



Linda S. Adams
Agency Secretary

California Regional Water Quality Control Board

Central Coast Region



Arnold Schwarzenegger
Governor

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June 8, 2009

Mr. Ali Aghayan
Environmental Health Program Manager
University of California, Santa Barbara
Environmental Health and Safety
Bldg 565 Mesa Road
Santa Barbara, CA 93106

Dear Mr. Aghayan

NOTICE OF ENROLLMENT – NPDES SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS GENERAL PERMIT; UNIVERSITY OF CALIFORNIA, SANTA BARBARA, SANTA BARBARA COUNTY, WDID # 3 42MS05108

The Central Coast Regional Water Quality Control Board (Water Board) received a Notice of Intent, Storm Water Management Plan (SWMP), map, and fee for the University of California, Santa Barbara's (University) Municipal Separate Storm Sewer System (MS4). These items are required to enroll in the National Pollutant Discharge Elimination System General Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer Systems, Order No. 2003-0005-DWQ (General Permit).

Water Board staff reviewed the University's SWMP and found it, combined with a number of specific revisions described in Attachment 1, to be in compliance with the General Permit and meets the maximum extent practicable (MEP) standard established in the General Permit. The University's SWMP was available to the public for a 60-day comment period, and we received comments from stakeholders. The comments are contained in Attachment 2. Water Board staff responses to these comments are contained in Attachment 3.

The public did not request a hearing for the Water Board to consider approval of the SWMP and enrollment of the University under the General Permit. The General Permit states that if no hearing is requested, the Regional Water Board Executive Officer will notify the regulated MS4 that it has obtained permit coverage only after Water Board staff has reviewed the SWMP and has determined that the SWMP meets the MEP standard established in the General Permit.

I am hereby approving the University's SWMP with the following condition:

California Environmental Protection Agency



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Pursuant to Water Code Section 13383, the University of California, Santa Barbara is required to amend the SWMP no later than **August 7, 2009**, to include all the changes shown in the "Final Table of Required Changes," Attachment 1 to this letter. Per Water Code Section 13385, failure to make these revisions may subject the University of California, Santa Barbara to Administrative Civil Liability for up to \$10,000 for each day of violation. The University of California, Santa Barbara must provide a copy of the revised pages of the SWMP to the Water Board no later than **August 7, 2009** (approximately 60 days from General Permit authorization).

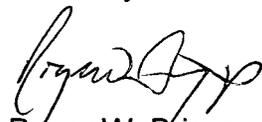
As of **June 8, 2009**, discharges from the University's MS4 are authorized by the General Permit. The University is required to implement the SWMP and comply with the General Permit. The University's first annual reporting period ends **July 31, 2010**. The University's first annual report is due to the Water Board on **October 31, 2010** (approximately 90 days after the reporting period).

As part of the revised SWMP, the University is required to develop interim hydromodification control criteria using one of the options identified in the "Final Table of Required Revisions," as well as a Hydromodification Management Plan. I agree it is appropriate for the University to consider and include exemptions to the interim hydromodification control criteria and the Hydromodification Management Plan for certain new development and redevelopment projects, where an assessment of downstream channel conditions and proposed hydrology indicates the increased stormwater discharge rates and durations resulting from development will not result in off-site erosion or other significant adverse impacts to beneficial uses. We will consider the examples of exemptions previously provided when we review your proposed interim hydromodification control criteria in one year.

Also, I will notify the University and other interested persons of the acceptability of the University's proposed interim hydromodification criteria for new development and redevelopment projects. The Central Coast Water Board shall provide interested persons the opportunity for comment and a hearing before the Water Board, if any party is aggrieved by the staff's determination, prior to Water Board action being final.

Thank you for your cooperation and efforts to get the University of California, Santa Barbara enrolled under the General Permit. If you have questions regarding this matter, please contact **Brandon Sanderson** at **(805) 549-3868**, or bsanderson@waterboards.ca.gov. or Lisa McCann at **(805) 549-3132** or lmccann@waterboards.ca.gov.

Sincerely,



Roger W. Briggs
Executive Officer



cc: (by electronic mail)
Ron Cortez, UC Santa Barbara
Stacey Callaway, UC Santa Barbara
Ali Aghayan, UC Santa Barbara
Tim Tringali, Tetra Tech
Kira Redmond, Santa Barbara Channelkeeper
Hilary Hauser, Heal the Ocean

Attachment 1: Final Table of Required Revisions
Attachment 2: Comment Letters Received during 60-day Public Comment Period
Attachment 3: Response to Comments

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Comments\Final Table of Req Chg to UCSB June 08 SWMP_final.doc



TABLE of REQUIRED REVISIONS
UC Santa Barbara SWMP June 2009 – July 2014

Acronyms:

- BMP - Best Management Practice
- MG - Measurable Goal
- SWMP - Storm Water Management Plan
- SWPPP - Storm Water Pollution Prevention Plan
- POCs - Pollutants of Concern

* Denotes addition of Required Revision since last review

Item Number	SWMP Section	Subject	Problem	Required Revisions
1*	All	POCs	The SWMP does not describe the direct link between particular proposed BMPs and the POCs and their sources that the BMPs are attempting to address. Pathogens (Bacteria) are a POC in water bodies of the South Coast and BMPs should be implemented to target this pollutant. For example: provide education to the public explaining how to prevent pathogens from entering water bodies.	The SWMP must include a discussion of the link between the proposed BMP and the POC. Provide this in a table or within individual BMP narratives.
2*	All	TMDLs	TMDLs are currently being established for bacteria in Goleta Slough and the Pacific Ocean at Goleta Beach, to which the University discharges. The University may be required to demonstrate that it is reducing pathogen loading. The SWMP does not recognize the current development of TMDLs.	Add language to the SWMP that recognizes these impairments, and state that the University will prioritize these issues from potential storm water pollutant sources. The SWMP must also acknowledge that adoption of TMDL requirements may require revisions of the University's SWMP.
3*	All	Effectiveness Assessment	The University's BMPs and/or MGs do not always have adequate measures of effectiveness to assess the appropriateness and effectiveness of	The University must adequately address effectiveness assessment in its SWMP by including the

Item Number	SWMP Section	Subject	Problem	Required Revisions
			<p>individual BMPs and the SWMP as a whole. Effectiveness assessment discussions in the SWMP are often excluded or do not provide appropriate detail to be evaluated effectively.</p> <p>The University's MGs often do not provide adequate measures of success in the implementation of associated BMPs.</p> <p>For further assistance please see EPA's "Measurable Goals Guidance" at: http://cfpub1.epa.gov/npdes/stormwater/measurablegoals/index.cfm</p> <p>and Annual Report Guidance at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/sm_ms4_arg.doc</p>	<p>following components to establish measurements of effectiveness. This includes the development of MGs with interim milestones and implementation frequency where appropriate.</p> <ol style="list-style-type: none"> 1. Assessment of program effectiveness in terms of achieving permit requirements and MGs. 2. Assessment of program effectiveness in terms of protecting and restoring water quality and beneficial uses. 3. Identification of quantifiable effectiveness measurements for each BMP, including measurements that link BMP implementation with improvement of water quality and beneficial use conditions. 4. Emphasis on assessment of BMPs specifically targeting primary POCs. 5. Incorporation of the effectiveness assessment process outlined in CASQA's <i>Municipal Stormwater Program Effectiveness Assessment Guide</i> (www.casqa.org). 6. Identification of a range of quantifiable effectiveness measurements that collectively

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				<p>address outcome levels 1-4, as defined in the <i>Municipal Stormwater Program Effectiveness Assessment Guide</i>, to be used during annual effectiveness assessments.</p> <p>7. Identification of quantifiable effectiveness measurements that address outcome levels 5 and 6, as defined in the <i>Municipal Stormwater Program Effectiveness Assessment Guide</i>, to be used during long-term effectiveness assessments (e.g., every three to five years).</p> <p>8. Identification of the steps that will be taken to revise the SWMP and optimize BMP effectiveness, when effectiveness assessments identify BMPs or programs that are ineffective or can be improved.</p>
4	3.2.2 SWMP Public Access	Website	The link provided for SWMP access is not valid.	Provide correct link.
5*	4.2 PE-2	Website	The SWMP does not commit to using this BMP as a reliable resource. Updating the website annually is not appropriate.	The BMP must include a MG to update the website regularly as appropriate (e.g. monthly or quarterly).

Item Number	SWMP Section	Subject	Problem	Required Revisions
6*	4.4 Public Education	Student Education	The BMP lacks detail on the information provided in Student Orientation Packets. The BMP does not commit to providing stormwater education as an early part of SWMP implementation.	Include more detail of stormwater contents included in Student Orientation Packets. Packets must contain information on regulations and penalties. The BMP must be revised to be implemented within the first two years of the permit term.
7*	4.5 Public Education	Employee Education	The BMP does not commit to providing stormwater education as an early part of SWMP implementation.	The BMP must be revised to be implemented within the first two years of the permit term.
8	4.7 Public Education Effectiveness	Public Survey	The BMP lacks baseline measurement to determine program effectiveness over time.	The BMP must include baseline measurement such as a survey conducted in the beginning of the program before educational materials are distributed to provide a baseline for program effectiveness.
9	4.0 Public Education	BMP Development	This section does not identify links between BMP development/implementation and target POCs.	BMPs must identify links to target POCs (e.g., pathogens, nutrients, trash, and sediment)
10	4.0 Public Education	BMP Selection Community-based Social Marketing	The Public Education and Outreach BMPs rely heavily on information campaigns that utilize education and advertising to encourage behavior change. While these efforts can be effective in creating public awareness and in changing attitudes, numerous studies show that behavior change rarely occurs as a result of simply providing information.	Include a BMP that commits to assessing community-based social marketing strategies, and incorporating them into your program where appropriate.

Item Number	SWMP Section	Subject	Problem	Required Revisions
			<p>One particularly promising approach to public education is community-based social marketing. Community-based social marketing is based upon research in the social sciences that demonstrates that behavior change is most effectively achieved through initiatives delivered at the community level which focus on removing barriers to an activity while simultaneously enhancing the activities benefits. More information on community-based social marketing is available at: http://www.cbsm.com/. The techniques of community-based social marketing should be considered when developing and implementing your public education and outreach program.</p>	
11	5.0 Public Involvement	Student Volunteers	This BMP lacks involvement of student population.	The BMP must include that the University will provide student volunteer opportunities (e.g. water quality monitoring, storm drain stenciling, and event booth education).
12*	5.4 Public Involvement	Community Environmental Awareness Events	<p>The University does not commit to participating in three events that are directed specifically at the UCSB community. Staff finds the UC Conference to be directed towards the general UC community throughout the State rather than the UCSB public.</p> <p>The University also does not commit to providing timely education through tabling events at the University Center and campus housing.</p>	<p>The BMP and MGs must be revised to include participation at three specific UCSB campus events.</p> <p>The BMP and MGs must also be revised to develop a tabling program at the University Center and at campus housing in year 1 and implement the program</p>

Item Number	SWMP Section	Subject	Problem	Required Revisions
				quarterly beginning in year 2.
13	6.0 IDDE	BMP Development	This section does not identify links between BMP development/implementation and target POCs.	BMPs must identify links to target POCs (e.g., pathogens, nutrients, trash, copper, and sediment)
14	6.0 IDDE	Authorized Non-Storm Water Discharges	This section does not address authorized non-storm water discharges that have potential to contribute as a significant source of pollutants. Water Board has designated many of these discharges as potential sources of pollutants.	SWMP must describe BMPs and MGs employed to manage authorized non-storm water discharges and protect beneficial uses. Include a BMP(s) that will address these discharges.
15*	6.2 BMP # ID-2	IDDE Training	The University does not commit to making the detection and elimination of illicit discharges a priority. The University does not include a MG to determine the effectiveness of the trainings directly (e.g. pre/post training evaluation or quiz). Evaluating effectiveness through accurately completed ID reports does not determine effectiveness of trainings directly.	IDDE training program must be developed in Year 1. Training must begin in Year 2. Include a MG to evaluate the effectiveness of the trainings directly.
16	6.3 BMP # ID-3	Visual Inspection Program	Lacks detail to indicate if it will be effective and to measure effectiveness.	<ul style="list-style-type: none"> a) Inspection protocol must contain procedures for tracing sources of illicit discharges. b) Biennial facility inspections must be conducted for all facilities or the University must develop a facility inventory and prioritize accordingly. MGs must state the number of inspections planned. Edit MGs accordingly.

Item Number	SWMP Section	Subject	Problem	Required Revisions
17	6.4 BMP # ID-4	Storm Water Hotline	The University does not commit to making the detection and elimination of illicit discharges priority.	A Hotline must be developed in Year 1. Subsequent developments should be implemented starting in Year 2.
18	6.5 BMP # ID-5	Policy Enforcement	The BMP lacks detail.	BMP must include enforcement procedures for eliminating discharges. Procedures must provide elevated enforcement.
19	7.5 BMP # CS-5	Project Design Approval	Review process could allow project environmental analysis to conclude without evaluation of specific stormwater management BMPs proposed.	The University must include insurance that design plans are only deemed complete if they include post-construction BMP selection, sizing, and siting.
20	7.5 and 8.0	Plan Review and Oversight Details-CEQA Checklist	The SWMP could be improved by adding more detail about the plan review procedures, tools (e.g., checklists) and requirements. For example, the SWMP refers to the CEQA Checklist but does not discuss review and revision of the CEQA initial study checklist to ensure that runoff quality and quantity are considered.	Add more details describing the procedures, tools and requirements. Include review and revision (if necessary) of the CEQA initial study checklist to ensure that runoff quality and quantity are considered by the list.
21	7.5 and 8.0	Storm Water Runoff and Treatment Control-Inspections	The SWMP does not clearly discuss inspecting construction or post-construction stormwater controls to verify that they are built according to plans. This is needed to ensure that the BMPs will be as effective as planned.	Identify the University's procedure for inspecting stormwater treatment and control BMPs to verify that they are built according to plans.
22	7.5 and 8.0	Storm Water Storm Water Runoff and	The SWMP does not specifically discuss the regulatory mechanisms that will be used to require runoff and treatment control for all development	Identify the University's regulatory mechanisms for requiring runoff treatment and

		Treatment Control-Enforcement	projects. While campus policies have been referenced, it is unclear how these mechanisms are used in combination to require runoff treatment and control and protection of beneficial uses. In addition, the SWMP does not describe the penalty provisions that will be used for noncompliance with design requirements.	control for development projects. Describe the penalty provisions that will be used for noncompliance with design requirements.
23*	8.1 BMP# PC-1	Design Professionals Training	<p>This BMP lacks the necessary content and time allocation to appropriately educate staff on the proper review and approval of proposed projects to eliminate impacts to water quality.</p> <p>This BMP also lacks an effectiveness measurement to ensure post-construction measures are being implemented correctly.</p>	<p>Revise BMP and MGs to include greater scope of training in the applicable regulations and practical knowledge and skills needed to enable design staff to recognize aspects of proposed projects that will impact water quality and to properly condition projects with appropriate BMPs and mitigation.</p> <p>MGs must be revised to provide bi-annual training, at a minimum.</p> <p>A MG must be added to evaluate the effectiveness of this BMP.</p>
24*	8.2 BMP # PC-2	Riparian and Wetland Setbacks	BMP does not commit to minimum of 30-foot setbacks and does not provide an effective strategy for how this BMP will be implemented. As stated in our February 15 letter, the University must commit to protecting all riparian areas, wetlands, and their buffer zones by establishing a minimum of 30-foot setbacks for riparian areas and wetlands.	<p>Revise this BMP to say that the University will establish a minimum of 30-foot setbacks for riparian areas and will establish more substantial setbacks where necessary, based on habitat degradation, water quality, and land management practices.</p> <p>Provide detail regarding the strategy for how the BMP will be implemented including summaries</p>

				<p>of existing plans that will used. Plans and policies must be revised to reflect requirements of the SWMP and Municipal General Permit. Approval of the LRDP must not determine extent of protection measures.</p> <p>Revise the BMP to state that the construction site checklist CS-2 to be developed in year 1 will include mandatory review of site prescribed buffer zones.</p>
25	8.3 BMP # PC-3	Implementation Details	<p>This BMP lacks detail of mitigation measures within draft EIR for protection of water quality.</p> <p>This BMP also relies on the adoption of the LRDP and associated EIR to ensure implementation of stormwater control measures.</p>	<p>Include bullet of infiltration and diversion measures stated in EIR.</p> <p>Revise this BMP and its MGs to reflect that campus plans, policies, and procedures regarding stormwater controls must be revised accordingly to reflect requirements of the SWMP and General Permit, and not solely contingent on approval of the LRDP.</p>
26*	8.4 BMP# PC-4	Inventory and Maintenance of BMPs	The BMP lacks a commitment to include all University property in its implementation.	Revise the BMP and MGs to state that inventory and maintenance of structural BMPs will be conducted for all campus property.
27*	8.5 BMP# PC-5	Hydromodification Management Plan (HMP)	The BMP does not commit to incorporating the final HMP into Campus Design Standards.	Revise the BMP and MGs to state that the University will incorporate the final HMP findings into its Campus Standards and other

				appropriate development documents.
28*	8.6 BMP# PC-6	Interim Hydromodification Criteria	The BMP does not include a schedule or approach to develop criteria. The Draft hydromodification control standards included are not supported by technical findings. Any proposed control standards, including numeric criteria for volume and rate control, will require a review by Water Board staff based on technical findings to determine the standards' adequacy. The University has 12 months from the date of their enrollment under the General Permit to develop and adopt interim hydromodification control standards with Water Board approval. Inclusion of the draft standards in the SWMP is not appropriate at this time.	<p>Remove the current interim criteria listed in the SWMP.</p> <p>Add a BMP stating the following or equivalent: Within one year of enrollment under the General Permit, the University will have adequate development review and permitting procedures to impose conditions of approval, or other enforceable mechanisms, to implement quantifiable measures (numeric criteria) for hydromodification control on projects whose applications are deemed complete after the first anniversary of enrollment under the General Permit.</p> <p>Modify the SWMP to include the development of interim hydromodification criteria using one of the options listed below:</p> <p>Option 1: The proposed criteria may include the following types of requirements which provide a high degree of assurance of effective hydromodification control without regard to the nuances of individual watersheds:</p> <ol style="list-style-type: none"> 1. For new and re-development

				<p>projects, Effective Impervious Area¹ shall be maintained at less than five percent (5%) of total project area.</p> <ol style="list-style-type: none"> 2. For new and redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface, the post-construction runoff hydrographs shall match within one percent (1%) the pre-construction² runoff hydrographs, for a range of events with return periods from 1-year to 10-years. 3. For projects whose disturbed project area exceeds two acres, preserve the pre-construction drainage density (miles of stream length per square mile of watershed) for all drainage areas serving a first order stream³ or larger, and ensure that post-project time of concentration is equal or greater than pre-project time of concentration. <p>Other acceptable approaches to develop interim criteria that are as effective as Option 1 include:</p>
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¹ Effective Impervious Area is that portion of the impervious area that drains directly to a receiving surface waterbody via a hardened storm drain conveyance without first draining to a pervious area. In other words, impervious surfaces tributary to pervious areas are not considered Effective Impervious Area.

² Pre-construction condition is defined as undeveloped soil type and vegetation.

³ A first order stream is defined as a stream with no tributaries.

				<p>Option 2: Adopt and implement hydromodification criteria developed by another local municipality and approved by the Water Board, such as the criteria the Water Board adopted for the City of Salinas, as interim criteria.</p> <p>OR</p> <p>Option 3: The University shall:</p> <ol style="list-style-type: none">1. Identify a range of runoff flow rates for which post-project runoff flow rates and durations shall not exceed pre-development runoff rates and durations, where the increased discharge rates and durations will result in off-site erosion or other significant adverse impacts to beneficial uses. Pre-development refers to the soil type, vegetation and amount of impervious surface existing on the site prior to the proposed development or redevelopment project.2. Establish numeric criteria for development projects to maximize infiltration on-site and approximate natural
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				<p>infiltration levels to the maximum extent practicable and to effectively implement applicable low-impact development strategies.</p> <p>3. Identify the projects, including project type, size and location, to which the University will apply the interim criteria. The projects to which the University will apply the interim criteria will include all those projects that will cause off-site erosion or other significant adverse impacts to beneficial uses.</p> <p>4. Identify methods to be used by project proponents to demonstrate compliance with the interim discharge rate and duration criteria, including continuous simulation of the entire rainfall record.</p> <p>5. Identify methods to be used by project proponents to demonstrate compliance with the interim infiltration criteria, including analysis of site imperviousness.</p>
29	9.0	Inspection and Enforcement	This section does not clearly identify how the University will ensure that pollution prevention control measures are implemented properly and how requirements will be enforced if not properly	The SWMP must be revised to include an inspection and enforcement program for all facilities operation and

			implemented.	maintenance programs. This can be included as a specific BMP or can be addressed within each individual program listed. The program must address what and how many of the facilities operation and maintenance programs will be inspected annually. For example, the Sanitary Sewer Operation and Maintenance (BMP GH-3), and Food Services (BMP GH-5) programs must be audited to ensure that there are no spills to the MS4.
30	9.1.3	MS4 Maintenance	This BMP needs to be clarified.	Ensure that University staff will inspect for illicit discharges and connections during maintenance activities by adding language to BMP.
31	9.1.8	Hazardous Spill Response	This BMP needs to be clarified.	Ensure hazardous spill response and training will be updated to address potential discharges to the MS4 (if necessary) by adding language to BMP.
32	9.2 BMP # GH-2	Pesticide Management	This BMP needs to be clarified.	Ensure that pesticide spraying is not performed when rain is predicted by adding language to BMP.
33	9.4 BMP # GH-4	Pet Waste	Lacks appropriate policy to prohibit pet waste from University property.	SWMP must include a policy to prohibit pet waste that includes penalty provisions. This can be identified within this BMP or can be

				added to the Storm Water Pollution Prevention Policy to be developed under BMP ID-5.
34	9.7 BMP # H-7	Contract Enforcement	Lacks clarification and detail how contracts containing storm water pollution prevention specifications will be enforced.	BMP must contain procedures for enforcement if contracts are violated.