Key Issues Regarding Adoption of Tentative Order No. R9-2006-0011

San Diego Regional Water Quality Control Board
December 13, 2006

This document identifies and discusses the key issues remaining in the adoption of Tentative Order No. R9-2006-0011 (Tentative Order). During the public process for adoption of the Tentative Order, numerous comments have been made raising various issues. Through the public comment and response process, many issues have been resolved, while others remain. However, all comments have been responded to in detail in the San Diego Regional Water Quality Control Board (Regional Board) documents "Responses to Comments" (dated August 30, 2006) and "Responses to Comments II" (dated December 13, 2006).

Those remaining key issues that have generated the most recent interest are identified and discussed in this document. The key issues have been identified based on the second round of comments received on the Tentative Order. Most comments made during the first round of comments, but not during the second round of comments, have been resolved or are of a less consequential nature at this time. While this document addresses the key issues that have generated the most interest recently, many other issues have been raised and addressed during the public comment and response process. It is recommended that all comments and responses in the "Responses to Comments" documents be reviewed to ascertain a complete understanding of the issues involved with the Tentative Order.

This document summarizes the comments that have been made on the key issues. To see the more detailed comments, please see the "Responses to Comments" documents.

Key Issue # 1: Commenters contend that the urban runoff management plans required by the Tentative Order are essential to the Regional Board's ability to monitor and enforce those programs, and therefore serve as the functional equivalent of the Tentative Order. As such, commenters argue that the urban runoff management plans must be approved by the Regional Board following a public hearing.

Response: In making their contentions, commenters rely on a recent court case addressing a general Phase II municipal storm water permit which regulates discharges of storm water from small municipal separate storm sewer systems (small MS4s). Commenters' rationale for arguing that dischargers' management plans are equivalent to National Pollutant Discharge Elimination System (NPDES) permit requirements reflects circumstances unique to the manner in which small MS4s are regulated, which have provided the context in which the court has called for management plans to be incorporated explicitly into Phase II

NPDES storm water permits. In the case, small MS4s are covered by broadly generic "general" requirements for the preparation and implementation of management plans of various sorts; however, specific detailed provisions for the plans are not included in the "general" permit requirements. Accordingly, in a case involving general NPDES permits for small MS4s, the Court held that, since most of the substantive conditions governing the dischargers' compliance with the NPDES permit were articulated only in the storm water management plans, the plans were, in effect, the permit conditions and would have to be subjected to the same public participation as other NPDES permit conditions.

This rationale is not applicable to the proposed renewal of NPDES requirements for MS4s in San Diego County because the requirements contain detailed provisions prescribing the scope and content of the municipal dischargers' various storm water management plans. The proposed NPDES requirements provide ample detail regarding the municipal dischargers' obligations to reduce pollutants to the maximum extent practicable (MEP) and the elements that the municipal dischargers must include in any urban runoff management plan for their MS4. As such, the level of detail included in the requirements of the Tentative Order ensures that use of the plans as "functional equivalents" of the Tentative Order is not necessary.

Moreover, the fact that the Copermittees are required to revise and update their plans does not mean that the plans are necessary to ensure MEP is achieved. The plans serve to organize the Copermittees' efforts to address urban runoff. As a practical matter, any program of the size required by the Tentative Order should be documented in writing. This serves to guide implementation of the program by the numerous individuals responsible for program implementation. Naturally, when a program changes, the plan describing the program should be updated. Such updates will keep the plans current.

Nor does the fact that the plans are to be submitted to the Regional Board mean that the plans are necessary to ensure MEP is achieved. Submittal of the plans allows confirmation that the plans have been developed. As discussed above, development of the plans will provide organization and guidance to the Copermittees in implementing their programs. Therefore, confirmation that the plans have been developed is worthwhile. The plans will also be reviewed by the Regional Board to ensure that the Copermittees' programs do not include errors or components in contravention to the Tentative Order's requirements. However, this does not indicate that the plans are the only documents which include the details necessary to determine that MEP is achieved; on the contrary, the Tentative Order's requirements are detailed enough to ensure achievement of MEP. Review of the plans is simply one oversight approach utilized by the Regional Board to ensure program compliance with the Tentative Order, similar to the Regional Board's use of audits, inspections, etc.

In adopting the Tentative Order, the procedural requirements of the Clean Water Act will be satisfied. Since the Tentative Order itself contains the substantive requirements which must be met to achieve applicable standards, additional procedures for the urban runoff management plans are not necessary.

Key Issue # 2: Commenters contend that the requirements of the Tentative Order exceed federal law, and therefore constitute an unfunded state mandate.

Response: The Tentative Order and its requirements do not constitute an unfunded state mandate. The contention that NPDES permits and their requirements are unfunded state mandates has been repeatedly heard and denied by the State Water Resources Control Board (SWRCB). (See SWRCB Order Nos. WQ 90-3 and WQ 91-08). Indeed, the unfunded state mandate argument was recently heard by the SWRCB when it considered the appeal of the Los Angeles Regional Water Quality Control Board's (LARWQCB) Standard Urban Storm Water Mitigation Plan (SUSMP) requirements. The LARWQCB's SUSMP requirements are municipal storm water permit requirements for new development that are similar or identical to many of the requirements of the Tentative Order. The unfunded state mandate argument was summarily rejected by the SWRCB in that instance (SWRCB Order WQ 2000-11).

Since that time, nothing has occurred that would change how unfunded state mandates are determined. While Proposition 1A elucidates the process for reimbursement when an unfunded state mandate occurs, it does not alter how unfunded state mandates are identified. As such, notice must be taken of the SWRCB's previous decisions that NPDES requirements do not constitute unfunded state mandates.

The Tentative Order and its requirements are not unfunded state mandates for several reasons. First, California Constitution, Article XIII B, Section 6 was not intended to address a permit, order, or requirements therein issued by a regulatory agency of state government imposing federal requirements upon parties prohibited from discharging waste into the waters of the State and the United States under both state and federal law. Indeed, the Legislature clarified that the unfunded mandate provision of the California Constitution does not apply to regional board orders. (Gov. Code section 17516). If the commenter's analysis was correct, every permittee could file a "claim" for reimbursement to comply with any regulatory action, claiming that the regulatory action requires a "new program" or an "increased level of service." The Constitution addresses reimbursement for additional "services" mandated by the State upon local agencies, not regulatory requirements imposed upon all permittees, including cities and counties. The intent of the constitutional section was not to require reimbursement for expenses incurred by local agencies complying with laws that apply to all state residents and entities. (See City of Sacramento v. State of California, 50 Cal. 3d. 51 (1990) citing County of Los Angeles v. State of California, 43 Cal. 3d. 46).

A central purpose of the principle of state subvention is to prevent the state from shifting the cost of government from itself to local agencies. (Hayes v. Commission on State Mandates, 11 Cal. App. 4th 1564, 1581 (1992)). In this instance, no such shifting of the cost of government has occurred. The responsibility and cost of complying with the Clean Water Act and Phase I NPDES municipal storm water regulations lies squarely with the local agencies which own and operate MS4s, not with the State. The State cannot shift responsibilities and costs to local agencies when the responsibilities and costs lie with the local agencies in the first place.

Second, even if the Tentative Order could be characterized as requiring a mandate for an increased level of governmental services, it is not an unfunded state mandate because it implements a federal program, rather than a state program. State subvention is not required when the federal government imposes the costs of a new program or a higher level of service. (Cal. Const. Art XIII B; Id). Citing case law, commenters attempt to assert that any use of discretion on the part of the Regional Board in implementing a federal program reflects "a matter of true choice," and is therefore a state mandate. (Id). This is a misrepresentation of the case law. In *Hayes v. Commission on State Mandates*, above, the Court only contemplates whether participation itself in a federal program is "a matter of true choice" in order to determine if an unfunded state mandate has occurred. It does not contemplate whether any use of discretion on the part of a regulatory agency in implementing the necessary details of a federal program constitutes an unfunded state mandate. Therefore, the case does not support the commenters' claims.

Any discretion exercised by the Regional Board in implementing federal law in the Tentative Order is in accordance with federal law and guidance. For example, use of permit writer discretion and the inclusion of more detailed requirements in the Tentative Order is consistent with United States Environmental Protection Agency (USEPA) guidance. The preamble to the Phase I NPDES storm water regulations states "this rule sets out permit application requirements that are sufficiently flexible to allow the development of site-specific permit conditions" (Federal Register 48038). In addition, in its review of a City of Irving Texas NPDES municipal storm water permit, the USEPA Environmental Appeals Board stated that Congress "created the 'maximum extent practicable' ('MEP') standard and the requirement to 'effectively prohibit non-storm water discharges' into the MS4 in an effort to allow permit writers the flexibility necessary to tailor permits to the site-specific nature of MS4 discharges" (2001). The Tentative Order, to be issued to implement a federal program, does not become an unfunded state mandate simply because the Regional Board appropriately exercised its discretion in defining the particulars. Simply put, the Regional Board's implementation of a federal program according to federal law and guidance does not constitute an unfunded state mandate.

Third, the Tentative Order is not an unfunded state mandate because its requirements do not exceed the requirements of federal law. As we have consistently noted, all of the Tentative Order's requirements are necessary to comply with federal law mandates. The Clean Water Act requires that MS4s reduce the discharge of pollutants to the MEP. All requirements of the Tentative Order are necessary to achieve the MEP standard, and therefore do not exceed federal law.

In its review of the current San Diego County Municipal Storm Water Permit (Order No. 2001-01), the State of California Court of Appeal, Fourth Appellate District reached the same conclusion. The Court "determined that none of the challenged Permit requirements violate or exceed federal law." (*Building Industry Association of San Diego County, et al., v. State Water Resources Control Board et al.*, 2004). This finding applies to a wide range of requirements, since the Building Industry of San Diego County used an across the board approach to the challenges it raised in its lawsuit. This is significant, since the Tentative Order's requirements mirror the requirements of Order No. 200-01. Where the Tentative Order contains new requirements not specifically found in Order No. 2001-01, the new requirements only provide additional detail to requirements already in existence in Order No. 2001-01 in order to implement the evolving MEP performance standard. Any new requirements in the Tentative Order simply elaborate on Order No. 2001-01's pre-existing requirements. For example, the Tentative Order's requirements addressing hydromodification expand on the pre-existing Order No. 2001-01 requirement that Copermittees develop criteria "to control peak storm water discharge rates and velocities in order to maintain or reduce pre-development downstream erosion and protect stream habitat" (Order No. 2001-01 section F.1.b.(2)(j)). Since the requirements of the Tentative Order and Order No. 2001-01 are comparable, the Court's finding that requirements of Order No. 2001-01 do not exceed federal law is also applicable to requirements of the Tentative Order.

Fourth, the Tentative Order and its requirements are not an unfunded state mandate because they do not constitute a new program or higher level of service. The performance standard applicable to MS4s has remained the same since subdivision (p), extending "point source" regulation to storm water discharges was added to Section 402 of the Clean Water Act (33 U.S.C. 1342) in 1987. The Regional Board has issued two prior iterations of requirements implementing this performance standard, each with incrementally greater detail to provide municipalities with guidance regarding elements of municipal storm water management programs that are practicable, and therefore, appropriate components for compliance with the performance standard. However, despite the incrementally increasing levels of detail, the fundamental requirement that municipalities reduce pollutants in MS4s to the MEP remains the cornerstone of the mandate imposed upon municipalities by the federal Clean Water Act and implementing NPDES regulations for storm water.

Fifth, the Tentative Order and its requirements are not an unfunded state mandate because the Copermittees have the authority to levy service charges, fees, or assessments to fund their efforts to comply with the Tentative Order. Government Code section 17556(d) provides that an unfunded state mandate will not be considered in such instances. Municipalities have ample governmental authority to levy service charges, fees, or assessments to pay for storm water management programs that reduce pollutants to the MEP; municipalities also have the authority to levy taxes to provide adequate funding for storm water management programs; lack of political determination to impose taxes or fees for storm water management does not constitute lack of authority.

Federal regulations that implement the storm water provisions of the Clean Water Act require municipalities to ensure appropriate funding for compliance with requirements for discharges of storm water in MS4s. Municipalities' applications for waste discharge requirements that implement the NPDES regulations for storm water must include assurances that the municipalities can provide adequate funding to reduce pollutants in MS4 in accordance with the MEP performance standard. (40 C.F.R. 122.26, implementing subdivision (p) of Clean Water Act Section 402; 33 U.S.C. 1342(p)).

As exhibited, the commenter's claim that the Tentative Order is an unfunded state mandate fails on many fronts. The Tentative Order's requirements do not necessitate subvention to the Copermittees by the State.

Key Issue # 3: Commenters contend that the Tentative Order's Total Maximum Daily Load (TMDL) section inappropriately includes numeric effluent limits.

Response: The Water Quality-Based Effluent Limits (WQBELs) used in the TMDL section of the Tentative Order are BMP-based, rather than numeric. Section H.1.a requires the Copermittees to "implement BMPs capable of achieving the interim and final diazinon Waste Load Allocation (WLA)." Section H.2.a requires the Copermittees to "implement BMPs to maintain a total annual copper discharge load of less than or equal to 30 kg copper / year." The Waste Load Allocations (WLAs) included in the Tentative Order are performance standards for implemented BMPs, not effluent limitations. The WLAs are to be used to assess if additional BMPs are necessary. Moreover, the Interim TMDL Numeric Targets for diazinon do not constitute numeric effluent limits, since they are receiving water limitations. In that respect, they are similar to the receiving water limitations in section A.3 of the Tentative Order.

The TMDL requirements are consistent with the iterative process for achieving compliance with water quality standards. The Fact Sheet states as much: "Consistent with USEPA's recommendation, this section implements WQBELs expressed as an iterative approach capable of meeting the WLAs in accordance with the associated compliance schedule." The Tentative Order's TMDL requirements allow for the iterative process to be used to meet the WLAs, while

also providing a reasonable endpoint for the iterative process by identifying a final date for compliance with the WLAs to be achieved.

Key Issue # 4: Commenters contend that the Regional Board must conduct an environmental review in compliance with the California Environmental Quality Act (CEQA) when adopting the Tentative Order.

Response: This contention is based on the preliminary decision of the California Court of Appeal for the Second Appellate District in *Los Angeles v. California State Water Resources Control Board* (Case No. B184034), issued on October 5, 2006, in which the Court concluded that California Water Code section 13389 did not relieve regional water boards of substantial obligations to document their assessment of the environmental consequences of regulatory actions implementing the federal Clean Water Act. Municipalities subject to NPDES requirements for discharges in municipal separate storm sewer systems in the Los Angeles Region had challenged the LARWQCB's action alleging inadequate compliance with CEQA among other objections; the SWRCB and the Los Angeles Superior Court upheld the LARWQCB's action; the Court of Appeal affirmed the trial court decision in part, but reversed the decision regarding CEQA compliance, vacating the Los Angeles MS4 NPDES requirements and remanding the matter to the LARWQCB for environmental review under Chapters 1, commencing with Section 21000, and 2.6, commencing with Section 21080, of CEQA (Division 13, commencing with Section 21000, of the California Public Resources Code).

On November 6, 2006, the California Court of Appeal for the Second Appellate District, modified its decision in *Los Angeles v. California State Water Resources Control Board* (B184034). The revised decision affirms in its entirety the determination of the trial court that California Water Code section 13389 provides a CEQA exemption for state waste discharge requirements issued under Chapter 5.5, commencing with Section 13370, of the Porter-Cologne Water Quality Control Act (Division 7 commencing with Section 13000, of the California Water Code) implementing the NPDES regulations under the federal Clean Water Act.

Therefore, the Regional Board remains exempt from conducting CEQA review when adopting NPDES permits. However, it is worth noting that the Regional Board has considered a wide range of environmental factors during the extensive process of crafting the Tentative Order, Fact Sheet, Responses to Comments documents, and other supporting documents. This includes responding in detail to all environmental issues raised during the comment and response process.

Key Issue # 5: Commenters contend that the Tentative Order does not require treatment of urban runoff from a wide enough range of development projects and should include a square footage-based "catch-all" provision for application of SUSMP requirements to new development projects. Commenters contend that a

5,000 square feet impervious surface "catch-all" threshold represents MEP since it has been implemented elsewhere.

Response: The Priority Development Project categories used to trigger the SUSMP requirements of the Tentative Order reflect the MEP standard. These categories have been identified by the SWRCB in Order WQ 2000-11 as constituting MEP. The categories have not been exhibited to be ineffective or insufficient in addressing runoff from development projects, so there is no reason to conclude that they no longer reflect the MEP standard. Moreover, the categories result in application of post-construction best management practice (BMP) requirements on a scale that is roughly equivalent to the scale of post-construction BMP application by other communities with "catch-all" thresholds (such as a 5,000 square feet impervious surface threshold).

There are two reasons that this is the case. First, the Tentative Order requires that "[w]here a new Development Project feature, such as a parking lot, falls into a Priority Development Project category, the entire project footprint is subject to SUSMP requirements" (section D.1.d.(1)). Therefore, the entirety of any project which includes a parking lot or surface used for the transportation of vehicles that is 5,000 square feet must meet the SUSMP requirements. In addition, any 5,000 square foot project that will grade on any natural slope that is 25% or greater must also meet the SUSMP requirements. Since these conditions are very common for new development projects, the SUSMP requirements will apply to the entirety of most new development projects, making the creation of a new SUSMP threshold of 5,000 square feet of impervious surfaces unnecessary.

Second, most of the programs cited by the commenter as using thresholds for application of post-construction BMPs that are more stringent than the Tentative Order include criteria or exemptions which make the requirements less rigorous or equivalent to those found in the Tentative Order. For example, Contra Costa County is required to apply post-construction BMP requirements to projects that create 10,000 square feet of impervious surfaces. As noted above, the Tentative Order contains provisions that require application of post-construction BMP requirements to many projects that create 5,000 square feet of impervious surfaces, making the Tentative Order more stringent than the Contra Costa County approach in many respects. Likewise for the State of New Jersey, which only applies runoff control requirements to projects creating one-quarter acre or more of impervious surfaces. The State of Washington only requires treatment of runoff from pollutant generating impervious surfaces that are 5,000 square feet or greater. Pollutant generating impervious surfaces include surfaces subject to vehicle use. The Tentative Order, however, does not limit treatment requirements to pollutant generating impervious surfaces. In addition, as previously noted, the Tentative Order requires treatment of impervious surfaces that are 5,000 square feet or greater and are used by vehicles. Since the Tentative Order contains some requirements that are more rigorous than the requirements of the State of Washington, and other requirements that are

identical, the Tentative Order's application of treatment BMP requirements can be considered roughly equivalent to those of the State of Washington in many instances. The States of Missouri, Illinois, and West Virginia require control of runoff from projects larger than one acre. The Tentative Order generally meets or exceeds the requirements of these states. When viewed in their entirety, the post-construction BMP requirements implemented elsewhere generally do not exceed the SUSMP requirements of the Tentative Order. Therefore, the scope of application of the SUSMP requirements to new development projects in the Tentative Order meets the MEP standard.

However, the Tentative Order's requirements must be as rigorous as the Phase II NPDES requirements. Phase I municipalities are generally larger and have more pollutant sources than Phase II municipalities, and therefore should at least meet the requirements applied to Phase II municipalities. While the Tentative Order's application of SUSMP requirements to development projects is more rigorous than the Phase II requirements in almost all cases, there is the possibility that there may be a development project larger than one acre that does not fall into one of the Priority Development Project categories. Failure to apply the SUSMP requirements to such a project would not adequately meet the Phase II requirements to "address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre" (40 CFR 122.34(b)(5)(i)). As such, the Tentative Order has been modified to add a requirement for development of a "catch-all" standard for application of SUSMP requirements, to be used in addition to the Priority Development Project categories included in the Tentative Order. The standard must at least require application of the SUSMP requirements to all new development projects greater than one acre in size. In choosing one acre as the maximum allowable development project size to be used as the "catch-all" standard, we rely on analysis conducted by USEPA in the preamble to the Phase II regulations. Such a standard can be expected to address runoff from 97.5% of developed acreage (USEPA, 1999b), which is reasonable considering that a sub-watershed level of imperviousness of 2-3% has been found to result in a stream channel morphology changes in southern California (Coleman, et al, 2005). However, it is also important to note that actual application of SUSMP requirements under the Tentative Order will greatly exceed the above USEPA estimate, due to the rigorous nature of the Priority Development Project Category criteria, which will remain in effect in conjunction with the catch-all standard.

Key Issue # 6: Commenters contend that the Tentative Order's requirements for implementation of low-impact development (LID) strategies at development projects are inadequate and do not meet the maximum extent practicable standard.

Response: While the Tentative Order requires significant and widespread implementation of LID site design BMPs, it has been modified to better ensure LID site design BMP implementation under those conditions where LID site

design BMP implementation has already been demonstrated to be applicable and feasible. The primary reason for these modifications is the general effectiveness of LID site design BMPs in reducing pollutant discharges – pollutants in runoff which is infiltrated generally do not leave the site, and therefore do not reach receiving waters. Runoff volume reduction commensurately decreases pollutant mass loadings (Horner, 2006). LID site design BMPs also preserve pre-development hydrologic conditions, minimizing hydromodification impacts. In addition LID site design BMPs help maintain groundwater recharge.

Several modifications have been made to the Tentative Order to better ensure LID site design implementation. First, an objective for the LID site design BMP section has been added to the Tentative Order. The objective is to "minimize directly connected impervious areas and promote infiltration at Priority Development Projects." The addition of this objective in the Tentative Order serves to guide the Copermittees in their application of LID site design BMP requirements to Priority Development Projects. It helps ensure that the purpose of LID site design BMP implementation is clear, which can be expected to lead to more effective implementation.

Second, several LID site design BMPs that have been exhibited to be applicable and feasible under certain conditions are now mandatory. This includes routing of runoff from impervious areas to pervious areas and use of permeable surfaces for portions of low traffic areas. Previously, only one of these LID site design BMPs was required at a Priority Development Project; now both must be implemented under most conditions. Standard multi-family residential, small-scale single-family residential, restaurant, office building, large scale single-family residential, and retail commercial projects with typical San Diego County soil conditions have been shown to have sufficient pervious areas for significant infiltration onsite (Horner, 2006). In addition, use of permeable surfaces has been exhibited to be applicable and feasible for many projects' low traffic areas in San Diego County. Permeable surface use for low traffic areas in also supported by numerous case studies nationwide (Natural Resources Defense Council, 2006 and Puget Sound Action Team and CH2M Hill, 2004).

Third, the amount of impervious surface runoff that must be routed to pervious areas has also been clarified, which will better ensure meaningful LID site design BMP implementation. The size of impervious areas draining to pervious areas must correspond to the size of the pervious areas. This helps prevent a situation where only a small portion of impervious areas is routed to pervious areas, even though the pervious area's capacity for receipt of runoff is large.

Fourth, while some of the listed LID site design BMPs continue to be required on an applicability and feasibility basis, the term "as determined by the Copermittee," used in reference to determination of applicability and feasibility, has been removed. This clarifies that determination of applicability and feasibility

is not solely at the discretion of the Copermittees; the Regional Board also has discretion to provide input on applicability and feasibility of LID site design BMPs where necessary. In addition, the process for determining applicability and feasibility of LID site design BMPs has been strengthened. In conjunction with the requirements for the Copermittees to develop criteria to guide the determination of applicability and feasibility, project proponents are now required to "demonstrate applicability and feasibility, or lack thereof, for each LID site design BMP."

This formalized process requiring the creation of LID site design BMP criteria, as well as reporting and review in relation to the criteria, ensures sufficient LID site design BMP implementation under the current permit's regulatory approach. The formalized process incorporated into the Tentative Order will ensure that each LID site design BMP will receive appropriate consideration by both the project proponent and the Copermittee. This increased formal consideration is reasonably expected to significantly improve implementation of the LID site design BMPs in question, due to the increased level of formal oversight. Such an approach is appropriate due to the relatively subjective nature of these LID site design BMPs. Since particular LID site design BMPs do not lend themselves to being easily measured or assessed, it is appropriate to assess their applicability and feasibility on a case by case basis in relation to pre-determined criteria. This approach also acknowledges the numerous different types of projects and their different site constraints.

Fifth, the Tentative Order has been revised to increase use of treatment control BMPs which incorporate LID techniques. One revision requires that LID techniques, such as soil amendments, be included in the design criteria for appropriate treatment control BMPs. This is required because of the ability of LID techniques to improve treatment control BMP performance (Horner, 2006). Incorporation of LID techniques in design criteria will help ensure increased use of LID techniques at Priority Development Projects. Another revision requires inclusion of LID BMPs that can be used for treatment to be included in local SUSMP lists of available BMPs. This also will help ensure increased use of LID techniques at Priority Development Projects.

Collectively, these modifications will result in widespread implementation of LID site design BMPs. The majority of projects are required to route runoff from impervious areas to pervious areas, as wells as utilize permeable surfaces for low traffic areas. In addition, the process for utilization of other LID site design BMPs has been formalized to ensure meaningful consideration of the BMPs and implementation based on specific criteria. Moreover, use of LID techniques to treat urban runoff has been incorporated into the Tentative Order, which will increase the use of such techniques for treatment purposes. These requirements for widespread implementation of LID site design BMPs are consistent with the MEP standard.

The commenter contends that implementation LID site design BMPs for runoff treatment purposes is the only way to meet the MEP standard and protect water quality. This is not the case. As exhibited above, the Tentative Order's LID site design BMP requirements assure widespread LID site design BMP implementation consistent with the MEP standard. Moreover, the Tentative Order's approach of requiring LID site design BMPs, source control BMPs, and treatment control BMPs is sufficient to protect water quality without relying on a single methodology.

While LID site design BMPs can be more effective than other treatment control BMPs, this is not always the case. For example, USEPA reports that sand and other media filters can be more effective than typical LID approaches such as grassed swales or vegetated filter strips in removing some pollutants from runoff (USEPA, 1999). Caltrans also finds that various media filtration BMPs or treatment trains can be more effective than typical LID site design BMPs for some pollutants (Caltrans, 2004). Depending on each project's pollutants of concern, LID site design BMPs may or may not be the most effective treatment control BMP choice. For this reason, the Tentative Order requires BMP implementation based on BMP effectiveness, rather than a single methodology that may not represent the most effective approach. The Tentative Order requires implementation of treatment control BMPs with at least a high or medium removal efficiency for a project's most significant pollutants of concern. The majority of the treatment control BMPs with high or medium removal efficiencies, such as biofilters, detention basins, infiltration basins, and wet ponds, are "soil-based" BMPs that incorporate LID concepts. Moreover, the Tentative Order has been modified to better assure that treatment control BMP options include LID BMPs and incorporate LID techniques (see discussion above).

It is worth noting that the "Horner study" cited by the commenter does not refute this combined approach of LID site design BMP implementation supported by implementation of effective "soil-based" treatment control BMPs which incorporate LID techniques. Indeed, the study's "LID analysis" contemplates just such an approach, assessing the "extent to which commonly used soil-based BMPs and low-impact site design strategies ameliorate runoff volumes and pollutant concentrations and loadings" (Horner, 2006). The study's central finding, that "developments implementing traditional basins and biofilters, and even more so low-impact post construction BMPs, achieve significant reduction of pollutant loading and runoff volume" is consistent with the Tentative Order's combined approach of LID site design BMP and treatment control BMP implementation.

Each of the modifications made to section D.1.d addressing LID site design BMPs has been made in order to address specific comments made regarding the Tentative Order. As such, each of the modifications has been reasonably foreseeable and represents a logical outgrowth of the comment and response

process. The modifications simply clarify the Tentative Order's pre-existing requirements, and therefore do not constitute significant changes to the Tentative Order.

Key Issue # 7: Commenters contend that the Tentative Order does not provide adequate time to develop various components of the monitoring program.

Response: Assuming an adoption date of December 13, 2006 for the Tentative Order, the Copermittees are provided 6½ months to develop and submit a description of the monitoring program components at issue: trash monitoring, pyrethroids monitoring, MS4 outfall monitoring, and source identification monitoring. Most of the overall monitoring program, aside from the monitoring program components at issue, has already been developed under the Order No. 2001-01 or during development of the Report of Waste Discharge. Essentially, only four new monitoring components need to be developed from scratch under the Tentative Order. Development of one of these components, source identification monitoring, will be extended an additional year because of the need for additional data collection prior to its development. With the extension of this monitoring component, only three monitoring components remain which have to be fully developed and submitted by July 1, 2007. Development of these monitoring components in the time frame provided is feasible for the reasons discussed below:

Trash monitoring: There is currently trash monitoring being conducted in Los Angeles County. Trash monitoring is required there because of the adopted Ballona Creek and Wetland Trash TMDLs. These already existing trash monitoring programs can be reviewed and adapted by the Copermittees. In addition, some Copermittees currently conduct trash monitoring on their own at a limited level under the current permit. Use of these existing trash monitoring efforts can save the Copermittees time in developing their program, making it feasible to develop and submit a trash monitoring program July 1, 2007.

Pyrethroids monitoring: There is currently pyrethroid monitoring conducted in different parts of California (e.g. Central Valley) and there is an existing method for pyrethroid analysis available (EPA method 8270). These monitoring programs and methods can be reviewed and adapted by the Copermittees. For this reason, we believe that the time provided is sufficient to develop and submit a pyrethroid monitoring plan by July 1, 2007.

MS4 outfall monitoring: The Copermittees are already monitoring the MS4 outfalls during dry weather. Therefore the locations of most of the MS4 outfalls are known to the Copermittees. Also, data about the flow of the MS4 outfalls is available to the Copermittees through the Dry Weather Monitoring. Based on the availability of this information, the due date (July 1, 2007) for development of a monitoring program to characterize pollutant discharges from MS4 outfalls is considered to be sufficient.

As noted above, we have changed the due date for submittal of the source identification monitoring program to July 1, 2008. We understand that input from the MS4 outfall monitoring program is needed to develop the source identification monitoring program.

References

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