



March 14, 2011

Via electronic mail

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Re: Comments on Tentative Order No. 2011-XX-DWQ

The Natural Resources Defense Council, on behalf of our over 100,000 California members and activists, appreciates the opportunity to comment on Tentative Order No. 2011-XX-DWQ, NPDES No. CAS000003, the Draft National Pollutant Discharge Elimination System (NPDES) Statewide Storm Water Permit Waste Discharge Requirements (WDRS) for State of California Department of Transportation (“Tentative Order”). We are concerned that, in critical aspects, the Tentative Order is inconsistent with state and federal law. In particular, the Tentative Order’s approach to use of low impact development (“LID”) is highly flawed; the Tentative Order’s LID provisions are vague and ambiguous and fail to implement the federal maximum extent practicable standard. The flaws in the LID approach are even more apparent in contrast to recent adoptions by the Los Angeles, Santa Ana, San Diego, and San Francisco Regional Water Quality Control Board of LID provisions in Municipal Separate Storm Sewer (“MS4”) permits which require onsite retention of the 85th percentile design storm. We strongly encourage the State Water Resources Control Board (“State Board”) to revise the Tentative Order to address this and other issues discussed below.

I. Standards Governing the Adoption of the Tentative Order by the Regional Board

I-1 → In considering the Tentative Order, the State Board must not only ensure compliance with substantive legal standards, but it must also ensure that it complies with well-settled standards that govern its administrative decision-making. The Tentative Order must be supported by evidence that justifies the State Board’s decision to include, or not to include, specific requirements. The State Board would be abusing its discretion if the Tentative Order ultimately fails to contain findings that explain the reasons why certain control measures and standards have been selected and others omitted. Abuse of discretion is established if “the respondent has not proceeded in the manner required by law, the order or decision is not supported by the findings,

or the findings are not supported by the evidence.” (Cal. Code Civ. Proc. § 1094.5(b); *see also* *Zuniga v. Los Angeles County Civil Serv. Comm’n* (2006) 137 Cal.App.4th 1255, 1258 (applying same statutory standard); *Phelps v. State Water Resources Control Bd.* (2007) 157 Cal.App.4th 89, 98-99 (“abuse of discretion is established if the court determines that the findings are not supported by the weight of the evidence”).)

The administrative decision must be accompanied by findings that allow the court reviewing the order or decision to “bridge the analytic gap between the raw evidence and ultimate decision or order.” (*Topanga Ass’n for a Scenic Cmty. v. County of Los Angeles* (1974) 11 Cal.3d 506, 515.) This requirement “serves to conduce the administrative body to draw legally relevant sub-conclusions supportive of its ultimate decision . . . to facilitate orderly analysis and minimize the likelihood that the agency will randomly leap from evidence to conclusions.” (*Id.* at 516.) “Absent such roadsigns, a reviewing court would be forced into unguided and resource-consuming explorations; it would have to grope through the record to determine whether some combination of credible evidentiary items which supported some line of factual and legal conclusions supported the ultimate order or decision of the agency.” (*Id.* at 517 n.15.) Currently, the Tentative Order’s provisions are not supported by the necessary evidence, as discussed below, and the State Board has failed to explain its decision not to adopt control measures and standards that have been adopted by other jurisdictions and proven by scientific studies to be more effective than the control measures and standards in the Tentative Order. The lack of substantial evidence to support the Tentative Order renders it unlawful. (*See, e.g., Bangor Hydro-Elec. Co. v. F.E.R.C.* (D.C. Cir. 1996) 78 F.3d 659, 664.)

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→ **II. The Tentative Order’s Definition of Maximum Extent Practicable is Inadequate**

Section 402(p) of the Clean Water Act (“CWA”) establishes the maximum extent practicable (“MEP”) standard as a requirement for pollution reduction in stormwater permits. The Act states that discharges from MS4 systems “shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.” The Tentative Order defines the maximum extent practicable standard as follows:

The minimum required performance standard for implementation of municipal storm water management programs to reduce pollutants in storm water. . . . MEP is the cumulative effect of implementing, evaluating, and making corresponding changes to a variety of technically appropriate and economically feasible BMPs, ensuring that the most appropriate controls are implemented in the most effective manner. This process of implementing, evaluating, revising, or adding new BMPs is commonly referred to as the iterative process.

(Appendix C, at 5; *see also* Tentative Order, at Finding 7.) This vague pronouncement fails to adequately describe the requirements of the MEP standard. “[T]he phrase ‘to the maximum extent practicable’ does not permit unbridled discretion. It imposes a clear duty on the agency to fulfill the statutory command to the extent that it is feasible or possible.” (*Defenders of Wildlife*

v. Babbitt (D.D.C. 2001) 130 F.Supp.2d 121, 131 (internal citations omitted); *Friends of Boundary Waters Wilderness v. Thomas* (8th Cir. 1995) 53 F.3d 881, 885 (“feasible” means “physically possible”).) Provisions that establish “what the discharger will do to reduce discharges to the ‘maximum extent practicable,’ cross[] the threshold from being an item of procedural correspondence to being a substantive component of a regulatory regime.” (*Environmental Defense Center, Inc. v. U.S. EPA* (9th Cir. 2003) 344 F.3d 832, 853 (discussing requirements for implementing minimum measures in Phase II general MS4 permits).) Merely stating that the MEP standard creates a “minimum required performance standard” that is the “cumulative effect of implementing, evaluating, and making corresponding changes” to BMPs fails to adequately ensure the rigorous requirements of the MEP standard will be met.

The significance of this requirement has been recognized in a variety of jurisdictions. As one state hearing board held:

[MEP] means to the fullest degree technologically feasible for the protection of water quality, except where costs are wholly disproportionate to the potential benefits This standard requires more of permittees than mere compliance with water quality standards or numeric effluent limitations designed to meet such standards The term “maximum extent practicable” in the stormwater context implies that the mitigation measures in a stormwater permit must be more than simply adopting standard practices. This definition applies particularly in areas where standard practices are already failing to protect water quality

(*North Carolina Wildlife Fed. Central Piedmont Group of the NC Sierra Club v. N.C. Division of Water Quality* (N.C.O.A.H. October 13, 2006) 2006 WL 3890348, Conclusions of Law 21-22 (internal citations omitted).) The North Carolina board further found that the permits in question violated the MEP standard both because commenters highlighted measures that would reduce pollution more effectively than the permits’ requirements and because other controls, such as infiltration measures, “would [also] reduce discharges more than the measures contained in the permits.” (*Id.* at Conclusions of Law 19.) The State Board should revise its proposed definition here, to ensure that the Tentative Order’s governing performance standards properly implement federal requirements.

I-3 → **III. The Tentative Order’s Project Planning and Design Section is Legally Inadequate**

a. LID is a Superior and Practicable Method of Addressing Stormwater

As currently written, the Tentative Order does not require any specific level LID¹ implementation and would, as explained below, allow relatively ineffective conventional treat-

¹ We advocate the implementation of LID practices because LID practices retain stormwater onsite through infiltration, harvesting and reuse, or evapotranspiration, thus ensuring that pollutant loads do not reach receiving waters. Others have advanced interpretations of “LID” that include the use of treat-and-discharge systems—these systems are not as effective as retention practices because the discharged water may still contain pollution, even if it is

and-discharge techniques to be used to address runoff in place of LID practices that retain runoff onsite. Indeed, the Tentative Order's LID provisions are entirely separated from the Tentative Order's numeric sizing criteria, and by the Fact Sheet's own admission, are generally "not required to be implemented but are listed in order of preference" for implementation.² The Tentative Order fails to meet the MEP standard as a result of its lack of any specific numeric metric for implementation of LID.

The Project Planning and Design section is critical for addressing the root causes of stormwater pollution. As the U.S. Environmental Protection Agency (U.S. EPA) has noted: "Most stormwater runoff is the result of the man-made hydrologic modifications that normally accompany development. The addition of impervious surfaces, soil compaction, and tree and vegetation removal result in alterations to the movement of water through the environment. As interception, evapotranspiration, and infiltration are reduced and precipitation is converted to overland flow, these modifications affect not only the characteristics of the developed site but also the watershed in which the development is located. Stormwater has been identified as one of the leading sources of pollution for all waterbody types in the United States. Furthermore, the impacts of stormwater pollution are not static; they usually increase with more development and urbanization."³ This is particularly the case with discharges from highway or road surfaces; concentrations of pollutants in highway runoff frequently exceed numeric limits designed to protect the health of receiving waters.⁴

LID has been established as a *superior and practicable* strategy⁵ and, therefore, must be required. Accordingly, the U.S. EPA has called upon Regional Boards across California to prioritize the implementation of LID using numeric metrics. Notably, U.S. EPA threatened to "consider objecting to the [San Francisco Bay region's MS4] permit" if it did not include

significantly attenuated. Our interpretation of "LID" is consistent with the U.S. EPA's: "LID comprises a set of approaches and practices that are designed to reduce runoff of water and pollutants from the site at which they are generated. By means of infiltration, evapotranspiration, and reuse of rainwater, LID techniques manage water and water pollutants at the source and thereby prevent or reduce the impact of development on rivers, streams, lakes, coastal waters, and ground water." U.S. Environmental Protection Agency (December 2007) *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices*, at iii ("U.S. EPA LID Study").

² Tentative Fact Sheet, at 15-16.

³ U.S. EPA LID Study, at v.

⁴ See, e.g., California Department of Transportation ("Caltrans") (June 2003) *Caltrans Tahoe Highway Runoff Characterization and Sand Trap Effectiveness Studies*, CTSW-RT-03-054.36.02, at ES-2, available at <http://www.dot.ca.gov/hq/env/stormwater/pdf/CTSW-RT-03-054.pdf>.

⁵ California Ocean Protection Council (May 15, 2008) *Resolution of the California Ocean Protection Council Regarding Low Impact Development*, at 2.

“additional, prescriptive requirements” for LID.⁶ Along with the prioritization of LID implementation, “EPA’s primary objective for incorporating LID into renewed MS4 permits, especially for those that represent the third or fourth generation of permits regulating these discharges, is that the permit must include clear, measurable, enforceable provisions for implementation of LID [P]ermit[s] should [also] include a clearly defined, enforceable process for requiring off-site mitigation for projects where use of LID design elements is infeasible.”⁷ In North Orange County, EPA likewise observed that the MS4 “permit must include clear, measurable, enforceable provisions for implementation of LID We would not support replacing [volume retention-based] approaches with qualitative provisions that do not include measurable goals.”⁸

Other government agencies in California and around the U.S. have come to the same conclusions. The California Ocean Protection Council, for instance, strongly endorsed LID last year by “resolv[ing] to promote the policy that new developments and redevelopments should be designed consistent with LID principles” because “LID is a practicable and superior approach . . . to minimize and mitigate increases in runoff and runoff pollutants and the resulting impacts on downstream uses, coastal resources and communities.”⁹ In Washington State, the Pollution Control Hearings Board has found that LID techniques are technologically and economically feasible and must, therefore, be required in MS4 permits.¹⁰ The National Academy of Sciences recently issued a comprehensive report with the same recommendation for stormwater management programs: “Municipal permittees would be required under general state regulations to make [LID] techniques top priorities for implementation in approving new developments and redevelopments, to be used unless they are formally and convincingly demonstrated to be infeasible.”¹¹

⁶ Letter from Douglas E. Eberhardt, EPA, to Dale Bowyer, San Francisco Bay Regional Water Quality Control Board (April 3, 2009), at 1.

⁷ *Id.* at 1-2.

⁸ Letter from Douglas E. Eberhardt, EPA, to Michael Adackapara, Santa Ana Regional Water Quality Control Board (February 13, 2009), at 2-3.

⁹ California Ocean Protection Council (May 15, 2008) *Resolution of the California Ocean Protection Council Regarding Low Impact Development*, at 2.

¹⁰ *Puget Soundkeeper Alliance et al. v. State of Washington, Dept. of Ecology, et al.* (2008) Pollution Control Hearings Board, State of Washington, No. 07-021, 07-026, 07-027, 07-028, 07-029, 07-030, 07-037, Phase I Final, at 6, 46, 57-58.

¹¹ National Academy of Sciences, Committee on Reducing Stormwater Discharge Contributions to Water Pollution, National Research Council (2008) *Urban Stormwater Management in the United States*, at 500.

Critically, as demonstrated in the EPA comments quoted above, the prioritization of LID practices is insufficient by itself to meet the MEP standard and *must* be paired with a measurable requirement for the implementation of LID. Since its inception, the MS4 permitting program has been seriously hampered by a pervasive absence of numeric performance standards for the implementation of best management practices (“BMPs”) such as LID. For this reason, in December 2007, the State Water Resources Control Board commissioned a report which found that “[t]he important concept across all of [the] approaches [described in the report] is that the regulations established a *performance requirement to limit the volume of stormwater discharges*.”¹² The report also noted that “[m]unicipal permits have the standard of Maximum Extent Practicable (MEP) which lends itself more naturally to specifying and enforcing a level of compliance for low impact development.”¹³ Another study, completed for the Ocean Protection Council, recommended the following standard: “Regulated development projects shall reduce the percentage of effective impervious area to less than five percent of total project area by draining stormwater into landscaped, pervious areas.”¹⁴

I-4 → While we appreciate the fact that the Tentative Order does require some undefined level of LID implementation, the Tentative Order remains legally insufficient due to the lack of a numeric performance requirement for LID, and the availability of all-encompassing waivers from treatment standards (discussed below). These problems with the Project Planning and Design Component need to be remedied before the Tentative Order will meet the Clean Water Act’s MEP standard for pollutant reduction.

b. The Tentative Order Does Not Contain—Nor Does it Justify the Lack of—
Specific Standards for LID Implementation

The Fact Sheet notes that “[t]he proper implementation of LID techniques not only results in water quality protection benefits and a reduction of land development and construction costs.” However, the Fact Sheet’s claim that “[t]he requirements of this Order facilitate the implementation of LID strategies to protect water quality, reduce runoff volume, and to promote sustainability” falls flat.¹⁵ Instead, the Tentative Order’s LID provisions represent a collection of largely hortatory provisions with no specific measurable outcome. Unfortunately, even the vast majority of the Tentative Order’s LID provisions fall into this category, requiring only, for example, “*Conservation* of natural areas, *to the extent feasible*”; “*Minimization* of . . . impervious footprint”; “*Minimization*

¹² State Water Resources Control Board (December 2007) *A Review of Low Impact Development Policies: Removing Institutional Barriers to Adoption*, at 23 (emphasis added) (hereinafter “SWRCB LID Report”).

¹³ *Id.* at 4.

¹⁴ Ocean Protection Council of California (January 2008) *State and Local Policies Encouraging or Requiring Low Impact Development in California*, at 27.

¹⁵ Tentative Fact Sheet, at 15.

of disturbances to natural drainages”; “Use of climate-appropriate landscaping that *minimizes* irrigation and runoff [and] *promotes* surface infiltration” (Tentative Order ¶ E.2.d.(1).(d).(1)-(5).) Such vague provisions would not enable the State Board or Caltrans to measure the outcomes of, or to enforce, the Tentative Order’s requirements since implementation could vary enormously.

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→ i. The Tentative Order Must Establish Numeric Requirements for the Onsite Retention of Stormwater

The Tentative Order fails to set a specific numeric performance standard for the implementation of LID practices at Department and Non-Department Projects. As a result, provided that a project installs some *de minimis* LID features, it would comply with the Tentative Order. In effect, LID features would not have to be sized to accommodate any meaningful quantity of stormwater. This is completely contrary to the exhortations of expert agencies and scientists, as described above, or standards already adopted in numerous MS4 permits, ordinances, and regulations around the country. For example, the Regional Water Quality Control Boards for the Los Angeles, Santa Ana, and San Diego Regions have all recently adopted MS4 permits that effectively require new and redevelopment projects to retain onsite the 85th percentile storm through use of LID practices that infiltrate, harvest and reuse, or evapotranspire stormwater runoff, unless technically infeasible to do so.¹⁶ The state of West Virginia has adopted a statewide Phase II MS4 permit that requires projects to retain onsite “the first one inch of rainfall from a 24-hour storm” event unless infeasible.¹⁷ Federal buildings over 5,000 square feet must manage onsite (*i.e.*, prevent the offsite discharge of) the 95th percentile storm through infiltration, harvesting, and/or evapotranspiration.¹⁸ And the City of Philadelphia requires projects to infiltrate the first one inch of rainfall from all impervious surfaces; if onsite infiltration is infeasible, the same performance must be achieved offsite.¹⁹

These jurisdictions have recognized the paramount importance of mandating onsite retention of a certain quantity of stormwater since onsite retention prevents *all* pollution in that

¹⁶ See, Los Angeles Regional Water Quality Control Board, Order No R4-2010-0108 (July 8, 2010) (Ventura County MS4 Permit. Through use of an Effective Impervious Area limitation, the Permit effectively requires retention of 95 percent of the 85th percentile storm); Santa Ana Regional Water Quality Control Board, Order No. RB8-2009-0030 (May 22, 2009) (North Orange County MS4 Permit); San Diego Regional Water Quality Control Board, Order No. R9-2009-0002 (December 16, 2009) (South Orange County MS4 Permit)

¹⁷ State of West Virginia (June 22, 2009) Department of Environmental Protection, Division of Water and Waste Management, General National Pollution Discharge Elimination System Water Pollution Control Permit, NPDES Permit No. WV0116025 at 13-14.

¹⁸ 42 U.S.C. § 17094; U.S. EPA (2009) Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects, at 12.

¹⁹ City of Philadelphia, Stormwater Management Guidance Manual 2.0, at 1.1 (Jan. 29, 2008).

volume of rainfall from being discharged to receiving waters. Indeed, Caltrans itself has recognized this principle, stating that that “Infiltration basins and trenches [that retain water onsite] . . . provide the highest level of surface water quality protection. . . . [and] reduce the total amount of runoff, restoring some of the original hydrologic conditions of an undeveloped watershed.”²⁰ Moreover, Caltrans has found that where use of infiltration BMPs was technically feasible, they “were among the most cost-effective BMPs tested.”²¹ By definition, Caltrans has found that, where technically feasible, retaining water onsite through this type of practice is MEP. Under the Clean Water Act, it must be required.

Yet nowhere under the Tentative Order’s Low Impact Development provisions is there any requirement that establishes a level of implementation for LID practices. Instead, the LID requirements are noticeably divorced from the Project Planning and Design section’s “Numeric Sizing Criteria for Storm Water Treatment Controls.” Under this section, the Tentative order requires only that “projects shall infiltrate at least 90 percent of the storm water runoff from an 85th percentile 24-hour storm event²² or meet at least one of the numeric sizing criteria below” through use of treatment control methods. (Tentative Order ¶ E.2.d.(1).(a).(ii).)²³ Thus, whether to use infiltration practices which by Caltrans’ own admission “provide the highest level of surface water protection” and are “among the most cost-effective practices” is entirely discretionary. As treatment control BMPs can include conventional controls and engineered solutions that are demonstrably inferior to retention practices,²⁴ this requirement fails to meet the requirements of the MEP standard.

Moreover, the Tentative Order appears to ignore the use of practices such as evapotranspiration or harvesting and reuse that are mandated by numerous other MS4 permits in California as a means of meeting the 85th percentile storm retention requirement.²⁵ Where feasible, infiltration, as well as these other practices that retain runoff onsite, *must* be required by the Order. The Tentative Order’s language leaving to Caltrans’ discretion whether to infiltrate

²⁰ Caltrans (January 2004) *BMP Retrofit Pilot Program, Final Report*, CTSW-RT-01-050, at viii.

²¹ *Id.*, at ix.

²² We are concerned that the standard articulated in the Tentative Order, requiring infiltration of 90 percent of the 85th percentile storm, would allow for discharge, untreated, of the remaining 10 percent of the 85th percentile volume, in apparent violation of the standard articulated in State Board WQ Order 2000-11.

²³ The Tentative Order defines Treatment Control BMPs as “Any engineered system designed to remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, media absorption or any other physical, biological, or chemical process, thus apparently including conventional engineered controls in addition to LID controls that retain runoff onsite.

²⁴ See, R. Horner (2007) *Initial Investigation of the Feasibility and Benefits of Low-Impact Site Design Practices (“LID”) for the San Francisco Bay Area*.

²⁵ See note 16, *supra*.

runoff or utilize other treatment control methods amounts to no requirement at all for infiltration, and ignores other practices that result in the onsite retention of stormwater. To meet the MEP standard, the State Board must ensure that LID practices that retain stormwater onsite unless technically infeasible.

I-6 → c. The Tentative Order’s Allowance for Complete Waivers from Treatment Control Requirements violates the Clean Water Act

Federal regulations mandate that MS4 permits impose requirements to reduce the discharge of stormwater pollution from new development and redevelopment projects. (40 C.F.R. § 122.26.) The State Water Board—through the *Bellflower* decision—has gone further and established the SUSMP hydraulic sizing criteria as a compliance floor for all Priority Development Projects (or here, Department and Non-Department Projects).²⁶ A permit cannot meet the MEP standard if it does not impose these criteria to reduce stormwater pollution, yet these criteria are exactly what the Tentative Order would allow the Executive Officer to waive where the Officer finds that “a project will have minimal impact to water quality.” (Tentative Order ¶ E.2.d.(1).(a).(i).(3).) The CWA requires that discharges from MS4 systems “shall require controls to reduce the discharge of pollutants to the maximum extent practicable,” not only from projects with significant impacts to water quality, but from all projects. This section should be revised accordingly.

I-7 → IV. **The Tentative Order Fails to Include Provisions that Effectively Prohibit all Non-Stormwater Discharges, as Required by the Clean Water Act**

Federal law requires that MS4 permits “shall include a requirement to *effectively prohibit* non-stormwater discharges into the storm sewers.” (Tentative Order ¶ B.2.) The Tentative Order states that certain enumerated non-stormwater discharges “are conditionally exempt from [the] prohibition” against non-stormwater discharges into the MS4 system.²⁷ But federal regulations under the CWA are clear: when any of the categories of non-stormwater discharges identified as exempt in the Tentative Order are identified as sources of pollution, they are disallowed.²⁸ Caltrans’ own data indicates that agricultural runoff is a source of pollutants, and

²⁶ State Water Resources Control Board (2000) Water Quality Order No. 2000-11, at 15-18.

²⁷ Tentative Order, p. 18.

²⁸ 40 C.F.R. § 122.26(d)(2)(iv)(B)(1). While we focus here on discharge sources identified as sources of pollution, Section 402(p)(3)(B)(ii) of the CWA requires that permits for discharge from municipal sewers “effectively prohibit non-stormwater discharges,” and does not create any authorization for exemption of such discharges. The Clean Water Act’s implementing regulations under 40 C.F.R. § 122.26(d)(2)(iv)(B)(1) set forth the circumstances under which the permittee must specifically design a program to “to detect and remove (or require the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer” of specified non-storm water discharges or flows identified as sources of pollutants. Yet, the requirement of an enforcement program to “detect

so should be “removed” according to federal regulations.

The Fact Sheet states that “the CWA exempts agricultural irrigation water return flows from the NPDES program.”²⁹ Yet Section 402(l)(1) of the CWA states only that, “The Administrator shall not require a permit under this section, for discharge composed *entirely* of return flows from irrigated agriculture.” (Emphasis added.) Thus, unless there is absolutely no other component to discharge from Caltrans’ MS4 systems, the fact that a component, or a portion of its discharge stems from agricultural return flow does not exempt Caltrans from effectively prohibiting the discharge of agricultural runoff to the MS4 system. Just as untenable is the State Board’s position that if agricultural irrigation water is “regulated by WDRs or conditional waivers of WDRs” and if the Caltrans cooperates with organizations conducting monitoring of such discharges, the discharges are as a result not expected to be a source of pollutants and need not be prohibited. (Tentative Order ¶ B.2 n.3.)

State and Regional Water Board databases and reports similarly demonstrate significant, ongoing contamination associated with even “regulated” agricultural runoff. In November 2010, the Central Coast Regional Water Quality Control Board (“Central Coast Board”) stated that agricultural discharges (pesticides, sediment, nutrients) are a “major cause of water pollution” in the Central Coast Region.³⁰ While agricultural runoff has been regulated by a conditional waiver for years, the Central Coast Board still finds agricultural discharges “continue to contribute to already significantly impaired water quality.”³¹ Similarly, the Central Valley Regional Water Quality Control Board (“Central Valley Board”) has stated that agricultural discharge “can affect water quality by transporting constituents of concern” including pesticides, sediment, nutrients, salts, pathogens, and heavy metals from agricultural fields.³² The Central Valley Board finds that many water bodies are impaired because of “pollutants from agricultural sources,”³³ and that over 60% of regional water quality exceedances occur during irrigation season.³⁴

and remove . . . illicit discharges,” does not support the construction, seemingly implemented by the Tentative Order, that certain specified categories of non-stormwater discharges are “*exempt* . . . *unless*” they are identified as a source of pollution. Tentative Order ¶ B.2 (emphasis added).

²⁹ Tentative Fact Sheet, at 3.

³⁰ Regional Water Quality Control Board, Central Coast Region (2010) *Recommendations for Water Code Waiver for Agricultural Discharges*, at 7.

³¹ *Id.*

³² Regional Water Quality Control Board, Central Valley Region (2010) *Draft Program Environmental Impact Report*, at 1.

³³ *Id.*

³⁴ State Water Resources Control Board & Central Valley Regional Water Quality Control Board, “Report to the California State Legislature Joint Legislative Budget Committee on Reduction of Agricultural Pollution Runoff into the Sacramento-San Joaquin Delta,” p. 2 (2011).

Agricultural irrigation run-off is not just a pervasive problem for regional boards; it is a problem for Caltrans, as demonstrated by their own data. In the Caltrans Characterization Study performed for the Tentative Order, monitoring results indicated that “conventional pollutants, trace metals, and nutrients were higher in agricultural” areas.³⁵ Caltrans’s own monitoring sites “exhibited higher concentrations of most conventional pollutants (EC, DOC, TDS, TOC, TSS)” for agricultural areas than all other land uses.³⁶ Trace metals found in Caltrans’s storm drains around agricultural areas showed “consistently higher concentrations” than for other land uses.³⁷ Nutrient pollution followed the same pattern, as total phosphorus, orthophosphate, and TKN were “significantly higher” in agricultural areas.³⁸ In sum, there is no basis to conclude that agricultural runoff is not a source of pollutants, or to exempt agricultural runoff from the prohibition against non-stormwater discharges to the MS4.³⁹

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Likewise, landscape irrigation, irrigation water and lawn watering, categories of non-stormwater discharges currently identified as exempt from the prohibition against non-stormwater discharges to the MS4, are known sources of pollution. For example, lawn irrigation has been identified as a “hot spot” for nutrient contamination in urban watersheds—lawns “contribute greater concentrations of Total N, Total P and dissolved phosphorus than other urban source areas ... source research suggests that nutrient concentrations in lawn runoff can be as much as four times greater than other urban sources such as streets, rooftops or driveways.”⁴⁰ These additional known sources of pollution must be prohibited from entering the MS4.

³⁵ California Department of Transportation (2003) *Storm Water Monitoring & Data Management: Discharge Characterization Study Report*, at 67.

³⁶ *Id.* at 55.

³⁷ *Id.*

³⁸ *Id.*

³⁹ The San Diego Regional Water Quality Control Board has previously eliminated exemptions for both agricultural irrigation discharges and landscape irrigation discharges. In the case of agricultural discharges, the Board found them to be “significant sources of pollution.” Water Quality Ordinances Update: Hearing Before the Board of Supervisors and Orange County Flood Control District, (2011), *available at* http://cams.ocgov.com/Web_Publisher/Agenda02_01_2011_files/images/A10-001604.HTM; see also, Memo from Catherine George Hagan, San Diego Regional Water Quality Control Board, to Chairman Wright and Members of the Regional Board (Nov. 5, 2009) re: Regulatory Authority for Imposing Numeric Effluent Limits on Dry Weather, Non-Storm Water Discharges, in Municipal Storm Water Permits, at 3-5.

⁴⁰ Center for Watershed Protection (March 2003) *Impacts of Impervious Cover on Aquatic Systems* at 69; see also H.S. Garn (2002) *Effects of lawn fertilizer on nutrient concentration in runoff from lakeshore lawns, Lauderdale Lakes, Wisconsin*. U.S. Geological Survey Water-Resources Investigations Report 02-4130 (In an investigation of runoff from lawns in Wisconsin,

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Numeric Effluent Limitations Must be Established Where Feasible

The U.S. EPA recently stated that “where the NPDES authority determines that MS4 discharges . . . have the reasonable potential to cause or contribute to water quality standards excursions, permits for MS4s . . . should contain numeric effluent limitations where feasible to do so.”⁴¹ Without providing any justification, the Tentative Order states that, outside of the Lake Tahoe area, “Storm water discharges from MS4s are highly variable in frequency, intensity, and duration, and it is difficult to characterize the amount of pollutants in the discharges,” thus, numeric effluent limitations (“NELs”) are not appropriate. Yet the fact that NELs are feasible for Lake Tahoe, an area with highly variable weather and use conditions, illustrates that the process is “feasible.” The Tentative Order should be revised to incorporate NELs for all locations where it is feasible to do so, in accordance with U.S. EPA guidance.

VI. Conclusion

For the aforementioned reasons, the Tentative Order requires substantial revision and is unlawful under federal and state law, in particular to pass legal muster under the CWA’s MEP standard. These changes are necessary to ensure the protection of the waters of this state, and we strongly urge the State Board to reject the Tentative Order as currently drafted, and to provide staff with clear direction on the modifications that are required, as discussed above.

Sincerely,

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runoff from fertilized lawns contained elevated concentrations of phosphorous and dissolved phosphorous).

⁴¹ Memorandum from James Hanlon, U.S. EPA Office of Wastewater Management and Denise Keehner, U.S. EPA Office of Wetlands, Oceans and Watersheds to Water Management Division Directors, Regions 1-10 (Nov, 12, 2010) re: Revisions to the November 22, 2002 Memorandum ‘Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs, at 3. For adopted TMDLs that include wasteload allocations for stormwater discharges, “permits for . . . MS4 discharges must contain effluent limits and conditions consistent with the . . . WLAs in the TMDL.” *Id.*, citing 40 CFR Sec. 122.44(d)(1)(vii)(B).