Lawrence Livermore National Laboratory

August 26, 2011

Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Subject: *Lawrence Livermore National Laboratory Comments on the Draft Small Municipal Separate Storm Sewer Systems (MS4) General Permit for Storm Water Discharges*

Dear Members of the State Water Resources Control Board:

Thank you for the opportunity to provide comments on the Draft General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (Draft MS4 Permit). The Lawrence Livermore National Laboratory (LLNL) appreciates the effort required to draft a permit designed to apply to such a broad spectrum of activities and thanks the State Water Resources Control Board staff and Board Members for their effort. We also support the effort to protect and improve storm water quality in California. At the same time, we are concerned that various aspects of this permit will add significant burden to our limited staff and budget in difficult financial times, while not providing the desired improvements to storm water quality. The comments presented below elaborate on some of these concerns and suggest alternatives, which we recommend for incorporation into the Draft MS4 Permit.

LLNL is situated on property owned by the U.S. Department of Energy and is operated under contract to the National Nuclear Security Agency (NNSA). Our laboratory was established more than 50 years ago and has significant scientific infrastructure, which supports our national security mission. At our Livermore site, we are actively managing and cleaning up legacy contamination, which includes work conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). In addition, our facilities have other National Pollutant Discharge Elimination System (NPDES) permits and Waste Discharge Requirements for construction and industrial activities. The LLNL Livermore site is listed as a new non-traditional MS4 permittee in Attachment C of the Draft MS4 Permit.

83.1 → **Comment 1: Redundancy in requirements with industrial and construction permits**

LLNL is concerned that there are requirements in the Draft MS4 Permit that significantly overlap with existing requirements of the Construction General Permit and our individual Industrial Storm Water Permit. For example:

- Section E.8.a requires the MS4 to maintain an inventory of construction activities and information required by the Construction General Permit (2009-0009-DWQ), and that would already exist and be accessible to the Regional Board in SMARTS.
- Section E.11.a requires the MS4 to maintain an inventory of industrial/commercial facilities and information that again would already exist and be accessible to the Regional Board in SMARTS.

- Section E.11.b requires the MS4 to mandate that industrial and commercial facilities in the inventory install, implement and maintain storm water Best Management Practices (BMPs). The BMPs listed in E.11.b (ii) would already be required by the Industrial General Permit (97-03-DWQ) and also our individual Industrial Permit.

Why require the municipality to ensure compliance when a construction project or industrial site must already certify compliance with their permits in an annual report in the SMARTS system? In addition, why should the MS4 maintain administrative records in addition to, and redundant with, those records already provided in SMARTS? This is particularly true for non-traditional MS4s like LLNL, who would literally be reporting the same information twice. We recommend revision of Sections E.8.a, E.11.a, and E.11.b to require an annual "paper screening" review of projects within the MS4 jurisdiction using the SMARTS system to identify potential compliance concerns based upon annual reporting for the construction and industrial permits.

83.2

Comment 2: Lack of clarity in the applicability of requirements to non-traditionals

The applicability of various requirements to non-traditionals are not clear in this draft permit. Table 1 lists the applicable requirements for categories of non-traditionals, but does not provide a method to determine which category applies to those non-traditionals that do not obviously fall into one of the available categories. In addition, other permit sections (e.g., Sections E.12 and E.13) are applicable to non-traditionals if the facility comprises an area greater than 10% or 20% (depending on the section) of a USGS Hydrologic Unit Code 12 (HUC-12) watershed. However, it is not trivial to obtain an HUC-12 layer from the USGS, import that into a GIS system, and obtain the area of the appropriate HUC 12 watershed. It is recommend that the draft permit include a means to categorize non-traditionals into the Table 1 categories, as well as a map and look-up table with HUC-12 watersheds and total areas (in acres).

83.3

Comment 3: Significant inspection expectations and requirements

There are numerous and frequent required inspections in this Draft MS4 permit that will place significant burden on staff at small non-traditionals. These include:

- Construction site inspections in Section E.8.b (at least once every two weeks)
- "Hot Spot" inspections of facilities in Section E.9.d (weekly, quarterly, and annually)
- Storm drain maintenance inspections in Section E.9.g (annually)
- Maintenance activities (O&M) inspections in Section E.9.h (quarterly)
- Industrial/commercial facilities inspections in Section E.11.d (every one, three, or five years; for all high, medium, and low potential impact facilities)

At a non-traditional facility like LLNL, the responsibility for all of these inspections would fall upon the same personnel to perform construction and industrial inspections, and who are subject to the stringent training requirements. A simple cost calculation assuming each inspection at our facility required only 30 minutes, would result in an estimated $20,000 of additional staff cost. This does not include the documentation, record maintenance, and reporting costs, which would easily double or triple that amount. At non-traditional facilities, these inspections will not improve the protection of water quality when required inspections are already being performed at our construction sites and industrial facilities. These inspections will only add additional cost and administrative burden to non-traditional facilities. We recommend the removal or significant reduction in inspection requirements applicable to non-traditional MS4s.

83.4 **Comment 4: Extensive requirements in referenced "guidance" documents should be reduced to reference materials**

The Draft MS4 Permit currently requires the implementation of illicit discharge detection and elimination (IDDE) programs consistent with the Center for Watershed Protection (CWP) guide on IDDE (Section E.7). In addition, Section E.5.b requires documenting public education and outreach implementation according to the Community-Based Social Marketing (CBSM) strategies or their equivalent. These guidance documents are extensive and full of recommendations that cannot be implemented at non-traditional facilities like LLNL. The CWP guide on IDDE contains recommendations on monitoring, GIS mapping, additional inspections and audits, and estimates the annual cost for an IDDE program to be $43,000 to $126,500. If permittees are required to follow the equivalent of the CWP guidance, it suggests that all MS4s would be required to perform monitoring for IDDE. Moreover, CBSM strategies are not guidance, but a philosophy on how to effectively encourage, and measure improvement in, individual and business willingness to adopt behaviors that are resource efficient. Implementing these documents as permit requirements has the potential to be a significant effort for permitees.

It is recommended that the CWP guidance and CBSM strategies be removed as permit required guidance and only provided as supporting reference materials. They are interesting and valuable references, but not the type of guidance that should be required to be implemented in the MS4 Permit.

83.5 **Comment 5: Specific requirements for pesticide and fertilizer application are unnecessary and the set-backs arbitrary**

In Section E.9.j. (2) of the Draft MS4 Permit specific set-backs of five, 25, and 50 ft are required for pesticide applications near pavement, storm drain inlets, and water bodies, respectively. Can references be provided to document how these required set-backs were selected? Pesticide applications are strictly regulated through Federal Insecticide, Fungicide, and Rodenticide Act FIFRA registration and applicator licensing. Decisions on the appropriate set-backs and BMPs should be made locally based upon soil type and infiltration capacity, vegetative cover, typical rainfall intensity, and so on. We recommend the removal of the specific values for the set-backs, while maintaining the requirement in the Draft MS4 Permit for permitees to establish site-specific pesticide application set-back distances near pavement, storm drain inlets, and water bodies.

83.6 **Comment 6: A large number of small plans are required in the draft**

As written this permit **requires** a number of small plans that will add to cost and administrative burdens at small non-traditional facilities. These plans include:

- Enforcement Response Plan (E.4.c)
- Public Education Strategy (E.5.b)
- Spill Response Plan (E.7.e)
- Erosion and Sediment Control Plan (E.8.b)
- Hot Spot Specific SWPPPs (E.9.d)
- Program Effectiveness Assessment and Improvement Plan (E.14.a)

It is recommended that the preparation of all these plans be made optional to allow the permitees to meet the requirements in the most effective manner that may not necessarily include the preparation and maintenance of another plan.

83.7 **Comment 7: Providing the annual resource analysis is unreasonable and does not protect water quality**

The requirement to prepare and submit an annual resource analysis to certify that adequate resources will be allocated to comply with the permit is excessive. Water quality will not be protected by annually reporting:

- Staff costs
- BMP maintenance costs
- New and retrofit BMP costs
- Outreach and education program costs
- Other non-structural program costs

This requirement may provide useful information to the State and Regional Water Boards on program costs; but it is not appropriate to expect a private contractor for the U.S. Department of Energy, like the one operating LLNL, to provide this sort of financial information. We recommend removing this requirement or exempting federal contractors.

83.8 **Comment 8: Federal Facilities like LLNL already must comply with the Energy Independence and Security Act, Section 438 post-construction requirements that should be recognized in the Draft Permit**

Section E.12 contains requirements for post-construction storm water management that are not consistent with the US EPA guidance provided to Federal Facilities to comply with the Energy Independence and Security Act (EISA) of 2007 Section 438.

The EPA guidance document "*Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act*" (EPA 841-B-09-001, December 2009), includes a standard for retaining 100 percent of all rainfall events equal to or less than the 95th percentile rainfall event (pg 13). This percentile storm differs in Section E.12.b of the Draft MS4 Permit, which requires retaining the 85th percentile storm. LLNL is requesting clarification regarding the interaction between the Draft MS4 Permit Section E.12 and the EISA post-construction requirements for Federal Facilities.

83.9 **Comment 9: The full retention and infiltration post-construction requirements are unreasonable at CERCLA facilities like LLNL**

Another important issue related to the post-construction runoff retention requirements in Section E.12 is that promoting infiltration is not feasible at all locations. As mentioned previously, LLNL's Livermore site is listed under CERCLA, and as such, the infiltration of storm water could interfere with ground water treatment process or even potentially mobilize additional contaminants of concern. LLNL is requesting the inclusion of means to document when storm water retention and infiltration are infeasible as "off ramps" for the requirements in Section E.12.

83.10

Comment 10: Retrofit requirements for a non-traditional facility like LLNL are infeasible

The age of our facilities and lack of means to develop additional funding sources make infeasible the requirements to:

- Retrofit existing BMPs to include green infrastructure in Section E.4.d
- Design water quality and habitat enhancement features into all new and retrofitted flood management in Section E.9.i

To quote from the CWP guidance on Urban Stormwater Retrofit Practices cited in the Draft MS4 Permit,

> *"Retrofitting can be a costly enterprise. The cost to construct retrofits is 1.5 to 4 times greater than the cost to construct stormwater practices at new development sites."* Pg 19

LLNL is committed to implementing green building strategies, as well as creating and enhancing habitat, when feasible. However, if this requirement remains in the MS4 Permit, we recommend establishing criteria to allow for a determination of storm drainage retrofit infeasibility based upon cost, land availability, and potential for ecological benefit.

83.11

Comment 11: Correction that LLNL is no longer solely managed by the University of California

As a correction, to Attachment C, LLNL is no longer managed by the University of California (UC), but instead is managed by a private company, Lawrence Livermore National Security, LLC (LLNS), that includes UC, Bechtel, and others. LLNL is situated on property owned by the U.S. Department of Energy and is operated under contract to the National Nuclear Security Agency (NNSA). We recommend changing the "Agency" column to the U.S. Department of Energy for LLNL.

Once again, LLNL would like to reiterate our commitment to storm water quality in California and thank the State Water Resources Control Board and Staff for all their efforts in preparing this draft permit. We look forward to working with you to address our concerns and generate a General Permit for Small MS4s that protects the environment and may be effectively implemented. If my staff can proved any clarification or assistance, related to these comments or the Draft MS4 Permit please contact Chris Campbell at (925) 422-0529.

Sincerely,

Bruce Schultz, Manager
Environmental Functional Area

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