



SAN DIEGO GREEN BUILDING COUNCIL

January 11, 2013

Via e-mail to wchiu@waterboards.ca.gov
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

RE: Comments from the San Diego Green Building Council on Tentative Order Number: R9-2013-0001

Dear Mr. Wayne Chiu,

San Diego Green Building Council¹ respectfully submits² the following comments on the Revised Tentative Order No. R9-2013-0001: The San Diego Regional Municipal Separate Storm Sewer System permit.

BACKGROUND

The San Diego Green Building Council is a 501(c)(3) California non-profit corporation with the mission *to inspire, educate and collaborate within our communities to transform our built environment toward true sustainability*. Our support comes from the development, design, construction, facility management and other professional industries related to the built environment. We advocate for development that has reduced environmental impact, which is economically viable and socially responsible.

Support for these comments includes the San Diego chapter of the Association of Landscape Architects (ASLA). The ASLA is the national professional association representing landscape architects, promoting the profession, and advancing the practice through advocacy, education, communication, and fellowship. In addition, stewardship of the land has been a critical part of the mission of ASLA since its founding.

Water quality is critical to regional sustainability. Stormwater runoff is widely considered to be one of the world's most significant environmental problems. In the San Diego Region, storm drains discharge stormwater directly to our beaches without any treatment. Pollutants in runoff discharges impair receiving waters, threaten or harm the health of humans or aquatic organisms, and impair designated beneficial uses such as swimming at our local beaches. We encourage a science-based 'all-in' approach that incorporates site-based Low Impact Development (LID) strategies, urban infrastructure LID strategies and effective hydromodification management strategies. Our overall response to stormwater strategies in the administrative draft MS-4 can be summarized as: first *avoid*, then *reduce*, and only *delay* as a last resort (from the SUDS Sustainable Urban Drainage Systems program in the UK).

¹ *The San Diego Green Building Council officially recognized as the San Diego chapter of the US Green Building Council.*

² *These comments were prepared with support from our volunteer community, including Rosalind Haselbeck, Ph.D.- principal of Building Green Futures; and Landry Watson- Sustainability Director at DPR Construction.*

COMMENTS

I. The Final permit should require copermittees to engage local community planning groups in developing Water Quality Improvement Plans for their specific Watershed Management Areas.

As mentioned in comment XI regarding stakeholder engagement, we recommend that the Final permit includes at least prescriptive requirements for engaging local stakeholders such as "community planning groups" as implementation partners. Additionally, support for Water Quality Improvement Plans should utilize existing research venues like the Scripps Institute of Oceanography, or Coastkeeper, etc; and funding resources like municipal capital improvement plans.

II. The Final Permit should recognize the EPA's findings that Low Impact Development Best Management Practices are a cost-effective approach to improving water quality and enhancing community, and should emphasize LID methods in the BMP requirements for all development projects (see E.3.a.(2)).

Implementation of Low Impact Development (LID) strategies provide environmental and economic benefits and reduce negative downstream water quality impacts. In addition other public benefits are associated with LID strategies, such as cleaner air, reduced urban temperatures, increased energy efficiency, and landscape amenities. The Final Permit should include similar language to clarify the environmental and economic benefits of LID Best Management Practices (BMPs) that form the basis of the Regional Board's policy decisions relating to development planning.

The Tentative Order should clearly define the best-in-class BMPs and create a system to catalogue the implementation strategies used by the various copermittees. The database should include the measured water quality impacts from each site to be used as a resource for future projects and development.

In particular, where there are limited landscaped areas for infiltration and treatment of runoff, rainwater harvesting should be emphasized for non-potable indoor usage, such as toilet flushing and cooling tower make up water. Note that the draft 2013 CPC Ch 17 has greatly reduced the stringency in treatment of rainwater for indoor use (debris removal, 100 micron filtration, and *Escherichia coli* < 100 CFU/100 ml).

Further, rainwater catchment systems that effectively address stormwater mitigation by maintaining a design storm volume storage either via weather station or manually, should also be utilized.

III. The Final Permit should include both specified Stormwater standards with an option for prescriptive, third-party requirements such as LEED certification and the Sustainable SITES initiative, where applicable.

In some cases this will include addition or clarification of the existing permit language.

For those projects including Open Space or public/private campuses including industrial, retail and office parks, military complexes, airports, botanical gardens, streetscapes and plazas, residential and commercial developments; Final Permit should reference the Sustainable SITES Initiative. The Sustainable Sites Initiative (SITES™), is a voluntary certification program through the American Society of Landscape Architects, the Lady Bird Johnson Wildflower Center at The University of Texas at Austin and the United States Botanic Garden. Projects receiving at least credits 3.5 – Manage Stormwater on Site and 3.6. – Protect and Enhance On-Site Water Resources and Receiving Water Quality under the "Site Design - Water" category should be equivalent to the same exceptions offered for LEED.

(http://www.sustainablesites.org/report/Guidelines%20and%20Performance%20Benchmarks_2009.pdf)

For both building scenarios, commercial and residential new construction, Final Permit language should reference specific LEED credits addressing stormwater quantity and quality management, native/adapted landscaping, open space requirements, and landscape water use (specifically reuse of non-potable water resources). Rating Systems available (<http://new.usgbc.org/leed/rating-systems>)

For single family homes, the Final Permit should include an exemption from PDP requirements when they meet specified stormwater standards, not limited to LEED credits.

IV. The Final Permit should re-examine the concept of “infeasible”, and require developers to take a broader perspective in determining the feasible/infeasible nature of a project.

Allowing Copermittees to develop their own criteria as to what is “technically infeasible” runs the risk of Copermittees bowing to political pressure from special interest and can result in unfair competition for development between copermittees. The intent of the system approach to watershed management must require that all jurisdictions within that watershed have the same criteria for feasible; the Final Permit is the only way to ensure that there is uniform definition of “feasible” and “infeasible”.

Conventional approaches to infiltration are typically based on soil structure (clay versus sandy loam) and don't take into account biological activity. Cost analysis for building biologically active soil that can infiltrate and store water effectively needs to be included. Furthermore, the concept of infiltration needs to be broadened to the concept of “hydration”. Even clay soils can slow, sink, and spread rainwater when that water is delivered to plants at the appropriate time; during our winter rainy season.

In addition, there exist opportunities for the use of “engineered” or “suspended”, to enhance the feasibility on a project, and enhance its capacity for infiltration.

V. The Final Permit should take an innovative approach to retrofitting areas of existing development, in particular for areas with the highest priority water quality conditions (see E.5.e.(2)).

Retrofitting areas of existing development can be an opportunity to both address areas with the highest priority water quality conditions but also for public education on stormwater mitigation principles. Recognize that for our Mediterranean climate, there is an opportunity to emphasize municipal capital improvement to capture the ‘first flush’ of contaminants, in addition to the 85th percentile storm. Implementing strategies on a bigger scale that benefits the community, such as curb cuts and green streets with educational signage, would be a great approach. There is good precedent for this approach elsewhere, such as Tucson, Arizona. For more information, see: <http://watershedmq.org/green-streets/resources>.

VI. The Final Permit should consider combining innovative with traditional stormwater mitigation strategies.

Low Impact Development (LID) techniques are typically viewed as small scale interventions that complement traditional detention basins but may not be able to fully meet the hydromodification requirements (peak flow and duration) of Priority Development Projects. Creative use of LID techniques can expand their capacity and effectiveness. For example: rainwater cisterns can provide a dual function with water conservation and stormwater mitigation. The design storm volume can be released from the cistern in response to a weather station at a rate determined by when the storm is expected, or manually by slow release of the pre-determined volume. The cistern can be sized to provide a sizable portion of the irrigation requirements. The design storm volume can be released into a bio-retention cell or other landscaped area. Detention basins can serve as the final overflow for underdrains from bioretention cells

or bio-swales to reduce the peak flow of stormwater runoff. The discharge from the detention basin in this case will have a reduced flow and reduced pollutant load due to pre-treatment. Again, the use of “engineered or suspended” soils should be explored.

VII. The Final Permit should emphasize green municipal infrastructure practices that can mitigate stormwater impacts.

The strategy of “green streets” OR “green infrastructure practice” includes street-side, in-street (traffic circles, median strips), and parking lots. All of these green infrastructure practices share common themes of curb cuts to bioretention cells at a lower elevation than the street. Stormwater is typically infiltrated on site with engineered soil or gravel. Overflow during peak storm events is either directed to the storm drain via an underdrain or infiltrated at a second site nearby.

All of these approaches produce “green swathes” in urban areas which mitigate stormwater and provide aesthetic and community benefits. Finally, the local residents have the opportunity to become “stewards of their watershed”. There are great examples of green streets: Elmer Avenue in Los Angeles (see: <http://www.treepeople.org/sun-valley-watershed#Elmer>) as well as many examples in the city of Tucson (see: http://www.watershedmg.org/sites/default/files/greenstreets/WMG_GISWNH_1.0.pdf).

Note that doing projects with existing development that are transparent, such as curb cuts that produce green streets, provide an important opportunity for education. Ultimately visible solutions that are aesthetically pleasing can influence individuals and communities toward patterns of more responsible consumption and use of water due to their increased knowledge and experience.

This represents an opportunity for community planning groups to assist with implementation.

VIII. The Final Permit should incorporate methods for reducing pollutant discharge both on a regional scale, and within the watershed for smaller creeks and waterways – through the use of meaningful enforcement actions.

The proposed MS4 Permit does not adequately address efficacious measures to protect creek and coastal receiving waters while allowing contaminated discharges to persist without adequate enforcement actions. Lacking meaningful enforcement actions, inland cities as copermittees, persist in ignoring or circumventing water quality regulations with impunity while creek and coastal receiving waters and ESA habitats continue to be incrementally degraded by polluted dry weather flows. Damage to coastal habitats is cumulative and potentially expensive in terms of restoration.

IX. The Final Permit should take into account successes in other jurisdictions for reducing pollutant load to pre-development levels.

See reports from the city of Santa Monica on MTBE mitigation and urban watershed management (http://cfpub.epa.gov/npdes/stormwater/casestudies_specific.cfm?case_id=2).

X. The Final Permit should include a *graphic representation* of both political and natural boundaries as related to the area under jurisdiction of this order.

XI. The Final Permit should recognize the resources within each Watershed or municipality, and emphasize stakeholder engagement.

Urban runoff is the San Diego region’s most urgent pollution problem. Arguably, it is the most difficult to solve. In a region known for its beaches and strong tourism economy, polluted runoff makes our beaches and waterways unsafe for swimming, fishing and other recreation for at least 72 hours after a rain event. Even in dry weather, our “urban drool” from residents and businesses overwatering lawns becomes a major pollution source.

The good news is by working together as a community, we can solve this challenging public health problem. The Water Quality Improvement Plans proposed in the draft permit have the potential to become powerful tools to help us improve water quality within our watersheds. However, the Copermittees cannot be tasked with creating these plans alone. Specifically:

- The Permit should require formation of a stakeholder advisory group for each watershed that includes representatives of environmental groups with knowledge of the watershed.
- This stakeholder advisory group should work closely with the Copermittees and a regional board staff member while the Water Quality Improvement Plans are being developed to ensure these plans aggressively pursue water quality gains.
- The stakeholder advisory process should include accountability and measureable milestones to ensure the goals of the Permit are being met.

By taking advantage of the knowledge and resources of diverse stakeholders like municipalities, businesses and residents, our region can be on the cutting-edge of addressing urban runoff and creating healthier communities and watersheds. But this can only be achieved if these diverse voices are impacting the planning process in a meaningful way.

USGBC-San Diego recognizes the challenge urban runoff presents to our region, and we want to do our part to solve the problem. USGBC-San Diego is interested in participating in a Water Quality Improvement Plan development process for watersheds in the San Diego Region.

USGBC-San Diego urges the Regional Board to enhance the stakeholder participation opportunities during Water Quality Improvement Plan development and then approve the permit.

CONCLUSION

In conclusion, the U.S. Green Building Council – San Diego appreciates the approach and effort the Regional Board and its staff have put towards developing an MS4 permit for the San Diego Region. We believe that this watershed system approach will better improve the environmental, economic and social impacts associated with current water quality in our region. We look forward to a constructive relationship with the Regional Board.

Respectfully submitted,



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With support from,



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