Public Comment
Draft Construction Permit
Deadline: 6/11/08 by 12 p.m.

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June 12, 2008

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

Subject: Comments on the Draft General NPDES Permit For Construction Activities

Dear Ms. Townsend:

The City of Irvine (City) appreciates the opportunity to comment on the Draft General NPDES Permit (Draft General Permit) for construction activities dated March 18, 2008 and the May 2008 Public Workshops held by the State Water Resources Control Board (State Board). We appreciate every opportunity to work with the State Board to shape the content of the Draft General Permit, which so significantly affects the interests of the City.

The City supports the State Board's efforts to protect water quality, and we take great pride in our water quality policies and programs. With respect to construction site discharges, the City supports a proactive approach to control construction site discharges, through the implementation of Best Management Practices (BMPs) with selection based on an assessment of relative water quality risks posed by particular construction sites.

The enclosed documents describe our policy, legal, and technical concerns with the current Draft General Permit. We have asked our attorneys and consultants to assess and prepare comments to address the Draft General Permit requirements from the perspective of three primary interests that the City and other similarly situated local agencies have as follows:

1. The City's interests as a discharger subject to the Draft General Permit requirements when constructing Public Works projects greater than one acre in size, or less than one acre in size and part of a larger common scheme of development;
2. The City's interests as the agency with land use authority over development and construction projects; and

3. The City's interest as a potential enforcement partner with the State Board, or as mandated to enforce the Draft General Permit provisions pursuant to the Municipal Separate Storm Sewer System issued to the City by the Santa Ana Regional Water Quality Control Board (MS4 Permit).

Our enclosed documents are organized into three sections:

1. Attachment 1, Summary of Comments and Recommendations, a chart summarizing our primary issues related to the Draft General Permit, as well as our recommendations for alternative measures to address those provisions of the Draft General Permit that cause concern.
2. Attachment 2, Legal and Policy Comments prepared by Nossaman, Guthner, Knox & Elliott.
3. Attachment 3, A Technical Issue Memorandum prepared by PBS&J.

The Legal and Policy Comments rely upon the Technical Issue Memorandum, as well as other documents and information cited in those comments. We request submission of this letter and all three attachments, as well as included documents and cited attachments to the administrative record for the Draft General Permit.

In addition to the enclosed comments, the City has reviewed and supports the legal and technical comments and information developed by the California Building Industry Association (CBIA) submitted on June 11, 2008 regarding the Draft General Permit. We also have reviewed and support the comments on the Draft General Permit submitted on June 11, 2008 by the California Stormwater Quality Association (CASQA), an organization that the City belongs to as a member.

We respect the tremendous work on this permit by State Board Staff, and for adoption of a sensibly progressive construction storm water permit. Thank you again for the opportunity to participate in this process.

Sincerely,

Mike

MIKE LOVING
Water Quality Administrator
City of Irvine

Attachments

Emailed to: commentletters@waterboards.ca.gov
Original Sent by Courier

Attachment 1
(Summary)

Summary of City of Irvine Issues and Recommendations

DGCP Sections	Summary of Issue	Summary of Recommendation
1. General	Many issues with the Risk Assessment and Determination currently set forth in the Draft General Permit preclude the risk determination from resulting in a meaningful distinction in relative water quality risk of different construction sites. Further, The Draft General Permit departs substantially from a BMP-based approach to construction water quality control, and makes a significant jump to an approach focusing only on compliance with numeric limits.	The City recommends and supports an iterative BMP-based approach to construction site water quality control, with BMPs that are selected, planned, and implemented based on relative water quality risk posed by a particular construction site. The City supports improvement in BMPs and water quality control measures on an iterative basis as recommended by relevant law, guidance and policy.
2. General	The Draft General Permit contains a number of provisions that cannot be feasibly complied with, or that otherwise create enforcement traps or enforcement liability despite the absence of pollution or adverse environmental or water quality affects.	As a policy matter, the Draft General Permit should be revised to eliminate compliance traps and issues, and should assure that requirements are feasible to allow the possibility of dischargers achieving 100% construction permit compliance if they are willing to plan, deploy and maintain construction storm water control measures.
3. General	Under the Draft General Permit ALs and NELs apply to all discharges, regardless of event size, creating *de facto* strict liability for pollutants in runoff in large events, which may, or may not be a result of natural loads.	The Draft General Permit should be revised to eliminate NELs, in favor of a proactive approach to planning and implementation of BMPs. Further, the AL provisions of the Draft General Permit should be revised to recognize and exempt construction sites from application of ALs for event sizes that clearly exceed design storm BMP capacity.
4. General	Exceedence of NELs constitutes a violation of the permit subject to enforcement. However, background water quality conditions, particularly in Southern California, could exceed NELs where background water quality sediment and turbidity conditions exceed sediment NELs. Compliance with the sediment NELs	Revise the Draft General Permit to eliminate NELs and this internal inconsistency.

Summary of City of Irvine Issues and Recommendations

DGCP Sections	Summary of Issue	Summary of Recommendation
	will constitute a violation of the Draft General Permit receiving water limitation V.4.	
5. VI.	State Board Staff stated unequivocally in the Workshops that SWPPPs must be updated and filed electronically during the construction period by legally responsible parties. The Draft General Permit fails to identify: ▪ the conditions triggering, or times at which updated SWPPPs must be filed; ▪ the version of the SWPPP (on-site or filed) that governs compliance	The Draft General Permit should be revised to eliminate electronic filing of SWPPP updates, or to specify intervals at which updates should be filed and to clarify that the on-site SWPPP is the controlling site construction water quality and compliance document
6. DGCP § VII	The current Draft General Permit improperly categorizes a majority of sites in the City of Irvine as Risk Levels 3 and 4, skewing the Risk Determination.	State Board staff incorrectly concluded that only a small minority of truly "high risk" sites should have to achieve the additional requirements applicable to Risk Level 4 construction sites. Please revise the Risk Assessment procedures to achieve a normal distribution of construction sites among risk categories (bell shaped curve).
7. DGCP § VII	Draft General Permit encourages implementation of Active Treatment Systems (ATS) even though these treatment technology and operating procedures and guidelines for its environmentally safe use have not been properly established in California.	Revise provisions of the General Permit encouraging only ATS. If ATS is going to be encouraged under the Draft General Permit, then put in place clear guidelines for dischargers to ensure that the technology is used in a manner that is protective of receiving water quality, including guidelines for calculating ALs and NELs that are appropriatly based on receiving water conditions.
8. DGCP § VII Attachment A	Under the Risk Determination Worksheets, as confirmed in the May 2008 Workshops, there are only two types of practices available to reduce risks: (1) deployment of ATS, which results in credits under the Receiving Water Risk Factor	Therefore, the State Board should revise the Risk Determination approach to recognize, credit, and incentive planning, implementation and improvement of traditional erosion, sediment, runoff management, and non-storm water

Summary of City of Irvine Issues and Recommendations

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	Worksheet, and (2) avoidance of all grading during the rainy season, which reduces the "R" factor under the Sediment Risk Factor Worksheet.	source control BMPs.
9. DGCP § VII	The Draft General Permit currently implies, and does not rule out the need to update the Risk Determination to address changing site or receiving water conditions as the construction phase progresses.	To eliminate the compliance trap and uncertainty for projects associated with updated risk Determinations, the City recommends amendment of the Draft General Permit to provide that, once the Risk Determination is properly prepared, there should be no duty to update the Risk Assessment or Determination, except in response to notification by the Regional Board that an updated Risk Assessment and Determination should be prepared to respond to off-site, unforeseen circumstances.
10. General	State Board Staff has promised in its workshops to train Regional Board Staff and municipalities with respect to implementation and enforcement of the new risk-based permitting standards. But Staff have indicated that the training will come *after* the new General Construction Permit is ultimately adopted (GCP) becomes effective. The application of new risk-based compliance obligations start *immediately* for new projects, with no phase-in period to allow local governments time to train staff on the new requirements, compounds the issues arising from that improper delegation.	The Draft General Permit should be amended to set forth a phase-in period for the risk-based permitting approach that is sufficient to allow the State Board to complete no-cost or low-cost training for municipalities, as well as to set forth a clear commitment by the State Board to provide that training within the phase-in period. The training should take the form of skills based, hands on workshops
11. DGCP § I.32 and II.A	Even assuming a normal distribution of construction sites, if only 12% are risk level 4 (reflecting a normal distribution between one and two standard deviations), over 2,400 individual permits would still have to be issued by the Regional	Amend the Draft General Permit to eliminate the broad exclusions from coverage for similarly situation sites

Summary of City of Irvine Issues and Recommendations

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	Boards under the conditions of the Draft General Permit, and all individual permits would have to be obtained in the 100-day phase-in period for existing construction sites. This situation creates adverse administrative and economic burdens for the Regional Boards, cities tasked with responsibility for requiring that operators obtain valid GCP coverage before commencing construction, and the regulated community.	
12. DGCP § I.32 and II.A	There are potentially a large number of construction sites that discharge to isolated waters of the State, but not to waters of the U.S. under the Draft General Permit, discharges to waters of the State will no longer be authorized to obtain coverage under the GCP	Amend the Draft General Permit to eliminate the broad exclusions from coverage for similar situation sites
13. Section II.B. of the Fact Sheet	Draft General Permit as currently written improperly requires all municipal Public Works projects to comply with the GCP, regardless of the size of the project.	Revise the definition of maintenance projects so that municipal Public Works projects are identified in a municipal Construction Management Plan or Capital Improvement Project Plan collectively (CIPPs) are not required to be considered part of a larger plan of development, even when such projects that are not yet designed, planned, or funded, or are unrelated to other municipal Public Works projects.
14. DGCP §§IV, V., VI.8, VIII	NELs cannot be legally set by reference to BPJ or BPT, and should not be set until and unless appropriate technical and economic data is available, considered and properly balances cost to benefit under State and Federal Law.	To properly determine what constitutes an appropriate effluent limitation in compliance with BCT. BAT does not apply to sediment, contrary to the remarks of Daniel Cooper, because sediment is a conventional pollutant. The State Board should follow a process of considering required local economic, scientific and technical data in determining BCT akin to that followed by regulatory agencies

Summary of City of Irvine Issues and Recommendations

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		when setting effluent guidelines, since no EGLs are in place. Since no data is available, delete NELs.
15. DGCP §§IV, V., VI.8, VIII	ALs cannot be legally set by reference to BPJ or BPT, and should not be set until and unless appropriate technical and economic data is available, considered and properly balances cost to benefit under State and Federal Law.	Consider appropriate technical data, or provide simple process and a calculator that works to do so. Considering required local economic, scientific and technical data in determining BCT akin to that followed by regulatory agencies when setting effluent guidelines, since no EGLs are in place. Establish appropriate AL and do not allow enforcement based on AL.
16. DGCP §§IV, V., VI.8, VIII	The Blue Ribbon Report, commissioned by the State Board, identified 13 different reservations and concerns regarding adoption of NELs even at construction sites where ATS is to be used to control storm water quality. The Blue Ribbon Panel recommended that all 13 concerns should be addressed and resolved prior to promulgation of NELs. Many, if not all of those 13 concerns, remain unaddressed by technical information and evidence	The City supports revision of the Draft General Permit in a manner that assures the use and derivations of ALs in accordance with the Blue Ribbon Panel Report to guide improved planning and implementation of a BMP-based approach to construction water quality control, as envisioned by the Blue Ribbon Panel. Data and information identified by the Blue Ribbon Panel as critical to establishing feasibility of NELs and appropriate NEL values is not yet available. As a result, the City supports the Blue Ribbon Panel recommendation to gather appropriate and needed data and analysis prior to establishing NELs.
17. DGCP §§IV, V., VI.8, VIII	The Draft General Permit, as currently written, will result in permit violations that may, in the discretion of the Regional Board, be prosecuted resulting in civil and criminal penalties even when the exceedence of the (a) NEL does not cause or contribute to an exceedence of water quality standards that, by definition, protect beneficial uses of the receiving water body, and/or (b) does not exceed background receiving water	The City requests deletion of NELs from the Draft General Permit to eliminate this compliance trap and comply with State and Federal law.

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	levels of sediment or pH. Not only does the Draft General Permit currently create enforcement authority outside the scope of authority provided to water boards under State and Federal law, it also subjects dischargers to payment of penalties that, in the Regional Board's discretion, may exceed Minimum Mandatory Penalties for the first violation of NELs. Further, if three or more individual monitoring results at any individual discharge point for any construction site exceed the NELs, the Regional Board must assess Mandatory Minimum Penalties (MMPs)for the three exceedences, even if they all occur within a single, two day storm event.	
18. DGCP § VIII.H	The Draft General Permit still retains the requirement that all other construction sites (mainly in rural communities) must replicate pre-project water balance (*i.e.*, same volume of runoff before and after construction) and, for projects whose disturbed area exceeds two acres, preserve the pre-construction drainage density for all drainage areas serving a first-order stream or larger, and ensure that the time of runoff concentration is equal to or g greater than it was pre-construction	Revise the General Permit to delete Hydromodification Control Provision as "post-construction" impacts and mandate Regional Board adoption of Phase II MS4 Permits to address, or encourage appropriate land use planning process, including the CEQA process and 404/401 permitting process. Use Cal. Water Code §13247 to have OPR adopt appropriate hydromodification thresholds under CEQA.
19. DGCP § II.A. VI., XII	The Draft General Permit continues to provide an unprecedented new opportunity for third parties to comment on and challenge land use approvals for an *unlimited period of time, after* local agency staff has invested what may literally be years of work on issuance of a host of environmental, planning and land use approvals and *at the point of grading permit issuance*, just before anticipated groundbreaking. As a	Based on *Divers*, no additional public participation requirements beyond the inclusion of water quality control measures in the Draft General Permit to govern SWPPP implementation and water quality control are required. Neither *Environmental Defense* nor *Waterkeepers* require additional public participation under circumstances like those in this case and in *Divers*. The Draft

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	result, the Draft General Permit creates tremendous uncertainty for local agency environmental and land use approvals, and the potential for a great deal of inefficiency and wasted City resources and staff time, and impinges on vested rights. The Draft General Permit creates at least 12 questions regarding the comment process.	General Permit should be amended to eliminate, or substantially limit the public participation provisions. If comments are retained, comments should be permitted for a very short duration (15 days) and a Regional Board should respond within 30 days. If the Regional Board fails to respond to comments within the prescribed timeframe the comments are deemed to have been determined invalid. Regional Board action, in response to qualified comments, should be limited to a prompt determination that comments and specific direction to the developer to revise the SWPPP as necessary to comply with construction phase water quality requirements are not valid. Expressly allow that PRDs and the public review and Regional Board determination periods can run concurrently with the applicable CEQA public comment period.
20. DGCP §§ I. 17 and 18; Attachment B	The DGCP contains a myriad of new monitoring requirements, now referred to as a Construction Site Monitoring Program (CSMP), much of which is duplicative of MS4 monitoring and does not appear to be tied to determining the water quality effects of construction activities. Much of the new monitoring required by the DGCP will not provide any significant construction site information or water quality benefit.	Limit self-monitoring to monitoring required for ALs and the iterative BMP process. Allow payment of a fee or substitution of MS4 or SWAMP monitoring data for receiving water bioassessment and SSC monitoring.
21. General	The DGCP contains no grandfathering or transition periods to reasonably protect projects already under construction and approved under the current CGP at the time of adoption of the new permit.	Adding grandfathering and phase in provisions, include: ▪ To the extent the State Board is intent upon regulating post-construction hydromodification impacts through the Final CGP, then the Hydromodification Control Measures contained

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		therein should provide a provision that would allow for the grandfathering of existing projects for which local agencies have issued tentative tract map and CEQA approvals. ▪ Grandfathering existing projects under construction at the time that the new CGP is adopted, to avoid an overwhelming number of operating construction projects that must, based on a level 4 Risk Determination or discharges to waters of the State, must shut down or suspend operations pending application and issuance of an individual permit. ▪ Grandfather from public participation requirements all projects that have begun construction at the time of adoption of the new CGP. ▪ The City requests the State Board adopt a phase-in period that allows it to conduct adequate training for municipalities and Regional Boards before expecting compliance with new CGP provisions.

Attachment 2
(Legal/Policy Concerns)

LAW OFFICES
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REFER TO FILE #
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June 11, 2008

VIA E-MAIL AND OVERNIGHT DELIVERY

Mr. Mike Loving
Water Quality Administrator
City of Irvine
One Civic Center Plaza
PO Box 19575
Irvine, CA 92623-9575

Re: City Of Irvine ("City") Comments to the State Board on the Draft Construction General Permit

Dear Mr. Loving:

Thank you for the opportunity to prepare these comments on the City's behalf for submission to the State Water Resources Control Board ("State Board") regarding the National Pollutant Discharge Elimination System Proposed Draft General Permit for Discharges of Storm Water Associated with Construction Activities ("Draft General Permit" or "DCGP"). We are pleased to work with you given your institutional reputation for excellence in water quality policy, protection and performance. In our review of the Draft General Permit, we have assessed and prepared these comments to address three primary interests that the City and other local agencies have in the Draft General Permit:

- Issues presented by the Draft General Permit for the City as a discharger subject to its requirements when constructing public works projects greater than one acre in size, or less than one acre in size and part of a larger common scheme of development;
- Issues presented by the Draft General Permit for the City as the agency with land use authority over development and construction projects; and
- Issues presented by the Draft General Permit for the City to the extent that the City is expected to enforce its provisions as a "partner" with the State Board, or is mandated to enforce its provisions under the Municipal Separate Storm Sewer System issued to the City by the Santa Ana Regional Water Quality Control Board ("MS4 Permit").

These comments focus on eight of the most significant legal and policy deficiencies of provisions in the Draft General Permit as they impact local governmental entities, including the City of Irvine and other local agencies in Southern California. As explained below, there remain serious concerns about the legal and policy propriety of, necessity for, and feasibility of many requirements of the Draft General Permit.

1. INTRODUCTION.

A. Opportunity for Comment by the Regulated Community. The State Board's efforts to inform and solicit comments from the regulated community regarding development of a revised Draft General Permit are commendable. For the Draft General Permit, State Board staff has held two technical, explanatory workshops, and three State Board members attended some portion or all of those workshops. In addition, the State Board held one formal hearing on the Draft General Permit to solicit comments of the regulated community, and three State Board members attended some or all of that hearing.[1] However, despite comments submitted on the prior Preliminary Draft General Construction Permit ("PCGP"), and information exchanged in the recent workshops and hearing held on the Draft General Permit, a number of substantial legal, policy and/or practical issues for cities and other local government entities remain.

Therefore, we request that the State Board thoroughly consider, address and respond to the legal and policy comments and issues in this letter to ensure that the general construction permit that is ultimately adopted by the State Board complies with all relevant laws and regulations, sufficiently protects water quality, and allows local governments and the Regional Boards to incorporate the requirements contained within the adopted permit into their planning and permitting processes without undue cost or delay to the agencies or the regulated community.

B. The City Supports Protection of Water Quality Achieved Through a Water Quality Risk Driven and Iterative Best Management-Practices Approach. In General, the City's goals with respect to construction site water quality control are to protect water quality from construction site discharges associated with City construction projects, and projects of other operators within the City through the implementation of Best Management Practices ("BMPs"). These BMPs are selected based on relative water quality risk posed by a particular construction site, and are planned, implemented and improved on an iterative basis as recommended by relevant law, guidance and policy.[2] The City further supports improvement in planning and

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1 The State Board also held workshops, and took verbal and written comments and technical information on the prior Preliminary Draft of the Construction General Permit circulated in 2007 ("PCGP"). The comments and information submitted must be considered a part of the record for this permitting action. However, the State Board has not prepared responses to those prior comments, so in many cases it is not clear why the Draft General Permit continues to raise many of the legal and policy issues previously addressed in comment letters on the PCGP.

2 Relevant federal statues, U.S. Environmental Protection Agency ("EPA") regulations and guidance , and case law all provide that National Pollutant Discharge Elimination System permits ("NPDES" permits) may rely on BMPs as opposed to numeric effluent limits ("NELs") or other prescriptive measures. 40 C.F.R.

implementation of BMPs through the use of properly derived Action Levels ("ALs"), but has concerns regarding Draft General Permit provisions regarding both the calculation and use of ALs.

Unfortunately, there are many issues with the Risk Assessment and Determination currently set forth in the Draft General Permit that preclude the assessment and determination from making meaningful distinctions in relative water quality risk of different construction sites. Further, The Draft General Permit departs substantially from a BMP-based approach to construction site water quality control, and makes a significant "jump" to an approach focusing only on compliance with numeric limits. This departure represents a major shift in regulatory policy and approach, and deviates substantially from the regulatory approach recommended and recognized as adequate and appropriate for storm water permits by the U.S. Environmental Protection Agency ("EPA"), the Blue Ribbon Panel,[3] including Eric Strecker, P.E., who testified at the June 4, 2008 hearing on the Draft General Construction Permit, and a number of scientists and experts who submitted technical information and testimony on the Draft General Permit and the Preliminary Draft General Permit, including Geosyntec Consultants,[4] Flow Sciences,[5] and PBS&J.[6] While the Draft General Permit provides direction regarding implementation of

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§ 122.44(k)(2); 33 U.S.C. 1342(p)(3)(A); 33 U.S.C. § 1311(b)(1)(c); *Citizens Coal Council V. United States EPA*, 442 F.3d 879, 896 n.18 (6th Cir. 2006); *Effluent Limitation Guidelines and New Source Performance Standards for the Construction and Development Category*, 67 Fed. Reg. 42644, 42658 (proposed June 24, 2002)("EPA did not consider numeric pollutant controls a viable option" for construction storm water discharges, and determined that there are a number of difficulties associate with imposing and enforcing NELs that should be addressed before they are implemented in general construction stormwater permits). The reasons not to adopt storm water NELS include the lack of relevant monitoring data, and substantial variability of storm event and pollutant constituents and levels, which make it difficult to formulate numeric effluent limits that bear a reasonable relationship to BMP treatment capabilities, natural runoff characteristics and receiving water quality. *See* Meeting Notice, 61 Fed. Reg. 43760, 43761 (August 26, 1996).

3 The panel of storm water experts ("Blue Ribbon Panel") convened by the State Board prepared the report titled, "*The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities*," dated June 19, 2006 ("Blue Ribbon Panel Report"), which is incorporated herein by reference.

4 Geosyntec Consultants, *Evaluation of Post-Construction Hydromodification Requirements Contained in the Preliminary Draft General Construction Permit* (March 2008)("GeoSyntec Hydromod Report"); GeoSyntec Consultants, *Evaluation of Active Treatment Systems (ATS) For Construction Site Runoff* (April 11, 2008) ("Geosyntec ATS Report"), which reports were submitted for the administrative record by the California Building Industry Association, and are hereby incorporated by this reference.

5 Flow Science, *General Construction Permit: Action Levels and Numeric Effluent Limits Analysis Recommendation of Alternatives* (March 31, 2008) ("Flow Science AL/NEL Report"), which report was submitted for the administrative record by the California Building Industry Association, and is hereby incorporated by this reference.

6 PBS&J Consultants, Rosanna Lacarra, Sr. Scientist/Sr. Project Manager, *Technical Memorandum to City of Irvine and Orange County Great Park Corporation Regarding Draft Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity, NPDES General Permit No. CAR000002 (General Construction Permit or General Permit)* (the "PBS&J Technical Memo"), which technical memorandum is submitted by the City of Irvine concurrently herewith and incorporated herein by this reference.

traditional source control BMPs, it contains no provisions that enable the Regional Board or other enforcing agency the discretion to consider the propriety, effectiveness and level of traditional source control BMPs and BMP combinations deployed to protect water quality in determining whether a construction site is in compliance with, or in violation of the construction permit. As a result, the regulatory enforcement approach set forth in the Draft General Permit is entirely a numeric limits-based approach.

D. The City is Committed to Water Quality Compliance and Supports Implementable Permit Requirements and Elimination of Compliance Traps. In general, the City is proud of its construction water quality compliance program and record both as a discharger, and as a municipality with many active construction operators within its jurisdiction. It is critical to the City's continued outstanding record of, and commitment to water quality compliance that the requirements of the construction permit ultimately adopted:

- are capable of implementation, both in general and at the time that the requirements become effective and applicable to discharges;
- do not create enforcement liability for activities that do not create a discharge of waste or pollutants adversely affecting receiving waters or the environment; and
- do not create enforcement traps.

The Draft General Permit contains a number of provisions that cannot be feasibly complied with, or that otherwise create enforcement traps or enforcement liability in the absence of pollution or adverse environmental or water quality effects. As a policy matter, the Draft General Permit should be revised to eliminate these compliance traps to allow for the possibility that permittees could achieve 100% construction permit compliance if they are willing to plan, deploy and maintain construction storm water control measures.

- **Numeric Effluent Limits ("NELs"), ALs and a Strict Liability Approach.** Under the Draft General Permit NELs apply to all discharges, regardless of event size or frequency. All construction site runoff from every event, even the largest events , must be treated to achieve full compliance with the Draft General Permit, but it is infeasible to construct advance treatment systems ("ATS") and/or to deploy sufficient source control BMPs the achieve treatment of 100% of runoff from every rain event. As a result, the Draft General Permit creates *de facto* strict liability for NEL exceedances for all discharges associated with rain events that exceed the maximum treatment design capacity of deployed construction BMPs, and inevitable violations and enforcement.

  Similarly, ALs, though useless in large events that exceed BMP treatment capacity, will be exceeded under those circumstances. The lower the NEL or AL, or the greater the runoff volume from a construction site relative to maximum feasible

BMP design capacity, the greater the *de facto* strict liability for exceedance of the numeric value.

For these reasons, and those discussed below, the Draft General Permit should be revised to eliminate NELs. Further, the AL provisions of the Draft General Permit should be revised recognize and exempt construction sites from application of ALs for event sizes that clearly exceed design storm BMP capacity.

- **Conflict between NELs and Receiving Water Limitations**. Under the Draft General Permit, exceedances of NELs constitutes a violation of the permit subject to enforcement in the discretion of the Regional Water Quality Control Boards ("Regional Boards"), regardless of receiving water conditions. State Board staff stated in the recent workshops that regional receiving water conditions--particularly for sediment and turbidity--were not considered in deriving the NELs. As a consequence, background water quality conditions, particularly in Southern California, could be characterized by sediment or pH concentrations that exceed the NELs. Flow Science AL/NEL Report, Chapters 4, 5, and 6. As a result, where background water quality sediment and turbidity conditions exceed sediment NELs, compliance with the sediment NELs will constitute a violation of the Draft General Permit receiving water limitation V.4., mandating that storm water and authorized non-storm water discharges shall not disrupt the pre-project equilibrium flow and sediment supply regime, even where the pre-project flow and sediment supply regime is not in equilibrium.

  This internal inconsistency in the Draft General Permit creates an enforcement trap. For this reason, and those discussed above and below, the Draft General Permit should be revised to eliminate NELs.

- **Retroactive Enforcement and Liability After Acceptance of Project Registration Documents ("PRDs")**. The Draft General Permit allows an unlimited period for public comment and challenge after acceptance of Project Registration Documents, and concurrently provides for expanded Regional Board powers to respond to public comments and challenges by taking enforcements actions for operations occurring after receipt of a validly issued WDID, but before any public challenge to the project construction water quality protection measures has been brought. This compliance trap allows for exponential increases in potential enforcement liability on a per violation, per day basis. For example, if a risk determination is later found to be inaccurate long after PRDs are accepted, then a discharger may be retroactively liable for a substantial period of operations in accordance with the incorrect category of water quality control and monitoring requirements of the Draft General Construction Permit.

  For this reason, and those discussed below, the Draft General Construction Permit should be revised to include strict limitations on the time period for public

comments and challenge, on the topics open for public review (*i.e.* limit challenges to changes needed in Storm Water Pollution Prevention Plans ("SWPPPs") and other PRDs to assure construction phase water quality controls are sufficient), and eliminate provisions expanding Regional Board authorities with respect to responses to public comments, limiting the Regional Board to enforcement actions as currently provided by law.

- **Change in Risk Assessment Factors After Acceptance of PRDs.** State Board staff stated in the workshops (and the Draft General Permit implies) that risk assessment factors will change during the construction process as a result of changing site conditions and receiving water conditions. While the Draft General Permit does not contain any provisions exempting permittees from preparation and filing of updated risk determinations for a construction site as risk factors change during the construction phase, the Draft General Permit fails to specify when and if updated risk determinations should be performed and filed during the course of the construction process. A compliance trap results from the absence of Draft General Permit conditions addressing appropriate permittee response to changes in risk factors over time.

  The Draft General Permit should be revised to expressly provide that the Risk Determination is made prior to filing and acceptance of PRDs, and shall not be subject to update or change 30 days after the later of commencement of grading operations or acceptance of PRDs.

- **Updates to Storm Water Pollution Prevention Plans.** State Board staff stated unequivocally in the Workshops that SWPPPs must be updated and filed electronically during the construction period by Legally Responsible Parties. But again, the Draft General Permit fails to identify the conditions triggering, or times at which updated SWPPPs must be filed. As a result, operators are exposed to risk of enforcement and liability for failure to update SWPPPs under the Draft General Permit, but have no indication as to when a SWPPP, which changes rapidly—sometimes daily—with changing climate and site conditions, must be updated and filed electronically. Further, the Draft General Permit fails to clarify which SWPPP--the version on-site that has been updated with changes in conditions, or the electronically filed version of the SWPPP--shall govern the construction site BMPs and constitute the compliance document.

  The Draft General Permit should be revised to eliminate electronic filing of SWPPP updates, or to specify intervals at which updates should be filed and to clarify that the on-site SWPPP is the controlling site construction water quality and compliance document.

E. Specific Legal and Policy Issues Arising Under the Draft General Permit. With these general perspectives, goals and issues in mind, the remainder of these comments will be devoted to the following specific issues raised by the noted provisions of the Draft General Permit:

1. While the City Supports A Risk-Based Approach To Construction Site Water Quality Control, The Draft General Permit Risk Determinations Are Skewed Toward A Determination of High Risk, Improperly Incentivize Active Treatment Systems, Fail to Recognize Traditional but Effective Source Control BMPs, Are Subject to Change and Uncertainty, and Are Not Amenable to Local Agency Enforcement (DCGP § VII);

2. Exclusions from Permit Coverage Improperly Require Individual Permitting For a Large Number of Projects (DCGP §§ I.32 and II.A.);

3. The Expansive Definition of "Common Plan of Development" Improperly Mandates Construction Permit Compliance for All Local Agency Construction Projects Regardless of Construction Project Size.

4. Effluent Limitations, Including Numeric Effluent Limitations, Numeric Action Levels, and Volume/Flow Reduction Requirements Are Not Properly Established BAT/BCT Technology Based Numeric Effluent Limits, Effluent Limits or Waste Discharge Requirements (DCGP §§IV, V., VI.8, VIII.);

5. Numeric Effluent Limitations And Action Levels Inappropriately Fail To Comply With The Blue Ribbon Panel Report And Result in Inappropriate Enforcement and Potential Penalties (DCGP §§IV, V., VI.8, VIII.)

6. New Development And Re-Development Post-Construction Storm Water Performance Standards Improperly Regulate Post-Construction Impacts, Create Uncertainty For Local Land Use Approvals, Improperly Regulate Flow, and Are Technically Infeasible to Comply With as Prescriptive Requirements Unless a Safe Harbor is Established by Attachment F (DCGP § VIII.H);

7. Public Participation Requirements Create New, Unlimited Opportunity to Challenge, and Uncertainty for, Local Agency Environmental and Land Use Approvals (§§ II.A. VI., XII);

8. Expanded Monitoring Provisions and Requirements (DCGP §§ I. 17 and 18; Attachment B Monitoring and Reporting Program) Are Not Sufficiently Related to Constituents of Concern and Construction Site Discharges, and Are Extremely Costly and Burdensome; and

9. Lack of Grandfathering/Phase-In Provisions Creates Uncertainty For Local Agency Environmental and Land Use Approvals.

To proactively participate in the adoption of the CGP, the City offers recommendations for revisions to the General Construction Permit to address each of these legal and policy issues discussed below.

2. WHILE THE CITY SUPPORTS A RISK-BASED APPROACH TO CONSTRUCTION SITE WATER QUALITY CONTROL, THE DRAFT GENERAL PERMIT RISK DETERMINATIONS ARE SKEWED TOWARD A DETERMINATION OF HIGH RISK, IMPROPERLY INCENTIVIZE ACTIVE TREATMENT SYSTEMS, FAIL TO RECOGNIZE TRADITIONAL BUT EFFECTIVE SOURCE CONTROL BMPS, ARE SUBJECT TO CHANGE AND UNCERTAINTY, AND ARE NOT AMENABLE TO LOCAL AGENCY ENFORCEMENT (DCGP § VII).

A. The Risk Determination Worksheets Improperly Categorize a Majority of Southern California Construction Sites as Risk Levels 3 and 4, and Should be Revised to Result in a Normal Distribution of Construction Sites Among Risk Categories.

State Board staff stated in the Workshops that it developed the Risk Determination approach and Worksheets to reflect a relatively normal distribution of construction sites among the four risk categories, generally consistent with a bell curve, and with most sites falling into Risk Levels 2 and 3. There is nothing inherently wrong with such an approach. The City supports properly calculated risk associated with construction site discharges as an appropriate way to determine which water quality control requirements should apply to a construction site.

Unfortunately, applying the risk calculation formula set forth in the Worksheets will result in a "bulging" curve in the City of Irvine, and therefore likely throughout regions of southern California, where climate, precipitation, receiving water and soils conditions are similar. *See* PBS&J Technical Memo, pp. 3-4. Within the City of Irvine, risk calculation pursuant to the Draft General Permit Worksheets results in risk determinations placing the vast majority of construction sites in the City of Irvine within Risk Levels 3 and 4. *Id.*, p. 4. These results are primarily driven by the individual factors considered in the sediment and receiving water risk Worksheets, including the following:

- a minimum baseline score assigned to every construction site of 10;
- predominant soil types and precipitation characteristics in the region encompassing the City; and
- an overly broad definition in the Draft General Permit of discharge "to" 303(d) listed and sensitive waterbodies to include discharges an unlimited number of

miles upstream of such sensitive waters, but connected by storm drain pipes or similar conveyance systems.

Information prepared by URS and submitted in testimony by Dr. Paulsen for CBIA at the June 4, 2008 hearing regarding the location of watershed for surface waters with Cold or Spawn beneficial uses similarly indicates that a very large number of construction sites will fall within Risk Level 4. The Draft General Permit currently defines a higher receiving water risk factor to construction site discharges occurring anywhere within a watershed tributary to a sensitive receiving water, regardless of the location of the construction site with respect to the surface water body, and regardless of intervening runoff from other point and nonpoint sources. As a result, a large number of "high risk" construction sites can be expected.

State Board staff correctly concluded that only a small minority of truly high risk sites should have to achieve the additional requirements applicable to Risk Level 4 construction sites.[7] But under the current Risk Determination Worksheets, a majority construction sites within the City of Irvine will be characterized as Risk Level 3 and 4 sites even though a significant number of the sites that would be Risk Level 4 sites are not truly complex, high risk projects.

The State Board should revise the risk assessment formula to be consistent with State Board staff's stated policy intent and goals, and EPA's approach to including median risk discharges within general permits. Such revisions should create a true bell curve such that the majority of sites, including sites in the City of Irvine and similarly situated regions, fall into Risk Level 2 and Risk Level 3. As State Board staff concedes, only a minority of construction sites should fall under Risk Level 4.

B. The Risk Determination Worksheets Improperly Incentivize Advanced Treatment Systems ("ATS").

The Draft General Permit encourages implementation of Active Treatment Systems ("ATS") by crediting sites that use ATS. However, this treatment technology and operating procedures and guidelines for its environmentally safe use have not been properly established in California. The Draft General Permit fails to provide substantial evidence to support adoption of provisions that encourage implementation of ATS.

Test applications of the risk assessment formulas indicate that the Draft General Permit results in a substantial incentive to use of ATS in order to reduce receiving water risk.[8] If ATS is used, runoff discharged from construction sites must meet an NEL of 10 Nephelometric Turbidity Units ("NTU") (which is extremely clear water) for daily average or 20 NTU for single

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7 EPA takes a the same view with respect to general permits: "The individual permit is most often used for complex projects and/or projects in sensitive watersheds." 69 Fed. Reg. 22,472, 22,474 (April 26, 2004).

8 As noted by Dr. Susan Paulsen in testimony before the State Board at the June 4 hearing, because ATS controls construction site sediment production, rather than receiving water characteristics, any use of ATS factored into the risk assessment worksheets is more properly considered under the sediment risk, rather than the receiving water risk worksheet.

samples. DCGP § IV.B. In all other cases, an NEL of 1000 NTU applies to the discharge, which is relatively high, but is lower than background sediment levels in many watersheds in southern California where flows are both relatively high in Total Suspended Solids ("TSS") and turbidly concentrations due to the alluvial nature of the region's stream systems. Flow Science AL/NEL Report, Chapters 3 and 4.

In light of this technical information, Draft General Permit conditions that encourage the use of ATS systems are not supported by substantial evidence and may have adverse water quality impacts of ATS on receiving water systems, particularly in those systems where sediment is playing a valuable ecological role. Flow Science AL/NEL Report, Chapter 6. The potential for ATS discharges to cause environmental harm is substantial for a number of reasons, including the potential toxicity of the ATS effluent, and the excessive reduction of sediment loads and concentrations in ATS effluent to a level much lower than background, and consequently damaging to receiving waters. Flow Science AL/NEL Report, Chapter 7; *see also* Blue Ribbon Panel Report (discussing serious concerns regarding the ATS treatment process that must be addressed before implementation of ATS or NELs).

If ATS is going to be encouraged under the Draft General Permit, then the State Board needs to put in place clear guidelines for dischargers to ensure that the technology is used in a manner that is protective of receiving water quality, including guidelines for calculating NELs that are appropriate based on receiving water conditions.[9] Further, if the State Board has determined that the use of ATS systems should be encouraged, then the State Board needs to take the time to thoroughly study the use of such systems and put in place guidelines for ATS operation and use, and establish a protocol for residual testing of ATS effluent to minimize accidental discharge of any toxic treatment chemicals. For example, the states of Washington and Oregon have in place programs to evaluate ATS systems and have specific, approved chemicals that can be used in the systems. Geosyntec ATS Report, Chapters 2 and 7.

C. The Risk Determination Worksheets Fail to Recognize Traditional, Effective Source Control BMPs.

At the workshops held in May 2008, State Board staff stated that one of its major objectives in proposing the risk-based approach is to incentivize full implementation of construction BMPs to lower the risks to water quality posed by construction storm water discharges. The City supports this goal so long as the Draft General Permit incentivizes good, implementable BMPs and combinations of BMPs. Traditional sediment control, erosion control, runoff control and non-storm water management control BMPs will improve water quality in a cost-effective manner consistent with the legal standard governing water quality control for the primarily conventional pollutants (*e.g.*, sediment, suspended sediment, turbidity, and pH), and

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9 33 U.S.C. § 1314(b)(4)(B) (consider treatment processes employed); Cal. Water Code §§ 13263(a), 13241(c)(consider water quality conditions that can be reasonably achieved through coordinated controls); 33 U.S.C. § 1314(b)(4)(B) (consider environmental impacts). *See Citizens Coal Council and Kentucky Resources Council v. United States EPA*, 447 F. 3d 879 , 900-902 (6th Cir. 2006).

occasional toxic and non-conventional pollutants (*e.g.*, certain non-visible pollutants) associated with construction sites. As discussed in more detail below, the legal standard governing BMPs for conventional pollutants is Best Conventional Technology ("BCT"), and for BMPs for non-conventional pollutants is Best Available Technology ("BAT").[10] Unfortunately the Draft General Permit, and particularly the risk assessment process, fails to provide incentives or "credits" for planning, implementing and improving traditional source control BMPs that meet BAT/BCT standards.

Under the Risk Determination Worksheets, Attachment A , as confirmed in the May 2007 Workshops, there are only two types of practices available to reduce risks: (1) deployment of ATS,[11] which results in credits under the Receiving Water Risk Factor Worksheet, and (2) avoidance of all grading during the rainy season, which reduces the "R" factor under the Sediment Risk Factor Worksheet. The risk assessment formula does not recognize the reductions in water quality risks achieved by appropriate traditional BMPs and BMP combinations, and does not contain any incentive to improve source control BMPs or to deploy enhanced types and combinations of source control BMPs.

Experience has shown, and experts have submitted substantial evidence to the State Board that BMPs can be highly effective at reducing risks to water quality when properly designed and implemented. Construction Building Industry Association, *Technical Issues Memorandum: Comments on National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities* (May 8, 2007)("CBIA 2007 Technical Issues Memo"), pp. 35-37 and Appendix D.[12] Federal law recognizes that source control BMPs are the appropriate treatment approach for controlling pollutants in construction site runoff.[13]

Therefore, the State Board should revise the Risk Determination approach to recognize, credit, and incentivize planning, implementation and improvement of traditional source control BMPs .

As a result of the Draft General Permit's unnecessarily rigid choice between ATS and a rainy season grading ban, those construction sites that cannot implement ATS must avoid grading during the rainy season as the only other recognized way to reduce a site's risk under the Draft General Permit. There are significant technical issues associated with ATS that the State Board has yet to address. *See* Section 2.B below. Given those technical issues, many construction sites will not be able to employ ATS, and will be required to eliminate all grading to reduce risk, though a combination of effective source control BMPs can and will much more

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10 33 U.S.C. §§ 1314(a)(4); 1317(a)(1)

11 Discussed *infra*, Section 2.B.

12 The CBIA 2007 Technical Issues Memo is hereby incorporated herein by reference.

13 *See* citations in footnote 2, *supra*.

cost-effectively reduce water quality risk. The Draft General Permit should be revised to include credit for appropriate implementation of source control BMPs.

D. Risk Determinations Are Subject to Change and Uncertainty.

Unintended and unanticipated consequences can result from all novel approaches. The same is true of the risk-based approach to determining construction site water quality control requirements under the Draft General Permit. One potentially unintended consequence of the current Risk Determination provisions appears to be the fact that the Draft General Permit currently implies, and does not rule out the need to update the Risk Determination to address changing site or receiving water conditions as the construction phase progresses. Risk factors could change due to changes in soils conditions on site (as various areas of the project site are either disturbed or "capped" with impervious surface, or due to unforeseen off-site circumstances beyond the control of construction operators, such as fire, flood, or earthquake, which alter the hydrology of the area, or due to the listing of a receiving water, which changes sensitivity of a receiving water. There is no guidance in the Draft General Permit explaining when or how to conduct a revision to the Risk Determination. The implication that the Risk Determination must be updated, combined with the absence of guidance with respect to when and if updates are appropriate, creates a compliance trap that should be eliminated from the Draft General Permit.

To eliminate the compliance trap and uncertainty for projects associated with updated risk Determinations, the City recommends amendment of the Draft General Permit to provide that once the Risk Determination is properly prepared, there should be no duty to update the Risk Assessment or Determination, except in response to notification by the Regional Board that an updated Risk Assessment and Determination should be prepared to respond to off-site, unforeseen circumstances. In the case of such a notification, the operator should have a reasonable period of time (*e.g.*, 60 days) to update the Risk Assessment and Determination, and to adjust BMPs and the site SWPPP. The nature of BMPs and the primary purpose of the SWPPP is to create a flexible plan that addresses discharge conditions as they change on the construction site over time, due to changes in climate patterns, precipitation patterns, stage of construction, site conditions, and run-on conditions. The Draft General Permit should be revised to acknowledge and affirm that adjustments in the SWPPP and deployed BMPs are the generally appropriate response to changing conditions affecting a construction site, rather than continual updates to the Risk Determination and the related change in regulatory scheme applicable to the construction site. Changes in the Risk Determination therefore should only be necessary in the most unusual of circumstances as determined in the discretion of the Regional Board.

E. The Risk Assessment and Determination Approach is Not Amenable to Enforcement by Local Agencies.

State Board staff has promised in its workshops to train Regional Board Staff and municipalities with respect to implementation and enforcement of the new risk-based permitting standards. But staff has indicated that the training will come *after* the new General Construction Permit ("CGP") is ultimately adopted and becomes effective. Regional Board MS4 permit

conditions require local government co-permittees to enforce the provisions of the CGP. The current risk-based approach is complex, and will saddle cities and other local governmental entities with extraordinary new responsibilities for compliance monitoring and enforcement driven by Risk Assessments and Risk Determinations that are complex and can yield a variety of "correct" results due to a number of factors, including:

- The Complex formula in the Risk Determination Work Sheets is not exactly suited for it purpose;
- The formula utilizes a number of different variables set forth in the Sediment and Receiving Water Work Sheets that are difficult to find or calculate;
- There is a large number of potentially appropriate values for each different variable (*e.g.*, R, LS, K), including site specific values, constants drawn from literature and websites, areal ratios, etc.);
- Vague Draft General Permit provisions governing requirements to update Risk Assessments and Determinations; and
- No Draft General Permit provisions give guidance to operators regarding proper resolution of these issues for operators or for those agencies with anticipated or MS4 Permit mandated enforcement responsibilities to assure proper coverage of operators under the CGP.

Most, if not all, MS4 Permit conditions, in some cases improperly, delegate at least some level of state enforcement responsibilities for the CGP to local government co-permittees.[14] For example, MS4 Permits generally require local agencies to assure that all construction operators within their jurisdiction obtain valid coverage under the CGP, and many require at least some level of municipal enforcement of other CGP provisions. The current risk-based approach will saddle cities and other local governmental entities with extraordinary new responsibilities for determining whether operators have properly executed a complex risk assessment formula and have obtained valid coverage under the CGP, as well as some additional major new compliance and monitoring enforcement responsibilities. The application of new risk-based compliance obligations *immediately* for new projects, with no phase-in period to allow local governments

14 Under federal law, water quality enforcement authority and duties established by the Clean Water Act have been delegated to the State Board and Regional Boards in accordance with the California Water Code. EPA Memorandum of Understanding, dated May 1973, 39 Fed. Reg. 26,061 (1973), amended October 1989; 54 Fed. Reg. 40664 (October 3, 1989). The California Water Code grants enforcement authority and duties only to the State Board and Regional Boards. *See* Cal. Water Code § 13300 *et. seq.;* Cal Water Code § 13329.25 *et. seq.* No water quality enforcement authority or duties are granted to municipalities under state or federal law, and Government Code § 53091 expressly limits the use of local agency land use related authority for purposes related to supply and treatment of water. As a result, to the extent that the MS4 Permit mandates that local agencies must enforce water quality CGP requirements, those provisions are improper under State and Federal law.

time to train staff on the new requirements, compounds the issues arising from that improper delegation. The Draft General Permit should be amended to set forth a phase-in period for the risk-based permitting approach that is sufficient to allow the State Board to complete no-cost or low-cost training for municipalities, as well as to set forth a clear commitment by the State Board to provide that training within the phase-in period.

The training should take the form of skills-based, hands-on workshops where local government and Regional Board staff will be required to use the Worksheet under a variety of common scenarios to compute the required risk-assessments, and compare their results with those State Board staff anticipated. Such training could also be used to spot ambiguities and surprises in the process, thus allowing State Board staff to refine the Worksheet and/or the instructions for its proper use before it is released for real-world application.

F. Recommendations.

A properly calculated risk-based approach is an appropriate way to determine the most appropriate water quality control requirements for a construction site. However, before it is implemented:

- The calculation of risk should be reformulated to accurately characterize the risk associated with storm water discharges from typical southern California construction sites, resulting in staff's anticipated bell curve in which the majority of construction sites fall under the mid-range of risk.

- The risk-based approach and risk assessment formulas should be revised should encourage and provide credits for use of enhanced BMPs, rather than rewarding only ATS or wet season grading bans.[15]

- The State Board should revise the Draft General Permit to carefully limit and specifically identify anticipated local agency enforcement responsibilities to avoid improper delegation of water quality enforcement authority and duties.

- The State Board should provide for a phase-in period sufficient to allow mandatory skills training related to all CGP provisions that the State Board identifies for potential local agency enforcement, for both MS4 co-permittees and Regional Board staff *before* the effective date of the new requirements, and the State Board should commit in the Draft General Permit to offer and fund that training.

- Finally, unintended consequences should be anticipated and addressed to the maximum extent practicable *prior* to the effective date, and the process should be reviewed and refined at a set time *after* it becomes effective.

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15 The California Building Industry already described a sensible approach to incentivizing the use of enhanced BMPs in its Legal and Policy Comment letter dated May 8, 2007 on the PCGP, already in the administrative record for the Draft General Permit. We hereby incorporate those recommendations by reference.

3. EXCLUSIONS FROM PERMIT COVERAGE REQUIRE INDIVIDUAL PERMITTING FOR A LARGE NUMBER OF PROJECTS (DCGP § I.32 AND II.A).

A. Exclusion of a Large Number of Category 4 "High Risk" Sites.

The formula in the proposed Risk Determination Work Sheets for determining the water quality risks associated with a construction site is likely to result in exclusion from CGP coverage of, and a mandate to obtain new individual permits ("IPs") for a significant number of construction storm water dischargers.

State Board staff stated in the May 2008 Workshops that it has assumed that the construction sites are normally distributed among risk levels in accordance with a standard bell curve, and that the number of risk level 4 sites is vey small because risk level 4 sites are "outliers." As discussed above in Section 1.A., the majority of sites in the City are not normally distributed among risk levels, but instead the majority of sites are Risk Level 3 and 4 sites. However, if a normal risk level distribution is assumed, currently, there are approximately 20,000 permittees throughout the State. PBS&J Technical Memo, p. 2. Even if only 12% are Risk Level 4 (reflecting a normal distribution between one and two standard deviations), over 2,400 individual permits would still have to be issued by the Regional Boards under the conditions of the Draft General Permit, and all IPs would have to be obtained in the 100-day phase-in period for existing construction sites, which commences upon adoption of the CGP. *Id.*

It is more plausible that the number of Risk Level 4 sites is larger because there are more factors that drive that determination, including the number of sensitive waters within a jurisdiction, including waters subject to 303(d) listings and TMDLs, which have historically increased over time. PBS&J Technical Memo, Figure 1, p. 3. As discussed below, the exclusion of such a substantial number of construction sites from CGP coverage is inappropriate as a matter of law and policy. Indeed, the IPs needed just for existing, permitted construction sites to continue work will undoubtedly create adverse administrative and economic burdens for the Regional Boards, Cities tasked with responsibility for requiring that operators obtain valid CGP before commencing construction, and the regulated community.

B. Exclusion of Construction Projects That Discharge to Isolated Waters of The State.

There is potentially a large number of construction sites that discharge to isolated waters of the state, but not to waters of the U.S. Under the Draft General Permit, discharges to waters of the state will no longer authorized to obtain coverage under the CGP, thus further increasing the IP mandate. (DCGP, ¶ 32, p. 8.) As the Draft General Permit is currently written, if any construction site discharges in whole or in part to waters of the state that are not within Army Corps of Engineers ("ACOE") jurisdiction, then those discharges to waters of the state are not covered by the Permit, and an operator needs an IP for those discharges. This limitation is

contrary to law and policy, and further increases the number of IPs required, thereby increasing adverse administrative and economic impacts on Regional Board, Cities, and operators.

C. Broad Exclusion of Such a Combined Group of Construction Projects Is Contrary to Legal Guidance and Precedent.

(1) General Permit Coverage.

EPA regulations regarding industrial storm water general permits specify that a general permit shall be issued to cover one or more categories of discharges within a geographic area, which may correspond to city, county or state political boundaries. 40 C.F.R. § 122.28(a)(1). Further, general permits shall be issued for sources that "[i]nvolve the same or substantially similar types of operations; [¶] [d]ischarge the same types of wastes . . . [¶] [r]equire the same effluent limitations [or] operating conditions [¶] [r]equire the same or similar monitoring; and [¶] . . . are more appropriately controlled under a general permit than under individual permits." 40 C.F.R. § 122.28(a)(2). If the sources within a category of dischargers are subject to water quality-based limits, the sources in that category shall be subject to the same water quality-based effluent limits. 40 C.F.R. § 122.28(a)(3). These requirements are identical for state NPDES programs. 40 C.F.R. § 123.25.

The federal requirements for promulgating a general permit are echoed in the state requirements for setting general WDRs under the Porter-Cologne Water Quality Act ("Porter-Cologne") section 13263(i). This section provides that the State Board "may prescribe general waste discharge requirements for a category of discharges if the state board . . . determines that . . . [¶] (1) The discharges are produced by the same or similar operations, [¶] (2) The discharges involve the same or similar types of waste, [¶] (3) The discharges require the same or similar treatments standards, [and] [¶] (4) The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements. Water Code § 13263(i).

General permits are expressly authorized by EPA regulations to cover like discharges from similar sources. 40 C.F.R. § 122.28(a). The purpose of a general permit is to group sources geographically and by the similarities in their operations, discharges, effluent limitations, operating conditions and monitoring in a way that allows them to be controlled without resort to individual permits. 69 Fed. Reg. 22,472, 22,473 (April 26, 2004) ("General permits simplify the application process for the industry, provide uniform requirements across covered sites, and reduce administrative workload for the permit authorities."). This approach further ensures that all similar permittees are subject to similar regulatory requirements for similar discharges. Finally, as the State Board has long recognized, "[r]egulating many storm water discharges under one permit will greatly reduce the otherwise overwhelming administrative burden associated with permitting individual storm water discharges." Fact Sheet for Water Quality Order No. 99-88-DWQ, p. 2.

There is nothing in EPA's Clean Water Act regulations that precludes the coverage of Risk Level 4 construction sites. Further, there is nothing in EPA's Clean Water Act regulations

that precludes the issuance of a joint federal NPDES and state water quality CGP. In fact, there is clear precedent for issuing dual National Pollutant Discharge Elimination System ("NPDES")/Waste Discharge Requirements ("WDRs") – the State Board and Regional Boards have done this for years both in the context of the CGP but also in other contexts as well. *See, e.g.*, State Board Water Quality Order 99-08-DWQ.

Contrary to legal guidance and precedent, the Draft General Permit now limits CGP coverage to sites that are not Risk Level 4 Sites, and that do not discharge, in whole or in part, to waters of the state. Due to the overstatement of risk under the current Draft General Permit Risk Assessment approach, and the similarity in physical characteristics of waters of the state and Waters of the U.S., the overly broad Draft General Permit exclusion of Construction Sites from CGP coverage subjects like dischargers, with similar operations, discharges, effluent limitations, and treatment methods to very different permit requirements. Thus, the State Board should amend the Draft General Permit to eliminate the broad exclusions from coverage for similarly situated sites.

(2) The Complex And Infeasible Coverage Determination For Discharges to Waters of The State Should be Eliminated.

Eliminating the opportunity for coverage under the CGP for sites that discharge in whole or in part to isolated waters of the state generate several additional legal, policy and practical issues and problems.

First, it is unclear how a discharger is to determine if an IP is required because some or all discharges are to waters of the state and therefore not covered by the Permit. The *Rapanos* and *SWANCC* Supreme Court cases exclude from federal ACOE jurisdiction certain tributary drainages and isolated wetlands that lack a "significant nexus" with "traditionally navigable waters." *See Rapanos v. United States*, 547 U.S. 715 (2006); *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* [*SWANCC*], 531 U.S. 159 (2001). It is very difficult determine under the rules of those cases exactly what waters are excluded from ACOE jurisdiction.

Concurrence by the ACOE with jurisdictional delineations involving both federal and state waters has become a very convoluted and lengthy process. Recently adopted EPA/ACOE guidelines do not provide clear direction on how to perform a sufficient "significant nexus" evaluation to determine if particular waters are "isolated" (and therefore not subject to ACOE jurisdiction), or if they physically, chemically or otherwise exhibit a sufficient physical "connection" to traditionally navigable waters to form a "significant nexus" (therefore becoming subject to ACOE jurisdiction). *See* EPA and ACOE, *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States* (June 5, 2007) (noticed at 72 Fed. Reg. 31,824 (June 8, 2007)) (*available at* http://www.epa.gov/wetlands/guidance/CWAwaters.html).

As EPA and ACOE state the "rule" regarding delineation of state versus federal jurisdictional waters:

> The agencies will assert jurisdiction over the following types of waters when they have a significant nexus with a traditional navigable water: (1) non-navigable tributaries that are not relatively permanent, (2) wetlands adjacent to non-navigable tributaries that are not relatively permanent, and (3) wetlands adjacent to, but not directly abutting, a relatively permanent tributary (e.g., separated from it by uplands, a berm, dike or similar feature). As described below, *the agencies will assess the flow characteristics and functions of the tributary itself, together with the functions performed by any wetlands adjacent to that tributary, to determine whether collectively they have a significant nexus with traditional navigable waters.*

Id. at p. 7 (footnotes omitted) (emphasis added).

This is a far cry from a bright-line test for jurisdiction, and therefore coverage under the Draft General Permit. Under the Draft General Permit's exclusion from coverage of projects discharging to waters of the state, a complex hydrologic and geologic analysis coupled with a judgment call about the "significance" of any hydrologic connection that is hypothesized to exist based on a comparison of "functions" between two apparently disconnected water bodies is required to determine if an NOI and PRDs can appropriately be filed and CGP coverage obtained for any particular construction site. The complexity of the required analysis creates a compliance trap for operators and municipalities responsible for determining that operators obtain coverage prior to beginning construction activities.

A site operator may believe the site is covered under the CGP because its environmental consultants "assess the flow characteristics and functions of the tributary itself, together with the functions performed by any wetlands adjacent to that tributary," and determine that it discharges to a U.S. jurisdictional water, and thus, it can receive coverage. But given the complex assessment of "the flow characteristics and functions of the tributary itself, together with the functions performed by any wetlands adjacent to that tributary" used by regulators, others may subsequently determine that some discharges entered isolated waters of the state that were *not* covered by the CGP and challenge the project's coverage, resulting in a loss of coverage, and potentially retroactive enforcement liability. Municipalities clearly do not have the resources to assure that only those projects discharging 100% to waters of the U.S. claim coverage under the CGP, thus creating enforcement issues for local agencies.

Consistent with legal guidance and precedent, the State Board should amend the Draft General Permit to eliminate the current broad exclusions from coverage and resulting compliance trap.

D. The Draft General Permit Generates Adverse Administrative And Economic Burdens For The Regional Boards, Cities Tasked With Responsibility For Requiring That Operators Obtain Valid CGP Before Commencing Construction, And For The Regulated Community.

State Board staff stated in the May 2008 Workshops on the Draft General Permit that it has not fully assessed the number of Risk Level 4 sites or sites discharging to waters of the state that would be subject to IPs. The Draft General Permit contains no express assessment or consideration of impacts of new IP requirements on Regional Boards or the regulated community. Further, there is no assessment of additional resources necessary for the Regional Boards to properly implement and enforce the increased burden of issuing a considerable number of new IPs. Due to underfunding, the Regional Boards are incapable of keeping pace with the existing volume of IP applications, since it often takes multiple *years* for the Regional Boards to issue IPs.[16] If the Risk Determination Worksheets are not revised to accurately reflect the risk levels of southern California construction sites, the Regional Boards will be subject to a sudden and unprecedented increase in applications for IPs, and the added strain on Regional Board resources will inevitably divert funding and resources from other services to attend to all the new IP applications.

Thus, the current limits in the Draft General Permit's coverage defeat the purpose of a general permit—that is to cover like discharges in a uniform manner, thereby effectively regulating to protect or improve water quality while reducing the costs of administration and compliance. Section 3.D., *supra*. Instead, requiring such a large number of construction sites to obtain IPs will result in increased administrative costs and burdens for regulators, and increased costs and delays for the regulated community. Because there is no phase-in period provided for application of these requirements for IP coverage to new sites, and there is only a 100-day phase-in period for application of IP projects to existing sites, certain construction projects that either are "caught" by adoption of the CGP on the eve of commencing construction, or that are covered by the current CGP at the time the new permit is adopted will suddenly need to seek IPs. Construction will have to halt at these sites for months or years while they plod through the IP process. This delay would serve no water quality purposes, but will result in adverse economic consequences, which have not been, but should be evaluated. *See* Dr. David Sunding, *Economic Impacts of the Proposed Construction General Permit for Regulation of Stormwater Presentation* (June 4, 2008), presented on behalf of the California Building Industry Association at the June 4, 2008 State Board hearing on the Draft General Permit; Berkley Economic Analysis of the SWRCB Proposed Construction General Permit (April 2, 2008).

Given the significance of the administrative and economic burden, the State Board should evaluate the economic consequences of adopting broad exclusions to CGP permit coverage. As

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16 As of 1991, EPA estimated that it took approximately 60 hours just to *complete* the IP application. EPA, *Guidance Manual for the Preparation of NPDES Permit Applications for Storm Water Discharges Associated with Industrial Activity* (April 1991). Thus, this new requirement will impose considerable additional administrative costs on local governments undertaking construction projects.

discussed more fully below, in deciding whether to impose new BCT effluent limitations on a category of industrial sources, EPA uses its "BCT methodology." As EPA notes in its BCT Guidelines, "the BCT methodology answers the question of whether it is 'cost-reasonable' for industry to control conventional pollutants at a level more stringent than BPT effluent limitations already require." *Best Conventional Pollutant Control Technology; Effluent Limitations Guidelines*, 51 Fed. Reg. 24,974 (July 9, 1986) ("BCT Guidelines"); *see also* EPA, *BCT Cost Test Guidance*, (September 1980) (explaining EPA's methodology for the development of BCT limitations using the cost benefit analysis); *Notice of Availability of Preliminary 2008 Effluent Guidelines Program Plan*, 72 Fed. Reg. 61,335, 61,337 (Oct. 30, 2007) (applying the BCT Guidelines in its review of existing guidelines and pretreatment standards for conventional pollutants).

Just as EPA considers the cost-reasonableness of imposing a new technology-based effluent limit on the regulated community to determine whether to impose the increased cost of implementing new technologies, the State Board should study and consider the "cost-reasonableness" of imposing a new approach to coverage of dischargers of storm water that excludes a large group of operators and dischargers. Without substantial empirical evidence that the new requirements are cost-reasonable, the State Board should conclude that it would *not* be "cost-reasonable" in light of the likely magnitude of the increased administrative and compliance costs and the lack of evidence that water quality will improve to such an extent as to justify the cost.

To address these legal, policy and practical issues, the State Board should eliminate the exclusion from permit coverage for projects that discharge in whole or in part to waters of the State, and should provide coverage for all but the most high risk of construction sites. Similarly, because the Draft General Permit Risk Level 4 determination currently encompasses a much broader and larger range of construction projects that are very similar to projects covered by the Draft General Permit (rather than those extremely high risk "outliers"), Risk Level 4 construction sites should not be excluded from CGP coverage.

4. THE DRAFT GENERAL PERMIT INCLUDES AN IMPROPER, EXPANSIVE DEFINITION OF COMMON PLAN FOR DEVELOPMENT THAT MAY SUBJECT ALL MUNICIPAL CONSTRUCTION SITES TO CONSTRUCTION PERMIT COMPLIANCE.

Based on State Board staff comments in the May 7 Workshop and Section II.B. of the Fact Sheet, we are also concerned that the Draft General Permit as currently written improperly requires all municipal public works projects to comply with the CGP, regardless of the size of the project. As currently drafted all municipal public works projects that are identified in a municipal Construction Management Plan or Capital Improvement Project Plan (collectively "CIPPs") appear to be considered part of a "larger plan of development," even when such projects are not yet designed, planned or funded, or are unrelated to other municipal public works projects. The result is that each and every public works project will be subject to the CGP.

EPA did not intend such a result when it promulgated the regulations for storm water discharges, or else it would have simply imposed the same requirements for all municipal construction sites. *See, e.g.*, 40 C.F.R. § 122.26(b)(15). Absent clear regulatory or statutory language mandating inclusion, the Draft General Permit should not require municipalities to obtain coverage for all public projects on the basis of speculative and unfunded projects included in CIPPs. For public sector projects (which may include municipal, state, federal, or institutional projects) most dischargers have created interpretations of a "common plan of development" that look to the completion of project-related environmental review documentation and contractual documentation, and secure funding sources to define projects that are reasonably likely to proceed and that are therefore appropriately included in common plans of development.

The definition of "projects" that are subject to the Draft General Permit is improper and over-inclusive, and should be eliminated revised to be consistent with controlling law and practice.

5. EFFLUENT LIMITATIONS, INCLUDING NUMERIC EFFLUENT LIMITATIONS, NUMERIC ACTION LEVELS, AND VOLUME/FLOW REDUCTION REQUIREMENTS ARE NOT PROPERLY ESTABLISHED BAT/BCT NUMERIC EFFLUENT LIMITS, EFFLUENT LIMITS, OR WASTE DISCHARGE REQUIREMENTS (DCGP §§IV, V, VI.8, VIII).

A. Legal Requirements For Setting Technology-Based Effluent Limitations.

There are specific legal requirements applicable to the setting of general permit numeric and narrative effluent limits in industrial storm water discharge permits under federal and State law. These legal requirements ensure that the admittedly broad discretion that water quality regulators have in setting permit numeric and narrative effluent limits and conditions is exercised in a thorough and appropriate manner, taking all required factors into consideration before determining applicable discharge permit requirements. Despite arguments to the contrary presented by other stakeholders, there are no "short-cuts" that allow EPA and State Administrators (like the State Board) to set permit limitations while avoiding the careful and thorough collection, consideration and balancing of relevant technical, monitoring and performance data, economic analysis, and other required information as specified by law. When setting permit limitations, assuring that discretion is exercised in accordance with the procedures and considering the evidence and factors mandated by federal and state law is critical to properly regulating water quality of discharges from entire industry groups, in this case the construction industry, made up of literally hundreds of thousands of agencies, businesses, organizations and individuals.

When data and information is difficult to obtain, it is tempting to resort to short-cuts. For example, Lawyers for Clean Water suggested in the June 4, 2008 hearing, that it would be appropriate for the State Board to use a short-cut to set a the Best Available Technology Economically Achievable ("BAT") effluent limitation for sediment. Lawyers for Clean Water suggested the turbidity value 25 NTU as the effluent limit because, it claims, a particular

technology that has been used to treat a specific discharge to the Santa Monica Bay has been able to meet 25 NTU. Lawyers for Clean Water assert that because this value is achieved for one discharge stream by one particular existing technology, that technology is the best available technology, and the value is the appropriate BAT effluent limit. They went on to assert that the value is an appropriate BAT limit because data in Washington State indicates that the value can be achieved consistently. But when regulating an industry, that short-cut approach to setting a sediment effluent limit is neither appropriate regulatory policy, nor legally permissible.

Instead, as discussed in detail below, it is first important to recognize that state and federal law require effluent limits for conventional pollutants that meet Best Conventional Pollution Control Technology ("BCT") standards, not BAT standards. Further, it is critical to the proper exercise of regulatory discretion to recognize that state and federal law set a process that assures regulators consider all required information, including: *all* potentially appropriate and available treatment technologies, their relative treatment capabilities (*e.g.*, the *effluent values that all the different technologies* produce), the relative need for the level of treatment they provide to protect beneficial uses of *local* receiving waters, and the *economic impact* on the regulated industry of setting permit limitations that, directly or indirectly (by prescribing a numeric limit) would require the hundreds of thousands of dischargers in the industrial group to use of certain kinds of available treatment technology to achieve the permit limitation or condition. As a matter of law and policy, this careful process of considering required information cannot be short-cut—not by using an effluent value achieved by one type of technology, or an effluent limit from another state, or even by making the process easier and reducing the information that must be collected or considered. Until or unless the process of considering all required information is undertaken, documented, and completed by regulators at least once, for example in setting effluent limitation guidelines that later guide regulators in setting limits for certain types of industries and pollutants, shorter or simpler processes requiring collection and consideration of less technical, monitoring and economic data and information are not available by law.

More specifically, regulatory agencies establishing permit-specific effluent limitations must consider federal Clean Water Act and California Water Code procedures and requirements applicable to determining:

1. The proper role of Best Professional Judgment ("BPJ) in setting permit conditions;

2. Effluent limitations that are appropriate under, and in compliance with BAT water quality control standards for non-conventional and toxic pollutants, and BCT water quality control standards for conventional pollutants ; and/or

3. Effluent limitations and/or waste discharge requirements, that are appropriate under, and in compliance with California Water Code section 13241 ("Section 13241").

B. The State Board May Not Use Best Professional Judgment ("BPJ") in Place of an Appropriate and Rigorous BAT/BCT Analysis.

The Fact Sheet states Regional Board staff applied Best Professional Judgment to set the Action Levels ("ALs") and Numeric Effluent Limits ("NELs") for, among other things, conventional pollutants such as sediment pH. Fact Sheet, pp. 50-52.[17] However, using BPJ in the absence of adopted effluent limitation guidelines for the particular industry and without conducting a full analysis of all information as required by BAT/BCT guidelines is simply a best guess, and contravenes the Clean Water Act and regulations requiring detailed consideration and balancing of all required data and information in setting effluent limitations.

When setting NELs, EPA typically first conducts BAT/BCT analysis for an entire category of industrial dischargers in order to develop effluent limitation guidelines for the category. 33 U.S.C. § 1314(b)(2)(B), (3)(B). The BAT/BCT process follows rigorous process steps, which involve soliciting information from the regulated community, expert studies, and an evaluation of the collected data.[18] *Id.*; *see also* 69 Fed. Reg. 22,472, 22,475 (April 26, 2004); 51 Fed. Reg. 24,974 (July 9, 1986). Once EPA has developed the effluent limitation guidelines for an industrial category, it then uses those guidelines to set effluent limitations in specific permits requested by dischargers within the industrial category. 40 C.F.R. § 122.2 (defining "effluent limitations guidelines" as "a regulation published by the Administrator under section 304(b) of Clean Water Act to adopt or revise 'effluent limitations.'")

Best Professional Judgment is a legal term of art that describes the exercise of discretion that EPA (or the state acting under federal authority—in this case the State Board) may use when writing an individual permit under two circumstances: (1) where the agency has not yet adopted industry-wide pollution control standards applicable to the facility and the discharge at issue, or (2) where existing performance in an industry is inadequate. *See* 33 U.S.C. § 1342(a)(1)(B); 40 C.F.R. § 125.3(c)(2). In *Natural Resources Defense Council, Inc. v. United States EPA*, 859 F.2d 156, 199 (D.C. Cir. 1988), the D.C. Circuit Court of Appeals explained that "BPJ limits constitute *case-specific* determinations of the appropriate technology-based effluent limitations for *a particular* point source. In what EPA characterizes as a *"mini-guideline" process*, the permit writer [exercising BPJ], after full consideration of the factors set forth in Clean Water Act § 304(b), 33 U.S.C. § 1314(b), which are the same factors used in establishing effluent guidelines, establishes the permit conditions "necessary to carry out the provisions of [the Clean Water Act]. 33 U.S.C. § 1342(a)(1) (emphasis added)."

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17 The Fact Sheet also states that staff has considered the Clean Water Act cost-effectiveness of the ALs and NELs it included in the Draft General Permit. *Compare* PCGP Fact Sheet, p. 37 *with* DCGP Fact Sheet, pp. 50-52. However, as demonstrated below, the BAT/BCT analysis and "balancing" has not been performed in accordance with federal requirements, and similarly "cost estimates" considered by staff do not constitute the rigorous, fact-based analysis of economic impacts and cost-effectiveness required by the Clean Water Act and Porter-Cologne.

18 This process is described in detail in the following section that treats the proper method for establishing TBELs.

Where the agency has not yet adopted industry-wide pollution control standards applicable to the facility and the discharge at issue, in case after case, U.S. Circuit Courts of Appeals have concluded that EPA may use BPJ to base a BAT/BCT determination upon technology transferred from a different industrial category, but only on a permit-by-permit basis – not in a general permit that regulates and entire industry, and not as a short cut to promulgating industry-wide pollutant control standards or guidelines. *See, e.g., National Resources Defense Council v. United States EPA*; 863 F.2d 1420, 1425 (9th Cir. 1988); *Natural Resources Defense Council v. United States EPA*, 822 F.2d 104, 111 (D.C. Cir. 1987); *American Petroleum Inst. v United States EPA*, 787 F.2d 965, 971 (5th Cir. 1986). In other words, where BAT/BCT analysis *has already occurred* for technologies used in other industrial categories, the regulator may use BPJ to transfer that technology to set effluent limits in a specific permit.

The Fact Sheet appears to suggest that the State Board may use BPJ in a manner more akin to use of a best educated guess to establish pollutant control measures and effluent limits in the CGP without having to collect or analyze all the detailed data required for BAT/BCT analysis. Fact Sheet, pp. 50-52 (stating that now the State Board need not consider the federal BAT/BCT factors to exercise its BPJ).

In circumstances involving the issuance of a general industrial storm water permit without the benefit of adopted effluent limitation guidelines, the exercise of BPJ must, under federal law, be performed as if the regulator were adopting effluent limitation guidelines, and the regulator must perform a BAT/BCT analysis. That is, the regulator seeking to set permit conditions in the absence of effluent guidelines must collect and consider required data and information needed under the federal statute, regulations and guidance defining the BAT/BCT methodologies. As detailed in 5.C. below, BAT/BCT requires the regulator to collect and consider information regarding the treatment capability for each technology to be deployed, as well as economic and cost-effectiveness data, then apply a rigorous analysis to the data to determine if it should be adopted. Thus, even if there are no effluent guidelines, the data and the analysis used to set effluent limits in a permit must meet the same federal BAT/BCT requirements that would otherwise apply to issuance of effluent limitation guidelines. *Id.*

After BAT/BCT analysis for a category of industrial discharges has been performed, and resulting effluent limitation guidelines are set, then BPJ may be used in the context of the adopted effluent limitation guidelines in a less rigorous way to determine the actual effluent limits in specific permits. But it is critical to note that in this type of exercise of BPJ, the more rigorous BAT/BCT analysis *has already been performed*, and effluent limitation guidelines have been adopted, thus, the guidelines inform the case-by-case determination of permit-specific effluent limitations. Under these circumstances, the regulator may use BPJ to apply, on a case-by-case, permit-specific basis, the information from the previously performed BAT/BCT analysis and adopted effluent limitations guidelines for a category of industrial discharges to determine the appropriate effluent limitations to include in a specific discharger's permit.

Conversely, where BAT/BCT analysis has not been carried out for a category of dischargers, and no resulting effluent limitation guidelines have been set, BPJ cannot be used to

set effluent limits in general permits for a specific category of industrial dischargers *without* performing the BAT/BCT analysis. Instead, for each general permit, the rigorous BAT/BCT analysis and balancing must be done in a "mini-guidelines" process to determine the effluent limitations that will govern the discharges under the general permit. *Natural Resources Defense Council, Inc. v. United States EPA*, 859 F.2d at 199.

EPA has not set effluent limitation guidelines for the construction and development industrial category. After several years of data gathering and analysis pursuant to the requirements of BAT/BCT, in 2004 EPA gave notice that it would *not* set effluent limitation guidelines for the construction industry. 69 Fed. Reg. 22,472, 22,477-78 (April 26, 2004) (finding that the extensive empirical data collected and analyzed in the BAT/BCT process regarding cost estimates and impact on construction jobs showed that the costs to the regulated community were "simply too high and are disproportionately large when compared to the incremental loading reductions over the existing program that would be attributable to the proposed [effluent limitations guideline]"). Notably, in the absence of appropriate data and information, EPA has adopted and enforces in states without a state water quality program a federal Construction General NPDES Permit (the "federal CGP"). Based on the high costs, and the absence of other types of data and information required to establish an effluent limitations guideline for the construction and development industry, the federal CGP has and continues to mandate an *exclusively* BMP-based approach to regulation of discharge water quality for construction sites.

Most recently, EPA has renewed its existing federal CGP for two years while it completes the process of establishing what will be the Effluent Limitations Guideline for the Construction and Development Industry ("C&D Rule"). EPA, *Proposed 2008 EPA Construction General Permit Questions and Answers* (May 15, 2008)73 Fed. Reg. 28454 (stating that the new effluent limitation guidelines should be in draft form sometime in 2008). EPA noted in renewing the federal CGP that renewal, rather than revision and re-issuance of the permit is appropriate because if it attempted to revise and re-issue the permit, the resulting federal CGP would have to "approximate the requirements of the new C&D Rule and incorporate such limits into a new CGP, [and] such a permit would presuppose the outcome of the C&D rule." 73 Fed. Reg. 28454, 28457. In short, EPA recognizes in its notice that to adopt the federal CGP in the absence of a C&D Rule requires the same sort of analysis to determine effluent limits that would be done to issue the C&D Rule itself.

Neither EPA nor the State Board has adopted effluent limitation guidelines for the construction and development industry. Without any guidelines, however, there is no established framework adopted pursuant to a rigorous BAT/BCT analysis to guide the determination of appropriate CGP effluent limitations for the construction industry. Therefore, the exercise of BPJ to determine the effluent limitations of the CGP must proceed pursuant to a "mini-guidelines" process by undertaking the careful BAT/BCT analysis of all relevant data and information as required by federal law.

C. Clean Water Act and Porter-Cologne Requirements for Setting BAT/BCT Effluent Limitations.

In the absence of effluent limitation guidelines, establishing general permit-specific effluent limitations requires both a rigorous assessment of potential effluent limits in accordance with specific procedures, and balancing and consideration of effluent limits in light of several factors based upon either the BAT or BCT standards, depending on whether the effluent limit is intended to govern non-conventional and toxic pollutants or conventional pollutants. 33 USC 1314(b)(2)(B); 40 C.F.R. § 125.3(d); 51 Fed. Reg. 24,974 (July 9, 1986).

(1) The Clean Water Act Requires a Process For Rigorous Assessment of Action Limits And Effluent Limitations.

In order to properly determine what constitutes an appropriate effluent limitation in compliance with BAT and BCT, the State Board must follow a process akin to that followed by regulatory agencies when setting effluent guidelines. In order to properly conduct a BAT/BCT analysis, the EPA or the state agency must undertake a process that incorporates the following steps in considering and adopting effluent limits. The agency:

(i) Gathers extensive information on the industry (through questionnaires, wastewater sampling, literature reviews, and other methods);

(ii) Performs detailed statistical analyses of this information;

(iii) Develops sets of proposed control options for the industry;

(iv) Estimates the effluent reductions, costs, economic impacts, and environmental effects of those options;

(v) Shapes the options into a proposed set of limits;

(vi) Explains the proposed limits in a Federal Register publication and additional supporting documents;

(vii) Reviews comments on the proposed limits; and

(viii) Incorporates those comments into a final regulation (again with considerable supporting documentation).

Mark A. Ryan, ed., The Clean Water Act Handbook, p. 24 (2003).

This procedure is an iterative process, that (i) assures critical and in-depth assessment of available scientific and technical information regarding pollutant control technologies available within the regulated industry; (ii) provides the factual data necessary for the State Board to determine if a potential pollutant control technology is "available," or "feasible" from a

regulatory perspective considering industrial activities and economic and technical feasibility of the control technology;[19] and (iii) compares the benefits of the control technologies available in light of receiving water quality conditions, cost-effectiveness, effects on the regulated industry, effects on the environment, and other applicable factors. A similar process should be followed here because the state is performing the function of creating industry-wide pollutant control limitations for the construction industry.

Congress specified the steps that regulators must follow and the factors they must use when issuing industry-wide pollutant control measures or "[e]ffluent limitation guidelines." 33 U.S.C. § 1314 (b). The initial task is to identify pollutants to be regulated in the industrial discharge at issue and determine if they are conventional or nonconventional. Here, pollutants from construction activity are primarily conventional—sediment/TSS/turbidity and pH—so BCT is the primary methodology that should be used. Once the nature of the pollutants is determined, the federal statutory scheme stages the regulatory process into three steps: Data collection, analysis and determination of what, if any, new limits to include in the guidelines or impose an individual permit.

For conventional pollutants such as turbidity and pH, Congress has specified the following factors (the "Federal Factors") that a regulator must consider with respect to each control measure proposed for an industry pursuant to the BCT standard:

(1) The reasonableness of the relationship between the costs of attaining a reduction in effluents and the effluent reduction benefits derived;

(2) The age of equipment/facilities;

(3) The treatment process employed;

(4) Engineering aspects of the application of various types of control techniques;

(5) Any industrial process changes required to implement the control measures;

(6) Non-water quality environmental impacts; and

(7) Such other factors as the Administrator (or in this case the State)[20] shall deem appropriate.

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19 A given technology may be "unavailable" or "infeasible" for many reasons, including economic and technical viability, and non-water quality environmental impacts. *BP Exploration & Oil, Inc. v. United States EPA*, 66 F.3d 784, 796 (6th Cir. 1995) (EPA's determination of an infeasible control measure was appropriately based on "high economic and non-water quality environmental impacts").

20 40 C.F.R. § 122.2.

33 U.S.C. § 1314(b)(4)(B); 40 C.F.R. § 125.3(c); 33 U.S.C. § 1314(b)(2)(B); *Best Conventional Pollutant Control Technology; Effluent Limitations Guidelines*, 51 Fed. Reg. 24,974 (July 9, 1986) ("BCT Guidelines"); *see also* EPA, *BCT Cost Test Guidance*, (September 1980).

In determining if a new technology is BCT, EPA first identifies technological options that provide additional conventional pollution control beyond the current Best Practicable Technology ("BPT"). 51 Fed. Reg. at 24,976. It then gathers extensive data from the regulated industry, and conducts or reviews studies regarding the seven factors.

EPA then applies the two part "cost-reasonableness" rule to implement the requirements of the first factor (*i.e.*, the reasonableness of the relationship between the costs of attaining a reduction in effluents and the effluent reduction benefits derived). *Id.* If the proposed new BCT technology "fails" either test, it is not "cost-effective," and cannot be imposed as BCT for the industrial category. Because these tests were developed when storm water was not regulated by the federal Clean Water Act, they must be adapted slightly when applied to storm water permits to take into account the difference in the industrial point source versus the storm water runoff nonpoint source nature of the discharge. However, the tests cannot be ignored in setting construction storm water permit effluent limits because the evaluation of cost-reasonableness is mandated by the Clean Water Act statute.

First, EPA applies the "POTW test" to determine cost-effectiveness. *Id.* In order to "pass" the POTW test, it must cost industrial dischargers less per pound to remove a conventional pollutant from their discharge using the BCT than it would cost a medium-sized POTW to remove a pound of the same pollutant by upgrading from secondary treatment to advanced secondary treatment.[21] *Id.* at 24,975-76.

The second test is the "industry cost-effectiveness test." *Id.* EPA compares the cost per pound removed by BCT relative to BPT divided by the cost per pound removed by BPT relative to no treatment, and compares that to an industry benchmark ratio computed using cost/pound of removal data from POTWs. *Id.* If the industry ratio is lower than the POTW benchmark, the BCT candidate passes the industry cost-effectiveness test. *Id.*

To apply the two tests for cost-reasonableness test to storm water permit effluent limitations, the State Board must first determine in the storm water non-point source context those traditional source control BMPs that would be equivalent to the medium sized POTW with advanced treatment, and evaluate the costs to the industry of achieving that level of pollutant removal. Second, the State Board must determine the cost per pound removed by the new technology required to achieve the effluent limitation that is proposed, and compare it to the cost per pound removals achieved BPT. In sum, the requirements of analyzing the first Federal Factor in the BCT protocol alone requires detailed empirical data from the regulated industry and POTWs, and in-depth comparative economic cost analysis of that data using a set formula. As

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21 Since pH cannot be quantified in cost per pound removed, EPA uses maintenance of an acceptable interval as an inherent cost of the BCT, and it must be economically achievable and cost-reasonable. *Id.*

demonstrated below, the State Board has not attempted to determine the cost-reasonableness of imposing the NELs, ALs, or volume reduction and flow control requirements (also referred to in these Comments as hydromodification control requirements) on construction sites, nor has it evaluated the other Federal Factors in proposing those effluent limitations as required by law.

(2) Porter-Cologne Requirements For Setting Effluent Limitations.

Significantly, the federal BAT/BCT process required to promulgate general permit effluent limits is fully consistent with, and from a practical standpoint subsumes the requirements for issuance of Waste Discharge Requirements in Sections 13241, 13263 of Porter-Cologne. EPA recognized the state's authority to administer the federal NPDES program in reliance upon all provisions of the Porter-Cologne Act at the time of granting authorization to the State's program,[22] and thus authorized California to administer the NPDES program recognizing that effluent limits would be imposed using the Section 13241 balancing factors.

Further, the Clean Water Act recognizes that, in setting BCT permit limits, the State water quality program Administrator (in this case the State Board) may consider "such other factors as the Administrator deems appropriate[,]" including the § 13241 balancing requirements, which in California should be considered when establishing BCT effluent limitations. 33 U.S.C. § 1314(b)(4)(B); 40 C.F.R. § 122.2. In sum, the State Board is required to fully consider proposed effluent limits in light of the many factors specified by state and federal law to arrive at reasonable and appropriate effluent limitation for general industrial storm water permits.

In adopting Porter-Cologne, the legislature expressly stated the Act's goal: "to attain the highest water quality which is *reasonable, considering all demands being made and to be made on those waters, and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.*" Water Code § 13000 (emphasis added). Inherent in this fundamental goal is the concept of weighing pollutant control standards and measures in light of the many competing factors to arrive at a "reasonable" balance.

Sections 13241 and 13263 set forth the factors that must be considered to achieve the mandatory balance. These sections require the State Board to consider a number of carefully prescribed balancing factors whenever fashioning waste discharge requirements. *See City of Burbank v. State Water Resources Control Bd.*, 35 Cal. 4th 613, 624-28 (2005) (confirming that the Section 13241 balancing factors must be applied when waste discharge requirements are established pursuant to Section 13263, except where the agency is merely meeting and not exceeding *non-discretionary,* federally-prescribed *minimum* requirements). The Porter-Cologne Section 13241 balancing factors are:

1. Past, present, and probable future beneficial uses of water.

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22 *See, infra.* Footnote 14.

2. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

3. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.

4. Economic considerations.

5. The need for developing housing within the region.

6. The need to develop and use recycled water.

Importantly, the section 13241 balancing factors (the "State Factors") reflect the California Legislature's most substantive instructions to the water boards concerning the means by which effluent limits or pollutant control measures should be adopted. The State Factors also reflect the Legislature's insistence upon water quality regulation and policymaking that considers and evaluates local and regional differences in physical, water quality, anthropogenic and societal characteristics.

(3) The State Board Has Not Followed Mandatory BCT Protocol to Determine the Effluent Limitations For Conventional Pollutants.

The Fact Sheet indicates intent to undertake a BCT analysis for conventional pollutants (pH and turbidity), however, the analysis falls short of meeting the requirements of the Clean Water Act.

According to the Fact Sheet, "State Water Board staff has used best professional judgment (BPJ) to set the numeric effluent limitations for pH and turbidity equivalent to BPT and BCT." Fact Sheet, p. 50.[23] Next, the State Board purports to use the BPT analysis to determine that for conventional pollutants discharging in construction site storm water, the BPT analysis results in a determination that BCT is equivalent to BPT for construction industrial discharges:

> Traditionally, BPT effluent limitations are based on the average of the best performances of facilities within the industry of various ages, sizes, processes or other common characteristic. Where, however, existing performance is uniformly inadequate, the regulatory authority may require higher levels of control than currently in place in an industrial category if the authority determines that the technology can be practically applied. We have concluded that there are no applicable performance standards

23 As explained above, this in itself violates the requirements of the Clean Water Act.

> representing a degree of effluent reduction achievable beyond BPT, and therefore that BCT shall be equivalent to BPT.

Fact Sheet, p. 50.

However, as explained above, where the State Board proposes new, more stringent effluent limitations as it is doing here, the State Board first must conduct a survey and analysis of available BPT treatment technologies (*i.e.*, construction BMPs) and their performance and treatment capabilities, then compare that information to effluent reductions that must be achieved to comply with new, more stringent proposed technology based effluent limits (in this case the turbidity and pH NELs, the ALs, and the hydromodification control standards) to determine comparative effluent reductions achievable by the existing technology based effluent limits (construction BMPs) relative to the performance the State Board proposes to mandate in adopting the new effluent limits. This analysis has not, and based on the absence of existing data regarding treatment capability of construction BMPs and hydromodification control technologies[24] cannot currently be conducted. Next, as discussed above, the State Board would have to conduct the BCT analysis, and conclude that the proposed new BCT fails the cost-reasonableness test or is otherwise in appropriate given the other factors. Consequently, the analysis conducted to date is insufficient to determine under federal law requirements for both BPT and BCT,

Second, the State Board's characterization of its effluent "methodology" as a consideration of BPT fundamentally mischaracterizes what is factually an unprecedented quantum leap from (a) the iterative BMP-based approach to construction permit technology based permit limitations, to (z) NELs, ALs and radical new engineered hydromodification control standards. While the Fact Sheet states that NELs, for example, are merely a translation of the narrative BMP-based standards in the current CGP into effluent limits, in fact there is no data or evidence available to make that translation.

In order to properly apply the BPT analysis, the State Board would have to determine that the NELs of 10 NTU for ATS and 1000 NTU for all other sites that do not opt to use ATS is the "average of the best performance of facilities within the [same industrial] category that are similar ages, sizes, processes or other common characteristics." 69 Fed. Reg. at 22,474; *Chemical Mfrs. Ass'n v. EPA*, 8270 F.2d 177 (5th Cir. 1989) (holding, *inter alia*, that BPT requires considering the average of the best in the industrial category, not the average of the best performance within the category *using a particular technology*.). In order to average the best performance facilities, the State Board would have to gather data from a representative samples of construction sites throughout the state and select a group from that list that it determines are

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[24] Eric Strecker, PE, member of the Blue Ribbon Panel testified at the June 4, 2008 hearing that monitoring data regarding treatment capability of, and pollutant loads and concentrations attainable by implementation of different types of construction BMPs simply is not currently available, hindering the State Board's ability to conduct mandated BPT and BCT analysis. The Construction Industry Water Quality Coalition proposed in the June 4, 2008 hearing to conduct the required study to obtain such information for the next CGP renewal cycle.

"best performers," and average the performance of those construction sites to determine what the best practicable control technology currently available is, then set the numeric effluent limits based on that average.

The State Board has not done that analysis, because it has not gathered the representative data needed to do so. Similarly, the State Board has not actually performed any comparison of monitoring data or empirical analysis of expected improvements in water quality, but instead simply asserts that improvements to water quality have been considered. Other State Administrators and EPA have *not* adopted NELs or engineered hydromodification control standards as general construction permit effluent limitations for the very reason that BPT controls cannot regularly and in all circumstances achieve those effluent limitations. Blue Ribbon Panel Report, *supra.* §6.A. ALs have only been adopted by a few State Administrators,[25] and then after a much more thorough BCT analysis than proposed here. To propose these types of effluent limitations in the Draft General Permit is to propose new candidate BCT limitations; it is not merely an incremental improvement to the existing iterative BMP approach. 51 Fed. Reg. at 24,976 (in analyzing BCT, EPA first identifies technological options that provide additional conventional pollution control *beyond* the current BPT).

Finally, in using its best professional judgment in this instance, the State Board has failed to conduct required economic or cost reasonable tests to determine the costs to remove pollutants as necessary to comply with the newly proposed effluent limitations, and no comparison of those costs relative to the costs of pollutant removals achieved by current BMPs has been prepared. The Fact Sheet states:

> the compliance costs associated with the BPT/BCT numeric effluent limitations in this permit only differ by the costs required to measure compliance with the NELs when compared to the baseline compliance costs to comply with the limitations already established through EPA regulations and the existing Construction General Permit.
>
> We estimate these measurement costs to be approximately $1000 per construction site for the duration of the project. This essentially represents the estimated cost of purchasing (or renting) monitoring equipment, which are in this case a turbidimeter (~$600) and a pH meter (~$400).

Fact Sheet, p. 52.

This assessment depends upon the State Board's assumption that the NELs simply translate existing narrative BMP-based effluent limitations into numeric effluent limitations that *all* traditional source control BMPs can attain for *all* storm events and all runoff conditions.

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[25] Oregon, Washington, and Georgia General Construction Permits specify ALs.

However, as noted above, there is no empirical evidence or monitoring data establishing current treatment capabilities of traditional source control BMPs in the record or currently available to support the State Board's assumption. Further, there a good deal of evidence in the record, including conclusions of the Blue Ribbon Panel Report, that no BMPs—not ATS and not traditional BMPs—can consistently meet the NELs and ALs mandated by the Draft General Permit for *all* storm events and runoff conditions, because all BMPs, including ATS, are limited by their design, and flow treatment capacity. Consequently, the conclusion that the NELs merely translate the treatment capability of traditional source control BMPs for all storm events is flawed, creating a corresponding flaw in the cost analysis.

In addition, the Fact Sheet assesses only the incremental cost of obtaining the equipment necessary to conduct monitoring as required to determine compliance with the NELs. Even if the NELs merely translated existing traditional BMP treatment capabilities into numeric limits, consideration solely the costs associated with monitoring equipment to measure compliance with NELs is an inadequate analysis of economic impacts of the effluent limitations proposed in the Draft General Permit, because it does not take into account a myriad of other costs related to imposition of the new limits, including increased costs of: SWPPP development, discharge sampling, visual and pre-rain inspections, receiving water monitoring, and project delay to obtain IPs, and to re-design, re-engineer and re-permit projects as necessary to comply with hydromodification control standards. For instance, Dr. Sunding testified on June 4, 2008 that the sample costs to use the Draft General Permit's monitoring at a 5-acre site would be $10,235 for visual monitoring, and $34,765 for rain event monitoring alone. PBS&J's analysis estimates that for a 100-acre residential development, receiving water monitoring alone would range from $41,700 (Risk Level 1) to $59,328 (Risk Level 4) for the first year. PBS&J Technical Memo, p. 18. As a result, the cost and economic impact analysis conducted for the Draft General Permit falls well short of Clean Water Act and Porter-Cologne requirements for adoption of new effluent limitations.

(4) Effluent Limits Are Invalid if All Balancing Factors Are Not Considered and/or Supported by Evidence in the Administrative Record.

Although the State Board retains considerable discretion in assigning the weight to be accorded to the Balancing Factors set forth in 33 U.S.C. § 1314(b) and Porter-Cologne § 13241, the agency's decision must be supported by substantial evidence in the administrative record. *Riverkeeper, Inc. v. United States EPA*, 475 F.3d 83, 95-96 (2d Cir. 2007) (citation omitted) ("we measure the regulation against the record developed . . . ."). Full consideration of each of the Balancing Factors is mandatory. *Waterkeeper Alliance, Inc. v. United States EPA*, 399 F.3d 486, 498 (2d Cir. 2005) (Court must deem arbitrary and capricious an agency rule where the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.)

D. NELs, ALs, and Volume Reduction Requirements Fail to Comply with Applicable State and Federal Law Balancing Factors.

(1) The State Board Failed to Consider Balancing Factors in Adopting NELs.

No evidence has been cited in the Fact Sheet or provided indicating that NELs are the most appropriate industry-wide effluent limitations based on consideration of the Balancing Factors applicable to BCT determinations, including, without limitation, treatment capability of available technologies (discussed above) cost-effectiveness of implementation (discussed above), water quality benefit, and potential for adverse environmental effects. Available technical information indicates that NELs are inappropriate industry-wide pollutant control standards in light of several BCT factors, including the following. *See* detailed discussion, Technical Memo § II.

- Technical information indicates that pH NEL may not be appropriate or beneficial to receiving waters in light of background rainfall, soils and water quality conditions, particularly in light of the fact that the NEL was not derived from data that is representative of background pH conditions throughout the State.[26] The background pH of rainwater and soils varies by region within the State and influences pH levels in runoff and receiving waters in natural systems.[27] As a result, pH NELs are likely to be inappropriate industry-wide effluent limitation for many regions of the State due to the failure to consider regional background conditions prior to promulgating NELs contrary to the recommendations of the Blue Ribbon Panel. Technical Memo §§ I.1., II.1. and 3.; Blue Ribbon Panel Report, p. 16; Flow Sciences AL/NEL Report.

- Technical information indicates that the turbidity NEL limiting sediment in runoff to 1000 NTU may not be beneficial to receiving waters[28] and may have adverse environmental impacts due to the ecological role that sediment plays in the State's drainage systems, particularly in more arid and semi-arid areas of the State.[29] Technical Memo §§ I.3. and II.5; Flow Science AL/NEL Report, Chapters 6 and 7. Sediment plays an important ecological role not only with respect to geomorphic channel stability, but is also critical to support of aquatic life in certain naturally turbid systems. *Id.* For example, in several areas of both northern and southern

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26 33 U.S.C. § 1314(b)(4)(A) (consider physical characteristics of pollutants regulated); Cal. Water Code §§ 13263(a), 13241(b) (consider environmental characteristics of hydrographic unit under consideration, including influent and receiving water quality).

27 Technical Memo §§ I.1., II.1. and 3; Flow Science AL/NEL Report Chapters 4, 5, and 6.

28 California Water Code §§ 13263(a), 13241(b) (consider environmental characteristics of hydrographic unit under consideration, including water quality).

29 33 U.S.C. § 1314(b)(4)(B) (consider environmental impacts); Cal. Water Code §§ 13263(a), 13241(c); *see Citizens Coal Council and Kentucky Resources Council v. United States EPA*, 447 F. 3d 879, 900-02 (6th Cir. 2006).

California, aquatic organisms, including fish, depend upon naturally high turbidity levels for protection from predators and to support feeding due to the role of sediment in the food web. *Id.* A survey of southern California receiving water data for undisturbed watersheds indicates receiving water turbidity during storm events routinely exceeds the 1000 NTU. Flow Science AL/NEL Report Chapters 4, 5 and 6. Treatment of discharges to comply with the NEL of 1000 NTU will result in sediment deprivation in certain naturally turbid systems creating not only a violation of the Draft General Permit Receiving Water Limitation V.4., potential adverse hydromodification impacts, and potential nutrient and predator protection deficiencies adversely affecting sensitive fish species. Technical Memo §§ I.3. and II.5; Flow Science AL/NEL Report Chapter 6. For reasons such as these, the Blue Ribbon Panel specifically cautioned that sediment NELs should not be adopted without consideration of background sediment loads in receiving waters and runoff. Blue Ribbon Panel Report, pp. 16 and 17. In light of these technical concerns, mandated statewide and industry-wide compliance with the sediment NEL is not appropriate.

(2) The State Board Failed to Consider Balancing Factors in Setting ALs.

While the City supports the use of ALs to improve planning and implementation of BMPs, as for NELs, with respect to ALs, the Fact Sheet did not cite any data to suggest that ALs can be set for the majority of construction sites in California, and the formula for deriving ALs ignores certain Balancing Factors that must be considered, including treatment capabilities of various traditional construction BMPs. *See* Flow Science AL/NEL Report, p. 3, §§ 1, 3-4. Since the State Board failed to consider the mandatory Balancing Factors, the Draft General Permit must expressly assure dischargers that ALs are not effluent limits in disguise, i.e., no violations can accrue due to exceedances of ALs, and ALs will only be used to drive iterative changes to the SWPPP and construction site BMPs.

Further, in the absence or appropriate consideration of the Balancing Factors, the State Board should change the method prescribed by the Draft General Permit for deriving ALs for turbidity on a site-specific basis so that the process is simpler, may be done for more regions, incorporates data that needs to be considered under federal and state law, and assures that ALs will be derived on a site-specific basis consistent with the BCT and Porter-Cologne. *See* Flow Science AL/NEL Report, § 1.

(3) The State Board Failed to Consider Balancing Factors in Setting Volume Reduction/Flow Control Standards.

The State Board should attempt to address two threshold questions before addressing the propriety of hydromodification control standards set forth in the Draft General Permit as effluent limitations. First: are hydromodification impacts susceptible to control via a common set of standards applicable to construction sites occurring in very different climatic and geographic regions throughout California? Based on the array of tremendously variable physical conditions that must be assessed to determine whether significant adverse hydromodification impacts will

occur, and the necessity for addressing the potential for hydromodification impacts early in the planning and development process in order to design effective control features, the City proposes that hydromodification impacts must be assessed on a site by site basis, and would therefore be better considered individually by Regional Boards when issuing 401 Certifications or commenting on CEQA documents, and by Trustee Agencies.

Second: is the potential for hydromodification to result in a condition or pollution and/or adverse impacts to beneficial uses of receiving waters clearly established as necessary to support the broadly applicable effluent limitations set forth in the Draft General Permit? The Fact Sheet still provides no information indicating which waste(s) or pollutant(s) of concern the proposed post-development hydromodification pollution control standards are supposed to address.[30] It appears that based on existing scientific information and other Regional Board regulatory efforts, the goal of these standards is flow control to avoid erosion and sedimentation processes in natural channels that may unreasonably impair beneficial uses. In adopting hydromodification control standards, the State Board must rely on specific and substantial factual information related both to the character and degree to which regulated flow are a "pollutant" or "waste" or are creating a "condition of pollution that degrades the beneficial uses of receiving waters. Not all post-construction runoff from every construction site that would be regulated by the CGP has the potential to de-stabilize receiving waters resulting in adverse hydromodification effects on beneficial uses of the receiving body of water. For example, controlled flows or discharges to concrete-lined flood control channels may not have the potential to adversely affect water quality, therefore the State Board should not regulate them the same way they might a stream bed with a natural channel. Yet that is precisely what the Draft General Permit seeks to do.

Although consideration of these threshold issues indicates that post-development hydromodification control standards should not be promulgated in the construction storm water permit, if the State Board determines to retain engineering standards for hydromodification control as effluent limitations, then at a minimum, the State Board should reconsider and revise the proposed hydromodification control standards substantially to address several scientific and technical issues and concerns relevant to assessing the propriety of those standards under the Balancing Factors described above.

(a) Balancing Factors: The Treatment Process Employed and the Characteristics of Alternative Treatment Processes Available.

Without hydromodification controls, development can change a number of critical and geomorphically relevant characteristics, and a change in these variables sets up a series of mutual adjustments in companion variables with resulting potential for adverse impacts to the physical characteristics and stability of natural channels. Fact Sheet, pp. 40-45. The geomorphically relevant characteristics that can be adversely affected by development include: local channel

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30 As noted above, this appears to be an unauthorized attempt to regulate stream flow alone, not discharges of "waste" or "pollution" as defined under Porter-Cologne or the Clean Water Act. If construction site runoff adds only further to a receiving water, and does not degrade the water quality, it is not polluting the receiving water.

characteristics (e.g., bed and bank materials, and slope or grade); sediment loads, size and supply; critical channel thresholds for sediment transport; and volume, velocity and duration of discharges to and flows within the channel. Fact Sheet, p. 40 (citing the work of Lane and Rosgen); s*ee, also*, SCCWRP, *Managing Runoff to Protect Natural Streams: The Latest Development on investigations and Management of Hydromodification in California*. Technical Report 475 (December 2005) (Stein, Eric D. and Susan Zaleski ("SCCWRP 2005b"), Geosyntec Consultants, *Hydromodification Management Plan Literature Review, Santa Clara Valley Urban Runoff Pollution Prevention Program* (2002) ("Geosyntec Study") (both building upon and refining Lane and Rosgen's work), as well as Geosyntec Consultants, *Hydromodification Management Plan, Santa Clara Valley Urban Runoff Pollution Prevention Program* (2004) ("SCVURPPP Report"). These critical and geomorphically relevant characteristics can be subsumed into three categories: sediment load characteristics, discharge flow characteristics, and in-stream channel characteristics. To be appropriate, any hydromodification control effluent limitations must address the affects of development on all three categories of characteristics.

With respect to in-stream channel characteristics, it is particularly important to consider the existing condition of channels in determining the potential for hydromodification impacts. Some surface waters, particularly channels to be preserved in a natural condition, may be susceptible to hydromodification impacts, and in such cases hydromodification controls should be considered. But other types of surface waters including hardened flood control channels, large lakes, bays, the ocean, and certain large drainage systems subject to reset events) may not be susceptible to adverse effects on beneficial use due to hydromodification impacts (as distinguished from other types of pollutant impacts). Such surface waters may not need a substantial level of protection from hydromodification impacts because in those types of systems, hydromodification does not adversely affect beneficial use. *See* California Building Industry Association, Building Industry Legal Defense Foundation, Construction Industry Coalition on Water Quality, Construction Employers' Association, *Technical Issues Memorandum Comments on: National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated Construction and Land Disturbance Activities* (May 8, 2007) ("Technical Memo"), § X; *See also* Geosyntec Hydromod Report; Geosyntec ATS Report.

The hydromodification control effluent limitations in the Draft General Permit do not allow the discharger to properly address or take into account all geomorphically relevant characteristics in determining the proper approach to hydromodification control. As a result, the effluent limitations impose a flawed treatment process on dischargers subject to those requirements.

Because there are several physical variables that determine the degree to which development and construction of impervious surface will result in hydromodification impacts, there is today a correspondingly wide array of hydromodification control tools (or treatment processes) available to control development related hydromodification impacts. Technical Memo § X; Geosyntec Hydromod Report, §§ 3.10, 3.12. A substantial number of tools exist to address each of the three categories of characteristics, and often any particular tool will address

more than one of the relevant characteristics. *Id.* Available tools include: cluster development, minimizing concentration of flows, management of sediment loads in runoff from developed and natural open space areas, and in-stream controls and modifications. The most scientifically hydromodification treatment processes employ a comprehensive set of management options addressing the many different geomorphically relevant characteristics to control channel response. (*See, e.g.*, SCCRWP 2005b).

Despite the wide array of geomorphically relevant characteristics that determine the degree to which potential hydromodification impacts may occur as a result of development, the Draft General Permit mandates two hydromodification control strategies[31] that take into account and address only one of the three categories of relevant variables (i.e., the flow characteristics category), namely: pre- and post-development water balance matching, and time of concentration matching or improvement. As a result, the proposed hydromodification control effluent limitations are too simplistic to effectively address the array of environmental variables related to the hydromodification impacts targeted for regulation. More troublesome is the fact that, because the Draft General Permit hydromodification control standards solely address flow characteristics, compliance with these standards precludes the use of the wide range of other hydromodification control treatment technologies that are available and better address and control the variety of characteristics relevant to hydromodification. *See, e.g.*, Geosyntec Hydromod Report, § 3.10.

Because the proposed standards preclude implementation of effective and available alternative treatment technologies, they should not be included in the CGP pursuant to Federal Balancing Factors. They may in some instances prove to be under-protective, yet in others (e.g., discharge to a lined channel), they may be radically overprotective. However, in all cases, the effluent limitations fail to properly balance the benefits of the treatment control approach mandated by the Draft General Permit against the benefits that can be attained from other, more robust treatment control alternatives. Therefore, the volume reduction and flow control effluent limitations should not be adopted under federal law.

(b) Balancing Factors: Technical Feasibility and Cost-Effectiveness.

Preservation of Drainage Density is not Technically Feasible or Cost-Effective to Prevent Hydromodification. The Draft General Permit requires projects exceeding two acres of disturbed area to preserve the pre-construction drainage density for all drainage areas serving a first order (or larger) stream, and ensure that post-project time of runoff concentration is equal or greater to pre-project time of concentration. (DCGP § VIII.H.4.)

Compliance with these requirements is not technically feasible for the vast majority of construction projects given that construction must result in post-development projects that

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31 The three standards generally address preservation of pre-development runoff volume, preservation of drainage density, and preservation (or increase) of pre-development time of runoff concentration.

provide geotechnical stability and sufficient flood control protection and drainage systems that meet applicable local agency storm drain improvement and flood control ordinances. Volume, duration and peak flow controls, including controls to achieve proper dispersion of runoff required to avoid both localized flooding, erosion impacts at discharge points, and broader hydromodification impacts, cannot be constructed for the vast majority of project sites without some changes to miles of stream length per square mile of drainage area and/or first-order streams. Due to technical infeasibility of compliance with the proposed standards in light of existing development construction processes and methods, these standards should not be adopted.

In addition, compliance with these requirements is technically unnecessary to protect surface waters from hydromodification impacts. Technical Memo, § X; Geosyntec Hydromod Report, § 3.10. Alteration of drainage density is not a direct cause of hydromodification impacts, and drainage density and time of runoff concentration may be modified, permitting construction of development projects, without causing adverse hydromodification to natural streams and channels. *Id.*

Even where such changes may result in some impact to the receiving first order (or larger) stream, there is no evidence in the record that *everywhere* that occurs, there is a discharge of waste or pollution into the receiving first order (or larger) stream. Without such a showing, there is no reason to impose this requirement to all projects with a disturbed area of two or more acres. Without such a showing, it is inappropriate to include these requirements in the CGP.

It should also be noted that impacts related to physical alteration of drainage density related to first order streams are already regulated. Such impacts would necessarily require review under CEQA, as well as local hydromodification control regulations typically enacted in MS4 permits. Further, drainage density changes involving physical alterations to jurisdictional surface water require Clean Water Act § 404 dredge and fill permits, § 401 water quality certifications, and California Department of Fish and Game Streambed Alteration Agreements. California Fish & Game Code § 1600 et. seq.

Thus, development projects already must analyze the potential for hydromodification impacts under section 404/401 processes, CEQA, and MS4 permits. As a trustee agency under CEQA, and as the issuing agency for MS4 permits and § 401 water quality certifications, Regional Boards currently have the authority to require sufficient avoidance, minimization and mitigation as necessary to address potential hydromodification impacts that may result from impacts to drainage density. *See also* SCRWP 2005b. However, under the Draft General Permit as proposed, even permitted alterations in drainage density that are fully minimized and mitigated would violate the construction permit, preventing construction of even approved, permitted and/or vested development projects.

Mandating hydromodification controls standards that are technically infeasible to implement, and that would preclude development of approved, and/or vested projects otherwise legally permitted and approved, minimized and mitigated will have serious and adverse

economic effects on the construction industry as a whole, and the ability of the industry to provide housing will be severely compromised.[32]

Maintaining Water Balance Time of Runoff Concentration is not Technically Feasible. The Draft General Permit requires that projects shall, regardless of site slopes, soils or receiving water conditions, ensure that post-development water balance approximates pre-project water balance specifically for each of the areas covered with impervious surfaces. DCGP § VIII.H.3. Further, all projects impacting greater than two acres shall, regardless of site, soils or receiving water conditions, ensure that pre-development runoff time of concentration is essentially maintained. DCGP § VIII.H.4. These standards may be under-protective, as discussed above, but if implemented in a manner that attempts to protect receiving waters, at a minimum will be cost-ineffective and may, depending on site soils conditions and other geomorphically relevant characteristics, be technically infeasible. Technical Memo § X.

Volume and time of concentration are two flow characteristics related to hydromodification impacts that, if controlled, can help to reduce impacts. However, adjustments to control changes in other geomorphically relevant characteristics, including flow rates, flow duration, sediment loads, and in-stream channel characteristics, can also effectively control such impacts. Technical Memo § X Geosyntec Hydromod Report, § 5.2. In addition, implementation of regional flow controls for not only volume, but also duration and velocity, can be a very effective component of a hydromodification control strategy, and can provide cost efficiencies, both in implementation and in later operation and management. Technical Memo § X.

Because the Draft General Permit requirements do not allow for regional BMPs or use of tools that address other geomorphically relevant characteristics, if hydromodification impacts can be controlled sufficiently at all by complying with Draft General Permit standards, such control will be very expensive and technically difficult to achieve. Technical Memo § X. In fact, contrary to the proposed standards, available technical information shows that runoff volumes can increase and runoff time of concentration can change to some extent without causing hydromodification impacts, so long as other appropriate BMPs are implemented in a manner that prevents an increase in erosive work done on the channel. *Id.* As a result, strict compliance with these standards is not necessary or appropriate for protection of water quality, and the standards certainly do not represent "minimum" standards appropriate for implementation as industry-wide pollutant control standards. *Id.*

In addition, maintaining water balance may be technically infeasible to achieve. Maintaining water balance, without taking into account regional BMPs or controls for other geomorphically relevant factors may be infeasible because site soils conditions, groundwater levels, or geotechnical constraints preclude sufficient infiltration opportunities. Technical Memo § X. In the event that any particular development project could comply with the hydromodification standards as proposed, the methods of complying will not be nearly as cost-

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32 The potential of these standards to invalidate and prevent construction of not only future, but existing approved and vested projects also creates serious property rights issues, discussed below.

effective as implementation of a combination of available hydromodification tools addressing a full complement of geomorphically relevant characteristics can be, and therefore should not be mandated. Technical Memo § X.

In light of these and other issues regarding technical feasibility and cost, the hydromodification standards should be eliminated or substantially revised. The key policy concern is protection of natural drainages from hydromodification, rather than control of post-development flow characteristics. Control of flow characteristics is only one tool of many to achieve the policy goal. Therefore, a standard that provides sufficient flexibility to address the range of geomorphically relevant characteristics comprehensively, via a full set of available hydromodification tools, should be considered as recommended in the Technical Memo § X and the Geosyntec Hydromod Report, §§ 3, 5.

In addition to being poorly suited to control hydromodification impacts as discussed above, the proposed hydromodification control standards requiring preservation of drainage density may have adverse environmental impacts with respect to creation and restoration of wetlands and riparian habitat areas, particularly if applied at the project specific rather than watershed scale.

(c) Balancing Factors: Environmental Impacts of Effluent Limitations.

The hydromodification control effluent limitations in the Draft General Permit have the potential to adversely affect wetland and riparian habitat creation and restoration projects. These projects are sometimes the only means of redressing historical habitat losses and/or complying with the state and federal "no net loss" policies applicable to Clean Water Act § 404 permits and Fish and Game Code § 1602 streambed alteration agreements. Some alteration of drainage density and flow characteristics at a project scale is absolutely required to provide hydrology necessary to implement wetland and riparian creation and restoration projects, whether as environmentally beneficial projects or as mitigation. Technical Memo, Appendix H. As a result, these hydromodification standards as proposed are likely to have direct, adverse environmental affects on wetland and habitat creation and restoration, and indirect adverse environmental affects on the species that would use and/or occupy those habitats.

6. NUMERIC EFFLUENT LIMITATIONS AND ACTION LEVELS INAPPROPRIATELY FAIL TO COMPLY WITH THE BLUE RIBBON PANEL REPORT AND RESULT IN INAPPROPRIATE ENFORCEMENT AND POTENTIAL PENALTIES (DCGP §§IV, V, VI.8, VIII).

A. NELs Fail to Comply with Blue Ribbon Panel Report Conclusions and Recommendations Regarding Incorporation of NELs and ALs.

The State Board chose a group of storm water experts and commissioned them to prepare an expert technical paper regarding the technical feasibility of a regulatory approach based on

NELs and ALs. The Blue Ribbon Panel was not asked to recommend, and did not recommend or determine that NELs or ALs should be adopted as technology-based or water quality based effluent limits for purposes of regulating construction sites. Eric Strecker, P.E., *Stormwater Blue Ribbon Panel Recommendations to the State Water Resources Control Board,* presented at the State Board June 4, 2008 hearing on the Draft General Construction Permit. Instead, as the State Board acknowledged in the Draft General Permit, and as stated in the Blue Ribbon Report and in the June 4, 2008 hearing testimony and presentation of Eric Strecker, member of the Blue Ribbon Panel, the Blue Ribbon Panel Report determined that NELs are not feasible for all construction sites, and, in fact are only feasible in connection with implementation of ATS, which is generally only appropriate at larger construction sites. However, contrary to the findings of the Draft General Permit and the Blue Ribbon Panel, the Draft General Permit continues to purport to mandate general turbidity and pH NELs and ALs for all construction sites, regardless of the use of ATS sites on the basis of Staff's Best Professional Judgment. As discussed above, BPJ is an inappropriate process for setting effluent limitations in the absence of effluent guidelines, including NELs and ALs, and is particularly inappropriate where, as here, the State Board staff has failed to take into account legally mandated standards for determination, review the adequacy of those limits.

In addition, The Blue Ribbon Report commissioned by the State Board identified 13 different reservations and concerns regarding adoption of NELs even at construction sites where ATS is to be used to control storm water quality. The Blue Ribbon Panel recommended that all 13 concerns should be addressed and resolved prior to promulgation of NELs. Many if not all of those 13 concerns remain unaddressed by technical information and evidence.

For example, the Blue Ribbon Report stated that NELs and ALs should not apply to storms of unusual event size and/or pattern (e.g. flood events), and recommended that BMP capacity and sizing (specifically the water quality capture volume) should be considered in the context of the differing climate characteristics of a particular regions to specify appropriate storm events to regulate and those not appropriate for regulation by NELs and ALs. The Blue Ribbon Report also recommended State Board consideration of the following factors in deriving and applying NELs and ALs, as emphasized by Eric Strecker in his June 4, 2008 presentation:

- ALs and NELs should be derived in a manner that considers the site's climate region, soil condition, and slopes, and natural background conditions (e.g. vegetative cover) as appropriate and as data is available.

- NELs cannot yet be properly derived based on available monitoring data except for ATS effluent.

- NELs are not feasible for construction sites where traditional erosion and sediment controls are applied or for construction sites that are considered "stabilized" for the runoff.

- Only ALs should only be used for construction sites where traditional erosion and sediment controls are applied or for construction sites that are considered "stabilized" for the runoff.

- ALs should only be set by using a statistically derived value at which all operators would agree that discharge concentrations are well above the norm; average discharge concentrations should *not* be used to evaluate compliance with numeric limits.

- Neither NALs nor ALs should apply storm events of unusual size or pattern due to limited treatment capacity of all construction BMPs.

- In deriving and applying ALs and NELs, major costs of monitoring should be considered before adoption.

- Implementation of NELs should be phased in a manner commensurate with the dischargers' and industry's ability to respond.

- ALs and NELs should be derived using local monitoring data to achieve appropriate controls that takes into account climate region, soil condition, slopes, and natural background conditions of regulated sites.

The City supports the use and derivations of ALs in accordance with the Blue Ribbon Panel Report to guide improved planning and implementation of a BMP-based approach to construction water quality control. Currently, however, the Draft General Permit contains AL values that do not address, or take into account the Blue Ribbon Report recommendations, including recommendations to calculate AL values based on an appropriately robust local dataset that takes into account background water quality conditions.

Further, with respect to sediment, a number of qualified engineering experts have been unable to calculate site-specific ALs using the calculator in the Draft General Permit. While it may be a bit premature to adopt ALs based on limitations on calculating and appropriate AL value for inclusion in the permit, the City would support adoption of ALs if the issues related to establishing the value of the numeric limit can be adequately addressed and simplified, based on:

- the recommendations of the Blue Ribbon Report;

- the water quality benefits associated with developing tools to assist in improving planning and implementation of construction site BMPs;

- inclusion in the General Draft General Permit that exceedances of ALs do not create any basis for enforcement actions or penalties under the CGP.

In accordance with the Blue Ribbon Report, the City can also anticipate that there may be a time in the future when all properly derived NELs might be identified, provided that necessary local climate, soils, precipitation, and water quality data, economic analysis, and other technical data and information has been obtained and analyzed as recommended by the Blue Ribbon Panel and required by State and Federal law. However, data and information identified by the Blue Ribbon Panel as critical to establishing feasibility of NELs and appropriate NEL values is not yet available. As a result, the City Supports the Blue Ribbon Panel recommendation to gather appropriate and needed data and analysis prior to establishing NELs in the CGP.

Importantly, no scientific research or study that is more relevant or credible than the Blue Ribbon Panel Report has been produced or submitted that refutes the conclusions of the Blue Ribbon Report regarding ALs and NELs. As a result, substantial evidence supports eliminating NELS from the Draft General Permit, and proper derivation of ALs taking into account recommendations and reservations of the Blue Ribbon Panel to yield an appropriate values to assist in improving water quality controls without giving rise to enforcement risk. Given that the State Board commissioned and devoted public resources to the Blue Ribbon Panel's work on NELs and ALs, rather than disregard the Blue Ribbon Report in the promulgation of the NELs and ALs, the City would support reconvening Blue Ribbon Panel to peer review and make recommendations regarding the NEL and AL provisions of the Draft General Permit.

B. Adopting NELs Will Result in Inappropriate Enforcement and Penalties Under State and Federal Law.

Under state law, the State Board is charged with the primary responsibility for the "coordination and control of water quality" (Water Code § 13001), and it "shall formulate and adopt state policy for water quality control." Water Code § 13140. Porter-Cologne defines "quality of water" as the "chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affect its use." Water Code § 13050(g). "Waste" is broadly defined to include "sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human origin, or from any producing, manufacturing, or processing operation . . . ." Water Code § 13050(d). And "pollution" means "an *alteration* of the *quality* of the waters of the state by waste to a degree which *unreasonably affects* either . . . [¶] [t]he waters beneficial uses[, or] [f]acilities which serve those beneficial uses." Water Code § 13050(l)(1) (emphasis added).[33]

The State Board is only authorized to regulate "discharges" of "waste" that may produce a condition of pollution, or an "alteration" in the chemical, physical, biological, bacteriological, radiological or other characteristics of water which affect its beneficial uses. *See, e.g.*, Water Code §§ 13263(a), (j) (authorizing the State Board to set *waste* discharge requirements); 13263.3 (endorsing pollution prevention plans and imposing requirements to "reduce, avoid, or eliminate

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33 Notably, not all discharge of waste is *pollution* under Porter-Cologne. Water Code § 13241 ("[I]t is recognized that it may be possible for the quality of water to be changed to some degree without unreasonably affecting beneficial uses.")

the generation of pollutants discharged in wastewater"); 13260 (requiring "any person *discharging waste*, or proposing to discharge waste, within any region that could *adversely affect the quality* of the waters of the state, other than to a community sewer system" to file a report of the discharge with the appropriate regional board).

Porter-Cologne also designates the State Board as "the state water pollution control agency for all purposes stated in the [federal Clean Water Act] . . . ." Water Code § 13160. The State Board is acting under its dual authority in formulating the Draft General Permit, and ultimately issuing a new CGP. 33 U.S.C. §§ 1311, 1342(p); Draft General Permit, Order No. ____; NPDES No. ____ ("The Discharger shall comply with the requirements in this Order to meet the provisions contained in Division 7 of the California Water Code (commencing with section 13000) . . . , *and* the provisions of the federal Clean Water Act . . . ." (emphasis added).)

Under the Clean Water Act, the objective of the Act is to restore and *maintain* the chemical, physical and biological integrity of the Nation's waters by *controlling and eliminating the discharge of pollutants.* 33 U.S.C. § 1251 (emphasis added). The Clean Water Act further defines "pollution" as "the *man-made or man-induced alteration* of physical, biological, and radiological integrity of water." 33 U.S.C. §1362(19). Thus,

> in the absence of an actual addition of any pollutant to navigable waters from any point, there is no point source discharge, no statutory violation, no statutory obligation of point sources to comply with EPA regulations for point source discharges, and no statutory obligation of point sources to seek or obtain an NPDES permit in the first instance.

Waterkeeper Alliance, Inc. v. USEPA, 399 F.3d 486, 505 (2d Cir. 2005) (holding that "[t]he CAFO Rule violates this statutory scheme [because] [i]t imposes obligations on all CAFOs regardless of whether or not they have, in fact, added any pollutants to the navigable waters, i.e. discharged any pollutants").

The Clean Water Act requires the enforcement agency to find that a discharger is in violation in order to bring an enforcement action. 33 USC § 1319.[34] Porter-Cologne requires the same for enforcement to occur against a discharger. Water Code § 13385.

As set forth above, under state and federal law, naturally-caused and naturally-variable loads and concentrations of certain constituents, such as sediment and pH, discharged in runoff that do not adversely or unreasonably affect beneficial uses or alter the chemical, physical or biological integrity of waters do *not* constitute or create "pollution" or "waste" as defined by the Clean Water Act. Further, nowhere in the Clean Water Act or Water Code is the State Board

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34 "To establish a violation of the CWA's NPDES permit requirement, a plaintiff must show that defendants (1) discharged (2) *a pollutant* (3) to navigable waters (4) from a point source." *Headwaters v. Talent Irrigation District, 243 F.3d 526* (9th Cir. 2001).

authorized to regulate the naturally occurring (though highly variable) discharges of chemical, biological or physical constituents in runoff that, as discharged, are not of sufficiently poor quality or quantity to constitute and discharge of "pollutants" or "waste" to create a condition of "pollution," or to alter the quality of waters in a manner that adversely affects beneficial uses or facilities that serve beneficial uses.

As stated by State Board staff at the May Workshops, the provisions of the Draft General Permit as currently written will result in permit violations that may, in the discretion of the Regional Board, be prosecuted resulting in civil and criminal penalties *even when the exceedance of the NEL does not cause or contribute to an exceedance of water quality standards that, by definition, protect beneficial uses of the receiving water body, and/or does not exceed background receiving water levels of sediment or pH.* The State Board staff justifies this position on the theory that a violation may be prosecuted despite the absence of pollution, waste or adverse affects on water quality or beneficial use, purportedly because the NELs are ostensibly TBELs[35] and not water quality based effluent limitations ("WQBELs"). However, the mere regulatory act of setting of a TBEL, particularly when it is not derived in accordance with applicable legal requirements, cannot imbue the State Board or Regional Boards with authority to enforce violations that do not create waste, pollution or an unreasonable adverse affect on water quality or beneficial uses. As a result, the Draft General Permit provisions purporting to create such enforcement liability are not consistent with the scope of the water boards' authority under the State Water Code or the Clean Water Act.

Not only does the Draft General Permit currently create enforcement authority outside the scope of authority provided to water boards under state and federal law, it also subjects dischargers to payment of penalties that, in the Regional Board's discretion, may exceed Minimum Mandatory Penalties for the first violation of NELs. Further, if three or more individual monitoring results at any individual discharge point for any construction site exceed the NELs, the Regional Board must assess Mandatory Minimum Penalties (MMPs)for the three exceedances, even if they all occur within a single, two-day storm event.

Given the broad enforcement discretion that the Preliminary Draft General Permit purports to grant to Regional Boards, and the possibility for application of MMPs, fines and enforcement liability for exceedances of NELs can grow exponentially, even though exceedances never constitute a discharge of waste or pollutants, and never adversely affect water quality or beneficial uses in violation of the state and federal law provisions cited above.

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35 As discussed in Section 5 above, the NELs are not properly established TBELs and notably do not take into account the NELs are not set in accordance with requirements for establishing TBELs, and notably have not been based on evidence of the treatment capabilities of BMPs. In fact, no data exists describing the treatment capabilities of various construction source control BMPs for the State Board to use to properly establish TBELs, so currently the NELs represent an arbitrary limit without basis in substantial evidence regarding technological treatment capability.

Further, one exceedance of an NEL triggers enhanced and expensive receiving water monitoring for life of a construction project, even if the failed BMP has been corrected. DCGP, Attachment A at pp. 5-6. The adoption of NELs that result in draconian enforcement and potential penalties without causing a condition of pollution creates a compliance trap that is improper under state and federal law. Consequently, the City requests deletion of NELs from the Draft General Permit.

7. NEW DEVELOPMENT AND RE-DEVELOPMENT POST-CONSTRUCTION STORM WATER PERFORMANCE STANDARDS IMPROPERLY REGULATE POST-CONSTRUCTION IMPACTS, CREATE UNCERTAINTY FOR LOCAL LAND USE APPROVALS, IMPROPERLY REGULATE FLOW, AND ARE TECHNICALLY INFEASIBLE TO COMPLY WITH AS PRESCRIPTIVE REQUIREMENTS UNLESS A SAFE HARBOR IS ESTABLISHED BY ATTACHMENT F (DCGP § VIII.H).

We support the change in the Draft General Permit to exclude projects that are required to comply with MS4 permits containing storm water performance standards from the Permit's post-construction hydromodification provisions.

However, the Draft General Permit still retains the requirement that all other construction sites (mainly in rural communities) must replicate pre-project water balance (*i.e.*, same volume of runoff before and after construction) and—for projects whose disturbed area exceeds two acres—preserve the pre-construction drainage density for all drainage areas serving a first-order stream or larger, and ensure that the time of runoff concentration is equal to or greater than it was pre-construction.

A. The State Board May Not Regulate Post-Construction Conditions in a CGP.

The Draft General Permit ignores a fundamental legal fact: a *construction* general permit is meant to apply to the *construction* phase of a project. The term and duration of a storm water construction permit commences at the onset of construction activity and ends with final stabilization. *See* SWRCB NPDES General Permit No. CAS000002, *Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity*, pp. 5-6.

There is no legal authority to regulate the *post*-construction condition of any project in a CGP as the Draft General Permit attempts to do. There is no legal authority for extending the reach of a CGP to post-construction conditions, such that the CGP regulates both the fundamental design of development projects *before* construction in order to effectively regulate the "construction site" forever after construction is complete. Only a change in state or federal law could authorize such a far-reaching new requirement for all construction sites throughout rural California.

B. The Clean Water Act and Porter-Cologne Act Do Not Authorize Regulation of Flow Absent a Specific Showing of Pollutants or Waste.

The Draft General Permit's prohibitions of hydromodification for rural construction sites simply control flow per se. There is no evidence in the record that flow control is tailored so that only applies where there is the potential for a condition of pollution or adverse affects on beneficial use to result from hydromodification.

The State Board is charged with the primary responsibility for the "coordination and control of water quality," (Water Code § 13001) and it "shall formulate and adopt state policy for water quality control." Water Code § 13140. The Porter-Cologne Water Quality Act defines "*quality* of water" as the "chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affect its use." Water Code § 13050(g). "Waste" is broadly defined to include "sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human origin, or from any producing, manufacturing, or processing operation . . . ." Water Code § 13050(d). And "pollution" means "an alteration of the *quality* of the waters of the state by waste to a degree which unreasonably affects either . . . [¶] [t]he waters beneficial uses[, or] [f]acilities which serve those beneficial uses." Water Code § 13050(l)(1) (emphasis added).[36]

Nowhere in the Water Code is the State Board authorized to regulate the *volume* of water discharged to waters of the state per se, absent a specific showing of the affects that the volume of water will have on specific, or at a minimum, regional receiving waters. The State Board is only authorized to regulate "discharges" of "waste" that may produce an "alteration" in the water quality that adversely affect beneficial uses. *See, e.g.*, Water Code §§ 13263(a), (j) (authorizing the State Board to set *waste* discharge requirements); 13263.3 (endorsing pollution prevention plans and imposing requirements to "reduce, avoid, or eliminate the generation of *pollutants* discharged in wastewater") (emphasis added); 13260 (requiring "any person *discharging waste*, or proposing to discharge waste, within any region that could affect the *quality* of the waters of the state, other than to a community sewer system" to file a report of the discharge with the appropriate regional board) (emphasis added).

Porter-Cologne also designates the State Board as "the state water pollution control agency for all purposes stated in the [federal Clean Water Act] . . . ." Water Code § 13160. The State Board is acting under its dual authority in formulating the Draft General Permit, and ultimately issuing a new CGP. 33 U.S.C. §§ 1311, 1342(p); Draft General Permit, Order No. ____; NPDES No. ____ ("The Discharger shall comply with the requirements in this Order to meet the provisions contained in Division 7 of the California Water Code (commencing with section 13000) . . . , *and* the provisions of the federal Clean Water Act . . . ." (emphasis added).)

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36 Notably, not all discharge of waste is *pollution* under Porter-Cologne. Water Code § 13241 ("[I]t is recognized that it may be possible for the quality of water to be changed to some degree without unreasonably affecting beneficial uses.")

The Draft General Permit hydromodification provisions regulate flow without exemptions for projects discharging to lined or other water bodies that are not susceptible to degradation due to hydromodification. Thus, they prohibit flow that will not cause any pollution, and will not result in any adverse effect on beneficial uses. Absent substantial evidence of the nexus between flow control effluent limitations and specific receiving waters protected from a condition of pollution, the effluent limitations are not consistent with the Clean Water Act or Porter-Cologne.[37]

C. The General Construction Permit is Not The Appropriate Vehicle For Regulating Post-Construction Impacts.

Hydromodification impacts are more properly regulated as "post-construction" impacts through integration with the appropriate local agency environmental and land use planning process, including the CEQA process and Section 404/401 permitting process – not in a general permit that applies to the construction phase of a project. Regulation of the post-construction condition via hydromodification is regulation that affects project planning and design. Under CEQA and the Clean Water Act § 401 and § 404 process, hydromodification impacts and controls must currently be analyzed and addressed as a part of the local environmental and land use process, which encompasses project planning, approvals and environmental review.[38]

Inclusion of hydromodification requirements in the Draft General Permit requires that the hydromodification controls planned for a project when it is approved must be re-analyzed and potentially changed at the point of grading permit, creating uncertainty for locally issued environmental and land use approvals and requiring redesign and retrofit and local re-permitting, which resulting in adverse economic impacts to local agencies and project applicants. These adverse affects on development are compounded by the fact that the requirements appear at this point to apply to all projects—even those impacting only one acre—and by the new public review opportunity, which, as discussed below, gives an additional opportunity for the public to challenge hydromodification controls approved during the local agency planning process.

D. The Performance Standards Lack The Clarity Required to Satisfy Due Process.

The City is also concerned about the precision of the proposed hydromodification control performance standards. As currently drafted in the Draft General Permit, these provisions raise

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37 In *PUD No. 1 of Jefferson County v. Washington Dept. of Ecology*, 511 U.S. 700 (1994) the Supreme Court held that the state may, as a condition of a § 401 Certification, impose a permit condition derived from state law that a dam operator maintain minimum stream flows to protect salmon and steelhead runs. Here, the State Board may believe that it has authority under State law to regulate flows—even if they contain no "waste" and cause no "pollution" of the receiving waters—to protect aquatic beneficial uses somewhere in the watershed. However, Porter-Cologne does not expressly authorize the State Board to regulate flows except as necessary to protect beneficial uses to prevent discharges of *waste*.

38 Of the nine hydromodification regulatory schemes that it studied, Geosyntec notes that every one applies at the design phase of project planning and permitting. Geosyntec Hydromod Report § 4.3.5.

significant due process concerns because the performance standards do not provide the regulated community with sufficient detail regarding compliance obligations. There are two areas that are sufficiently vague to jeopardize effective compliance.

First, State Board staff indicated at the workshops that the intent of the Draft General Permit provisions is that a discharger will be deemed to have complied with the hydromodification control performance standards set forth in DCGP § VIII.H if the formula contained within Attachment F is followed; however, there is no protective language in the Draft General Permit to assure compliance if Attachment F is followed.

Second, for those construction projects that disturb greater than two acres, the discharger is required to "preserve the pre-construction drainage density for all drainage areas serving a first-order stream or larger stream." DCGP, § VIII.H. It appears from the Draft General Permit that this provision may mean that pre-development drainage patterns of construction sites with first order streams must be preserved intact despite grading operations and development of impervious surface, but that is unclear, and the standard is a novel one. This provision should be clarified, and dischargers provided guidance regarding how one "preserves pre-construction drainage density."

E. Imposing Hydromodification Requirements in The CGP is Legally Questionable and Poor Public Policy.

Under the Draft General Permit as proposed, even permitted alterations in drainage density that are fully minimized and mitigated would violate the construction permit, preventing construction of even approved, permitted and/or vested development projects. It is legally questionable and unwise policy to require construction projects that have earned fully vested rights to build according to their issued building permits to re-design the project to conform with this new requirement, especially where there is no clear benefit. *See Avco Community Developers, Inc. v. South Coast Reg' Comm'n*, 17 Cal.3d 785, 791 (1976) (once a developer has obtained a building permit and performed substantial work in good faith reliance on the permit, the developer has a vested right to construct the project as designed).[39]

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39 California law allows at least two other means of obtaining vested rights, namely a vesting tentative map (Gov. Code §§ 66498.1-66498.9), and by entering development agreements with local governments. Gov. Code §§ 65864-65869.5. The California legislature takes vested rights so seriously that the only protection of public health and safety can overcome these rights. *Marriage of Bouquet*, 16 Cal.3d 583, 592 (1976); Gov. Code § 66498.1(c) (vesting tentative map rights may be further conditioned or subsequent approvals denied if the agency determines that a failure to do so would place community members in a condition dangerous to their health or safety).

8. PUBLIC PARTICIPATION REQUIREMENTS CREATE NEW AND UNLIMITED OPPORTUNITY TO CHALLENGE LOCAL AGENCY ENVIRONMENTAL AND LAND USE APPROVALS (DCGP § II.A. VI., XII).

The Draft General Permit continues to provide an unprecedented new opportunity for third parties to comment on and challenge land use approvals for an *unlimited period of time after* local agency staff has invested what may literally be years of work on issuance of a host of environmental, planning and land use approvals and *at the point of grading permit issuance*, just before anticipated groundbreaking. As a result, the Draft General Permit creates tremendous uncertainty for local agency environmental and land use approvals, and the potential for a great deal of inefficiency and wasted City resources and staff time.

Currently, the Draft General Permit specifies that construction project proponents must file Notices of Intent ("NOIs"), Storm Water Pollution Prevention Plans ("SWPPPs") and other Project Review Documents ("PRDs") online for public review and comment fourteen days prior to initiating construction activities. As illustrated by the list of typical local agency environmental and land use approvals set forth below and depicted in Attachment A to this letter, incorporated herein by reference, by the time a project proponent applies for coverage under the CGP, a project has already received numerous local environmental and land use approvals, and the public will have had multiple opportunities for comment and challenge. Further, and the project's major features are final, including land use designations, planning approvals, CEQA approvals, parcel boundaries, backbone infrastructure, and site design approvals as follows:

1. **Land Use Approvals**—including General Plan, Specific Plan, Zoning and Use Permits or Variances. If a project requires an amendment to any local ordinance, use permit, or variance, the public is afforded an opportunity to review and comment on the project. City council, planning commission, and redevelopment agency hearings are publicly noticed and open to the public. Public review of the project under land use laws and CEQA, including planning commission and city council hearings are held.[40]

2. **Subdivision Map Act and Backbone Infrastructure Plan Approvals**—including Tentative Tract or Parcel Maps, and Backbone Infrastructure approvals.

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40 Every discretionary approval in steps 1 through 6 of this list must be reviewed under CEQA to determine if it will have a direct or reasonably foreseeable indirect impact on the environment that has not been previously analyzed and reviewed by the public. If so, the project must undergo CEQA review. Pub. Res. Code § 21080(a). Unless the project is exempt from CEQA, that review necessarily includes public notice and circulation of a draft Environmental Impact Report ("EIR") or Negative Declaration. Pub. Res. Code, § 21092(b); 14 Cal. Code Regs. § 15087(a) [draft EIR notice]; Pub. Res. Code § 21092(b); 14 Cal. Code Regs., § 15372 [proposed Negative Declaration].) If an EIR is required, the lead agency must give public notice and an opportunity to comment on the scope and content of the EIR at the very outset of the CEQA process. Pub. Res. Code, § 21092.2; 14 Cal. Code Regs. § 15082. Indeed, if any person is not satisfied with the adequacy of CEQA review, he or she may file a petition for writ of mandamus and challenge the action in court. Code Civ. Proc. § 1094.5.

At this point, the project plan begins to become "hardlined," particularly after backbone circulation and storm drain improvement plans have been approved. Substantial investment of City and applicant time and resources have been invested by this point in project review, consulting, engineering, and environmental review work for the project. Public review, comment and hearings must be held for approvals of Subdivision Map Act approvals and under CEQA. Backbone infrastructure approvals are also typically subject to public hearings before the planning commission.

3. **Site Plan and Infrastructure Utility and Improvement Plans**—At this point, the project has completed planning and is in the design phase. Project Plans are substantially "hardlined," and local agency and applicant time and resources investments are extremely significant. Public hearings are typically required for Site Plan approvals before the planning commission under local ordinance and under CEQA.

4. **Responsible Agency Permits**—if a project may impact any federally or state listed threatened or endangered species, or any water of the U.S. or the state, the project must undergo extensive permitting or a formal consultation processes under federal and state law, all of which require public notice and comment as part of the process, and environmental approvals under CEQA and the National Environmental Policy Act.

5. **Grading and Infrastructure Construction Permits**—commencement of grading and infrastructure installation is approved. Public review of grading and infrastructure permits typically *is not* required. At that point, the investment of time and resources made in project approvals by local agencies and the applicant is extremely substantial, and typically *years* of work have been completed. Nevertheless, currently the Draft General Permit requires filing the NOI and other PRDs at this point, and authorizes an unlimited period for public comments and challenge, lasting through acceptance of Notice of Termination ("NOT") under the CGP.

   The unlimited comment and challenge period is combined with the authorization by the Draft General Permit of a host of new Regional Board actions that may be taken in response to the public comments and challenges. Regional Board responses authorized by the Draft General Permit include stopping a project to require yet another public hearing, a new Risk Determination, or an IP; mandating changes in project design or infrastructure to accommodate post development runoff volume control standards; or enforcement and assessment of retroactive liability for operators who proceeded with grading and development upon acceptance of PRDs, but after public challenge are found to have made an improper Risk Determination or some other mistake. Alternatively, the Regional

Board may pursue existing, normal enforcement authority or mandate more reasonable actions related to amendment or modification of SWPPPs.

6. **Final Tract and Parcel Maps—Building Permits**—vertical construction is approved. Public hearings are typically held on final maps under the subdivision map act. Typically additional CEQA review is not required at this stage. The Draft General Permit opportunity for public comment and challenge continues. As a result, project local land use and environmental approvals remain subject to rescission or suspension.

7. **Certificate of Occupancy**—vertical construction is certified as complete and ready for occupancy. Typically no CEQA review or public hearings are required. However, the Draft General Permit opportunity for comment and challenge continues, so project local land use and environmental approvals remain subject to rescission or suspension.

8. **Notice of Termination**—project is completed and stabilized. Draft General Permit opportunity for comment ends. Regional Board may require retrofitting of the completed project to address volume reduction facilities necessary to meet post-development volume reduction and flow control requirements, for which compliance is determined at NOT.

As this list of typical approvals demonstrates, at every step of the way for public (and private) projects, there is ample opportunity for public notice and meaningful public participation and comment on all project issues, including water quality compliance.

For reasons that remain unclear, the Draft General Permit provides yet another round of public comment, for an *unlimited* period of time, at the very moment that local agencies have completed, typically over the course of several years, all planning, CEQA and design reviews. Worse, the public is not restricted to commenting on construction or water quality issues. Thus, anyone opposed to a project may attempt to delay or defeat it *for any reason* beginning just days before groundbreaking and last through to completion of all construction.

By the time these public comments may appear, the project proponent has mobilized significant resources and contracted for construction services from a host of contractors, subcontractors, and suppliers of construction materials all scheduled to arrive in two weeks at a construction site to start building the project as it was designed months, if not years, before. Halting a construction project less than two weeks from groundbreaking to consider yet another round of public comments challenging a project imposes delay, associated costs, and risk of legal liabilities on public agencies and private developers alike, not to mention the delays and costs imposed on contractors, subcontractors and suppliers poised to begin construction. Further, to the extent that comments are made regarding project design modifications to address volume reduction requirements or flow controls, project modifications can now only be made at

substantial cost and by addition of further delay, because the project has proceeded well past the primary period of environmental and planning review.

The result of the Draft General Permit public participation provisions is tremendous uncertainty, the potential for delay, "late hits" against locally approved projects, and the potential for significant additional cost associated with project modifications and/or newly required permits and approvals. The City requests revisions to these Draft General Permit provisions to address the difficult issues they create for local agencies. Such revisions can be accomplished without sacrificing sufficient public participation in the CGP process.

A. Draft General Permit Public Participation Provisions Are Not Legally Required.

The Fact Sheet cites two federal court cases to support the proposed public participation requirements in the Draft General Permit: *Environmental Defense Center, Inc. v. USEPA*, 344 F.3d 832 (9th Cir. 2004) and *Waterkeeper Alliance, Inc. v. USEPA*, 399 F.3d 486 (2d Cir. 2006). However, neither case requires or supports the broad public participation provisions of the Draft General Permit as drafted. In addition, though not cited in the Fact Sheet, *Divers' Environmental Conservation Organization v. State Water Resources Control Board,* 145 Cal.App.4th 246 (2006) provides additional support for *not* including the kind of public participation included in the Draft General Permit.

State Board staff has correctly observed that "neither of these court cases are directly applicable to states implementing the USEPA regulations" for CGPs. Fact Sheet, p. 6. Nevertheless, the Draft General Permit still contains these requirements. An analysis of applicable cases makes it clear that the Draft General Permit can be amended consistent with federal and state law to incorporate public participation requirements that do far less damage to, and wreak less havoc on the local land use and environmental process and approvals.

First, the State Board's own Senior Staff Counsel concluded that the Ninth Circuit's ruling in *Environmental Defense Center* "is limited to the small MS4 regulations, *and does not necessarily apply to other permits, such as general construction and general industrial.*" Elizabeth Miller Jennings, Senior Staff Counsel IV, *USEPA Guidance Implementing Partial Remand of the Storm Water Phase II Regulations Regarding Notices of Intent and NPDES General Permitting for Phase II MS4s*, April 22, 2004 (emphasis added). As Ms. Jennings notes, the *Environmental Defense* case involved public participation with respect to the issuance of small MS4 permits – and does *not* apply to coverage of individual construction projects under a construction general permit, or any other type of general permit. Thus, the case is inapposite, and provides no legal authority for the Draft General Permit requirements. Further, as upheld in The Divers' case discussed below, the Phase II MS4 permit at issue in *Environmental Defense Center* did not contain the substantial and stringent limitations set forth in the Draft General Permit, which restrict the flexibility that permittees have in complying with permit standards. As a result of the more prescriptive requirements in the Phase II MS4 permit, less permittee

discretion creates less opportunity and need for public review and comment beyond opportunities already available under existing law.

Second, the court in *Environmental Defense* held that the public was entitled to access the records of small MS4s, but it strongly suggested that had EPA simply made NOIs publicly available during business hours, that would have allowed for sufficient public participation. *Environmental Defense Center,* 344 F.3d at 857. Thus, the level of public participation that the Ninth Circuit believes necessary to satisfy the public participation requirement for issuance of small MS4s is filing and comment on NOI, and does not require public review of *all* PRDs and new Regional Board authorities to respond to those review processes. As a result, the Draft General Permit public participation requirements could and should be substantially limited to be more consistent with *Environmental Defense Center,* and less damaging to local land use and environmental approval processes.

Third, in the *Waterkeeper* case the Second Circuit held that EPA's rule regarding Confined Animal Feeding Operations ("CAFOs") required public participation and the opportunity to call for hearings regarding the individual nutrient management plans that are prepared pursuant to the CAFO permits. *Waterkeeper*, 399 F.3d at 503. As with *Environmental Defense Center*, the *Waterkeeper* court was concerned that the public was denied *all* access to public registration documents and nutrient management plans, and the CAFO permit so lacked substitutive standards for water quality control, that the court concluded dischargers had sufficient flexibility to fail to include BMPs in their nutrient management plans without recourse. *Id.* at 502-503. Unlike the CAFO Rule in *Waterkeeper*, the Draft General Permit has been specifically strengthened to incorporate more substantive and comprehensive water quality requirements to limit compliance discretion and instances of failure comply. Further, *Waterkeepers* did *not* require that an entirely new public process and opportunity for challenge to local land use and environmental approvals must be developed to address the deficiency. *Id.*

Finally, in *Divers'*, asserted that allowing the Navy to develop a prevention plan, including BMPs, delegated too much discretion to the Navy and deprived the public of its right to participate in permit issuance. The court of appeal disagreed:

> Our review of the record does not support this contention. The requirements of the prevention plan the Navy must develop are set forth in an *18-page attachment* to the permit. The attachment sets forth in some detail what the plan must include in terms of identifying sources of pollution, monitoring, recordkeeping and reporting. In particular, we note the permit provides that 'upon notification by the Regional Board and/or local agency that the [prevention plan] does not meet one or more of the minimum requirements of this Section,' the Navy must revise the plan and implement additional BMPs that are effective in reducing and eliminating pollutants in its discharges. Thus the permit both carefully limits the Navy's discretion in developing a prevention

> plan and provides for meaningful regulatory review of the prevention plan.

Divers' Environmental Conservation Organization v. State Water Resources Control Board, 145 Cal. App. 4th at 262-263.

In the case of the Draft General Permit, the permit and attachments total well over 120 pages, more than seven times more pages of detailed instructions regarding SWPPP preparation and appropriate water quality control measures than held sufficiently detailed to limit the permittee's discretion in *Divers'*, and to provide for meaningful regulatory review of the prevention plan to be developed under the discharger's permit.

Based on *Divers'*, no additional public participation is required because the Draft General Permit includes specific standards for SWPPP implementation and water quality control. Neither *Environmental Defense Center* nor *Waterkeeper* requires additional public participation under circumstances like those in this case and in *Divers'*.

These cases certainly do not require an unlimited period for public comment and challenge, a Regional Board hearing on the PRDs, rescission or retroactive enforcement of imposition of penalties as provided by the Draft General Permit. By taking this unprecedented leap to provide another opportunity for project challenge, the State Board unnecessarily generates significant risk of additional costs, delay and administrative burdens for permittees who have already complied with all other federal, state and local laws, and the agencies that have issued those approvals. The Draft General Permit should be amended to eliminate, or substantially limit the public participation provisions.

B. Practical and Policy Issues Associated with Implementation of Public Participation Requirements.

In addition to the fact that the public participation provisions are not legally required, they present some serious policy issues. From a local land use planning perspective such a late review of approved projects allows project opponents another "bite at the apple" to challenge a project on any basis. This has the potential to "undo" municipal planning and approval processes. In a recent rulemaking, EPA noted the responsibility and authority of local government over land use planning "to protect infrastructure and achieve local resource goals" as one of the reasons that it was not appropriate for EPA to regulate certain post-construction impacts as part of its construction program. 69 Fed. Reg. 22,480 (April 26, 2004); 67 Fed, Reg. 42,644 (June 24, 2002).

C. Public Participation Requirements Contain More Questions Than Answers.

We are also concerned about implementation and enforcement of the public participation provisions contained within the Draft General Permit. There are a number of unanswered

questions that remain – many of which were asked but not answered at the May Workshops held by staff. These unanswered questions include, but are not limited to the following:

- Will comments be limited to issues covered under the Permit?
- Will comments be limited to construction water quality issues?
- Will Regional Boards be required or have the option to respond to comments, and if so, how?
- Will the discharger have the opportunity to respond to comments, and if so, how?
- Will the discharger be provided notice of and access to the comments received?
- How long will comments be taken? For the entirety of coverage of project? Or will there be a cut-off for receipt of comments on a project?
- PRDs must be "accepted" before construction activities are permitted, but it is unclear what "acceptance" means from a practical perspective?
- When and under what circumstances will a hearing be required?
- What happens if a project's PRD has been accepted and construction activities have commenced but then the Regional Board receives a comment that merits some consideration? Will the Regional Board stop construction at that time?
- How long does a Regional Board have to investigate comments and determine if the comments warrant further review of a project?
- When do PRDs require an update? Anytime a project changes, even if the change is insignificant?

As described in some detail in the list above, there are a number of unanswered questions regarding implementation of the proposed public participation requirements. These issues must be resolved before these requirements become effective. The Draft General Permit proposes implementation of these new public participation requirements within 100 days of permit adoption, but provides no guidance to Regional Boards with respect to a long list of procedural questions that must be properly addressed to protect due process. One hundred days will not allow the Regional Boards time to draft policies to deal with these issues.

Moreover, it makes little sense to have the individual Regional Boards answering all of these questions on their own. That will lead to inconsistency in application of these requirements and tremendous confusion on behalf of the regulators and regulated community. The variation in approaches to these requirements will create competitive disadvantages in certain jurisdictions

resulting in an inability of municipalities to perform and attract development within their boundaries.

The failure to limit comment period, failure to limit topics of comment to water quality related items (rather than planning and design issues) and the failure to limit response to comment by the Regional Boards, illegally and improperly puts the Regional Boards in the position of second guessing municipal planning and entitlement approvals, and gives rise to unreasonable exposure of permittees to enforcement liability. These unanswered questions also give rise to significant due process concerns.

D. Recommended Alternative Approaches for Public Participation.

If the State Board determines that it is necessary to include a public review period for PRDs at all, which is a position in direct conflict with *Divers'*, it must carefully define the requirements and procedures for such a process. At most, the Permit should allow public review of PRDs and SWPPPs for a very limited time period, and that review should be limited solely to the issues covered by the CGP – not issues that were already raised in CEQA process. The review and comment should be limited to water quality issues associated with construction (not post-construction, which could require significant re-design of project at late stage of development). Although we do not agree that a public review process of any period is legally or otherwise necessary to achieve public participation, if the Final CGP is to include such a process we submit that it must include, at a minimum, the following:

- Limitations on comments that should be submitted, and on which the Regional Boards may act. To be acceptable, the Draft General Permit should provide that the comments are limited raising substantial issues regarding compliance of PRDs with construction phase water quality control requirements. Regional Boards should not act on PRDs addressing or challenging post-construction hydromodification controls already reviewed under CEQA or after the tentative map stage due to the risk countermanding final land use approvals and entitlements.

- The commenter or Regional Board should issue notice of comments to permittees. This would allow permittees the opportunity to respond to comments.

- There should be a maximum time period of a very short duration (30 days) in which a Regional Board must respond after receiving a comment, and there should be a provision that if the Regional Board fails to respond to comments within the prescribed timeframe, the comments are deemed to have been determined invalid.

- Regional Board action in response to qualified comments should be limited to a prompt determination that comments are not valid or specific direction to the

developer to revise the SWPPP as necessary to comply with construction phase water quality requirements.

- There should be an express provision that PRDs and the public review and Regional Board determination periods can run concurrently with the applicable CEQA public comment period so as to avoid a "late hit" for projects after CEQA review has been completed.

- The public review period should be limited to a maximum of 15 days.

9. EXPANDED MONITORING PROVISIONS AND REQUIREMENTS (DCGP §§ I. 17 AND 18; ATTACHMENT B MONITORING AND REPORTING PROGRAM) ARE NOT SUFFICIENTLY RELATED TO CONSTITUENTS OF CONCERN AND CONSTRUCTION SITE DISCHARGES, AND ARE EXTREMELY COSTLY AND BURDENSOME.

The Draft General Permit contains myriad new monitoring requirements, now referred to as a Construction Site Monitoring Program ("CSMP"), much of which is duplicative of MS4 Permit and ambient water quality monitoring and does not appear to be tied to determining the treatment capabilities of BMPs or the water quality effects of construction activities. As a practical matter, most municipalities currently already are engaged at substantial expense in significant storm water monitoring and receiving water monitoring under their MS4 Permits and ambient water quality monitoring programs. Consequently, much of the new monitoring required by the Draft General Permit will not provide significant benefit, but will simply impose additional costs on the regulated community.

A. Water Code Section 13267 Requires The State Board to Show Reasonable Relationship Between The Need and Costs of Monitoring and The Benefit of The Information Sought, and Section 13383 Permits Only Those Monitoring Obligations That Are "Reasonably Required."

Pursuant to Water Code section 13267(b)(1), "[t]he burden, including costs, of technical or monitoring program reports required by the Regional Board] shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports[,]" and "the regional board shall provide [the permittee] with a written explanation" why the report is necessary. The State Board has neither explained how certain monitoring obligations in the Draft General Permit are "reasonably required" to protect water quality, nor how the burdens that the Draft General Permit would place on permittees to report is reasonably related to the need and the expected benefits of having the additional information in the reports. These issues are particularly acute with respect to receiving water monitoring for suspended sediment concentrations ("SSC") and bioassessment.

B. There is No Reasonable Relationship Between The Costs and Purpose of The Additional Monitoring.

(1) Purpose of Monitoring Data.

According to the Draft General Permit, the CSMP is to be a part of the SWPPP, but it is required to contain elements that go beyond requirements necessary to determine compliance with the SWPPP or the Permit, including extensive receiving water monitoring, bioassessment monitoring, and SSC monitoring. Absent some provision for forensic analysis to account for co-mingled flows, bioassessment monitoring is expensive, but does not relate to the requirements of the Draft General Permit. As a result, bioassessment monitoring is inappropriate under the Clean Water Act and Porter-Cologne provisions regarding the relationship between the requirements of the NPDES permit and the monitoring mandated under the permit Further, there is no "reasonable relationship" between the burden imposed on dischargers and the gains to water quality. Water Code § 13267(b)(1).

It is also unclear how the SSC monitoring relates to permit requirements in the absence of any connection or established relationship between turbidity and SSC values. At the same time, SSC monitoring is very expensive, and unavailable on a commercial basis. Again, without a clear rationale, given the costs and unavailability of SSC testing, monitoring for that pollutant should be dropped from the CGP.

With respect to the receiving water monitoring requirements, the State Board staff stated at the workshop that this monitoring was designed to facilitate *enforcement*, but this monitoring and the data it generates is not at all tailored for enforcement purposes because there is no requirement or process to do forensic investigation on comingled flows. The City cannot support using this data for enforcement without some process in place to ensure that the discharger is not cited for a violation of receiving water standards when its discharge, because of comingling, has nothing to do with the exceedance.

We understand that the State Board wants to obtain more robust data on the impact of construction storm water on receiving water quality, and receiving water quality in general; however, imposing these expanded monitoring requirements on all construction site discharges is inappropriate. If this type of monitoring data is desired by the State Board in order to improve the CGP, then the City supports State Board collection of a small permit fee and performance of the receiving water monitoring on its own. This will allow for consistent data collection, and ultimately more reliable, usable data that actually might result in improvements to the Permit and water quality.

(2) Costs of Additional Monitoring.

The Draft General Permit will impose steep increase in costs associated with more burdensome types, and frequency of, monitoring required by the Draft General Permit. Currently, construction sites are required to monitor discharges for sediment only if the site

discharges directly to water bodies listed as impaired under Section 303(d) of the Clean Water Act, and sites must monitor for non-visible pollutants only if BMPs for materials containing non-visible pollutants fail. But, under the Draft General Permit, almost all construction sites will be required to conduct monitoring at multiple discharge points for a number of additional constituents: sediment (both total suspended sediment and turbidity), pH, and non-visible pollutants. In addition, the vast majority of Southern California sites must conduct bioassessment monitoring of receiving waters, which duplicates MS4 permit storm water monitoring programs.

The Draft General Permit also requires that a large number of storm events be sampled, rather than sampling only when a site either directly discharges to a 303(d) listed water body or experiences a BMP failure. Under the Draft General Permit, sampling must be conducted at least daily during every rain events, at any time a BMP fails, and sites must conduct baseline receiving water monitoring, run-on monitoring, monitoring of all non-storm water discharges (line testing, groundwater dewatering), and monitoring of all releases of any trapped/captured storm water.

Finally, the Draft General Permit mandates monitoring of discharges at a minimum of one discharge point per onsite "drainage area," resulting in multiple monitoring locations for larger sites regardless of whether all drainage areas are tributary to the same ultimate receiving water body. All of these conditions described above are a significant expansion of the monitoring requirements, which are not at all reasonably related to improving water quality.

The costs of these additional monitoring requirements are significant. As Dr. David Sunding testified at the June 4, 2008 hearing, visual monitoring for a 5-acre site would cost over $10,000 and rain event monitoring is estimated at $34,765. Without a clear reason why construction projects should incur these costs, they cannot be maintained in the CGP.

Because similar data is already being developed at the City's expense under other monitoring programs, the City generally supports elimination of receiving water monitoring requirements from the Final CGP. To the extent either discharge data or receiving water data is needed to support the next renewal of the CGP, the City supports collection of that data by the State Board, but only in accordance with a properly designed study that will be effective in providing the kind of information the State Board needs to complete the BAT/BCT analysis appropriately.

10. LACK OF GRANDFATHERING/PHASE-IN PROVISIONS CREATES UNCERTAINTY FOR LOCAL AGENCY ENVIRONMENTAL AND LAND USE APPROVALS.

A final major concern that the City has with the DCGP is that it contains no grandfathering or transition periods to reasonably protect projects already under construction and approved under the current CGP at the time of adoption of the new permit. There are significant legal and policy issues that make some form of grandfathering or phase-in period critical,

particularly for those provisions of the Permit that must be implemented during the land use, planning and environmental review phases of a project to allow for sufficient project modifications to achieve effective compliance with the Draft General Permit requirement.

A. Grandfathering to Address Runoff Volume Reduction and Flow Control Provisions.

(1) Avoiding Retrofit, Re-engineering, Re-Design and Re-permitting Costs.

Depending on the appropriate interpretation of the requirements of the Draft General permit pertaining to runoff volume reduction and flow control (DCGP §VIII.H. and Attachment F, the "Hydromod Control Provisions"), it may only be feasible to comply with Hydromod Control Provisions during planning and environmental review, up until tentative tract maps are approved, without imposing on project applicants and local agencies the substantial economic costs associated with delay, redesign, and re-permitting of a project After approval of tentative maps, significant re-design necessary to implement the stringent (and, as shown in Sections 5 and 6 above, improper) hydromodification control requirements of Draft General Permit § VIII.H. These requirements mandate matching the pre-and post project water balance for the smallest storms up to the 85th percentile storm event, post-project time of runoff concentration that is equal to or greater than pre-project time of concentration, and preservation of pre-construction drainage density for all drainage areas serving first order streams.

It is not clear that compliance with some or all of Attachment F measures provides a safe harbor such that compliance with the Attachment is deemed compliance with Draft General Permit § VIII.H., or if one can comply with some or all, of the practices set forth in Attachment F, and still be required to implement additional volume reduction measures to achieve the very stringent standards of Draft General Permit § VIII.H. It is further not clear how many of the Attachment F requirements must be integrated into the project to attain sufficient credit to be deemed to comply with standards of Draft General Permit § VIII.H (if that is even possible under the Draft General Permit).

To comply with the stringent and prescriptive requirements of Draft General Permit § VIII.H, regardless of site conditions and receiving water drainage conditions, will in many cases require significant re-engineering to assure soils and geotechnical stability, proper hydrology and routing of storm flows, and appropriate flood protection. Similarly, incorporation of certain Attachment F features into a project after tentative tract map approvals, such as stream buffers, swales, cisterns, porous pavement, and potentially sand impervious area disconnection requires re-engineering, retrofit, and can involve materials that are cost prohibitive or require significant City maintenance costs after dedication (*e.g.*, porous pavement). Re-engineering, retrofit, high cost materials, and additional maintenance costs can all substantially increase project costs to the point of economic infeasibility. Further, re-engineering and retrofit often also require new permitting approvals, and often causes substantial delay that is both costly and staff-

intensive for both public agencies and project applicants once tentative tract maps and backbone infrastructure have been approved and/or construction has commenced.

(2) Preventing Interference with Vested Rights.

The Draft General Permit currently applies new hydromodification control requirements to all projects, even those that are vested under common law rules, or vesting or development agreement statutes. As discussed in Section 7.G above, it creates legal issues for local agencies (as distinguished from state agencies) and constitutes unwise policy to require fully vested construction projects to undergo re-design to conform with new Draft General permit Hydromod Control Provisions, especially where there may be no clear benefit, depending on the condition of the receiving water and its susceptibility to destabilization. *See Avco Community Developers, Inc. v. South Coast Reg'l Comm'n*, 17 Cal.3d 785, 791 (1976); Gov. Code §§ 66498.1-66498.9; Gov. Code §§ 65864-65869.5. Once a project becomes vested, a municipality's ability to further condition or legally mandate changes to vested projects is constrained, and it becomes a major battle for cities to mandate and enforce project changes as significant as those necessary to implement the Hydromod Control Provisions, including re-design and re-engineering once they have received entitlements imposing these requirements.

(3) Recommendation.

The State Board should remove the hydromodification control provisions from the CGP. However, if the State Board is intent upon regulating post-construction hydromodification impacts through the CGP, then the hydromodification control measures should contain a provision that would allow for the grandfathering of existing projects for which local agencies have issued tentative tract map and CEQA approvals. The City recommends such grandfathering because it provides a "bright line test" between applicants exempted from the Hydromod Control Provisions, and those required to comply.

However, another alternative is the grandfathering clause adopted by the San Diego Regional Water Quality Control Board when imposing hydromodification controls and LID requirements in its recently approved MS4 permit. [41] Although the San Diego grandfathering provision is not quite as clear as the first recommendation, it does provide an exemption where

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41 The San Diego County MS4 Permit provides: "Updated SUSMP and hydromodification requirements shall apply to all priority projects or phases of priority projects which have not yet begun grading or construction activities at the time any updated SUSMP or hydromodification requirement commences. If a co-permittee determines that lawful prior approval of a project exists, whereby application of an updated SUSMP or hydromodification requirement to the project is infeasible, the updated SUSMP or hydromodification requirement need not apply to the project. Where feasible, the co-permittees shall utilize the SUSMP and hydromodification update periods to ensure that projects undergoing approval processes include application of the updated SUSMP and hydromodification requirements in their plans." Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cites of San Diego County, the San Diego Unified Port District and the San Diego Regional Airport Authority, R9-2007-0001, p. 17, footnote 3.

application of new requirements becomes legally or physically infeasible (*e.g.*, because there are no additional ministerial approvals to be issued by the local agency, or vested rights make application of new requirements infeasible, or the costs of redesign would be economically infeasible).

However, such a clause lacks a bright-line test for what constitutes and appropriate feasibility analysis under the grandfathering provisions. Nevertheless, if the State Board will not remove the Hydromod Control Provisions, the State Board should adopt either a "bright line" grandfathering clause as suggested above, or one more akin to that adopted by the San Diego Regional Board. Either would be a vast improvement upon the current Draft General Permit, which lacks a grandfathering clause. By adoption of a grandfathering provision, the State Board could achieve the objectives that it seemingly seeks to achieve, while honoring the local agency land use and environmental approval process.

B. Grandfathering to Address Other Draft General Permit Provisions.

Other provision of the Draft General Permit could prove problematic if they are implemented immediately without any phase-in or grandfathering period. The following are examples of additional grandfathering periods needed under the Draft General Construction Permit:

- **Risk Determination and Jurisdictional Delineation.** The risk categorization requirements, particularly as applied within the City of Irvine, are anticipated to result in a large number of Risk Level 4 projects. Moreover, the Draft General Permit excludes projects that discharge to waters of the state from coverage. If these provisions remain in the CGP, the City recommends grandfathering existing projects under construction at the time that the new CGP is adopted. This would avoid shutting down an overwhelming number of operating construction projects that would be Risk Level 4, or that discharge to waters of the state pending application and issuance of an IP by the Regional Board. The number of projects that could be potentially affected by delay or suspension of activity is large, but the water quality costs associated with exempting these projects from IPs and the permit process is not significant.

- **Public Participation.** As noted above, public participation provisions should be amended substantially as allowed by existing law to reduce the delay and interference that adverse public comments at or after the NOI stage could cause. In light of the delay and interference anticipated, the City requests grandfathering from public participation requirements all projects that have begun construction at the time of adoption of the new CGP.

- **Training Period.** As noted above, many provisions of the General Permit are very complex. For example, the Risk Assessment and Risk Determination provisions and the provisions governing calculation of ALs are difficult for the City to implement,

much less for the City to assist others in implementing. As a result, the City requests the State Board adopt a phase-in period that allows it to conduct adequate training for municipalities and Regional Boards before expecting compliance with new CGP provisions.

11. CONCLUSION.

The Draft General Permit is flawed, but not fatally flawed. With proper revisions to allow for use of traditional source control BMPs, adjustment of the risk assessment to assure a more normal distribution of construction sites among risk levels, elimination of improper exclusions, assurances that only reasonably foreseeable projects are considered part of the City's common plan of development, clarifications, and a robust pre-issuance training program, the new risk-based approach could provide the efficiencies of a general permit without imposing undue costs on the regulated public, or undue administrative costs on the regulators.

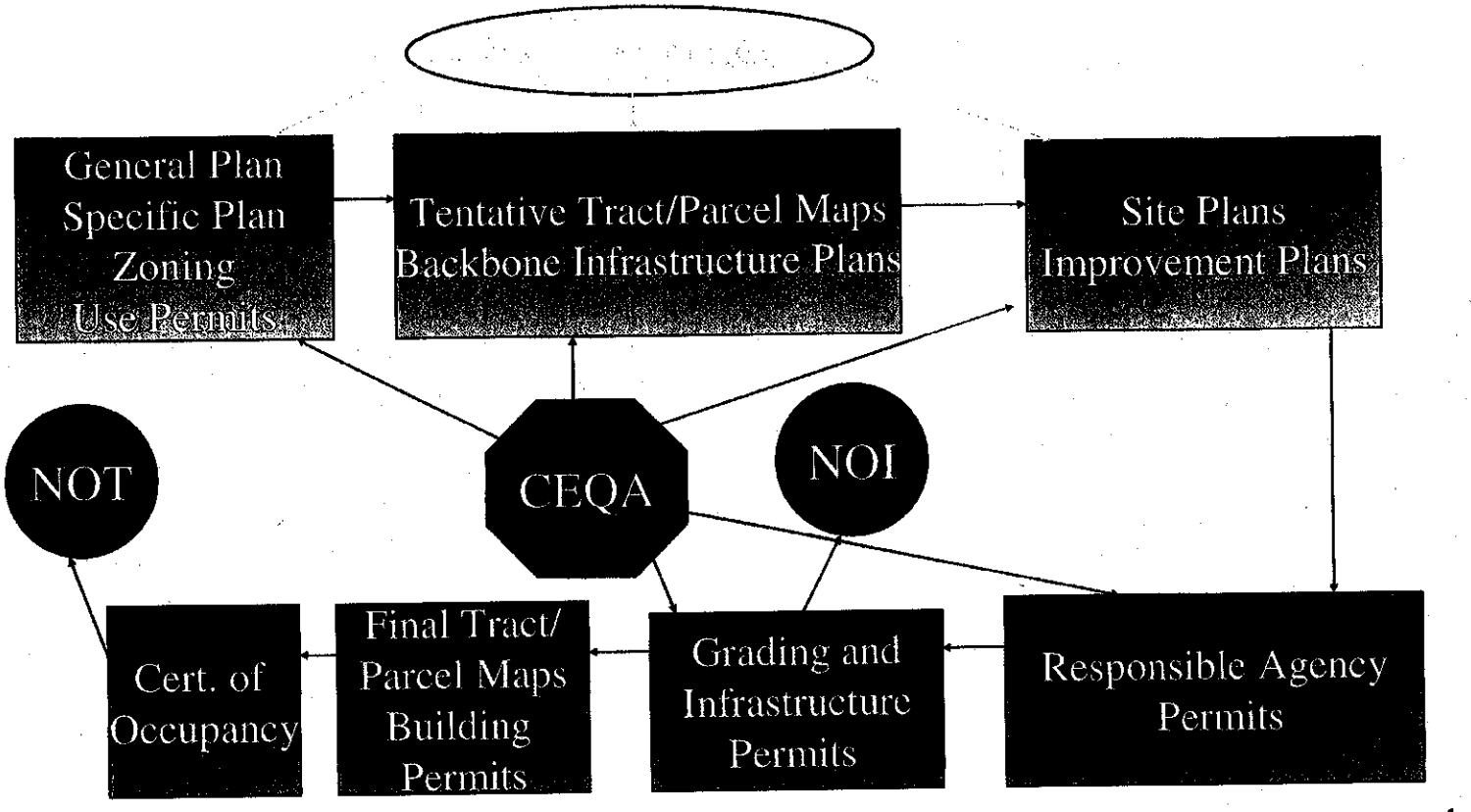
Very truly yours,

Mary Lynn Coffee
of NOSSAMAN, GUTHNER, KNOX & ELLIOTT, LLP

cc: Robert D. Thornton
Rosanna Lacarra

Attachment A
Simplified Typical Land Use Approval Time Line

Typical Land Use Approval Time Line and Ability to Challenge



Attachment 3
(Technical Concerns)

Bovis
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PBSJ

To: Mike Loving, City of Irvine

From: Rosanna Lacarra, Sr. Project Manager/Sr. Scientist II

CC: Mary Lynn Coffee, Nossaman

Date: June 9, 2008

Re: Draft Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity, NPDES General Permit No. CAR000002 (General Construction Permit or General Permit)

PBS&J has evaluated the March 28, 2008 version of the proposed Draft Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity, NPDES General Permit No. CAR000002 (General Construction Permit or General Permit) and the accompanying Fact Sheet dated March 18, 2008 issued by the State Water Resources Control Board for public comment.

This technical memorandum has been prepared to present the seven most significant issues or questions for the City of Irvine related to the requirements in the General Construction Permit and to provide alternatives or solutions.

The following items are provided to highlight some of the challenges and issues that applicants will face.

Issue No. 1 – Cost to Comply with the Proposed General Construction Permit

The present version of the General Construction Permit is very prescriptive in nature and highly technical compared to the permit that is currently in effect, which was issued in 1999. An estimate of the overall cost of implementation for a sample project has been prepared and is attached as Exhibit A to this memorandum, and incorporated herein by this reference. The attached Construction Permit compliance cost estimate was prepared for a sample site of 100 acres slated for residential development with the following assumptions: no phased grading or limited phased grading, four drainage areas with one discharge point each, and project timeline from start to finish of 7 years. We can anticipate much higher costs compared to the current permit in the planning stage of the project for SWPPP and CSMP development and permit coverage; the implementation stage including BMP installation and maintenance and site inspection; compliance monitoring and reporting; and project closure. The General Permit will require highly qualified and technical experts to develop the documents that need to be prepared which is one of the reasons for the significant cost increases. Additional costs, not included in our estimate, include the cost incurred from any delays to the project in the issuance of the NOI, phased grading extending the project timeline, the re-submittal of the PRDs, the public comment period or other regulatory agency actions. Our preliminary estimate of the cost to implement the proposed General Construction Permit is from $490,000 for a Risk Level 1 site to approximately $1.3 million for a Risk Level 3 for the first year. The annual cost for years 2 through 7, for a 7 year project, range from $460,000 to $1.3 million dollars for risk levels 1 – 3. The cost to obtain coverage for a Risk Level 4 site is very difficult to estimate because the requirements have not been drafted but will likely exceed $1.6 million dollars for the first year and approximately $1.5 million per year.

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Issue No. 2 - Permitting Risk Level 4 Sites Construction Sites

The General Permit requires that each project site (or multiple drainage areas of a project site) be evaluated for the Risk Level they pose to water quality and beneficial uses of the receiving waters. While we support a risk-based approach to water quality control for construction sites, the evaluation is complex and aided by a spreadsheet tool provided as part of the General Construction Permit. The output of the spreadsheet is the Risk Level determination including the lowest (Risk Level 1) to the highest (Risk Level 4). The General Construction Permit does not provide coverage for discharges from Risk Level 4 sites, which are directed to apply for an Individual NPDES Permit from the local Regional Board.

Individual Permits

The challenge in implementing the General Construction Permit is that it does not indicate how Risk Level 4 site permitting will take place (other than applications for individual permits that will be through the local Regional Board) and expressly allows permitting conditions for all Risk Level 4 sites to be issued on a case-by-case basis which may be very different for each site. This leaves a potentially very large group of construction operators without any guidance for operators, or Regional Boards issuing individual permits, and only one, very difficult and expensive permitting option. Excluding Risk Level 4 sites from the General Construction Permit process goes against the analysis presented in the Fact Sheet, as described below, and as a result is impractical, infeasible and economically unrealistic.

The General Permit Fact Sheet indicates that Risk Level 4 sites should be permitted under the General Permit for the following reasons: 1) "Regulating many storm water discharges under one permit will greatly reduce the administrative burden associated with permitting individual storm water discharges (Fact Sheet, page 3, Section I.A); 2) "The application requirements for coverage under a general permit are far less rigorous than individual permit application requirements and hence more cost effective (Fact Sheet, page 11, Section II.A-third bullet); 3) "From a management perspective, there are inconsistencies among regions in their regulatory approaches to Phase I MS4s. Some of these inconsistencies are unnecessary. In addition, increases in the cost of compliance need to be managed over time". It reasons, from the statements in the State Board's General Permit Fact Sheet, that the issuance of Individual Construction Permits was deemed to be an administrative burden, will require more extensive permit application requirements and increased costs (to applicants and the State), and the issuance of individual construction permits by regional boards will create (or expand) the existing inconsistent application of regulations and increase compliance costs. Because the General Permit is comprehensive, prescriptive (sometimes overly prescriptive), and is structured in such a way that it addresses all the various project site conditions possible and has multiple requirements to address them; the General Permit should apply to all risk levels.

The SWRCB should issue a General Construction Permit that includes all four identified Risk Levels and not bypass the more effective and efficient approach of the General Permit process. It is clear that requiring an Individual Permit for construction sites across the entire State of California will cripple both the construction operators, including public works projects, and the Regional Boards due to the complexity of the Individual Permit process and extensive comment period, the cost to develop, burden to implement and manage, and inadequate resources to oversee these permits. Similarly, to the extent the City is mandated by the MS4 permit to conduct construction permit enforcement activities; enforcement will be much more complex because many sites will be subject to differing construction water quality control requirements depending on the conditions and requirements of each Individual Permit.

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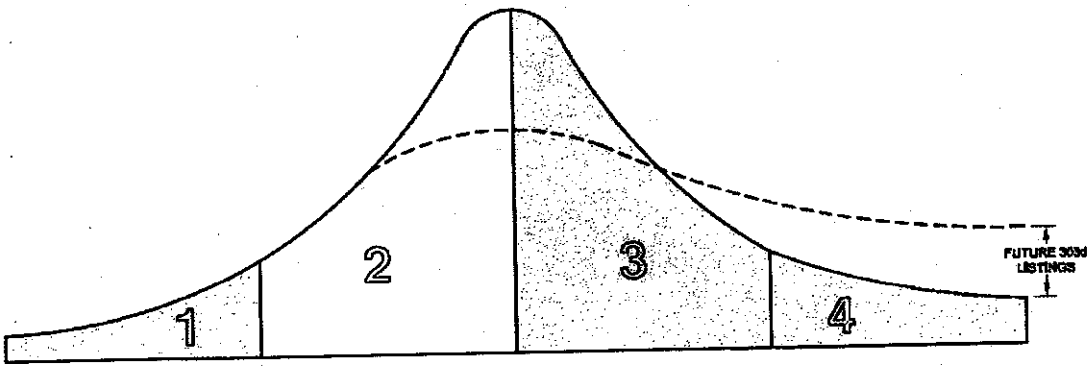
The Number of Risk Level 4 Sites Likely To Be Underestimated

The SWRCB stated in the recent workshops on the General Permit that it has not fully assessed the number of Risk Level 4 sites that would be subject to Individual Permits. The first assumption made by SWRCB staff is that the construction sites are normally distributed among risk levels in accordance with a standard bell curve, and that the number of risk level 4 sites is vey small because risk level 4 sites are "outliers." Currently, there are approximately 20,000 permittees throughout the State, and even if only 12% are risk level 4 (reflecting a normal distribution between one and two standard deviations) as shown in Figure 1; this still means that over 2,400 individual permits would have to be issued by the Regional Boards within 100 days of the new permit adoption. It is more plausible that the number of risk level 4 sites is larger because there are more factors that drive that determination, including the number of sensitive waters within a jurisdiction, including waters subject to 303(d) listings and TMDLs, which have historically increased over time (See Figure 1). Therefore, the number of risk level 4 sites is bound to continuously rise over the next five to ten years. Currently, without a full verification of the data and a true test considering not only sediment risk, as has been done to date by the SWRCB, but also considering receiving water risk, to determine a truly representative prediction of the actual number of sites within each risk level, it is unclear what the actual distribution is, but certainly risk level 4 sites are unlikely to be outliers within the City of Irvine based on our assessment discussed below.

Figure 1. Normal Distribution of Project Sites



EFFECT OF 303d LISTINGS ON RISK LEVEL DISTRIBUTION

Direct and Indirect Discharges to Receiving Waters

The General Permit Risk Level Assessment worksheet requires the applicant to identify if the "disturbed area" discharges "directly" or "indirectly" to a receiving waterbody impaired by sediment. The General Permit does not offer a definition of "directly" or "indirectly." SWRCB staff indicated at the May 7th workshop that "the intent of the General Permit is to address sites as higher risk level if the discharge from the project (permitted) site is one that sheet flows to, or has a direct conveyance and outfall to the receiving waterbody. Some additional interpretation is necessary. The SWRCB should eliminate the reference to "indirect" discharges, and adopt a definition of direct discharge that limits the term to discharges where there is "no comingling" of storm water from other project sites or sources with the discharge from the project site prior to entry into the receiving waterbody. That is, the definition of the discharge should be interpreted as "directly and

solely" from the "disturbed area" to the receiving waterbody impaired by sediment. This interpretation should be included in the General Permit to allow for consistency.

The General Permit does not clearly address if "receiving waterbody impaired by sediment" is to include the waterbodies in the most recent 303(d) List **and** on the TMDL list. The "sediment impaired waterbodies" tab on the Risk Level tool is formatted differently than the SWRCB Impaired Waterbodies lists from 2006 and makes it difficult to make comparisons and verify. A clarification that the definition of "receiving waterbody impaired by sediment" does not include those impaired waterbodies for which a TMDL have been adopted and the spreadsheet tool's listings should be included in the Fact Sheet and noted in the Risk Level spreadsheet tool.

Risk Assessment Results for City of Irvine Under the Proposed General Permit

An evaluation of the distribution of risk levels was performed for a large site proposed for development within the City of Irvine using the proposed General Permit condition, the risk assessment tool, and the very broad description of "direct and indirect" discharges to sensitive receiving waters. We concluded that the vast majority of construction projects within the City of Irvine fall within Risk levels 3 and 4, and are not normally distributed among risk levels along a bell shaped curve. Therefore, we are extremely concerned that the flawed and not fully reviewed risk assessment process in the proposed General Construction Permit will have serious impacts on present and future construction sites, construction operators, City resources, and the City's municipal improvement projects when permitting is abruptly halted and no specific guidance and resources are available to the Regional Board to process hundreds of risk level 4 permits. Municipalities are likely to bare the brunt of the consequences since they are involved in issuing construction related permits (grading permits, etc.) that require proof of compliance with the General Construction Permit.

Risk Reduction Credit

The last item that needs to be addressed for Risk Level determination is the ability for a discharger to reduce the risk level of a project through the implementation of BMPs. The current methodology in the Risk Level assessment tool does not provide any reduction or credit when the site is protected by one or a combination of source and/or treatment control BMPs (such as traditional erosion control BMPs). The spreadsheet tool does offer the discharger a reduction in receiving water risk level or credit (rather than sediment risk level) through the use of ATS by 10 points. This creates a bias in favor of the use of ATS over traditional BMPs. Risk Level assessment would be more comprehensive, less biased, and more technically sound if credit was provided for all types of BMPs and not only ATS. By all accounts the General Permit and the associated fact sheet recognize that there's a higher risk to the environment when ATS is used as a BMP due to the potential for toxicity and the introduction of ultra clean water that is starved and poised to assimilate solids and sediment from the environment (receiving waters) and even with these potential problems being recognized the bias remains and is not justified.

Statement of Need to Resolve Permitting Issue(s)

- SWRCB must fully assess the impact of excluding the Risk Level 4 projects from the General Construction Permit. It should provide a full assessment of the number of projects with the potential to trigger Risk Level 4, especially in southern California (Regions 9, 8 and 4) which have watersheds with 303(d) listings or TMDLs for sediment, siltation and other water quality impairments currently associated with construction activities; and determine if having individual permits for these project sites is reasonable based on resources (funding and staffing), technical merit, and statewide policy.

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- The SWRCB must assess the resources necessary to implement a Risk Level 4 Individual Permitting strategy, provide extensive statewide guidance to the Regional Boards for the development and issuance of Individual Permits.

- The SWRCB should determine if coverage under the General Permit makes sense due to the number of projects that can be anticipated will fall within the Risk Level 4 category, which are unlikely for many areas to be an "outlier" number, and are unlikely to have a normal bell curve distribution, but instead may account for a much larger percentage of total construction sites.

- The SWRCB should provide an estimate of the resources available at the SWRCB and Regional Boards to manage the proposed permitting strategy that includes hundreds if not thousands of individual permits, complex permitting requirements and determinations, and extensive compliance oversight.

- The SWRCB should define "directly to a receiving waterbody" to include only those discharges that enter receiving water prior to comingling with other runoff to better tailor the Risk Level assessment tool and obtain results that are more normally distributed among risk levels along a bell shaped curve.

- The SWRCB should clarify if "receiving waterbody impaired by sediment" includes 303(d) listed waterbodies that are already addressed byTMDLs, and therefore are being brought into compliance with water quality standards.

- The SWRCB must clarify and define the process by which a dischargers is to update a Risk Level and should issue guidance to Regional Boards regarding individual construction permitting programs to remove as much uncertainty and subjectivity from permitting procedures and to reduce unfounded delays in general and individual permitting as much as possible.

- Risk Level "credits" towards a reduction in the risk level should be provided for all BMPs not just ATS.

Questions Regarding Risk Level 4 Implementation.
(Tentative responses by SWRCB Staff that were presented and responded to at the May 7th Los Angeles workshop are shown in underline text).

1. **Considering the extensive requirements proposed in the General Construction Permit, what is the justification for not allowing coverage for Risk Level 4 sites and as a result creating an Individual Permit process that will be burdensome, costly and potentially unevenly applied or implemented across the state?**
   No full explanation provided other than Risk Level 4 sites are considered outliers and have been estimated to be a very limited number. SWRCB staff is not opposed to considering including Risk Level 4 projects into the General Permit, but holds the opinion that they are a minimum number and can be easily handled by the Regional Boards. Staffing to implement the General Construction Permit has not been fully assessed. Therefore, the adequacy of the Regional Boards' resources has not been determined. Our analysis shows that Risk level 4 projects will not be "outliers". Instead, there will be a substantial number of sites (2400) that must obtain individual permits even if our analysis is incorrect, and the State Board's assumptions regarding a normal distribution of construction sites among risk levels is accurate.

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2. **How many project sites or what percent of construction sites are likely to be Risk Level 4 if the General Construction Permit were adopted today?**
SWRCB indicated that the number of projects that fall into the various risk levels is a bell curve and that Risk Level 4 projects are "outliers". They showed a map of the Sacramento area, and explained they had performed a partial assessment of the sample area, but it was only based on the sediment "risk" and did not include the receiving water quality risk component which in Southern California will be a significant factor due to the 303d Listing and TMDLs for sediment currently in effect for various water bodies.

A full determination of the potential number of Risk Level project sites for the worst-case scenario should be made for project sites in at least one entire Region, like Region 9 or 8, to demonstrate the number of projects that are Risk Level 4 when 303(d) listings for sediment are factored in.

3. **What is the anticipated distribution of the existing permitted sites based on Risk Level (bell curve, even, other)?**
SWRCB indicated that the number of projects that fall into the various risk levels is a bell curve.

Project sites with a risk level 4 are likely to be in the thousands and no clear permitting process or statewide strategy, or resources to conduct individual permitting have been proposed.

4. **To what degree has the SWRCB evaluated the impact on their staff and the resources necessary to process the numerous Risk Level 4 sites that will not receive coverage under the General Construction Permit?**
SWRCB and Regional Board staffing levels have not been fully assessed in part because SWRCB staff have estimated the number of Risk Level 4 sites to be minimal.

SWRCB used only half of the risk assessment tool and a very narrow set of data to estimate the number of potential sites. Project sites with a risk level 4 are likely to be in the thousands and no clear permitting process or statewide strategy, and resources have been proposed.

5. **What process will be implemented to review, approve, and finalize Individual Permits for Risk Level 4 sites?**
Unknown. No indication from the SWRCB as to procedure for providing guidance to Regional Boards or applicants.

SWRCB should address this issue as part of the public review process and prior to adoption of the General Permit.

6. **When will guidance documents and protocols be available for the Regional Boards to issue Risk Level 4 Permits?**
Unknown.

SWRCB should address this issue as part of the public review process and prior to adoption of the General Permit.

7. **When will these guidance documents be available for public review and comments?**
Unknown.

SWRCB should address this issue as part of the public review process and prior to adoption of the General Permit.

8. **The General Construction Permit states that the Regional Board may terminate coverage for dischargers who incorrectly determine or report their risk level (e.g., they determine themselves to be a Level 1 risk when they are actually a Level 2 risk project).**

   a. **When will the RWQCB be confirming or verifying the Risk Level determination of a project site?**
   No requirement for Regional Boards to perform the assessment. No confirmation or verification of Risk Levels will be routinely performed. They may take place at the Regional Board's discretion or as a result of a public notice, request or complaint. Re-assessment of the Risk Level determination could occur at any point during the construction phase, up until an NOT is filed, creating the potential for retroactive enforcement liability if it is determined after a period of operations under requirements associated with a lower Risk Level that the Risk Level Assessment should have indicated a higher site risk category.
   SWRCB should address this issue, and limit the period during which a Risk Assessment could be challenged as part of the public review process and prior to adoption of the General Permit.

   b. **Because of the numerous factors and potential (initial) assumptions that are made about a project site and its characteristics, does the SWRCB anticipate on-going changes to the Risk Level of project sites? How does it anticipate that these changes will be handled?**
   The SWRCB does anticipate ongoing changes to Risk Levels of project sites, but provides no guidance in the General Permit regarding the types of changes that are sufficient to demand recalculation of the Risk Assessment. This situation creates a compliance trap, because there is an implied obligation to update Risk Assessments, but no guidance as to when. The SWRCB indicated that updates to the assessment should be provided through updates of the project registration documents submitted electronically. The City and other construction operators need certainty that operations can proceed in accordance with a specified risk level, without the risk of retroactive liability for operations during a period of assumed coverage.
   SWRCB should address this issue as part of the public review process and prior to adoption of the General Permit.

Issue No. 3 – Numeric Action Levels (NALs) and Numeric Effluent Limits (NELs)

NALs
The General Construction Permit requires the discharger to calculate the turbidity NAL for the project site using Attachment J. We have not been able to use the tools described in the General Construction Permit to determine the turbidity NAL. It appears that a previous version of the tool was designed to provide a final, calculated NAL from the data input. The most recent version of the tool does not provide such a result or output. The tool is flawed and must be corrected before it can be determined whether the tool yields a reasonably NA based on site data.

Statement of Need to Resolve Permitting Issue(s)

SWRCB must evaluate the tools provided and verify they provide a meaningful result and can be used by other than a highly qualified technical expert.

Questions regarding NALs and NELs:

1. **It appears infeasible to determine the NAL using the tools provided with the draft General Construction Permit. How is the NAL calculated using Attachment J (should it be Attachment C)?**
   Will need to be done in a different forum; no time allocated during this workshop for that detailed review. SWRCB requests that comments be forwarded regarding this issue.

   We request that the SWRCB conduct a sharette to address this issue as part of the public review process and prior to adoption of the General Permit.

2. **Has the SWRCB verified that the spreadsheet tool is performing to allow for dischargers to use it effectively?**
   No. Please provide comments.

   SWRCB should address this issue as part of the public review process and prior to adoption of the General Permit.

NELs

The SWRCB needs to reconsider establishing Turbidity NELs for ATS discharges and in doing so must consider developing them as Technologically-Based Effluent Limits (TBELs) with a design storm event in mind. The determination that NELs for turbidity are applicable to erosion and sediment control BMPs needs to be reassessed as it is not appropriate when the data has repeatedly shown that BMP performance and treatment effectiveness is highly variable and may be primarily due to the variations in site conditions and storm event characteristics which means that all these factors need to be considered in order to meet the Best Available Technology and Best Conventional Technology standards when developing NELs. The SWRCB has not performed the necessary data analysis and studies to support the NELs in the General Construction Permit as meeting USEPA's guidance for the development of TBELs. A similar analysis is necessary in order for pH NELs to be considered equivalent to TBELs.

The limitations of the data and BMP performance studies that can apply statewide, the limited time available, and the effort already put forth by all the parties involved (SWRCB staff, the Blue Ribbon Panel, construction site operators, and stakeholders) shows us that the permitting system in California is still evolving and that the next step in the progression of complexity of permitting requirements is to step up to having Numeric Action Levels that more clearly define the BMP iterative process that was established with the previous permit.

Issue No. 4 – Active Treatment Systems (ATS)

It continues to be unclear when and how ATS technology will be feasible at a site when one considers the possible risk of toxicity, discharging treated storm water that might be "hungry" to dissolve sediment downstream due to the low solids content, pH and possibly low conductivity. It also appears to be completely up to the discharger to determine the conditions under which it would be safe and appropriate to use, and how to use the alternative. It appears prudent to

provide more guidance on use and operation of ATS, as the State of Washington has done. In addition, because ATS can be inappropriate for use based on the potential for adverse environmental effects, in addition to providing that the use of ATS completely optional, the General Permit should give it less weight in the Risk Assessment determination and the entire permitting strategy.

The issues of concern are in line with the concerns raised by the Blue Ribbon Panel (Page 16, Third paragraph) regarding the complexity of natural background sediment levels, which are in some cases much higher such as in semi-arid and arid regions including areas around Newport Coast and Los Angeles County, In these areas, the use of ATS could modify natural erosion and adversely affect sediment-associated benefits (sand replenishment, sediment transport, etc.). In these areas, the General Permit also creates a compliance trap because ATS is encouraged and incentivized, but the use of ATS and resulting removals of sediment may produce a discharge that violates the General Permit receiving water limits, which require that receiving water sediments regimes must be maintained.

Questions regarding ATS:

1. **Under what circumstances does the SWRCB anticipate that ATS could safely be used to control sediment levels in storm water runoff from a site?**

2. **What guidance documents will be made available by the SWRCB to aid dischargers in making a determination of the risk and feasibility of implementing ATS at a construction site?**

3. **What guidance or protocols will the SWRCB or Regional Board use to determine guide the operation of ATS at construction sites?**

Issue No. 5 - Effluent Monitoring, Construction Site Inspection and REAPs

The Monitoring and Inspection requirements in the General Permit have been crafted without consistency and without a good understanding of how they will be implemented in the field. Many of the requirements are in practice (in the field) interconnected and should be defined using a more comprehensive approach. Unfortunately, the General Construction Permit takes each component independently and prescribes the requirements without seeking to make it feasible, manageable, and practical to conduct monitoring in the field and for widely variable conditions. The way the General Permit Monitoring and Inspection requirements are currently written, does not allow for a diligent discharger to understand, plan, implement, and comply with the requirements. The lack of attention to practicality is obvious in basic but conflicting definitions that act as "triggers" for the inspection and monitoring program requirements, including various definitions for "rain events" that include terms like "likely precipitation event", "qualifying rain events", "rain event", "extended storm event," which are used but either not defined, or defined inconsistently. This makes it impossible to reasonably know what the next action or compliance steps should be. Another example deals with timelines that may appear to be the same but have very different meaning in practice and when it comes to determining compliance. Definitions include 48 hours, 2 days, and 2 business days that make it difficult to implement a series of actions within the same time period or concurrently. It would be more reasonable to have one definition and one timeline that would simplify procedures, implementation and compliance without compromising water quality. One possibility is leaving room for the discharger to define the compliance actions (inspections, sampling, etc.) by providing more general guidance.

We recommend one single definition for a qualifying rain event that will trigger all the actions or chain of actions including the preparation of a Rain Event Action Plan development, inspections, sampling, etc. There should be one single qualifying rain event definition in the General Permit that would apply.

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We propose the "qualifying rain event" for all the actions including the preparation of a REAP should be defined as a forecast with 50% probability of precipitation totaling at least 1/10th of an inch (instead of the "precipitation event" wording used in the General Permit which is equivalent to 1/100th of an inch and the minimum measureable amount). The 1/10th of an inch or greater forecast precipitation with a probability of precipitation (POP) of 50% or greater would provide for a reasonable, practical and implementable trigger. This definition accounts for a chance of scattered rain which is the most likely event to lead to saturation and runoff. It also is the most likely to actually take place and become an actual rain event. The General Permit currently uses various other measurable amounts including "trace" and 1/100th of an inch which are not likely to lead to actual precipitation, nor are they (by policy) generally associated with a probability of precipitation by forecasters (NOAA website: http://www.weather.gov/wsom/manual/archives/NC118411.HTML#z8-31).

Incorporating a revised qualifying rain event definition (≥1/10th of an inch precipitation with a ≥ 50% chance) uniformly addresses the issue of inconsistent triggers and greatly enhances the use of resources to address the most likely rain events instead of the numerous "false starts" that are likely to take place by using "trace" or "likely precipitation" which is equivalent to 1/100th of an inch.

In support of our definition of a "qualifying rain event" (≥1/10th of an inch precipitation with a ≥ 50% chance) we conducted an analysis of the number of REAPs that would have to be prepared for a typical site in Orange County (using rainfall data for John Wayne Airport from NOAA). From 2001 to 2006 the number of REAPs that would have been prepared, using actual rainfall quantities and applying it to the definition we propose was 19.5 while the number of rain events with measured rain ≥1/100th of an inch) was 36.7. The number of qualifying rain events increases by approximately 88% with the more stringent definition, but will likely result in 88% more false starts for those events between 0.10 and 0.001 inches of rain fall without any potential for improvement in water quality. It also results in an increase in permit implementation costs by the applicant and, to the extent MS4 permits mandated City inspection and enforcement, increases City inspection and enforcement responsibility and costs. We believe that an average of 20 REAPs and other compliance actions triggered by the proposed definition of "qualifying rain event" is a sufficient number to drive compliance at a project site. These 20 qualifying events take place mainly during October through April, a span of seven months in which an average of three actions would be triggered.

A similar review of rain fall data from 2001 through 2006 for San Diego County leads to a comparison that yields 16.5 REAPs for 1/10th of an inch compared to 31.8 for events with ≥ 1/100th of an inch. An increase of 93% in actions is also equivalent to a 93% increase in permit implementation costs, and increases enforcement and inspection costs, for no added benefit to water quality since these additional activities are in preparation for rain events that are not anticipated to produce runoff.

The General Permit does not take into account the realities of construction site management and safety when it prescribes requirements to conduct site inspections, effluent monitoring and other activities under potentially dangerous conditions, as described below.

Site Inspections

Site inspections are required repeatedly and for larger sites will require multiple people or an entire day to assess (including all documentation and recordkeeping which in some cases may require photographs).

The General Permit requires all inspection be conducted by a certified person with specific credentials and training. The Qualified SWPPP Practitioner will be responsible for all site inspections (and also monitoring and testing).

The number of inspections can total hundreds per year for a large (100 acre site) that includes dry-weather period quarterly inspections, pre- qualifying rain event inspections, qualifying rain event inspection, and post- qualifying rain event inspections. The recommended definition change for a "qualifying rain event" suggested above will greatly reduce the number of inspections to a possibly manageable number (estimated at approximately 600 per year compared to over 1,100) for a 100 acre site with ten drainage points. The inspections would become manageable, target the most likely rain events that have the potential to create a discharge, and take place during rain events that require oversight to address BMP failures.

Frequency of Storm Water Effluent Monitoring by Risk Level

The General Permit requires excessive storm water effluent sampling of construction sites without consideration for the feasibility, practicality and field logistics, safety or cost. The lowest discharge risk projects (Risk Level 1) are required to conduct sampling during each storm event (meaning all rain events) including events for which a discharge is unlikely and for which timing of the discharge (to sample) cannot be predicted. The permit assumes that sampling and inspection events can be predicted from a storm forecast, which is not true. This General Permit requirement is unreasonable because it will require 24-7 staffing possibly for days in order to comply. This requirement (Attachment B, Section E, Table 3) is an excessive burden, particularly on the discharger of a Risk Level 1 site (lowest level) for little or no benefit to water quality. The requirements increase in cost and infeasibility for Risk Levels 2 and 3 which require the discharger to collect "one sample beginning the first hour of any new discharge and last hour of every day". Compliance by the discharger would require deployment of resources to track a weather front (day and night) in anticipation of a trace of rain which is very unlikely to result in actual rainfall, less chance of flow and discharge, and would likely require two people (for safety consideration) on stand-by to collect samples. The frequency of monitoring required also increases the potential penalties for exceedences that may be detected. Because monitoring is required at all discharge points a minimum of twice per day for the duration of discharge from a storm event, multiple sampling results will be obtained. If any four of the multiple results indicates and exceedence, the discharger will be considered a "chronic" violation, though the four exceedences occurred within a single w-day period, and the discharger will be subject, at a minimum, to $3000 in minimum penalties, and may be forced to pay much higher fines in the Regional Board's discretion.

The solution is to modify the monitoring and inspection requirements by changing the definition of a qualifying rain event (as described above; $\geq$1/10th of an inch precipitation with a greater than 50% chance) and to reduce the number of sampling events for all risk levels to a more reasonable and feasible number. Alternatively, all discharge monitoring could be conducted by the SWRCB according to a properly designed monitoring study and in accordance with carefully specified monitoring protocols. If self-monitoring is retained, we recommend that Risk Level 1 sites be required to sample their discharge for actual rain events that generate more than 1/10th of an inch in 24 hours and no more than four times between October 1st and April 30th with two of the sampling events taking place after January 1st. Risk levels 2 and 3 should be required to sample the discharge once per month between October 1st and April 30th, and more often if exceedances are indicated.

Suspended Sediment Concentration (SSC) Monitoring

The requirement to monitor for SSC is unfounded. No NAL or NEL is included in the General Permit to support the need for the testing and none of the state's Basin Plans use SSC as a water quality objective. By including this parameter, the discharger will be required to submit samples to the laboratory, instead of just requiring turbidity and pH which can be performed in the field using portable instruments. This requirement increases the level of complexity of permit compliance without any basis or justification. Sediment levels to trigger the adjustment of BMPs can be performed easily and

repeatedly with instantaneous results using a turbidity meter in the field and there is no benefit to the discharger or other parties to receive SSC results days or weeks after the rain event.

The requirement to monitor for SSC appears to be an after thought in the Monitoring Program and Reporting Requirements (Attachment B of the General Permit) and is not discussed or justified in detail in either the General Permit or the Fact Sheet. The SWRCB's need to collect study data for future review and analysis may be the reason for the requirement, but it is incorrectly placed as a requirement on applicants and dischargers. An SSC study should be formulated using a scientific method and approach based on targeted study questions and with a monitoring plan designed to answer those questions through the collection of quality data. Currently, the ASTM Method D3977-97 for SSC is used only by the USGS in specialized laboratories. This test method is not available at commercial laboratories and although it could be implemented would not be accredited, say by the State's Environmental Laboratory Accreditation Program (ELAP) which will lead to questionable laboratory performance and quality in test results.

We recommend that the SSC monitoring be removed from the General Permit requirements in the Monitoring Program and Reporting Requirements.

Non-Visible Pollutants Monitoring

The Permit needs to clarify what the requirements are for monitoring of non-visible pollutants. The Permit infers what would constitute non-visible pollutants in various sections and in the Fact Sheet (March 19, 2008), but in most cases the definitions and procedures described are different and inconsistent. According to the General Permit, determining non-visible pollutants that may be present at a site is defined by 40CFR 117.3 and 40CFR302.4, according to the General Construction Permit. Our review indicates that Table 117.3 represents the pollutants under 40CFR 117.3 and that Table 302.4 list the pollutants defined under 40CFR302.4. Since Table 117.3 is the list of Clean Water Act hazardous substances that is rolled into Table 302.4, we are unclear as to why the two codes are cited. Non-visible pollutants should be defined by construction phase, and by reference to pollutants that are likely to be associated with construction materials that are reasonably expected to be on site during any particular construction phase.

The mandated frequency of inspections is also unclear and the directions in the Monitoring Program and Reporting Requirements (General Permit Attachment B) are confusing. Table 1-Required Monitoring Elements for Risk Levels shows "As Needed (see below)" but it is not clear if the monitoring requirements are for the Non-Visible Pollutants. Then Table 2 indicates that inspections are quarterly for non-storm water. It is unclear if "non-storm water" means non-rainy periods, dry weather periods or if it means for non-storm water discharges. The text describes quarterly inspections, and other frequencies of inspections are listed in the table for "pre-rain event" and "post-rain event" for a "qualifying rain event". The entire description of inspection frequency and types is confusing and inconsistent between the tables and the text.

We request that the requirement be simplified to aid in implementation and involve the following for non-visible pollutants:
1) Preparation of an inventory of the materials stored and used on the project site;
2) Conduct a quarterly review of the materials store and used on the construction site and adjust the inventory as appropriate;
3) Conduct at a minimum f quarterly inspections of the construction site storage areas;
4) Pre-qualifying rain event ($\geq$ 50% chance of $\geq 1/10^{th}$ of an inch precipitation) conduct inspections of storage and use sites within the project for any spills, accidental releases or exposed materials.

This action plan is similar to what has been by pro-active site operators under the current permit and is an effective way to manage any non-visible pollutants from all materials used on the project site.

The frequency of inspections would be for "qualifying rain event" as recommended earlier for rain events predicted of 1/10th of an inch or greater with a probability of precipitation of equal or greater than 50%.

Questions Regarding Construction Site Inspection and Monitoring:

1. **Storm event monitoring is triggered by various definitions that are inconsistent throughout the General Construction Permit. What characteristics of a rain event are considered the most relevant to trigger construction site activities (inspections, sampling, etc.)?**

2. **What's the reasoning behind using a "trace amount" or 1/100th of an inch as part of the definition for a rain event?**

3. **The requirement to monitor for SSC has not been clearly explained. There is no NAL or NEL for SSC included in the General Permit and there are no water quality objectives in any Basin Plans for SSC. By including this parameter, the discharger will be required to submit samples to the laboratory, instead of just requiring turbidity which can be performed in the field using portable instruments.**

    a. **What is the technical and regulatory basis for requiring testing for SSC?**

    b. **What testing laboratories provide this service?**

4. **Can the SWRCB clarify why it is using two redundant sections of the Code of Federal Regulations for non-visible pollutants? Determining non-visible pollutants that may be present at a site is defined by 40CFR 117.3 and 40CFR302.4, according to the General Construction Permit. Our review indicates that Table 117.3 represents the pollutants under 40CFR 117.3 and that Table 302.4 list the pollutants defined under 40CFR302.4. Since Table 117.3 is the list of Clean Water Act hazardous substances that is rolled into Table 302.4, we are unclear as to why the two codes are cited.**

5. **Given the references to the CFR Tables, please clarify if the screening and preparation of "List of Potential Pollutant Sources" is limited to non-visible pollutants associated with the materials used and stored at the construction project site?**

Issue No. 6 - Receiving Water Monitoring

Bioassessment monitoring for Risk Level 3 Sites

The requirement is costly, unjustified, not fully developed or described in a manner that allows for reasonable implementation by dischargers, and provides no clear benefit for construction water quality control because it is not in any way required to be attained in a manner that would allow assessment of impacts on receiving waters due to construction site discharges . The requirement for bioassessment sampling is particularly unreasonable since there are only two times out of the year when this monitoring can be performed, and the program cannot be reasonably coordinated by all the independent permittees due to the complexity and expertise required. The Watershed Monitoring Option presented in Section K in Attachment B – Monitoring Program and Reporting Requirements is not a viable option to

dischargers/permittees since it places the relief from this burden on the Regional Board, and does not provide any guidance to what a "proposal to substitute" would entail or how it would processed. There are extensive bioassessment monitoring programs throughout the state that provide quality data on the conditions of benthic communities in the receiving waters. Most of these programs are conducted by the SWRCB, MS4 Phase I and other NPDES/WDR permittees under very stringent requirements. There is no technical basis in the General Permit for the bioassessment monitoring requirements.

Problem Statement to be Resolved:

No technical, scientific or statistical argument has been presented to link the need for mandated receiving water monitoring to construction site runoff or storm water discharges. The data collected would not have any clear benefit for the cost, and since no scientifically-based monitoring design will be considered, the data collected would be a random data set with no hope of any correlation between the cause and effect between construction site runoff (comingled with all other runoff and storm water) and benthic alteration. Any data set generated by the monitoring described in the General Permit would be of no additional value to the State Board, the regulated community or the public. Extensive bioassessment data is currently collected and analyzed through other NPDES permits (Phase I MS4, WDR) and regional monitoring programs that are either statewide or targeted (SWAMP, TMDLs, etc.) that provide for adequate information of the state of benthic alterations in the receiving waters. This is documented in the General Permit's Fact Sheet which also presents more reasonable alternatives that should be the first choice of the State Board.

Dischargers should not be involved in receiving water monitoring. As stated in the General Permit the program has no scientific design, the data collected will not be comparable to other data collected throughout the State and will be of no value (unmanageable, unreliable), and the cost will be a waste of resources. No consideration has been given to the "impact" of hundreds of dischargers attempting to collect samples in the same downstream receiving waters, the logistics and other agency permit requirements that may be necessary to accomplish this task have not been fully reviewed. (receiving waters may be inaccessible, restricted by other agencies or even the State (public lands, parks, etc.).

Potential Solution to Problem Statement:

The only reasonable alternative for implementation of receiving water monitoring is to implement it at the state level, as suggested in the Fact Sheet. This alternative should only be considered, if there is justification for the monitoring and the SWRCB has a very specific study question or questions and a set timeline for completion of the study. We suggest that a portion of the NPDES Permit fee for Risk Level 4 dischargers be directed towards an organized monitoring program for this purpose (funding managed and administered by the State). Only Risk Level 4 sites should be considered potential contributors to the proposed statewide monitoring program. The program should be defined by a "problem statement"; have defined questions that need to be answered; and the monitoring program should be scientifically developed to be defensible and enlist a correlation between construction site discharges and water quality effects to in-fauna, if this is determined to be the problem statement. The monitoring program should be designed with stakeholder input and led by independent experts. A pilot study area would be a feasible start, led by an independent monitoring and scientific group (SCCWRP, SFEI, etc.). The program can be started at a smaller scale to make sure it is a manageable size and can be completed in an expeditious manner. The results of the pilot scale monitoring program can be analyzed to evaluate the appropriateness as a statewide program and the benefit to cost ratio of the data collected.

Questions Related to Bioassessment:

1. **Bioasssessment monitoring for Risk Level 3 sites will be costly and cannot be expected to be reasonably implemented by dischargers. The requirement for bioassessment sampling is particularly unreasonable since there are only two times out of the year when this monitoring can be performed, and**

the program cannot be reasonably coordinated by all the independent permittees due to the complexity and expertise required.

a. **What is the technical reason for requiring this monitoring from each permittee?**

b. **What is the benefit expected from obtaining this data (in an unorganized effort) compared to the cost and the risk to the receiving waters, including the impact of an unstructured and repetitive sampling of sensitive habitat?**

c. **Why isn't the SWRCB exploring the option of implementing a state-wide bioassessment program (funded by a portion of the permit fee) that is scientifically designed to answer specific questions regarding the link between erosion and sediment from construction and impact on the receiving waters?**

d. **What is the laboratory capacity to perform bioassessment of all these potential sites and samples?**

e. **What are the protocols to follow and who will verify the suitability of sites?**

Issue No. 7 – Board Member Wolff Questions

Questions posed by Board Member Wolff regarding the Draft Construction General Permit (CGP). Board Member Wolf has requested comments to address the following, specific questions:

1. The permit attempts to balance the need for simplicity and transparency with the need to sensitively address widely different physical conditions across sites. In what parts of the draft permit do you think complexity is most and least valuable?

The General Permit attempts to establish permitting requirements for the complex issue of construction site development and sediment management which cannot be completely defined and managed using a prescriptive approach and formulas (RUSLE, MUSLE, the Risk Assessment Spreadsheet Tool, etc.) because the variables are too many across the state and complicated by numerous and complex site conditions. To maximize water quality control, the most important thing to encourage operators to do is obtain coverage and attempt to comply with all requirements. At the end of the day, the best a construction site manager can be practicably be asked to do and can practically do is to assess the water quality risk posed by a site based on field conditions and simple guidance, and prevent erosion and sediment discharges by implementing the traditional source control BMPs available and adjusting them based on the response to that day's conditions (weather, grading or construction stage, etc.). The attempt to create a tool that will incorporate sufficient data to reliably set risk levels is noteworthy, but it is too complex to be properly used to drive permit coverage and BMPs, and therefore it will not provide for more protection, better BMPs, improved water quality, and increased compliance. It will certainly lead to more tools to issue violations and enforcement actions, but not better water quality or improvement in the impairments of beneficial uses. It is only after the rain event and after the fact that a set of risk assessment tools and formulas, such as those used in the General Permit, can be tested to see if they predicted the actual results in the field. To that effect, they do not truly provide anyone involved in implementing the General Permit requirements or assessing compliance (the discharger or the regulator) a valuable resource. They do provide the regulators and citizen plaintiffs with an additional

subjective measure to issue notices and generate violations. In summary, complexity is not valuable in this type of permit and will not aid in the implementation or in compliance.

2. Our scientific understanding of when and where a management practice is best is limited. Self monitoring for compliance will not necessarily increase our understanding due to variations between practitioners and for other reasons. Are you interested in creating a scientifically valid database on management practice performance via rigorous third party 'random' monitoring in lieu of self-monitoring and at least partially paid for by permittees?

The self-monitoring requirements for the site's storm water runoff should be limited to quick and reasonable measurements (field pH and turbidity) and not laboratory testing (SSC and non-visible pollutants) in order to provide for meaningful and immediate corrective actions by the discharger. Self-monitoring should be a tool to determine adjustments to BMPs and improvement in discharge quality. The effectiveness of BMPs is so site specific that it will take more than just water quality measurements to make correlations. The study and understanding of BMP performance is more suited for controlled laboratory studies or pilot study conditions (as performed by academia, manufacturers, etc.) and not necessarily in the field. BMP implementation in the field has a "science" component but it is also somewhat of an "art" and requires that adjustments be made as needed in the field and in response to the variations present the day of the storm event. A scientifically valid database of management practices performance has some value but will not be the solution to sediment control and soil stabilization under all conditions (and may provide a false sense of security). It is also unlikely that such a database of information could be established with a program of "rigorous third party random monitoring" and be better or more informative than the bountiful resources available today. As a result, we recommend self-monitoring for purposes of adjusting BMPs during a rain event to the extent feasible and safe, combined with discharge and receiving water monitoring conducted by the SWRCB pursuant to a well-designed study, and carefully considered methods, protocols and procedures

There is value to removing self-monitoring requirements of the receiving waters because it is a proposal that has more risks to the environment and to safety than the results it will provide. The current self-monitoring requirements in the General Permit for the receiving waters include bioassessment, turbidity, pH and SSC. Bioassessment is a highly specialized discipline and should be performed using very skills professionals. It should also be performed following set protocols and the data analyzed with various levels of scrutiny. The Permit program is not scientifically designed or based and will provide data of questionable quality and value. If there are legitimate study questions or issues that need to be addressed to understand the effects of construction storm water runoff on the environment, then such studies should be commissioned, under a rigorously designed study plan and possibly funded by permit fees. The studies should be conducted independently for each region (by SCCWRP, SFEI or other researchers in academia, etc.) and should have a defined scope and timeline. The information and results or conclusions derived from these studies should be used to improve permit conditions and requirements.

3. Ignoring the numbers and how they are calculated, do you think that the tiered compliance structure of the permit is a desirable or undesirable feature? By tiered structure we mean action levels 'backstopped' by higher numeric effluent limits that are intended to simplify enforcement against egregious violations.

The use of Numeric Effluent Limits (NELs) is flawed based on the likelihood that operators will be subject to enforcement though discharges do not actually adversely affect background water quality conditions or beneficial uses. The NAL approach to improving planning, implementation and selection of BMPs in general is a good one, but the determination of the action levels has not been fully explained or justified in some cases, including the calculation of the turbidity NAL. The turbidity NAL spreadsheet tool is not fully transparent, does not provide for a result that can be verified, and there is some question as to the appropriateness of the formulas used. The use of appropriately

derived NALs to improve BMP performance and implementation is a reasonable permitting strategy but it may not offer simplified enforcement since it difficult to derive a NAL that all can agree is an effective management tool for site condition assessment and BMP adjustments.

A detailed matrix of all the technical comments on the General Construction Permit is provided as Exhibit B to this technical memorandum, and is incorporated herein by this reference.

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Exhibit A

Compliance Cost Estimate for Sample Construction Site
(Residential development – 100 acres)

Draft General Construction Permit			
	Average Cost Estimates		
	Risk 1	Risk 2-3	Risk 4
Permit Planning and NOI	$ 26,247	$ 31,897	$ 91,897
Implementation BMPs, CSMP, REAP, Reporting	$ 330,470	$ 1,171,390	$ 1,405,668
Inspections	$ 86,130	$ 86,130	$ 10,336
Effluent and Receiving Water Monitoring	$ 41,700	$ 49,440	$ 59,328
Site Closure Preparation and NOT	$ 5,180	$ 5,180	$ 7,770
TOTAL (First year)	**$ 489,727**	**$ 1,344,037**	**$ 1,574,999**
APPROXIMATE COST PER ACRE	**$ 4,897**	**$ 13,440**	**$ 15,750**
On-going cost per year (Years 2-7)	**$ 458,300**	**$ 1,306,960**	**$ 1,475,332**

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Exhibit B

Matrix of Technical Comments on Draft General Construction Permit

Comment No.	Section No.	Section Name	Permit Page No.	Permit Language	Comments	Recommendation(s)	Author Name	Author Company
1	Table of Contents	Table of Contents	na		Add List of Attachments	Add List of Attachments	RLacarra	PBS&J
2	I.10	Findings	2	This General Permit requires all dischargers to maintain pre-development hydrologic characteristics in order to minimize post-development impacts to offsite water bodies.	The language here is extending beyond the previous permit's scope of regulating the construction related activates, and now covering post-construction	Delete post-construction requirements since they are not clear and potentially create lead to two standards when considered with the Phase I MS4 permits. Timing of the requirement is not in line with processing of land use permits by municipalities.	RLacarra	PBS&J
3	I.11	Findings	3	The panel (*referring to the Blue Ribbon Panel report dated June 19, 2006*) concluded that numeric limits or action levels are technically feasible for construction storm water discharges provided certain conditions are considered. The panel also concluded that numeric effluent limitations (NELs) are feasible for discharges from construction sites that utilize an Active Treatment System (ATS) . The State Water Board incorporated suggestions from the expert panel report into this General Permit, which includes numeric action levels (NALs) for pH and turbidity and includes NELs for pH and turbidity and special numeric limits for ATS discharges.	The panel made several recommendations and expressed concerns over the development and implementation of NELs and NALs that have not been taken into account in the Permit, including: 1) the application of seasonal Numerical Limits, "applying Numeric Limits to summer construction may be a disincentive to scheduling active grading during dry periods"; 2) "The Board should consider the phased implementation of Numeric Limits and Action Levels, commensurate with the capacity of the dischargers and support industry to respond"; 3) "The Panel recommends that Numeric Limits and Action Levels not apply to storms of unusual event size and/or patterns (e.g. flood events). 4) The Panel is concerned that the monitoring of discharges to meet either the Action Levels or Numeric Limits may be costly. The Panel recommends that the Board consider this aspect".	NELs should not be included in the General Permit since they are not considered feasible for traditional BMPs and the majority of project sites are anticipate to only use traditional BMPs. Only NALs should be included in the General Permit.	RLacarra	PBS&J
4	I.13	Findings	3			Change "less-rainy" season to "dry weather" season (defined as May 1 through September 30).	RLacarra	PBS&J

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Comment No.	Section No.	Section Name	Permit Page No.	Permit Language	Comments	Recommendation(s)	Author Name	Author Company
5	I.20	Findings	4	In many parts of California, rain events can occur at any time of the year. Therefore a Rain Event Action Plan (REAP) (Section X) is necessary to ensure that active construction sites have adequate erosion and sediment controls implemented prior to the onset of a storm event, even if construction is planned only during the less-rainy season.		Change "less-rainy" season to "dry weather" season (defined as May 1 through September 30).	RLacarra	PBS&J
6	I.21	Findings	4	USEPA Phase II regulations authorize the State Water Board to waive NPDES permit requirements for small construction projects (between 1 and 5 acres in size) that also have a low risk of erosivity (determined by any site with a calculated Revised Universal Soil Loss Equation (RUSLE) "R Factor" less than 5). The State Water Board will not waive coverage for these projects because they do pose some risk to water quality, but Risk Level 1 projects may be subject to fewer requirements in the General Permit.	The State Board has elected to regulate projects between 1 and 5 acres which are not subject USEPA Phase II regulations; arguing that these sites "pose some risk to water quality". As such, permitting of these sites and the associated burden imposed on any local agency potentially constitutes an "state unfunded mandate"	Any delegated and dual regulatory roles of the City from the SWRCB or the Regional Boards could constitute an unfunded mandate (Prop. 1A) for projects between 1 and 5 acres. Economic analysis as not been presented.	RLacarra	PBS&J
7	I.24	Findings	5	This General Permit recognizes five distinct stages of construction activities. Each stage has activities that can result in different water quality impacts from different water quality pollutants. The stages are Preliminary Stage (Pre-Construction Stage), Mass Grading Stage, Streets and Utilities Stage, Vertical Construction Stage, and Post-Construction Stage.	This is a Permit related to construction activities and land disturbances. The last or fifth phase of the Permit, Post-Construction, is not related to these activities. The Permit function ends when project construction is completed (terminated). It should not include activities beyond final construction.	Remove the fifth stage for Post-Construction from the General Permit.	RLacarra	PBS&J
8	I.25	Findings	5	This General Permit requires dischargers to assess the risk level of a project based on both sediment transport and receiving water risk. This General Permit contains requirements for Risk Levels 1, 2 and 3 - Risk Level 4 is not covered by this General Permit and is subject to individual NPDES permitting from the appropriate Regional Water Board. The Risk Level is determined by completing the Construction Project Risk Worksheet (Attachment A).	Move this finding to be located between finding 10 and 11 with Finding 21 (see above).	See next item.	RLacarra	PBS&J

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Comment No.	Section No.	Section Name	Permit Page No.	Permit Language	Comments	Recommendation(s)	Author Name	Author Company
9	I.25	Findings	6	This General Permit requires dischargers to assess the risk level of a project based on both sediment transport and receiving water risk. This General Permit contains requirements for Risk Levels 1, 2 and 3 - **Risk Level 4 is not covered by this General Permit and is subject to individual NPDES permitting from the appropriate Regional Water Board.** The Risk Level is determined by completing the Construction Project Risk Worksheet (Attachment A). - **Bold** added for emphasis.	Risk Level 4 sites should be permitted under the General Permit as stated in the Fact Sheet as follows: 1) "Regulating many storm water discharges under one permit will greatly reduce the administrative burden associated with permitting individual storm water discharges (Fact Sheet, page 3, Section I.A); 2) "The application requirements for coverage under a general permit are far less rigorous than individual permit application requirements and hence more cost effective (Fact Sheet, page 11, Section II.A-third bullet); 3) "From a management perspective, there are inconsistencies among regions in their regulatory approaches to Phase I MS4s. Some of these inconsistencies are unnecessary. In addition, increases in the cost of compliance need to be managed over time". It reasons, from the statements in the State Board's General Permit Fact Sheet, that the issuance of Individual Construction Permits was deemed to be an administrative burden, will require more extensive permit application requirements and increased costs (to applicants and the State), and the issuance of individual construction permits by regional boards will create (or expand) the existing inconsistent application of regulations and increase compliance costs. It can be argued that the General Permit is comprehensive and is structured in such a way that it addresses all the conditions possible and has multiple requirements to address all possible construction site conditions and seasons; as such, it should apply to all risk levels.	Eliminate the Individual Permit requirement for Risk Level 4 project sites. Include all risk level construction sites under the statewide General Construction Permit. Finding No. 25 should be reworded as follows: "This General Permit requires dischargers to assess the risk level of a project based on both sediment transport and receiving water risk. This General Permit contains requirements for Risk Levels 1, 2, 3 and 4 as determined by completing the Construction Project Risk Worksheet (Attachment A)."	RLacarra	PBS&J

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Comment No.	Section No.	Section Name	Permit Page No.	Permit Language	Comments	Recommendation(s)	Author Name	Author Company
10	I.26	Findings	5	This General Permit requires all dischargers to comply with applicable water quality standards for receiving waters. Dischargers are responsible for determining the receiving waters potentially impacted by their discharges, and for complying with all applicable water quality standards. Where a receiving water has a more stringent standard, an NEL stated in this permit may not be the most restrictive applicable requirement.	The third sentence in this Permit Finding would automatically change the NEL to be equivalent to the water quality standard (or objective). The NEL becomes irrelevant and compliance nearly impossible. This finding is inconsistent with other Findings and other provisions in the Permit, and the BAT and BCT standards applicable to NPDES permits.	Remove the last sentence in Finding 26.	RLacarra	PBS&J
11	I.28	Findings	6	This General Permit includes performance standards for new and redevelopment that are consistent with State Water Board Resolution No. 2005-0008, "Resolution Adopting the Concept of Sustainability as a Core Value for State Water Board Programs and Directing its Incorporation." The requirement for all construction sites to match pre-project hydrology will help ensure that the physical and biological integrity of aquatic ecosystems are sustained.	This Permit should not extend into regulating land use and hydrologic conditions.	Remove Finding 28	RLacarra	PBS&J
12	IV.A.1	Effluent Limits	9	Storm water discharges and authorized non-storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.	All CWA hazardous substances are CERCLA hazardous substances (only some CERCLA hazardous substances are CWA hazardous substances). Table 117.3 in 40 CFR 117.3, which is entitled "Reportable Quantities of Hazardous Substances," lists substances that were designated as hazardous under section 311(b)(4) of the CWA. Table 117.3 provides the CWA RQs for the substances. Substances designated under this section of the CWA are automatically CERCLA hazardous substances because CERCLA section 101(14) defines "hazardous substance" chiefly by reference to lists under other statutes, including CWA section 311(b)(4). Therefore, all of the hazardous substances in Table 117.3 are also in the list of CERCLA hazardous substances. On the other hand, Table 302.4-List of Hazardous Substances and Reportable Quantities in 40 CFR 302.4 is a compilation of CERCLA hazardous substances from various	Storm water discharges and authorized non-storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR Part 117, Table 117.3. The Permit needs to include the referenced table as an appendix to facilitate the permittee's compliance with the requirement.	RLacarra	PBS&J

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Comment No.	Section No.	Section Name	Permit Page No.	Permit Language	Comments	Recommendation(s)	Author Name	Author Company
					statutory sources. The "Statutory Code" column in Table 117.3 indicates the statutory source for designating each substance as a CERCLA hazardous substance including section 311(b)(2) of the Clean Water Act, section 307(a) of the Clean Water Act, section 112 of the Clean Air Act, and section 3001 of the Resource Conservation and Recovery Act (RCRA). The permit needs to be modified to indicate that only 40 CFR 117.3 pollutants which are designated as hazardous under the CWA should be evaluated. The Permit needs to be modified to indicate that Table 117.3 in 40 CFR 117 is to be referenced for the potential list of hazardous substances.			
13	IV.A.2 and IV.B.(Table 1)	NELs	10	Section IV.A.2. Dischargers shall reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges through the use of controls, structures, and management practices that achieve BAT for toxic and non-conventional pollutants and BCT for conventional pollutants.	BCT for conventional pollutants and the development of TBELs has not been clearly demonstrated to lead to NELs for sediment listed in the Permit when using standard or traditional erosion control BMPs (silt fences, sedimentation basins, vegetated cover, etc.). The use of ATS may be the only technology for which NELs can be developed and confirmed. For other BMPs only NALs and the iterative process should apply.	Change NELs to only apply for ATS. Include NALs for traditional BMPs in recognition of the fact that technology performance is not available to determine NELs. BMPs would have NALs and use the iterative process until the data and studies are completed that can determine the appropriate NELs.		
14	Table 1	NEL, NAL, Test Methods, DL, and RL	10	Table 1	Table 1 contains several errors to be corrected. The table is incomplete and misleading when compared to the more prescriptive text. Modifications are recommended to make the table a complete reference to the limitations and remove any confusion. Attachment J is likely the incorrect attachment and it may have been meant to be Attachment C.	"Use Attach. J" should be replaced with "Calculate using Attach. C. Cannot exceed 1000 NTU".	RLacarra	PBS&J
15	Table 1	NEL, NAL, Test Methods, DL, and RL	10	Table 1	Table 1 contains several errors to be corrected.	The minimum Detection Limit for Turbidity, for ATS discharges, is noted as "Not specified" it should be replace with "Use Attach. J"	RLacarra	PBS&J

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Comment No.	Section No.	Section Name	Permit Page No.	Permit Language	Comments	Recommendation(s)	Author Name	Author Company
16	Table 1	NEL, NAL, Test Methods, DL, and RL	10	Table 1	Table 1 contains several errors to be corrected.	The minimum Detection Limit for Turbidity, for ATS discharges, is noted as "Not specified" it should be replace with "Use Attach. J"	RLacarra	PBS&J
17	Table 1	NEL, NAL, Test Methods, DL, and RL	10	Table 1	Table 1 does not specify the "Residual Chemical" requirements for ATS	Must be consistent with Attach J and IV.B.2.	RLacarra	PBS&J
18	V.4	Receiving Water Limitations	11	Storm water discharges and authorized non-storm water discharges shall not disrupt the pre-project equilibrium flow and sediment supply regime. In cases where the pre-project flow and sediment supply regime is not in equilibrium, project related activities shall not impede the natural channel evolution process.	Second sentence in V.4 does not make sense.	Remove second sentence.	RLacarra	PBS&J
19	VI.8	Provisions	13	Authorized non-storm water discharges may include those from non-chlorinated potable water sources such as: fire hydrant flushing, irrigation of vegetative erosion control measures, pipe flushing adn testing, water to control dust, and uncontaminated ground water dewatering.	Note: this is very general and creates some confusion since most of the discharges described may require permitting to comply with regional WDR or other permits issued by the Regional Board. The language should be modified to make this clear. If the intent is for coverage of all these non-storm water discharges from non-chlorinated potable water to be permitted under this General Permit then that should be made more explicit.	Authorized non-storm water discharges may include non-chlorinated potable water sources, if no other permits have been established for these discharges by the Regional Board. Non-chlorinated potable water sources include: fire hydrant flushing, irrigation of vegetative erosion control measures, pipe flushing adn testing, water to control dust, and uncontaminated ground water dewatering.	RLacarra	PBS&J
20	VII.B	Particle Size Analysis	14	Dischargers shall complete a soil particle size analysis, using test method ASTM D-422 (Standard Test Method for Particle-Size Analysis of Soils), as revised, to determine the percentages of sand, very fine sand, silt, and clay on the site. The percentage of particles less than 0.02 mm in diameter shall also be determined.	According to the expanded explanation regarding particle size analysis found in the Permit Fact Sheet, on page 48, site evaluation of the particle size is appropriate if the sediment and erosion strategy for the site will be through the use of sedimentation basins or other similar devices (including ATS). Therefore, particle size analysis is only relevant at the discretion of the applicant based on the compliance strategy presented in the SWPPP. The particle size is not relevant to the Risk Level determination which can be made by using the soils types and other existing data readily available (as noted in Attachment A). Particle	Modify Permit language as follows: Dischargers shall complete a soil particle size analysis, using test method ASTM D-422 (Standard Test Method for Particle-Size Analysis of Soils), as revised, to determine the percentages of sand, very fine sand, silt, and clay on the site. The percentage of particles less than 0.02 mm in diameter shall also be determined. This requirement applies at the discretion of the Discharger for the design of sedimentation basins or other similar settling devices for which the data is relevant to performance, as noted in Attachment D.	RLacarra	PBS&J

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					size is only relevant if Attachment D: Sediment Basin Sizing is applicable to the project site.			
21	VIII.A.2	NALs	15	The NAL for turbidity is site-specific and shall be calculated using the methodology outlined in Attachment C, or an equivalent or better (as determined by a qualified professional) method to estimate expected turbidity from a construction site. If the calculated NAL exceeds 1000 NTU, the NAL shall be 1000 NTU.	We believe the methodology (or spreadsheet) in Attachment C referenced in this section is incomplete as it does provide the output - that is it does not determine a Turbidity NAL for a specific site when completed.	Revise, correct or complete Attachment C spreadsheet to allow for entry of readily available site data to determine the turbidity NAL for a project site.	RLacarra	PBS&J
22	VIII.A.3	NALs	15	Whenever analytical effluent monitoring indicates that the discharge is below the lower NAL for pH, exceeds the upper NAL for pH, or exceeds the turbidity NAL (as listed in Table 1), the discharger shall conduct a construction site and run on evaluation to determine whether pollutant source(s) associated with the site's construction activity may have caused or contributed to the NAL exceedance and immediately implement corrective actions if they are needed.	Poorly worded	Whenever analytical effluent monitoring indicates that the discharge is below the lower NAL for pH, exceeds the upper NAL for pH, or exceeds the turbidity NAL (as listed in Table 1), the discharger shall conduct a construction site evaluation to determine the pollutant source(s). Pollutant sources may originate from the site's construction activities or storm water run on. If sources are identified that may have caused or contributed to the NAL exceedance, the discharger shall immediately implement corrective actions if appropriate.	RLacarra	PBS&J
23	VIII.A.4.b	NALs	15	Are related to the runon associated with the construction site location and whether additional BMPs or SWPPP implementation measures are required to meet BAT/BCT requirements (Section IV, A, 2) and reduce or prevent pollutants in storm water discharges from causing exceedances of receiving water objectives and what corrective action(s) were taken or will be taken and schedule for completion.	Seems inappropriate to require the construction site to manage the run on which may be the result of negligence by other parties. Correct typographical errors.	Delete requirements to manage run-on from other properties and dischargers.		
24	VIII.D.8	Sediment Controls	17	For Risk Level 3, the Regional Water Board may require the discharger to implement additional site-specific sediment control requirements if the implementation of the other requirements in this section are not adequately protecting the receiving waters.	The sediment controls (BMPs) should be modified if not meeting the NELs instead of the receiving waters. Revise as recommended. This provision may include Risk Level 4, as recommended in previous comments (instead of being issued individual Permits).	For Risk Level 3 and 4, the Regional Water Board may require the discharger to implement additional site-specific sediment control requirements if the implementation of the other requirements in this section are not adequately achieving the NALs described in Section VIII.A.	RLacarra	PBS&J

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Comment No.	Section No.	Section Name	Permit Page No.	Permit Language	Comments	Recommendation(s)	Author Name	Author Company
25	VIII.F.6	Good Site Management "Housekeeping"	19	5. The discharger shall conduct an assessment and create a list of potential pollutant sources and identify any areas of the site where additional BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. This potential pollutant list shall be kept with the SWPPP and shall identify all non-visible pollutants which are known, or should be known, to occur on the construction site. a. At a minimum, when developing BMPs, the discharger shall:i. Consider the quantity, physical characteristics (liquid, powder, solid, etc.), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.ii. Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.iii. Consider the direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges. This shall include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.iv. Ensure retention of sampling, visual observation, and inspection records.v. Ensure effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.6. The discharger shall implement appropriate controls throughout all stages of construction to address air deposition issues.	This section is intended to define how Non-Visible Pollutant Sources will be identified during the Project Implementation stage. Yet this section is listed under Good Site Management "Housekeeping". This section should be moved up one level with its own title under Section VIII. It is suggested that it be listed as Section VIII.F. - Non-Visible Pollutant Source Identification and subsequent sections be renumbered as VIII.G through VIII.K. Rewording is also suggested to specifically address potential construction-related sources that are reasonably expected to be on-site.	**VIII.F. Non-Visible Pollutant Source Identification.** The discharger shall conduct an assessment and create a list of potential construction-related pollutant sources that are reasonably expected to be present at the site and identify any areas of the site where additional BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. This potential pollutant list shall be kept with the SWPPP and shall identify all non-visible pollutants which are reasonably known, or should be reasonably known, to occur on the construction site. a. At a minimum, when developing BMPs, the discharger shall:i. Consider the quantity, physical characteristics (liquid, powder, solid, etc.), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.ii. Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.iii. Consider the direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges. This shall include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.iv. Ensure retention of sampling, visual observation, and inspection records.v. Ensure effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.6. The discharger shall implement appropriate controls throughout all stages of construction to address air deposition issues.	RLacarra	PBS&J

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Comment No.	Section No.	Section Name	Permit Page No.	Permit Language	Comments	Recommendation(s)	Author Name	Author Company
26	VIII.F.6	Good Site Management "Housekeeping"	20	The discharger shall implement appropriate controls throughout all stages of construction to address air deposition issues.	The discharger cannot be held responsible for air deposition issues that may originate from other sources. This requirements is worded too broadly and would require the discharger to manage external sources not associated with the construction site or activities. Revise as noted.	The discharger shall implement appropriate controls throughout all stages of construction to address wind erosion of sediment and dust control originating from the construction activities and site.	RLacarra	PBS&J
27	VIII.G.3	Non-Storm Water Management	20	The discharger shall wash streets in such a manner as to prevent non-storm water discharges from reaching surface water or MS4 drainage systems.	Delete as written. Move recommended language to Section F under Good Site Management	The discharger shall maintain streets (primarily through street sweeping) in such a manner as to prevent sediment from reaching surface water or MS4 drainage systems.	RLacarra	PBS&J
28	VIII.I.1	Inspection, Maintenance and Repair	21	A Qualified SWPPP Practitioner shall conduct inspections and perform sampling and analysis at the discharger's project location.	Add reference	A Qualified SWPPP Practitioner (See Section IX.A.4) shall conduct inspections and perform sampling and analysis at the discharger's project location.	RLacarra	PBS&J
29	VIII.I.	Inspection, Maintenance and Repair	21		Add new number 3 as VIII.I.3 and renumber the remaining entries.	The discharger shall provide for a trained inspector, as described in Section VIII.J.1 below.	RLacarra	PBS&J
30	VIII.I.4	Inspection, Maintenance and Repair	21	For each inspection required, the discharger shall complete an inspection checklist, using a form provided by the State Water Board or Regional Water Board or in an alternative format that includes the information described in Project Implementation Requirement J.	Revise for incorrect citation of requirement.	For each inspection required, the discharger shall complete an inspection checklist, using a form provided by the State Water Board or Regional Water Board or in an alternative format as described in Section J.5 below.	RLacarra	PBS&J
31	VIII.J.	Training and Qualifications	22		Add new VIII.J.2	Documentation demonstrating compliance with Section VIII.J.1 above shall be included in the SWPPP	RLacarra	PBS&J
32	IX	SWPPP	22		Numbering in this section is confusing	Renumber entire section	RLacarra	PBS&J
33	IX.A.2 and IX.A.3	SWPPP Preparation, Implementation and Oversight	22	IX.A.2 The SWPPP shall be written and amended, as needed, to address the specific circumstances for each construction site covered by this General Permit prior to commencement of construction activity for any stage. IX.A.3 . The SWPPP shall list the name and telephone number of the currently designated Qualified SWPPP Practitioner(s).	As currently written, only the Qualified SWPPP Developer can amend the SWPPP. SWPPP may need to be amended at each stage of construction by the Qualified SWPPP Practitioner. The discharger should be given the option to have the Practitioner (with the Q-SWPPP Developers approval) be entitled to make amendments to the SWPPP.	IX.A.2 The SWPPP shall be written and amended, as needed, to address the specific circumstances for each construction site covered by this General Permit prior to commencement of construction activity for any stage. IX.A.3 . The SWPPP shall list the name and telephone number of the currently designated Qualified SWPPP Practitioner(s) and indicate if they are authorized by the Qualified SWPPP Developer to make	RLacarra	PBS&J

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						amendments to the SWPPP.		
34	IX.A.7	SWPPP Preparation, Implementation and Oversight	24	The SWPPP and each amendment shall be signed by the discharger (landowner) or his/her duly authorized representative. The SWPPP shall include a listing of the date of initial preparation and the date of each amendment.	It would appear that the owner will have to provide the Qualified SWPPP Developer with the authorization to amend and be responsible for the amendments, but the Qualified SWPPP Developer may not be on-site or part of the development/construction team. This may present a problem of responsibility. The Permit should allow the discharger the option to designate the Qualified SWPPP Practitioner the authorization to amend the SWPPP.	Move section IX.A.7 to the beginning of IX.A.1. See comment for Section IX.A.2.	RLacarra	PBS&J
35	X	REAP	24	For projects in Risk Levels 2 and 3, the discharger shall develop a REAP 48 hours prior to any likely precipitation event. A likely precipitation event is any weather pattern that is forecasted to have a 50% or greater chance of producing precipitation in the project area. The discharger shall obtain printed likely precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at http://www.srh.noaa.gov/forecast).	A clearer definition of a "likely precipitation event" is required that includes not just the percent chance of rain (probability of precipitation, as described on Page 47 of the Fact Sheet) but also should include the forecast amount. Forecast amounts are given as "measureable" (0.01 inches) or in predicted amounts such as one tenth of an inch (1/10th), quarter of an inch, half an inch or in inches. The definition of a "likely precipitation event" should be modified from 0.01 inches (which is a "measureable amount" and extremely unlikely to produce any precipitation) to a more reasonable amount of greater or equal to 1/10th of an inch which is minimum precipitation amount likely to initiate any mobilization of sediment or erosion under most circumstances. Modify as noted in Recommendation. Later in Attachment B - Monitoring Program and Reporting Requirements, the term "qualifying rain event" is used, but it is never defined. We recommend that the same definition and terms describing the characteristics of the rain event for the REAP and the Monitoring and Inspection be used.	For projects in Risk Levels 2, 3 and 4 the discharger shall develop a REAP 48 hours prior to a likely precipitation event as defined below. A qualifying precipitation event is a weather pattern that is forecasted to have a 50% or greater chance of producing 1/10th (0.1) of an inch or greater of precipitation in the project area. The discharger shall obtain printed likely precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at http://www.srh.noaa.gov/forecast).	RLacarra	PBS&J

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					We recommend that the qualified rain event be defined as noted above.			
36	XI.1.d and XI.1.e	Conditions of Termination	25	X.1.d Compliance with the New and Re-development Standards in Section I of this General Permit has been demonstrated; X.1.e. Post-construction storm water management measures have been installed and a satisfactory long-term maintenance plan has been established;	Post-construction should not be part of the Construction Permit requirements.	Delete Sections XI.1.d and XI.1.e	RLacarra	PBS&J
37	XI.1.f	Conditions of Termination	25	All construction-related equipment, materials and any temporary BMPs no longer needed are removed from the site.	The language is too stringent and potentially in conflict with the ability to implement XI.3.b.	This requirement needs to be reconsidered since it is preventing the use of temporary BMPs to secure the site and to allow for the NOT to be completed.	RLacarra	PBS&J
38	XI.3.a	Conditions of Termination	25	The remaining exposed soil (30%) shall be partially covered by at least 2 inches of fallen plant litter or standing dead plant litter. Perennial vegetation may include grasses, ground covers, shrubs, or a combination. Soil loss as predicted by RUSLE must be at or below pre-project levels.	The last requirement in this condition makes it by default the same as XI.3.b. Therefore, it limits the options for the NOT. The RUSLE factor is not practical in this situation and will require extensive resources and effort for little gain.	Recommend deleting the last sentence regarding the RUSLE factor.	RLacarra	PBS&J
39	XII.	Regional Board Authorities	26	XII.1 through XII.11	The Regional Board Authorities - any amendments to the Permit via the described provisions would need to be in writing and allow for a reasonable timeframe for revisions, amendments, or issuance of an individual Permit. This section does not provide enough clarity to how the discharger will be notified and what if any protection will be offered to a discharger that has a permit and has commenced work. The broad authority given to the Regional Board is likely to lead to significant deviations in the requirements stated in the General Permit and as a result increase the diversity of permit conditions and requirements across the State. It will also create significant administrative and enforcement issues for both the discharger and Regional Board. This permit language and broad unrestricted authority to the Regional Boards erodes the "even playing field" intent of the General Permit and the purpose for its issuance by the State Board. This Permit language needs to be clearer and guidance	The permit needs to clearly define the Regional Board authority, role and responsibilities. The Permit also needs to give the applicant and discharger some assurances that Permit coverage will not be rescinded without a clear process and opportunity for review and petition.	RLacarra	PBS&J

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					needs to be developed otherwise it will complicate permit compliance by dischargers and leave the door open for a wide range of unsubstantiated requirements being imposed on dischargers.			
40	Table 1	Visual Monitoring	2	Required Monitoring Elements by Risk Levels	The table is not cited in the text and is confusing. It appears to be redundant with the ensuing tables.	Delete Table 1.	RLacarra	PBS&J
41	Table 2	Visual Monitoring	2	Post-rain Event inspections are to be conducted within 2 days after a qualifying rain event	Clarify that it is two business days not just two days. No definition of "qualifying rain event" is provided. The definition was previously suggested in Comment No. 34. There should be one definition for the type of rain event that triggers the preparation of the REAP and that triggers monitoring and inspection activities. The suggested definition has been provided.	Post-rain Event inspections are to be conducted within 2 business days after a qualifying rain event (equal or a greater than 50% probability of precipitation that is equal or greater than 1/10th of an inch.	RLacarra	PBS&J
42	C.2.	Visual Monitoring	2	One visual observation (inspection) shall be conducted quarterly in each of the following periods: January-March, April-June, July-September, and October-December. Visual observation (inspections) are only required during daylight hours (sunrise to sunset).	Clarity is needed in the text to explicitly indicate that these quarterly visual observations are to be conducted during "dry weather periods" and the definition being at least 72 hours without precipitation.	One visual observation (inspection) shall be conducted quarterly during dry weather (a minimum of 72 hours without recorded precipitation) in each of the following periods: January-March, April-June, July-September, and October-December. Visual observation (inspections) are only required during daylight hours (sunrise to sunset).		
43	D	Visual Monitoring	3	(Entire Section D)	The Section title is "Visual Monitoring (Inspection) Requirements for Qualifying Rain Events", yet it describes inspections required as "pre-rain event" and "post-rain event". Overall, it is very confusing and implementation is complicated as a result. It would appear that D.5 is describing the "pre-rain event" inspections, and if such is the case, it should be moved to a new section between the existing Sections C and D to maintain a chronological order of the events and eliminate confusion.	Revisit for clarity and consistency. See below.		

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44	D.1	Visual Monitoring	3	The discharger shall visually observe (inspect) storm water discharges at all discharge locations within one business day after each qualifying rain event.	Replace one business day with two business days to be consistent with Table 2 on page 2.	The discharger shall visually observe (inspect) storm water discharges at all discharge locations within two business day after each qualifying rain event.	RLacarra	PBS&J
45	D.7	Visual Monitoring	3	Within two business days after each qualifying rain event, the discharger shall conduct post rain event visual observations (inspections) to (1) identify whether BMPs were adequately designed, implemented, and effective, (2) identify additional BMPs and revise the SWPPP accordingly, and, if Risk Level 3, (3) photograph each drainage area discharge location and structural BMPs.	The revision to the SWPPP is infeasible within 2 business days since it will require that the Qualified SWPPP Developer be contacted to make the changes and sign the amendments. The revisions should be initiated, but not completed within two business days. See comments for Section IX for clarification on how to improve this process.	Within two business days after each qualifying rain event, the discharger shall conduct post rain event visual observations (inspections) to (1) identify whether BMPs were adequately designed, implemented, and effective, (2) identify additional BMPs and initiate any revisions of the SWPPP accordingly, and, if Risk Level 3, (3) photograph each drainage area discharge location and structural BMPs.	RLacarra	PBS&J
46	E	Water Quality Sampling and Analysis	4	(Entire Section E)	The tables and text are not organized in a logical order which makes it very confusing. The organization in general should be to have the text describing the requirements with citations for the relevant table(s). For example, it is not clear what monitoring event items E.1 through E.3 are referring to since there is no heading. The next two underlined headings apply to Storm Water Effluent Monitoring Requirements (E.4 and E.5) and then Receiving Water (RW) Monitoring Requirements (E.6 through E.9), etc.	Re-organize text and tables for a more logical and fluid section.	RLacarra	PBS&J
47	Table 3	Water Quality Sampling and Analysis	4	Risk Level 1 - one sample per storm event	Monitoring requirements Table 3 indicates samples for Risk Level 1 are to be collected for each storm event. The "storm event" is not defined. The storm event should be the same as the "qualifying storm event" defined previously as part of comment no. 34, and should be used in this case too. The qualifying storm event should be the same for the REAP, Visual Monitoring (inspections) and Effluent Monitoring. Otherwise, there is no consistency and resources are wasted trying to manage all the various stages and requirements. The number of storms events that may trigger this requirement are excessive and will	One qualifying storm event per month during the rainy season (Oct 1 - April 30).	RLacarra	PBS&J

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					result in extensive cost for no reasonable benefit or protection of beneficial uses and water quality. To reduce the unreasonable burden (technically and economically) imposed by this requirement, a more appropriate number of qualifying storm events should be monitored.			
48	Table 3	Water Quality Sampling and Analysis	4	Risk Level 2 and 3 - one sample beginning the first hour of any new discharge and one sample during the first and last hour of every day of normal operations for the duration of the discharge event	Monitoring requirements Table 3 indicates samples for Risk Level 1 are to be collected for each storm event. The "storm event" is not defined. The storm event should be the same as the "qualifying storm event" defined previously as part of comment no. 34. Also see comment above. The requirement to sample throughout the rain event and every day for the entire event is excessively burdensome, costly and infeasible. The "last hour" of every day cannot be reasonably known since rain events do not have a predicted "end time" even with the best of weather forecasts. This would require staffing the site for this sole purpose possibly 24-7. "Normal Operations" should be changed to be "daylight hours" to be consistent with previous requirements in C.2 (sunrise to sunset).	Risk Level 2 and 3 - one sample beginning the first hour of any new discharge and one sample during the first hour of daylight of a continuous qualifying rain event for the duration of the discharge event		
49	Table 4	Receiving Water Monitoring Requirements	5		Table 4 is not cited in the text.		RLacarra	PBS&J
50	Table 4	Receiving Water Monitoring Requirements	5	Receiving water monitoring for SSC (only if turbidity NEL exceed) for Risk Level 2	The requirement to test for SSC if turbidity level is exceeded at Risk Level 2 sites is excessive, costly and not tied to any benefit (for the cost). There is no SSC NEL or water quality objective in any Basin Plan to justify the additional expense to send these samples to a laboratory for analysis. The effort, resources and cost would be best applied in modifying the BMPs to reduce turbidity to meet the NEL and retest turbidity to meet compliance.	Remove the SSC testing requirement for Risk Level 2 and 3 sites that exceed the NEL.	RLacarra	PBS&J

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51	Table 4	Receiving Water Monitoring Requirements	5	Receiving water monitoring trigger for Risk Level 3 sites - none - all sampling events shall include effluent and receiving water monitoring ; turbidity, pH, SSC and bioassessment	The requirement to test the receiving waters is excessive, burdensome and has not been scientifically defined. This requirement may be in conflict with other agency requirements and cannot be implemented due to logistics, excessive costs, and other technical issues.	Remove all receiving water monitoring requirements imposed directly on dischargers.	RLacarra	PBS&J
52	E.4.b.	Storm Water Effluent Monitoring	5	Non-visible pollutant parameters (if applicable) - parameters indicating the presence of pollutants identified in the pollutant source assessment required in Section VII.F.5 contained in the General Permit (the discharger shall modify its CSMP to address these additional parameters in accordance with any updated SWPPP pollutant source assessment); and	The Permit section (VII.F.5) reference here is incorrect. We believe it should be Section VIII.F.5	Modify as follows: Non-visible pollutant parameters (if applicable) - parameters indicating the presence of pollutants identified in the pollutant source assessment required in Section VIII.F.5 contained in the General Permit (the discharger shall modify its CSMP to address these additional parameters in accordance with any updated SWPPP pollutant source assessment); and	RLacarra	PBS&J
53	E.4.b.	Storm Water Effluent Monitoring	5	Non-visible pollutant parameters (if applicable) - parameters indicating the presence of pollutants identified in the pollutant source assessment required in Section VIII.F.5 contained in the General Permit (the discharger shall modify its CSMP to address these additional parameters in accordance with any updated SWPPP pollutant source assessment);	The permit uses pollutant "parameters" in this section. It is not clear what is meant by pollutant "parameters" as opposed to "pollutants". It may be that is terms were misused in which case the recommended language is provided.	Non-visible pollutants (if reasonably expected in the discharge as a result of visual observations or inspections) - the presence of pollutants identified in the pollutant source assessment required in Section VIII.F.5 contained in the General Permit (the discharger shall modify its CSMP to address these additional parameters in accordance with any updated SWPPP pollutant source assessment);		

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54	E.4.b.	Storm Water Effluent Monitoring	5	Non-visible pollutant parameters (if applicable) - parameters indicating the presence of pollutants identified in the pollutant source assessment required in Section VIII.F.5 contained in the General Permit (the discharger shall modify its CSMP to address these additional parameters in accordance with any updated SWPPP pollutant source assessment);	The Permit section (VIII.F.5 - correct citation - see above) requires that the discharger prepare an assessment and create a list of potential pollutant sources. Then Permit Section E.4.b requires that the discharger identify non-visible pollutant parameters (if applicable) - these pollutant paramaters are to be selected as "parameters indicating the presence of pollutants identified in the pollutant sources assessment required in...." The Permit creates a complex system of identification of non-visible pollutants and then a sub-set of what might be called "indicator parameters or pollutants". This is a burdensome and complex analysis for a very narrow and very unlikely list of pollutants that will have very little chance of being in the discharge and impacting water quality. Their potential low risk should not require such a complicated process and monitoring requirements. The discharger should only be held accountable for the inspection and monitoring of non-visible pollutants that are being stored and used on-site. Monitoring should only be required if there is clear indication of a discharge, spill or other reasonable expectation that they have entered or may have entered the storm water runoff.	Non-visible pollutants (if reasonably expected in the discharge as a result of visual observations or inspections) - the presence of pollutants identified in the pollutant source assessment required in Section VIII.F.5 contained in the General Permit (the discharger shall modify its CSMP to address these additional parameters in accordance with any updated SWPPP pollutant source assessment);	RLacarra	PBS&J
55	E.5	Storm Water Effluent Monitoring	5	Risk Level 2 dischargers sites that have violated the turbidity NEL shall analyze subsequent effluent samples for all the parameters specified in Section E.4. and Suspended Sediment Concentration (SSC).	The requirement to test for SSC if turbidity level is exceeded at Risk Level 2 sites is excessive, costly and not tied to any benefit (for the cost). There is no SSC NAL, NEL, or water quality objective in any Basin Plan exists to justify the additional expense to send these samples to a laboratory for analysis. The effort, resources and cost would be best applied in modifying the BMPs to reduce turbidity to meet the NEL and retest turbidity to meet compliance. In most cases, receiving waters will be located miles downstream of the	Delete SSC testing requirement		

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					project site and there will be correlation possible between the receiving water monitoring data and the discharge from the project site.			
56	E.6	Receiving Water Monitoring Requirements	5	In the event that a Risk Level 2 discharger violates an NEL contained in this General Permit, the discharger shall subsequently sample RWs for all parameter(s) required in Section E.4 above for the duration of coverage under this General Permit.	This section requires receiving water monitoring which is triggered by only one incident of NEL exceedance (Risk Level 2) that is unlikely to be feasible for the majority of projects since it is unlikely that RW will be accessible, or that the discharge from the site will have any linkage to the RW conditions (or measurements). In most cases, receiving waters will be located miles downstream of the project site and there will be correlation possible between the receiving water monitoring data and the discharge from the project site.	Delete	RLacarra	PBS&J
57	E.7	Receiving Water Monitoring Requirements	6	Risk Level 3 dischargers shall sample receiving waters for all parameter(s) required in Section E.4 above.	This section requires receiving water monitoring (Risk Level 3) that is unlikely to be feasible for the majority of projects since it is unlikely that RW will be accessible, or that the discharge from the site will have any linkage to the receiving water conditions (or measurements).	Delete	RLacarra	PBS&J
58	E.8	Receiving Water Monitoring Requirements	6	Risk Level 3 dischargers shall conduct or participate in benthic macroinvertebrate bioassessment of RWs prior to commencement of construction activity.	There is NO direct link between a site's storm water discharge "prior" to construction and the receiving waters. The majority of the discharges are anticipated to an MS4 and will have no direct discharge to RW. Therefore, bioassessment of the RW is irrelevant to a project's construction site and will be impossible to link to the site's effluent. The requirement is excessive, burdensome and unjustified. Permit assumes Bioassessment sites are relevant (which they are not). No value from the data; timeline for bioassessment periods is only twice/year and a reference site and other factors are not addressed. It will be a waste of resources with no value.	Delete. Risk Level 3 should be required to conduct RW Monitoring for Bioassessment in the RW (if appropriate).	RLacarra	PBS&J

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59	E.10 - E.15	Receiving Water (RW) Sampling Locations	6	Section E. 12. A sufficiently large sample of storm water that has not come in contact with the disturbed soil or the materials stored or used on-site (uncontaminated sample) shall be collected for comparison with the discharge sample. 13. Samples shall be collected during the first two hours of discharge from rain events that occur during daylight hours and which generate runoff. 14. The uncontaminated sample shall be compared to the samples of discharge using field analysis or through laboratory analysis.	Requirements E.12 - E.14 are unreasonable and unjustified. The attempt to direct sampling to include an uncontaminated sample to act as a reference is unnecessary and creates another significant logistically impossible compliance task imposed on the discharger for no benefit. If non-visible pollutants are suspected, one sample of the discharge and efforts to contain and improve BMPs should be sufficient to minimize the impact and correct the problem.	Delete E.12 through E.14.	RLacarra	PBS&J
60	F.6-F.8	Receiving Water (RW) Sampling Locations		Receiving Water (RW) Sampling Locations 6. Upstream/up-gradient RW samples: the discharger shall obtain any required upstream/up-gradient receiving water samples from a representative location as close as possible and upstream from the effluent discharge point. 7. Downstream/down-gradient RW samples: the discharger shall obtain any required downstream/down-gradient receiving water samples from a representative location as close as possible and downstream from the effluent discharge point. 8. If two or more discharge locations discharge to the same receiving water, dischargers may sample the receiving water at a single upstream and downstream location.	As noted repeatedly above, Receiving Water monitoring is not feasible and needs to be addressed in a state-wide program. The only reasonable alternative for implementation of receiving water monitoring is to implement it at the state level, as suggested in the Fact Sheet. We suggest that a portion of the NPDES Permit fee for Risk Level 4 dischargers be directed towards an organized monitoring program for this purpose (funding managed and administered by the State). Only Risk Level 4 sites should be considered potential contributors to the proposed statewide monitoring program. The program should be defined by a "problem statement"; have defined questions that need to be answered; and the monitoring program should be scientifically developed to be defensible and enlist a correlation between construction site discharges and water quality effects to in-fauna, IF this is determined to be the problem statement. The monitoring program should be designed with stakeholder input and led by independent experts. A pilot study area would be a feasible start, led by an independent monitoring and scientific group (SCCWRP, SFEI, etc.). The program can be started at a smaller scale to make sure it is a manageable size and can be	Delete F.6 - F.8. Seek alternative program as presented in the Fact Sheet.	RLacarra	PBS&J

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					completed in an expeditious manner. The results of the pilot scale monitoring program can be analyzed to evaluate the appropriateness as a statewide program and the benefit to cost ratio of the data collected. Many lessons would be learned and could be applied when the right questions are answered by the data collected. The Fact Sheet (page 10) indicates that the proposed requirement is a "placeholder to allow third-party monitoring as an alternative to required receiving water monitoring elements". This needs to be considered, along with a State-run program, as the only reasonable and feasible alternative. The requirement for bioassessment sampling is particularly unreasonable since there are only two times out of the year when this monitoring can be performed, and it also reasons to believe that the program cannot be reasonably coordinated by all these independent permittees due to the complexity and expertise required.			
61	Table 5	Test Methods	10	Turbidity NAL. For all other than ATS - Use Attach. J	Table 5 indicates that the NAL is to be obtained using Attachment J. The correct reference is Attachment C, but Attachment C is incomplete and does not result in a calculated NAL. There is no tool in the current Permit draft that allows for the NAL to be evaluated or completed by the discharger, so by default it becomes the same as the NEL or 1000 NTU.	Delete Bioassessment Test method (see F.6-F.8). Provide correct NAL calculating tools in an attachment as part of the final Permit. The final NAL spreadsheet tool still needs to be reviewed as part of the public comment period.	RLacarra	PBS&J
62	G.2.b	Visual Observation - Exceptions	11	Outside of scheduled site operating hours.	Modify to be consistent with D.3 which states: "visual observations (inspections) are only required during daylight hours (sunrise to sunset)"	Replace with: "Outside of daylight hours".	RLacarra	PBS&J
63	K	Watershed Monitoring Option	14	K.1 in its entirety.	The section does not offer a feasible alternative to self-monitoring requirements for the receiving waters. The language is too vague and subject to Regional Board interpretation.	Other options need to be explored as presented in the above comments no.53 - 58.		