

June 7, 2010

To: Mr. Ivar Ridgeway  
Los Angeles Regional Water Quality Control Board  
320 W. 4<sup>th</sup> St  
Los Angeles, CA 90013

RE: Tentative Ventura County Municipal Separate Storm Sewer System Permit

Dear Mr. Ridgeway,

Thank you for reconsidering adoption of NPDES PERMIT NO. CAS004002. Like many others attending the May 7th, 2009 hearing, I was surprised to see the new development/redevelopment criteria inserted into the permit at the last minute without public review. At the hearing, I personally had a difficult time knowing whether to tailor my brief oral testimony to the draft circulated for public review or the new proposed section. Comments in this letter will be limited to the inserted language which represents a major departure from the previous public draft and other contemporary Phase I NPDES permits in California.

There are four central issues with the tentative order that must be addressed prior to adoption.

**1. LID should not be limited to retention BMPs.**

The tentative order contains a very limited definition of Low Impact Development (LID). In addition to the water retention BMPs listed, BMPs that filter stormwater runoff should also be allowed where runoff retention BMPs are infeasible or undesirable.

**Specific change requested:**

Allow filtration of the 85<sup>th</sup> percentile design storm by where on-site retention is infeasible.

**2. The Effective Impervious Area (EIA) compliance metric violates the LID principle.**

Central to the goal of a green infrastructure or low impact development approach is retaining predevelopment or pre-project hydrology in the developed condition. The EIA standard blatantly ignores predevelopment hydrology and assumes that eliminating runoff from 85% of storms will replicate pre-project/development conditions. This approach ignores the actual water balance which is heavily weighted toward evapotranspiration in the natural condition. Infiltration is expected to be the dominant fate of stormwater runoff on new projects given the engineering, public health and plumbing code barriers to rainwater harvest systems. The potential to dramatically over-infiltrate compared to natural conditions on a local project level must not be ignored. This water does not go away. It may cause structural issues for existing slopes, buildings and roads, lead to unwanted seeps and springs and has great flushing potential for soluble contaminants. It can also change the flow patterns in downstream waters.

**Specific change requested:**

Remove the Effective Impervious Area references in Part 4, Section E.3. Replace with a requirement that on-site retention options be exhausted prior to the consideration of flow-through treatment BMPs, unless site runoff is conveyed directly to a regional retention BMP with capacity to manage the 85<sup>th</sup> percentile runoff event. Such a regional facility must exist prior to completion of site development.

**3. Broad conclusions about LID feasibility don't always apply to specific sites.**

The tentative order would essentially prohibit new development where the 5% EIA standard can't be met on site and would prohibit redevelopment where the 30% EIA standard can't be met. Generally, it will be feasible to retain the design storm, provided that native soils are amenable to infiltration and/or significant recycled water demand exists on site. And, in many cases, development following an LID framework will produce some cost savings. However, there are many sites where infiltration is infeasible and without significant recycled water demand. There are likely to be situations where regional harvest or infiltration facilities are more feasible.

Broad conclusions about the general practicality and benefits of LID BMPs don't necessarily hold true when applied to individual sites. When on-site retention is infeasible, a development should be allowed to proceed with the most effective BMPs that are feasible. The EIA standard should not be applied at the individual site level. Flexibility should also be given for utilizing regional approaches that may be more cost effective and where operation and maintenance activities can be managed more actively.

**Specific change requested:**

Remove the Effective Impervious Area references in Part 4, Section E.3. Recognize in Finding 28 that the LID approaches described in the EPA LID document did not all include full retention of the design storm. Clarify savings estimations in Finding 29. Are these local or regional savings?

**4. The design storm definition should be amended to require at least 80% annual runoff capture and/or treatment**

As written, the "water quality mitigation criteria" allows a BMP to be sized to mitigate the volume produced from a 0.75" storm event. This design standard should be applied to rainwater harvest and infiltration systems with caution. Unlike filters, which have a short residence time, runoff may be detained for several days in an infiltration system and much longer in rainwater harvest systems. The longer it takes to drain a BMP, the more likely it is to be full when the next storm arrives, which results in bypass of the new storm volume.

**Specific change requested:**



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In Part 4, Section E.III.4 require that at least 80% of the average annual runoff volume be retained or filtered where retention is infeasible.

I understand and respect the impulse to retain our leadership position regarding stormwater mitigation requirements in Ventura County. However, the tentative order runs the risk of fueling a serious backlash against the Regional Water Board if it is seen as more being restrictive than contemporary California Phase I NPDES permits without providing a far superior level of protection. Above all new requirements must have a strong technical basis and the permit must be sensible and implementable. To this end, please make the changes suggested in this letter. These changes will make this permit more consistent with the LID approach described in other new generation permits in California which are on the leading edge of LID implementation nationally.

Sincerely,

A handwritten signature in black ink, appearing to read "Vaikko P. Allen II", with a long horizontal flourish extending to the right.

Vaikko P. Allen II, CPSWQ, LEED-AP  
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