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COACHELLA VALLEY WATER DISTRICT

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August 28, 2006

File: 0552.11

Song Her, Clerk to the Board
State Water Resources Control Board
Executive Office
Post Office Box 100
Sacramento, CA 95812-0100

Dear Ms. Her:

Subject: Comment Letter – Stormwater Panel Report



The Coachella Valley Water District provides domestic water, wastewater, recycled water, irrigation/drainage and regional stormwater protection services to a population of 265,000 throughout the Coachella Valley in southern California. We appreciate the opportunity to provide written comments regarding the Findings of the Stormwater Panel of Experts regarding the Feasibility of Numeric Effluent Limits Applicable to Discharges of Stormwater Associated with Municipal, Industrial and Construction Activities.

We believe site specific conditions affecting stormwater quality are too variable, uncontrollable and unstudied to permit using numeric effluent limits to regulate stormwater discharges. For these same reasons, it is currently infeasible to require the use of specific Best Management Practices (BMPs) or to require specified removal efficiencies for each BMP implemented. The current stormwater regulations provide the flexibility needed to allow the regulated community to implement cost effective BMPs that are appropriate for site specific conditions.

We have enclosed detailed comments on the subject report for your consideration.

If you have any questions on these comments, please call Olivia Daniels, Engineering Technician, extension 2200, or Steve Bigley, Water Quality Manager, extension 2286.

Yours very truly,

Mark L. Johnson, PE, DEE
Director of Engineering

Enclosure/1/as

TRUE CONSERVATION
USE WATER WISELY

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1. California's Permits: The Panel's recommendations discuss the appealed MS4 permits for Santa Clara County and Los Angeles County in 1990 saying, "The State Water Board, in hearing these appeals, determined that it was not feasible at the time to develop numeric limits for MS4 permits, and that water quality standards could and should be achieved through the implementation of best management practices (BMPs)." Coachella Valley Water District (CVWD) agrees with the State Board 1990 decision that BMPs are an appropriate way to achieve water quality standards and it is not feasible to require Municipal Separate Storm Sewer System (MS4) permit holders to abide by numeric effluent limits.

2. Court Decisions: CVWD also agrees with the ruling from the 9th District Court of Appeals from 1999. As stated in the Panel's recommendations, "The State Water Board through the permit and appeals process has in fact required that the discharges from MS4s meet water quality standards, but has stated that compliance with numeric standards can be achieved through the implementation of BMPs in an iterative fashion." It is technically feasible for municipalities to use BMPs to regulate stormwater runoff; however they do not at this time have the technology or funds to regulate the pollutants which enter receiving waters by way of the MS4 to uphold numeric effluent standards. CVWD also agrees with the statement, "Due to the unique nature of storm events and storm water discharges, any numeric limit that is placed in a storm water permit must take into consideration the episodic nature of storm events and be truly representative of storm water discharges. In addition, the regulated community has argued that there are going to be pollutants in storm water discharges that did not originate in the MS4 (run on) or that they do not have the means to control, and therefore should be given special consideration." Without proper monitoring methods, it would be difficult to determine if a pollutant originated from the rain itself or from the MS4. Contributions from natural sources of pollutants need to be considered when evaluating BMP controls.

3. Panel's Findings on Feasibility of Numeric Effluent Limits Applicable to Municipal Activities, The Problem with Existing Effluent Limit Approaches: CVWD believes it would not be economically feasible to include a filtration system or active treatment process at the end of each MS4 outlet.

As stated in the Panel's recommendations, "Effluent limit approaches usually focus only on conventional water quality constituents that may not be solely or at all responsible for the receiving water beneficial use impairment in urban receiving waters." MS4 permittees should not have to be responsible for removing polluting constituents that are not negatively affecting or leading to the decline of water quality in the receiving water.

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This will create an unnecessary economic burden. This type of regulation should be handled on a permit by permit basis by the regional boards.

The Panel's recommendations state, "Monitoring for enforcement of numeric effluent limits would also be challenging. While spot checks could be made at some of the many outfalls in an area, there is wide variation in stormwater quality from place to place, facility to facility, and storm to storm." California is too vast with a variety of climates and geological conditions for determining what the numeric effluent limitations for an MS4 should be. Desert communities should not be regulated as coastal communities are regulated. A heavy rainfall event is common on the coast. This means that samples collected for pollutant monitoring may be diluted by the rain. A heavy rainfall event in the desert is uncommon and often does not result in discharges to a receiving water. Enforcing effluent limits for an outfall where the discharge percolates or evaporates prior to reaching a receiving water would be unreasonable.

Variables affecting stormwater quality are best summed up by the Panel's statement discussing MS4s, "Analysis of the National Stormwater Quality Database indicates that geographical location and land use are the most important factors affecting stormwater quality for most constituents. Some are also affected by the antecedent dry period before the rain and more highly developed watersheds (containing large fractions of impervious areas) often show elevated "first-flush" concentrations in the first portion of the storms for some, but not all pollutants. Since the storm-to-storm variation at any outfall can be high, it may be unreasonable to expect all events to be below a numeric value." It is the opinion of CVWD that due to the vast differences through out California's communities, regulating MS4 stormwater runoff is best done by using BMPs rather than numeric effluent limits.

4. Technical Issues: It is unlikely any combination of control mechanisms will meet all water quality standards for a water body. Clearly, the BMP approach rather than a numeric effluent limitations approach is more viable. As stated above in comments #1 and #2, the decisions made by the courts have insisted that BMPs are the correct method for municipalities to maintain water quality standards. If there are efficient BMPs in place, and the entity is monitoring their runoff then they are essentially complying with their NPDES permits. A properly chosen BMP will minimize the impact of pollution.

If numeric effluent limitations are to be enforced, in addition to the importance placed on choosing an efficient BMP, it would be important to choose a BMP that will allow MS4 runoff to achieve any regulated numeric

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effluent limits. However, at this time, knowing which BMPs to use for elimination or reduction of a certain pollutant is not possible. All the benefits for each BMP are not known. As stated in the recommendations, "Even for conventional pollutants, there presently is no protocol that enables an engineer to design with certainty a BMP that will produce a desired outflow concentration for a constituent of concern...The typical approach for evaluating BMP pollutant removal efficiency has been *percent removal*; but observed removal efficiencies vary greatly from facility to facility and it has been demonstrated that percent removal varies directly with the inflow concentration." At this time, there is too much variability in designing and circumstance for using a BMP for there to be any sort of enforced regulations on BMP efficiency. Therefore, as the Panel states, "It will take a substantial research effort, including data gathering on well-designed BMPs, to develop design criteria for the removal of pollutants with confidence intervals that enable us to make reliable estimates of the median and variance of the effluent concentrations to be expected from the various types of BMPs. Until this is done, it will be very difficult to assign legally enforceable numerical effluent limitations to any particular BMP." CVWD agrees that it will be necessary to place a considerable amount of emphasis on choosing the correct BMP and maintaining its efficiency, if numeric effluent limitations are to be based on BMPs.

5. Municipal Recommendations: It would not be economically feasible to implement a BMP at each catchment and it would not be economically feasible to monitor the water from each catchment for pollutants. The idea of implementing BMPs is to protect receiving waters or waters of the US from pollution, not to prevent catchments from storing pollutants.

As stated in the recommendations, "The Panel acknowledged that several to more times each year, the runoff volume or flow rate from a storm will exceed the design volume or rate capacity of the BMP. Stormwater agencies should not be held accountable for pollutant removal from storms beyond the size for which a BMP is designed." CVWD agrees with this statement. Municipalities would only be able to prepare their MS4s with the use of BMPs for storm events for which they were built to handle. Storm events exceeding this should not lead to enforcement actions against the municipalities.

6. A Technically Sound and Pragmatically Enforceable BMP Design and the Permit Process: CVWD agrees that it is necessary to develop a system of choosing the best BMP to use in certain conditions that will have a significant impact on decreasing the pollution from urban runoff. However, significant scientific research regarding determining the effectiveness of a

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BMP to remove a certain constituent of concern or decrease the levels of that constituent by a known amount or percentage will need to be completed on a national basis that accounts for regional differences in stormwater conditions.

It will also be necessary to take into consideration the economic impact that the BMP and its maintenance will have on the municipality. The impact must be reasonable and the cost must be worth the results. For example, if it is costing millions of dollars for the upkeep of a BMP which only lowers the levels of a constituent of concern by parts per trillion then it is not economically feasible to use that particular BMP.

7. Panel's Findings on Feasibility of Numeric Effluent Limits Applicable to Construction Activities, Construction Recommendations: This recommendation states that, "While the Panel concludes that Numeric Limits or Action Levels are technically feasible, the Panel has several reservations and concerns." CVWD also has concerns. Construction sites should be required to control runoff from their project area by using BMPs. Construction BMPs are used extensively and have proven to be effective when appropriately implemented.

Variables affecting water quality discharge issues for construction sites are not suited for numeric effluent limitations. As the Panel states, "Non-active erosion and sediment control BMPs, while effective when applied and adequately maintained, produce more highly variable in effluent quality, making setting Numeric Limits difficult, if not impossible." On the other hand, sometimes BMPs will make runoff too clean. As stated in the Panel's recommendations, "The Board should set different Action Levels that consider the site's climate region, soil condition, and slopes, and natural background conditions (e.g. vegetative cover) as appropriate and as data is available. With active treatment systems, discharge quality is relatively independent of these conditions. In fact, active treatment systems could result in turbidity and TSS levels well below natural levels, which can also be a problem for receiving waters." Runoff that is too clean could also have a negative effect on receiving water and the aquatic life living in it. The increased costs to implement numeric effluent limitations for construction sites are not justified considering the potential negative effects of low levels of turbidity and TSS on receiving waters.

Setting stringent BMP or numeric effluent regulations will result in added costs to construction projects. These added costs need to be evaluated and justified by real benefits before changing the current construction stormwater regulations.

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8. Panel's Findings of Feasibility of Numeric Effluent Limits Applicable to Industrial Activities, Industrial Observations: CVWD agrees with the statement written in the recommendations, "The Panel recognizes the need to make progress in monitoring and reducing storm water discharges from industrial facilities, but urges the Board to consider the total economic impact and not unduly penalize California industries with respect to industries outside of California." As stated above for construction, penalizing industries in California unlike any other state could result in relocation of business and loss of state revenue. These costs need to be evaluated and justified by real benefits before changing the current stormwater regulations for industries.