Stormwater Panel Report
Deadline: 9/1/06


***Allied Industries, Inc.***
***California Waste Association***
***California Refuse Removal Council***
***Clean Harbors, Inc.***
***County of Orange Integrated Waste Management Dept.***
***Inland Empire Disposal Association***
***Los Angeles County Sanitation Districts***
***Los Angeles County Waste Management Association***
***Norcal Waste Systems, Inc.***
***Onyx Environmental Services***
***Riverside County Waste Management Department***
***Rural Counties' Environmental Services JPA***
***SCS Engineers***
***Solid Waste Association of North America, Calif. Chapters***
***Solid Waste Association of Orange County***
***Waste Management***

September 1, 2006

Ms. Song Her
Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Attn: Chairperson Tam Doduc and Board Members

***Subject: Comment Letter – Storm Water Panel Report***

Dear Chairperson Doduc and Board Members:

The undersigned representatives of the letterhead organizations are part of a broad coalition of California solid waste industry interests that would like to provide comments associated with "The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities", dated June 19, 2006 (Report). Our coalition would like to thank the State Water Resources Control Board ("State

Board") for convening the Storm Water Panel to determine if it is technically feasible to establish numeric storm-water effluent limitations. It is our understanding that the Panel's Report has been finalized and the State Board will not be further amending the Report itself. Accordingly, although we have some brief observations concerning the Report, the purpose of this letter is to provide comments on how the State Board can utilize the Report's findings.

## *Evaluation of the Report*

Frankly, it is not particularly clear what the Report actually recommends from an overall perspective. On one hand, the Report appears to recommend numeric effluent limits as theoretically feasible, but adds qualifications to that recommendation to the degree that numeric limits do not appear to be currently feasible based on currently available information.

Absent in the Report are any references to technical information that would be required to substantiate the recommendations. The Report does not enter into a thorough discussion of the complex technical issues that must be addressed prior to setting numeric limits for storm-water discharges. These issues include the following:

- The variability in the criteria for selecting Best Management Practices (BMPs) including the lack of adequate testing methodology for BMP performance or the lack of relevant data where testing methodologies have been developed (e.g. ASTM D6459-99 Standard Test Method for Determination of Erosion Control Blanket (ECB) Performance in Protecting Hillslopes from Rainfall-Induced Erosion and ASTM D6460-00 Standard Test Method for Determination of Erosion Control Blanket (ECB) Performance in Protecting Earthen Channels from Stormwater-Induced Erosion).
- The relationship of rainfall intensity and duration to pollutant concentrations/loading and the inherent design limitations of BMPs to treat discharges to meet either a set pollutant reduction value or a set numeric value under all conditions.
- Sampling issues including background pollutant concentrations, the limitations of grab sampling, and a discussion of time weighted average sampling versus flow weighted average sampling.

Notably, the panel states: "…To establish Numeric Limits for industrial sites requires a reliable database, describing current emissions by industry types or categories, and performance of existing BMPs. The current Industrial permit has not produced such a database for most industrial categories because of inconsistencies in monitoring or compliance with monitoring requirements."

This statement underscores that it is premature to set any numerical limits (i.e. enforceable mass or concentration-based limits) for industrial storm-water discharges. What appears to be required is a phased regulatory approach that begins with the development a comprehensive framework for the characterization of storm-water discharges that takes into account, at a minimum, the issues listed above. After discharges are adequately characterized and the water quality impact can be determined, then other criteria may be addressed including discharges into impaired stream segments and the cost/benefit of BMPs.

## *Waste Industry Concerns*

The parties to this letter operate or are involved in the operation of municipal solid waste landfills, transfer stations, recycling centers, and other waste management facilities subject to California storm-water requirements. All of the parties to this letter have waste related industrial sites in a variety of different shapes, sizes, configurations and functions. On behalf of all these parties, we all would like to express that "one size fits all" requirements being considered by the State Board do not work with storm-water given the myriad of different background and industrial configurations that exist in California – especially with respect to waste management facilities and services. Numeric storm-water limits must be specifically geared to what is feasible at a particular location and which does not conflict with other legal obligations imposed on the facility operator. In addition, the actions associated with numeric limits must be realistic. In this regard, we offer the following comments directed toward industrial activities pertaining to waste management facilities.

Our industry coalition recognizes the State Board's desire to move towards numerical limits for storm-water discharges. We also understand that the State Board is eager to implement a mechanism for evaluating Best Management Practices ("BMPs") and we concur with many individual findings in the Report. For example, we agree that when a TMDL defines the permissible load for a watershed, potential numeric limits should be consistent with the TMDL. Nevertheless, the State Board should take into account all sources of the TMDL constituent in question and the feasibility of reducing their respective contributions. In addition, the TMDL *must be* representative of all storm-water runoff conditions – not just low flow conditions.

In conjunction with this methodology, we agree with the Panel's finding that an approach analogous to that used in the NPDES wastewater process in the 1970s, which took into account best available technology (BAT) for each type of industry, recognizing that each industry (and activity within an industry) has its own unique characteristics and financial viability. Thus, some industries may have an easier time than others achieving reduction of a particular constituent, and this should be taken into account when considering whether to establish a numeric limit. We also believe that this approach should be limited to those constituents and circumstances where the receiving water body is impaired. If there is no impairment, then establishing numeric limits could have significant financial implications with little or no benefit to receiving waters. This is especially valid when constituent background levels are greater than an enforceable numeric limit – thereby forcing the facility into perpetual corrective action. This situation would occur under the previously proposed regulatory framework.

We concur that industrial sites require a reliable database before numeric limits can be established, and that the current general industrial permit has not produced such a database. We agree that the State Board needs to reexamine the existing data sources, collect new data and evaluate additional water quality parameters. Further study is needed to determine which pollutants of concern would reasonably be present in storm-water, by industrial category, and which BMPs would be most effective for controlling removal of those pollutants at their source. Until such data has been obtained, numerical limits cannot reasonably be developed and enforced. Studies conducted to date indicate tremendous variability in removal efficiencies of BMPs and demonstrate the need to develop a methodology to predict the expected effluent quality of each constituent of concern. The cost to develop such a list of all California industries

will be prohibitive and will likely take many years of regulatory review and protracted legal challenges. It would be more effective for Regional Water Quality Control Boards to focus attention (and monitoring) on implementation of current or enhanced BMPs when an "action level" is exceeded.

## *Design Storm Considerations*

We are concerned that the Report does not emphasize the need for a specified design storm. Based upon the unique physical nature of landfills, the variety of different types of waste operations, and complexity of waste facility regulations, specification of a design storm is a critical element that will facilitate implementation of structural BMPs. As previously described in our February 3, 2005 letter to the State Board regarding the Draft Industrial General NPDES Permit, several existing regulations (and often limited available property) are major roadblocks to implementing storm-water control projects [e.g., California Code of Regulations, Title 27, Sections 20240(b)(1), 20365(a), 20250(c), 20260(c), 20650 and 20950(a)(2)(A)(1)]. Such limitations clearly illustrate that existing sanitary landfills, for example, cannot be expected to implement large scale BMPs as suggested by the panel – unless they are related to a reasonable design storm event.

If a design storm is not specified, existing waste regulations could be interpreted to require BMPs to be designed to accommodate the 100-year event. At many of our facilities, it is estimated that treatment of total suspended solids to 100 parts per million for the 100-year event would require destruction of dedicated habitat, condemnation of private property and relocation of public rights of way. For this scenario, we estimate the cost to construct retention and treatment facilities recommended by the Panel would exceed $5 billon dollars for California landfills alone. Accordingly, we request that a design storm be specified before any numeric limits are established. As you are aware, BMP performance is highly dependent upon the intensity of actual storm events. Upon establishment of an appropriate design storm, it is recommended that respective dischargers quantify site-specific performance of applicable BMPs. Utilizing this seasonal BMP performance data, defendable industry-specific numeric limits for the design storm could subsequently be justified and implemented.

An additional consideration related to concern over the design storm is background concentration of a particular storm event. Natural background levels in many watersheds may exceed proposed limits. In general, background levels fluctuate as a function of rainfall intensity. Thus, selection of a design storm not only deals with the size of the hydrologic event that must be considered, but also the natural background concentration that would likely be associated with that design storm.

## *Phased Implementation of Action Levels*

Based upon the inherent complexity in establishing numeric limits for storm-water, we are generally supportive of the proposed phased implementation of action levels[1]. However, we are concerned that action levels could be utilized as effective numeric limits before appropriate and

[1] As used herein, the term action level refers to the term as used in the Report. Action levels are water quality based triggers for BMP review, not enforceable numeric limits. The term Action Level as used herein should not be confused with Action Levels as that term is used in Title 22 CCR in reference to drinking water quality standards.

defensible limits are developed as outlined above. In the event that action levels are implemented, we recommend that reasonable and achievable levels for any industry be established. Initially, such levels should be utilized only as a trigger to review the adequacy of implemented BMPs. Action levels should not be used to needlessly require additional and potentially costly BMPs without a demonstration that receiving waters have been impacted. Moreover, we respectfully request that the potential financial, social and environmental impacts associated with the installation of costly BMPs be included in any regulatory assessment of existing BMPs. We would like to ensure that any additional BMPs would proportionally improve receiving water quality while maintaining fiscal responsibility.

## *Support for CASQA's Progressive Approach*

The undersigned parties are very supportive of the Progressive Approach proposed by the California Stormwater Quality Association (CASQA – www.casqa.org) as described on the table attached to this letter. Our perspective on the Progressive Approach is briefly described as follows:

- ***Stage 1 – BMP Iterative Process with Benchmarks.*** This is currently the stage of most of California's existing storm-water regulatory efforts. An iterative process is relied upon to focus BMPs on problematic pollutants and sources.
- ***Stage 2 -- BMP with Action Levels that Triggers Compliance Response.*** At this stage, action levels based on design storms for specified industrial activities could be established provided there is sufficient analytical storm-water quality data to support these actions levels. Action levels would be used to focus attention on the most problematic of dischargers. We would suggest reliance on the so-called "80/20 rule" as a start. That is, 80% of a particular problem is likely derived from only 20% of the potential sources. Thus, the action levels would be established to identify the most problematic 20% of the sources within a particular industry group. This is the next stage that should be established for most existing types of waste industry sources. In the absence of adequate data, focus should be given on developing data to allow the establishment of reasonable action levels. As a start, we would suggest using SIC/NAICS Codes to develop action levels for various types of industrial activities – provided that there is adequate data to reasonably establish action levels for a particular industry code. Although we believe SIC/NAIC Codes are reasonable places to start identifying industry groups additional considerations may need to be included. For example, operating and closed facilities within a particular industry group may need to be considered separately.
- ***Stage 3 – Technology Based Effluent Limits (TBELs).*** We believe that this stage is several years away for all waste industry activities and should only be initiated once Stage 2 has been fully implemented and adequate data exists to establish TBELs.
- ***Stage 4 -- Water Quality Based Effluent Limits (WQBELs) or TMDL based limits.*** Similarly we believe that this stage should only be attempted once adequate information has been established pursuant to Stages 2 and 3.

Our waste industry coalition appreciates the opportunity to provide these comments on how the State Board can utilize the Report's findings and look forward to working with the State Board to achieve our mutual goal of improving storm-water quality. If you have any questions regarding this transmittal, please do not hesitate to contact any of the undersigned at their listed phone numbers.

Very truly yours,

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Attachment: CASQA Proposed Progressive Approach for Regulating Stormwater

cc: Celeste Cantu, Executive Officer, SWRCB
Bruce Fujimoto, Supervisor, Division of Water Quality Stormwater Section, SWRCB

**California Stormwater Quality Association's Proposed**
**Progressive Approach[a] for Regulating Stormwater (Draft 8-25-06)**
**Applicable to all three permit types[b]**

**Regulatory Options[c]**

**Stage 1**
BMP – Iterative Process and Benchmarks

**Stage 1**
- Status – Currently used in USEPA multi-sector general permit (industrial) and in California stormwater permits.
- Compliance Strategy – 1) Stormwater Management or Pollution Prevention Plan developed and implemented; 2) Effectiveness assessments conducted; 3) Analytical monitoring results compared to water quality standards and/or benchmarks; 4) Iterative process used to focus BMPs on problematic pollutants. Compliance based on implementing iterative process (municipal) and annual compliance assessment (industrial/construction).

**Stage 2**
BMP – Action Levels/Trigger Compliance

**Stage 2**
- Status – Not currently used for municipal and construction stormwater permits; however, State of WA model exists for industrial.
- Compliance Strategy – 1) Stormwater Management or Pollution Prevention Plan developed and implemented; 2) Effectiveness assessments conducted (e.g., inspections, analytical) – comparison to adaptive management indicators dictates compliance response; 3) Iterative process used to focus BMPs, potentially problematic dischargers are required to establish and implement corrective action plans; 4) Compliance based on auditable review of BMPs implemented, monitoring, and for potentially problematic dischargers, compliance with corrective action plans.

**Stage 3**
Technology Based Effluent Limits (TBELs)

**Stage 3**
- Status – Currently is being used by USEPA in limited cases (e.g., meat and poultry industry). USEPA has established procedures to develop TBELs (primarily for wastewater discharges). Development of effluent limitations based on treatment controls available to treat the pollutants and considers site conditions, activities, return period, constituents, treatment effectiveness, and costs.
- Compliance Strategy – Discharger required to implement treatment controls to meet numeric effluent limitations. Monitoring required to confirm performance and assess compliance.

**Stage 4**
Water Quality Based Effluent Limits (WQBELs)

**Stage 4**
- Status – WQBELs have not been used to date as a compliance tool. Used in some situations inappropriately. WQBEL based on protection of beneficial uses of the receiving water. Currently USEPA does not have a procedure in place for developing WQBELs for stormwater. TMDL based effluent limitations based on waste load allocation required to protect beneficial uses.
- Compliance Strategy – Discharge required to comply with numeric effluent limitations (either WQBEL or TMDL based). Monitoring is required to confirm compliance.
- Note: Additional policy directives (e.g., mixing zones, averaging period, wet weather uses, etc.) needed for implementation.

[a] Goal of the approach is to comply with water quality standards.
[b] Because numeric effluent limits for municipal discharges are currently technically infeasible, the development of effluent limits in stages 3 and 4 for municipal permits are manifested as additional best management practices (BMPs).
[c] Implementation of a TMDL may be incorporated into any stage and may be pollutant and water body specific.