permit Year(s)

57.1	Implement the storm water components of the CLRDP, including policies, policy implementation measures, a Resource Management Plan and a Drainage Concept Plan. Annually summarize all related activities. The annual summary may follow a reporting year established by the CLRDP rather than the reporting year of the SWMP.	Implement the storm water components of the CLRDP. Annually provide a summary of implementation.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				

BMP #	Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
<b>58</b>	<b>MBEST Planning and Design Requirements for Storm Water Management and Watershed Protection</b>						
Effectiveness Measurement	All new development includes design provisions to ensure runoff from the 10 year storm is retained on site.						
58.1	Include infiltration basins in all new development at the MBEST Center.	Infiltration basins are included in all new development.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
<b>59</b>	<b>Staff Training on Hydromodification and Low Impact Development</b>						
Effectiveness Measurement	BMPs 55, 56, 57 and 58 are implemented as described.						
59.1	On an annual basis, PP&C qualified staff shall coordinate training for affected staff on hydromodification and Low Impact Development. The training shall be updated as needed to cover UCSC specific requirements as well evolving practices in hydromodification and LID. This training may be held in conjunction the training required by BMP #54.	At a minimum 50% of affected staff participate in annual retraining.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
<b>60</b>	<b>Operation and Maintenance of New Development BMPs</b>						
Effectiveness Measurement	Track number and type of reports to the illicit discharge reporting system or other communications regarding maintenance of structural BMPs.						
60.1	During construction, PP&C identifies all structural BMPs included in each project. For each structural BMP a responsible party is identified and agrees to assume long term maintenance of structural BMPs prior to final completion of project.	Prior to final completion of project, responsibility for long term maintenance of all new structural BMPs has been assigned and accepted.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
<b>62</b>	<b>Storm Water BMP Training</b>						
Effectiveness Measurement	The effectiveness of training will be assessed either by reviewing participant post-training evaluations or by reviewing participant responses to post-training quizzes. BMP effectiveness may also be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.						
62.1	On an annual basis, PP-Grounds Services shall receive training on BMPs to reduce storm water constituents of concern. Training may utilize electronic brochures General Storm Water Awareness (BMP #1).	At least 90% of applicable PP-Grounds employees will participate in initial training. At least 90% of applicable PP-Grounds employees will be retrained annually.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
62.2	On an annual basis, CUHS-Facilities shall receive training on BMPs to reduce storm water constituents of concern. Training may utilize electronic brochures General Storm Water Awareness (BMP #1).	At least 90% of applicable CUHS-Facilities employees will participate in initial training. At least 90% of applicable CUHS-Facilities employees will be retrained annually. Training conducted annually by responsible department.	Yr 1 <input type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>

62.3	On an annual basis, LML Facilities staff shall receive training on BMPs to reduce storm water constituents of concern. Training may utilize the electronic brochure for General Storm Water Awareness (BMP #1).	At least 90% of applicable LML-Facilities employees will participate in initial training. At least 90 % of applicable LML-Facilities employees will be retrained annually.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
62.4	On an annual basis, MBEST staff shall receive training on BMPs to reduce storm water constituents of concern. Training may utilize electronic brochure for General Storm Water Awareness (BMP #1).	Participation by 100% of applicable MBEST staff in Year1. Participation by at least 50% of applicable MBEST staff in Years 2-5.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				
62.5	On an annual basis, TAPS-Maintenance employees shall receive training on BMPs to reduce storm water constituents of concern. Training may utilize the electronic brochure for General Storm Water Awareness (BMP #1).	At least 90% of applicable TAPS Maintenance employees will participate in initial training. At least 90 % of applicable TAPS Maintenance employees will be retrained annually.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				

**BMP # 63 Equipment and Materials Storage Areas**

Effectiveness Measurement BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to facilities equipment and materials storage areas and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to facilities equipment and materials storage areas.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)					
63.1	<ul style="list-style-type: none"> <li>- Facilities equipment and material storage areas shall be maintained in a clean and orderly manner.</li> <li>- Containers shall have legible labels indicating contents.</li> <li>- Hazardous materials will be stored in covered areas and be provided with secondary containment to prevent releases of hazardous materials to storm drains.</li> <li>- Spills and leaks will be cleaned up in an expedient manner for disposal in accordance with State and Federal regulations.</li> <li>- Lidded outdoor waste and recycling receptacles will be stored shut to shed storm water and prevent animals from scattering trash.</li> <li>- Hazardous materials and hazardous wastes will be handled in accordance with State and Federal regulations.</li> <li>- Hazardous materials storage areas are inspected by the local CUPA (Certified Unified Program Agency). Departments shall promptly correct any CUPA inspection deficiencies.</li> </ul>	Equipment and material storage requirements are included in all training required by BMP #62. 100% of noted CUPA inspection deficiencies corrected within 30 days.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				

**BMP # 64 Washing University Owned Vehicles**

Effectiveness Measurement BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to vehicle washing and the number of illicit discharges detected during the weather outfall screening program (BMP #41) related to vehicle washing.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
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64.1	<p>University Vehicle washing shall be limited to one of the following methods:</p> <ol style="list-style-type: none"> <li>1. Vehicle exteriors may be washed at the Fleet Services wash station in conformance with current procedures at that location;</li> <li>2. Vehicle exteriors may be washed at the Grounds Services wash station with prior approval from Grounds Services Superintendent and in conformance with current procedures at that location;</li> <li>3. With prior approval from the Storm Water Manager, vehicle exteriors may be washed with water only-- no soaps, detergents or other cleaners may be used and engines and undercarriages may not be cleaned --provided the wash water drains to the landscape without causing erosion or damage to vegetation;</li> <li>4. At the Marine Science Campus, marine vehicles may be washed with water only-- no soaps, detergents or other cleaners may be used; or</li> <li>5. Vehicles may be washed using dry cleaning methods.</li> </ol>	Vehicle washing requirements are included in all training required by BMP #62.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				

<b>BMP #</b>	<b>68</b>	<b>Street and Parking Lot Maintenance in Faculty/Staff Housing</b>					
<b>Effectiveness Measurement</b>	BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.						
	<b>Implementation Plan</b>	<b>Measurable Goal(s)</b>	<b>Applicable Permit Year(s)</b>				
68.1	Streets and parking lots associated with Faculty/Staff Housing shall be cleaned not less than once annually. One cleaning shall occur prior to the wet season.	Cleaning is performed according to established schedule.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				

<b>BMP #</b>	<b>69</b>	<b>Food Service BMPs</b>					
<b>Effectiveness Measurement</b>	BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.						
	<b>Implementation Plan</b>	<b>Measurable Goal(s)</b>	<b>Applicable Permit Year(s)</b>				
69.1	By the end of Permit Year 1, CUHS-Dining Services will implement the Best Management Practices described in Appendix I: Storm Water Related Best Management Practices for Food Service Facilities. The selected BMPs cover the following activities: equipment washing, loading dock cleaning, outdoor dining area cleaning, handling and disposal of fats, oil and grease (FOG), and handling of solid wastes and recyclable materials. Where the above procedures cannot be fully implemented by the end of Permit Year 1, a plan for future improvements, such as capital projects, will be developed and implemented.	Operating procedures developed and implemented at each facility. Where current facilities are inadequate to fully implement these BMPs, a plan for future improvements (such as capital projects) was developed and is being implemented.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				
69.2	By the end of Permit Year 1, Food Service Contractors will implement the Best Management Practices described in Appendix I: Storm Water Related Best Management Practices for Food Service Facilities. The BMPs cover the following activities: equipment washing, loading dock cleaning, outdoor dining area cleaning, handling and disposal of fats, oil and grease (FOG), and handling of solid wastes and recyclable materials. Where the above procedures cannot be fully implemented by the end of Permit Year 1, a plan for future improvements, such as capital projects, will be developed and implemented.	Operating procedures developed and implemented. Where current facilities are inadequate to fully implement these BMPs, a plan for future improvements (such as capital projects) was developed and is being implemented.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				

69.3	On an annual basis, applicable CUHS-Dining employees receive training on BMPs to reduce storm water constituents of concern. Training may utilize electronic brochures for General Storm Water Awareness (BMP #1). All pollution prevention training / public education and outreach documents will discuss permissible and impermissible activities as well as how to report concerns. Training shall be documented.	Training conducted annually by responsible department.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
69.4	On an annual basis, applicable food service contractor employees receive training on On an annual basis, applicable food service contractor employees receive training on BMPs to reduce storm water constituents of concern. Training may utilize electronic brochures for General Storm Water Awareness (BMP #1). All pollution prevention training / public education and outreach documents will discuss permissible and impermissible activities as well as how to report concerns. Training shall be documented.	Training conducted annually by food service contractor.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
69.5	On an annual basis, applicable CUHS-Facilities staff receive training on BMPs to reduce storm water constituents of concern. Training may utilize electronic brochures for General Storm water Awareness (BMP #1). All pollution prevention training / public education and outreach documents will discuss permissible and impermissible activities as well as how to report concerns. Training shall be documented.	Training conducted annually by responsible department.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
69.6	Add storm water training to applicable CUHS-Dining food service new employee orientation.	Training conducted by responsible department.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
69.7	Add storm water training to applicable food service contractor new employee orientation.	Training conducted by responsible department.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
69.8	Add storm water training to applicable CUHS-Facilities new employee orientation.	Training conducted by responsible department.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
69.9	Food facilities are inspected by EH&S quarterly, when in operation. The existing program will be amended to include observations regarding implementation of storm water management BMPs. Findings will be provided to both the Unit Manager and Assistant Director for Dining. Food facilities shall promptly correct any storm water related inspection observations reported by the EH&S inspector.	100% of observations corrected within 30 days of notification by EH&S.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>

BMP # 75 Fleet Services BMPs from SWPPP

Effectiveness Measurement NA

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
75.1 Fleet Services shall continue to implement their SWPPP developed for the Industrial General Permit. EHS shall conduct annual compliance review.	The effectiveness of BMPs and their implementation to be reviewed during annual compliance review inspection.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>

BMP #	Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
76	<b>Integrated Pest Management Program</b>						
Effectiveness Measurement	BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.						
76.1	Continue Integrated Pest Management Program (IPM). Research effective alternative pest control strategies, methods and products; utilize the least toxic and effective means. Any use of a pesticide by UCSC and/or contracted private firms must obtain prior approval from EH&S.	Campus pesticide use complies with campus IPM program.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				
77	<b>Cleaning Streets and Parking Lots</b>						
Effectiveness Measurement	BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.						
77.1	Main Campus streets: Primary roads are swept monthly. Secondary roads are swept on a bimonthly basis. During the fall and spring seasons, street sweeping may be conducted more often to respond to seasonal requirements. This will continue Permit Years 1-5.	Main Campus streets: Primary roads are swept monthly. Secondary roads are swept on a bimonthly basis.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				
77.2	MSC: Street sweeping is conducted 4 times per year.	MSC: Street sweeping is conducted 4 times per year.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				
77.3	Main Campus Parking Lots: All lots are scheduled to be maintained and cleaned on a monthly basis, done in lot numerical order, or as needed.	All parking lots shall be cleaned at least 10 times per year.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				
77.4	In Permit Year 2, TAPS will evaluate new equipment potentially providing higher performance cleaning.	Evaluate new equipment in Permit Year 2.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
77.5	PP-Grounds or TAPS will maintain MSC and 2300 Delaware parking lots.	Establish and maintain a schedule for servicing parking lots.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				
77.6	MBEST will clean parking lots once per year. Catch basins will be maintained once per year.	MBEST will clean parking lots once per year. Catch basins will be maintained once per year.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				
78	<b>Storm Drain Systems Inspection and Preventative Maintenance</b>						
Effectiveness Measurement	BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.						
	Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				

78.1	Continue to inspect and maintain engineered storm drain systems in developed areas.	Inspection and maintenance is implemented according to schedule.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input checked="" type="checkbox"/>				

**BMP # 79 Campus Recycling Program**

Effectiveness Measurement BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
79.1 The Waste Management Program will continue to collect and re-direct discarded material. Refuse / Recycling containers will be readily available and regularly serviced.	The Grounds Services waste management program continues to provide recycling services for the Main Campus and MSC.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>				

**BMP # 81 Grounds Services: Landscape Maintenance and Turf Management**

Effectiveness Measurement BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
81.1 Groundskeepers and Tree Maintenance Crew provide landscape maintenance. Hard surfaces will routinely be cleaned using dry methods. In situations where hard surfaces are cleaned with water, water shall be discharged to the either the sanitary sewer or the landscape in a manner which does not cause erosion. If cleaning agents are used outdoors, the area will be rinsed and the wash water collected and discarded into the sanitary sewer or other applicable disposal site. Storm drains adjacent to the wet cleaning locations will be protected while activities are performed.	Grounds Maintenance continues existing practices including hazardous materials use minimization, mulching, and litter control.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>				
81.2 Continue existing turf program for water management (including computerized controllers linked to a weather station and equipped with leak detection), fertility management, soil compaction reduction, sanitation, and mowing practices to minimize storm water impacts.	Turf management program continues existing practices for water management, fertility management, soil aeration, sanitation and mowing to maximize turf utility with minimal off-turf impacts.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>				

**BMP # 82 Maintenance of Fountains and Decorative Water Bodies**

Effectiveness Measurement BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
82.1 CUHS and PP-Grounds will collaborate to develop fountain and decorative pool maintenance processes and procedures that ensure discharges will not negatively impact storm water quality. The following requirements for fountain and decorative pool cleaning shall be implemented in the interim (Permit Years 1-2): Water shall be discharged to either the sanitary sewer or the landscape in a manner which does not cause erosion. If cleaning agents are used the wash water shall collected and discarded into the sanitary sewer.	CUHS and PP-Grounds to develop maintenance BMPs for all water features by the end of Permit Year 2.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

82.2	Maintenance BMPs are implemented for all water features.	Maintenance BMPs are implemented for all water features beginning in Permit Year 3.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**BMP # 83 Household Hazardous Waste Minimization**

Effectiveness Measurement BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
83.1 CUHS will continue distribution of selected cleaning products to applicable student living areas; accept return of unused products at the end of the academic year; and as needed, provide for proper disposal of any waste materials. CUHS will provide residents with information (brochures or electronic information) about proper use and disposal of household cleaning products as well as information about other hazardous and universal waste materials.	CUHS Facilities will report annually on the quantity of household hazardous waste collected.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>				

**BMP # 85 Custodial Services BMPs**

Effectiveness Measurement BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
85.1 Custodial Services implements BMPs for storage of materials indoors in closed containers; inspection and maintenance of storage areas; sanitary sewer disposal of custodial waste waters, including those waste waters generated by outside service providers.	Custodial BMPs are integrated into the work routine.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>				
85.2 On an annual basis, applicable staff in PP-Custodial shall receive training on BMPs to reduce storm water constituents of concern. Training may utilize the electronic brochures for General Storm Water Awareness and Targeted Topics (BMP #1). All pollution prevention training / public education and outreach documents will discuss permissible and impermissible activities as well as how to report concerns. Training conducted annually by responsible department.	At least 90% of applicable PP-Custodial employees will participate in initial training. At least 90 % of applicable PP-Custodial employees will be retrained annually.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>				
85.3 Add storm water training to applicable custodial services new employee orientation.	At least 90% of applicable PP-Custodial new employees receive storm water training during new employee orientation.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input checked="" type="checkbox"/>				

**BMP # 86 Building Exterior Maintenance BMPs**

Effectiveness Measurement BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.

Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
86.1 The BMPs affecting building exterior maintenance operations and procedures will be developed by the Building Exterior Maintenance BMP Development Team. BMP will be implemented starting in Permit Year 2.	BMPs implemented according to schedule.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

BMP #	Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)					
<b>90</b>	<b>Water Line Flushing</b>							
Effectiveness Measurement	BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.							
90.1	During water line flushing diverters or other means will be used to avoid erosion or damage to landscaping (plantings, mulches, etc.)	Erosion or other landscape damage does not occur during water line flushing.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>	
90.2	During water line flushing diverters or other means will be used to avoid erosion or damage to landscaping (plantings, mulches, etc.)	Erosion or other landscape damage does not occur during water line flushing.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>	
<b>91</b>	<b>Vehicle Maintenance Prohibitions</b>							
Effectiveness Measurement	NA							
91.1	Continue TAPS parking policy that prohibits vehicle maintenance on campus, except at the Central Garage facility.	Vehicle maintenance prohibitions remain in place in parking policies.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>	
91.2	Continue University Residential Rental agreement requirements that prohibit vehicle maintenance on campus.	Vehicle maintenance prohibitions remain in place for residential rental agreements. CUHS will provide information about vehicle maintenance prohibition (and other storm water related policies) to residents in either electronic or paper format on an ongoing basis.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>	
<b>93</b>	<b>Pet Prohibitions</b>							
Effectiveness Measurement	NA							
93.1	Continue to implement UCSC Policy SPS0005: Non-Research Animals on Campus.	UCSC continues to have a policy that restricts domestic animals on campus.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>	
<b>94</b>	<b>Homeless Encampments</b>							
Effectiveness Measurement	Is there evidence of homeless encampments at UCSC sites?							
94.1	Continue night access practices. Should homeless encampments be found at any UCSC sites, a plan will be developed and implemented to control the activity.	University Police enforce night access policies. If homeless encampments are found, summary of control activities reported.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>	

BMP #	95	Hazardous Waste Management Program											
Effectiveness Measurement	BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.		Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)								
95.1	Continue existing hazardous waste management practices including electronic container tracking for all facilities and weekly hazardous waste pickup for the Main Campus.		On an annual basis, Hazardous Waste Manager summarizes program effectiveness and any changes made.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>				
95.2	Several times per year, usually on a quarterly basis, EH&S offers the UCSC community training for hazardous waste generators on proper classification and generator handling techniques for hazardous waste.		On an annual basis, Hazardous Waste Manager will provide the number of campus community members that have successfully completed the hazardous waste training course.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>				

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BMP #	96	Hazardous Materials Emergency Response Organization											
Effectiveness Measurement	BMP effectiveness shall be measured by tracking the number of reports to the illicit discharge reporting system (BMP #45) related to this item and the number of illicit discharges detected during the dry weather outfall screening program (BMP #41) related to this item.		Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)								
96.1	UCSC will continue to respond to reports of spilled hazardous materials that already are in or may enter the storm drain system. UCSC operates an emergency response team, as described in the Hazardous Materials Management Plan.		Hazardous Materials Emergency Response Organization continues to provide response to hazardous materials releases.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>				

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BMP #	100	Stormwater Infrastructure Improvements											
Effectiveness Measurement	NA		Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)								
100.1	Construction of Phase I improvements starting in 2008 with completion in summer 2009. Construction of Phase II improvements targeted to start summer 2009 for completion in summer 2010.		Phases I and II are completed in 5 years. Progress to be reported in annual SWMP report.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>				

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BMP #	104	Encourage Alternative Transportation											
Effectiveness Measurement	NA		Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)								
104.1	UCSC will continue its existing and integrated approach to reduce the use of the personal automobile (and its associated impacts) by offering no-cost and low-cost commuting alternatives such as bus passes and vanpools, charging parking fees that reflect the costs of providing parking services, providing bike paths, providing showers for bike riders, frequent on-campus shuttle service (including bike shuttles), etc.		Commuting alternatives continue to be supported by UCSC.	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	<input checked="" type="checkbox"/>				

BMP #	Implementation Plan	Measurable Goal(s)	Applicable Permit Year(s)				
<b>BMP # 107 Existing Storm Water System Review</b> Effectiveness Measurement: NA							
107.1	During Permit Year 1: define proximity; identify all sinkholes in proximity to a potential contaminant source; and formalize a program to characterize and evaluate the potential for contaminants to enter sinkholes.	Proximity defined; sinkholes identified and program to characterize and evaluate formalized.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input type="checkbox"/>	Yr 3 <input type="checkbox"/>	Yr 4 <input type="checkbox"/>	Yr 5 <input type="checkbox"/>
107.2	During Permit Year 2, evaluate potential contaminant transport scenarios for individual sinkholes identified during Permit Year 1. For all significant, reasonably-anticipated, potential contaminant-transport scenarios, develop one or more BMP(s) and an implementation schedule.	Potential contaminant transport scenarios evaluated for identified sinkholes; where applicable, BMPs and implementation schedule developed.	Yr 1 <input type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input type="checkbox"/>	Yr 4 <input type="checkbox"/>	Yr 5 <input type="checkbox"/>
107.3	In Permit Year 3, begin implementation of BMPs according to the schedule developed in Permit Year 2. In Permit Years 4-5, continue implementation of BMPs according to the schedule developed in Permit Year 2.	BMP Implementation Schedule is being met.	Yr 1 <input type="checkbox"/>	Yr 2 <input type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
<b>BMP # 108 Annual Program Review</b> Effectiveness Measurement: NA							
108.1	UCSC shall implement the annual SWMP review as described above. During Permit Years 1, 2 and 3 UCSC will utilize the effectiveness measurements currently identified in text of the BMPs.	Annual SWMP review is completed as described above.	Yr 1 <input checked="" type="checkbox"/>	Yr 2 <input checked="" type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>
108.2	In Permit Year 3, UCSC will reconvene the appropriate BMP development teams to identify assessment tools reflective of reducing loads from sources, improving runoff quality, and/or protecting receiving water quality as they relate to the UCSC SWMP. Collection of the data needed to assess reducing loads from sources, improving runoff quality, and/or protecting receiving water quality will start no later than Permit Year 4. Data generated shall be included in each annual assessment. The revised appropriateness and effectiveness plan will be documented.	The revised appropriateness and effectiveness plan is included in the Year 3 annual report.	Yr 1 <input type="checkbox"/>	Yr 2 <input type="checkbox"/>	Yr 3 <input checked="" type="checkbox"/>	Yr 4 <input checked="" type="checkbox"/>	Yr 5 <input checked="" type="checkbox"/>