

**ATTACHMENT B**  
**VENTURA COUNTYWIDE PROGRAM STRIKEOUT VERSION (ALTERNATIVE**  
**LANGUAGE) OF THE 2<sup>nd</sup> DRAFT VENTURA COUNTY MUNICIPAL SEPARATE**  
**STORM SEWER SYSTEM PERMIT (NPDES NO. CAS004002) FOR THE VENTURA**  
**COUNTY WATERSHED PROTECTION DISTRICT, COUNTY OF VENTURA, AND**  
**THE INCORPORATED CITIES**

Rationale

Parts 1 - 3

Parts 6, 7

Attachment H

## RATIONALE

### UNDERLINED-STRIKEOUT OF PARTS 1-3 AUGUST 28, 2007 DRAFT OF VENTURA MS4 PERMIT

October 5, 2007 Draft

#### PART 1 – DISCHARGE PROHIBITIONS

##### Prohibitions – Discharges

Deleted original A.1 (condition of pollution or nuisance) and A.2 (exceedance of receiving water objectives). These prohibitions are the same as Receiving Water Limitations 1 and 2, and therefore are duplicative and unnecessary. The proposed revisions are consistent with the current Ventura MS4 permit and the Los Angeles MS4 permit as well as other MS4 permits issued in the State.

Deleted original A.3 (prohibition of discharges to the MS4 not covered by NPDES individual or general permit). This prohibition is vague and therefore subject to differing interpretations. For example, as written, it would appear to prohibit “storm water discharges” to the MS4, which clearly are allowable under section 402(p) of the Clean Water Act and under State law. To the extent this prohibition was intended to address non-storm water discharges, such discharges are adequately covered in original section B (newly proposed section A).

##### Prohibition – Non-Stormwater Discharges

Modified the first sentence, consistent with the current MS4 permit, to clarify that the individual permittees are responsible only for prohibiting non-storm discharges “within their respective jurisdictions.” In the absence of this modification, one might interpret the permit to say that all permittees are responsible and therefore subject to enforcement action, if one of the permittees does not effectively prohibit non-storm discharges.

Added a new exception to the non-storm prohibition (new A.2), consistent with the current MS4 permits for both Ventura and Los Angeles: “Are covered by a separate individual or general NPDES permit.” In the absence of such an exception, the permittees could not allow discharges from industrial facilities and construction sites that are permitted by and consistent with the requirements of general or individual NPDES permits. We assume that was not the intent in not including this current exception in the draft permit.

Divided the remaining exceptions into categories which match those in the Los Angeles MS4 permit, which was issued after the Ventura MS4 permit. The categories (natural flow, flows from emergency fire fighting, and flows incidental to urban activities) are logical and provide a better understanding of the reasons for these exceptions. Consistent with this modification, the first four original exceptions were included under the natural

flow category, flows from emergency fire fighting activity was moved to a new category (B), and the remaining exceptions were placed under the flows incidental to urban activities category.

Made the following modifications to new category C – flows incidental to urban activities:

Changed the “flows from “emergency fire fighting activity” to “flows from non-emergency fire fighting activity. This, together with the addition of new category B (discussed above) is a rational and publicly supportable approach to regulation of fire fighting flows. Placing any constraints on flows from emergency fire fighting operations would impede fire departments’ abilities to protect life and property. On the other hand, it is reasonable to require BMPs for non-emergency fire fighting activities, such as flows from controlled or practice blazes and maintenance activities. The requirement for BMPs for non-emergency fire fighting flows is consistent with the approach taken in the recently issued San Diego MS4 permit (See Order No. R9-2007-0001).

Replaced the “Discharges from potable water supplies” exception to one consistent with the Los Angeles MS4 permit: “Potable drinking water supply and distribution system releases (consistent with American Water Works Association guidelines).” The original prohibition is ambiguous and subject to varying interpretations. For example, might a child squirting a water hose into the street in the absence of dechlorination constitute a violation of the permit? (footnote 1 page 26) The replacement language appears to better capture the intent and, again, was found acceptable to the Regional Water Board when it adopted the Los Angeles MS4 permit.

Deleted the word “gravity” from the exception which addresses flow from foundation, footing and crawl space drains. This is consistent with other MS4 permits, including the Los Angeles County, Orange County and San Diego County permits. Whether a drain flows by gravity or is pumped should not make any difference. By specifying only gravity drains, it implies pumped drain discharges are prohibited. To the extent there is a significant discharge from a pumped drain that includes pollutants, other provisions of this section allow the Executive Officer to either prescribe specific BMPs or alternatively require an NPDES permit.

Deleted the footnote applicable to “Pooled storm water from treatment BMPs.” This same information is included in new section 5, a more appropriate location.

Deleted Table 1 and added relevant BMPs to a new section 5:

Table 1 was difficult to follow and interpret and contained duplication. The new section presents BMPs, extracted from the table, for those non-storm water discharges where meaningful BMPs were proposed. A number of the “BMPs”

included in Table 1 were not really BMPs. For example, “shall comply with all conditions in the authorization” and “preferred area is at commercial carwash.” In a number of other cases, there were no BMPs listed.

## **PART 2 – MUNICIPAL STORM WATER DISCHARGE LIMITATIONS**

Changed the title of Part 2 from Municipal Storm Water Discharge Limitations to Municipal Action Levels. This new title reflects the reliance on the term “Municipal Action Levels” throughout the section. Note that in the draft permit “Waste Discharge Limitations” does not appear in the section, but only in the title. This change also better characterizes the proposed changes to the section.

Moved the concept put forth in the original paragraph 3 (the MEP standard) to paragraph 1. This was done to better set the stage for the use of MALs as proposed by the Permittees.

In paragraph 2 (original paragraph 1), inserted the term “locally relevant” ahead of Municipal Action Levels and rephrased the paragraph to state that MALs will be used to identify discharges that are outside the normal range. Because of the many factors that influence discharge concentrations (e.g., climate, geography, land use, etc.), the use of local, Ventura County discharge data provides a better basis for identifying outliers. By using local data, one is in a stronger position to characterize discharges that deviate substantially from countywide data as outliers. Moreover, a focus on outliers based on county data will have the effect of reducing discharge concentrations over time. The term relevant was utilized because it is not in the public interest to focus limited local resources on reducing the concentrations of pollutants that are not relevant. Municipal Storm Water MALs should be established for pollutants that cause an exceedance of water quality objectives and for which municipal storm water is a significant source. A footnote to this paragraph indicates that the 80<sup>th</sup> percentile of countywide data for each land use classification will be used to establish the MALs. This is a lower bar than some have argued, but in light of the other modifications to this section, we believe it to be reasonable.

In paragraph 2, MALs are proposed as means of identifying discharges outside the normal range and to trigger further investigation, rather than to define MEP. The use of a concentration limit (no matter what its derivation) as the sole basis for defining MEP is contrary to reason, as well as contrary to federal and state policy and practice. On the other hand, it is reasonable to use local norms to identify areas where additional controls may be necessary to achieve the MEP standard.

Subsequent paragraphs set forth a reasonable, step-by-step process that ultimately will lead to attainment of the MEP standard. The process includes submission of an MAL Assessment Report to the Executive Officer and, if MALs are exceeded, the subsequent submission of a MAL Action Plan. The Action Plan is to propose any additional practicable BMPs or actions that the Permittee believes to be necessary to achieve the MAL to the MEP standard. The Executive Officer must approve the plan and, once

approved, the Permittee must implement the plan in accordance with the approved time schedule. The end result of this process will be the implementation of any additional controls determined necessary by the Permittee and the Executive Officer, based on locally relevant information, to comply with the MEP standard. This is a superior process to the concept embodied in the draft Order, wherein exceedance of an MAL constitutes a violation of the Permit and, the Permittee is required to implement whatever controls are necessary to achieve the MAL, whether practicable or not.

### **PART 3 – RECEIVING WATER LIMITATIONS**

Modified the receiving water limitations to closely conform to State Board Order WQ 99-05. That Order is identified as a “precedent decision” and states “...the following receiving water limitation language shall be included in future municipal storm water permits.” (Emphasis added.) The receiving water language in the draft order deviates substantially from the language required by the State Board’s precedent decision. In some cases the deviant language has the effect of clearly modifying the precedent. For example, in 3(c), the draft Order requires that the BMPs and any additional monitoring be implemented within 30 days, whereas the State Board-required language requires that the revised storm water management plan (with the revised BMPs) and monitoring program be implemented in accordance with the approved schedule. In 4, the draft order states that the permittees will have to repeat the procedure set forth above for continuing or recurring exceedances of the same water quality standards, whereas the State Board-required language states that the permittees will not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations. In other cases, it is not clear whether the language changes constitute a change to the precedent because the changes are subtle and it is unclear how the new language will be viewed during permit implementation. Finally, in some cases, the draft language is internally inconsistent. For example, in 3(c), the additional monitoring is to be implemented within 30 days, whereas in 3(f) the revised monitoring program is to be implemented according to the approved schedule. Giving these issues with the draft language and the clear directive from the State Board, we modified the Receiving Water Limitations language to closely conform to the language required under Order WQ 99-05. This will clarify any ambiguities, and ensure that the permit is consistent with State Board precedent.

**UNDERLINED-STRIKEOUT OF PARTS 1-3**  
**AUGUST 28, 2007 DRAFT OF VENTURA MS4 PERMIT**

**October 5September 17, 2007 Draft**

**IT IS HEREBY ORDERED** that the Permittees, in order to meet the provisions contained in Division 7 of the Cal. Water Code and regulations adopted thereunder, and the provisions of the CWA and regulations adopted thereunder, shall comply with the following:

**PART 1 - DISCHARGE PROHIBITIONS**

**A. Prohibitions - Discharges**

- ~~1. Discharges into and from the MS4 in a manner causing or contributing to a condition of pollution, contamination or nuisance (as defined in Cal. Water Code § 13050), in waters of the State are prohibited.~~
- ~~2. Discharges from the MS4, which cause or contribute to exceedences of receiving water quality objectives for surface waters are prohibited.~~
- ~~3. Discharges to the MS4 not covered by an NPDES individual or general permit are prohibited.~~

**AB. Prohibitions - Non-Storm Water Discharges**

~~1. The Permittees shall, within their respective jurisdictions, effectively prohibit non-storm discharges into the MS4 and watercourses, except where such discharges either:~~

~~1. Originate from a State, federal, or other source which they are pre-empted by State or Federal law from regulating; or~~

~~2. Are covered by a separate individual or general NPDES permit; or~~

~~(b) 3. Fall within one of the categories below and in Table 1 (Required BMPs for Non-Storm Water Discharges), are not a significant source of pollutants, and meet all conditions where specified by the Regional Water Board Executive Officer:~~

~~(a) Category A - Natural flow:~~

- ~~(1) Stream diversions authorized by the State Water Board.~~
- ~~(2) Natural springs and rising ground water.~~

- (3) Uncontaminated ground water infiltration [as defined by 40 CFR 35.2005(20)].<sup>1</sup>
- (4) Flows from riparian habitats or wetlands.

(b) Category B – Flows from emergency fire fighting activity.

(c) Category C – Flows incidental to urban activities, providing BMPs listed in Table 1 are implemented:

- ~~(5)~~(1) Flows from non-emergency permittee fire fighting activity.
- ~~(6)~~(2) Discharges from potable water supply and distribution system releases (consistent with American Water Works Association guidelines for dechlorination and suspended solids reduction practices), sources.<sup>2</sup>
- ~~(7)~~(3) Gravity flow from foundation, footing and crawl space drains.
- ~~(8)~~(4) Air conditioning condensate.
- ~~(9)~~(5) Reclaimed and potable landscape irrigation runoff.
- ~~(10)~~(6) Dechlorinated/ debrominated swimming pool discharges [see def. Part 8].
- ~~(11)~~(7) Non-commercial car washing by residents or non-profit organizations.
- ~~(12)~~(8) Sidewalk rinsing
- ~~(13)~~(9) Pooled storm water from treatment BMPs.<sup>3</sup>

**Table 1 – Required BMPs for Non Storm Water Discharges**

<b>Type of Discharges:</b>	<b>Conditions under which allowed:</b>	<b>Required BMPs for discharge to occur:</b>
Stream diversions	Shall comply with all conditions in the	Shall comply with all

<sup>1</sup> NPDES permit for ground water dewatering is required within the Los Angeles Region including Ventura County.

<sup>2</sup> The term applies to low volume, incidental and infrequent releases that are innocuous from a water quality perspective. Those releases for dewatering or hydro-testing or flushing of water supply and distribution mains and incidental and infrequent releases from well heads shall be allowed with the implementation of appropriate BMPs (see section G for specific BMPs) until such time as a new General Permit is adopted that addresses those type of releases. Discharges from hydrostatic pipe testing shall be subject to a separate NPDES general permit coverage (CAG674001) and discharges from utility vaults shall be conducted under coverage of a separate NPDES permit specific to that activity. It does not cover scheduled discharges by potable water purveyors for the (i) dewatering or hydro-testing or flushing of water supply and distribution mains, or (ii) dewatering or draining of reservoirs or water storage facilities. Releases may occur for discharges from potable water sources only with the implementation of appropriate BMPs, dechlorination prior to discharge [see section G for specific BMPs]. Discharges from utility vaults shall be conducted under coverage of a separate NPDES permit specific to that activity. Discharges from well heads and hydrostatic pipe testing shall be subject to a separate NPDES general permit coverage (CAG674001).

<sup>3</sup> All storm water BMPs shall at a minimum be maintained at a frequency as specified by the manufacturer, and designed to drain within 72 hours of the end of a rain. Storm water treatment BMPs may be drained to the MS4 under this Order if the discharge is not a source of pollutants. Sediments shall be disposed of properly, in compliance with all applicable local, state, and federal policies, acts, laws, regulations, ordinances, and statutes.

Type of Discharges:	Conditions under which allowed:	Required BMPs for discharge to occur:
permitted by the State Board;	authorization.	conditions in the authorization.
Natural springs and rising ground water	1. Ground water dewatering requires a separate NPDES permit. 2. Segregate flow to prevent introduction of pollutants.	Shall comply with all conditions in the authorization.
Uncontaminated ground water infiltration [as defined by 40 CFR 35.2005(20)] (Utility vault dewatering requires a separate NPDES permit.)	NPDES permit for ground water dewatering is required within the Los Angeles Region including Ventura County	Shall comply with all conditions in the authorization.
Flows from riparian habitats or wetlands	Provided that all necessary permits or authorizations are received prior to diverting the stream flow.	Shall comply with all conditions in the authorization.
Flows from emergency fire fighting activity	Pooled water after fire must be controlled.	
Discharges from potable water sources	See Footnote #1 on page 26.  Provided discharges from water lines and potable water sources shall be dechlorinated, pH adjusted if necessary, reoxygenated, and volumetrically and velocity controlled to prevent resuspension of sediments.	See Footnote #2 on page 26. To be discharged, this type of water shall be dechlorinated using aeration and/ or sodium thiosulfate and/ or other appropriate means and/ or be allowed to infiltrate to the ground. BMPs such as sand bags or gravel bags shall be utilized to prevent sediment transport. All sediments shall be collected and disposed of in a legal and appropriate manner.
Drains for foundation, footing and crawl drains	Dewatering requires a separate NPDES permit.	Shall comply with all conditions in the authorization.
Air conditioning condensate	Segregation of flow to prevent introduction of pollutants	Infiltration whenever possible.
Water from crawl space pumps	Dewatering requires a separate NPDES permit within the Los Angeles Region including Ventura County	NPDES permit for ground water dewatering is required.
Reclaimed and potable landscape irrigation runoff	Segregation of flow to prevent introduction of pollutants.	Implement conservation programs to minimize this type of discharge by using less water.
Dechlorinated/ debrominated	Provided discharge to a sanitary sewer is not available. Swimming pool discharges are	Pool water may be dechlorinated using time,



Type of Discharges:	Conditions under which allowed:	Required BMPs for discharge to occur:
swimming pool discharges [see definition Part 8]	<p>dechlorinated, pH adjusted if necessary, aerated to remove chlorine if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments.</p> <p>Cleaning waste water and filter back wash shall not be discharged to municipal separate storm sewers.</p> <p>Water that has been hyperchlorinated shall not be discharged to municipal separate storm sewers, even after de-chlorination.</p> <p>No discharges are allowed containing salts in excess of Water Quality Standards.</p> <p>Chlorine residual in discharge shall not exceed 0.1mg/L.</p>	aeration, and/ or sodium thiosulfate.
Non-commercial car washing by residents or non-profit organizations		Preferred area is at commercial carwash or in an area where wash water infiltrates. Pumps or vacuums may be used to direct water to areas for infiltration or other use.
Sidewalk rinsing	This may be undertaken only if high pressure low volume is used as described in the glossary under "Sidewalk Rinsing".	
Pooled storm water from treatment BMPs	All storm water BMPs shall at a minimum be maintained at a frequency as specified by the manufacturer. All storm water BMPs shall be designed to drain within 72 hours of the end of the rain event. Storm water treatment BMPs may be drained to the MS4 under this Order if the discharge is not a source of pollutants. The discharge shall cease before the discharge has become a source of a pollutant(s), (bottom sediment included). Sediments shall be disposed of properly, in compliance with all applicable local, state, and federal policies, acts, laws, regulations, ordinances, and statutes.	

(e)4. If the Regional Water Board Executive Officer determines that any of the preceding categories of non-storm water discharges are a significant source of pollutants, the Permittee(s) shall either:

(1)(a) Prohibit the discharge from entering the MS4; or

(2)(b) Authorize the discharge category and require implementation of appropriate or additional BMPs to ensure that the discharge will not be a source of pollutants; or

(3)(c) Require or obtain coverage under a separate NPDES permit for discharge into the MS4.

5 The following BMPs for non-stormwater discharges are required pursuant to this Order:

(a) Flows from non-emergency fire fighting activity: Implement a program to reduce pollutants from non-emergency permittee activities such as controlled or practice blazes and maintenance activities identified to be significant sources of pollutants.

(b) Discharges from potable water system releases<sup>4</sup>: Water shall be dechlorinated using aeration and/or sodium thiosulfate and/or other appropriate means and/or be allowed to infiltrate to the ground. BMPs such as sand bags or gravel bags shall be utilized to prevent sediment transport. All sediments shall be collected and disposed of in a legal and appropriate manner.

(c) Swimming pool discharges: Swimming pool discharges are to be dechlorinated, pH adjusted if necessary, aerated to remove chlorine if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments.

(d) Sidewalk rinsing: Sidewalk rinsing in commercial areas may be undertaken only if high pressure low volume is used as described in the glossary under "sidewalk rinsing."

(e) Pooled storm water from treatment BMPs: Storm water treatment BMPs may be drained to the MS4 in compliance with Part 5.G.5(1) of this Order. The discharge shall cease before it has become a source of pollutants. Bottom sediments shall be disposed of properly, in compliance with all applicable local, state and federal policies, acts, laws, regulations, ordinances, and statutes.

## **PART 2 — MUNICIPAL STORM WATER DISCHARGE LIMITATIONS**

<sup>4</sup> The term applies to low volume, incidental and infrequent releases that are innocuous from a water quality perspective. It does not cover scheduled discharges by potable water purveyors for the (i) dewatering or hydrotesting or flushing of water supply and distribution mains, or (ii) dewatering or draining of reservoirs or water storage facilities. Releases may occur for discharges from potable water sources only with the implementation of appropriate BMPs, dechlorination prior to discharge [see section G for specific BMPs]. Discharges from utility vaults shall be conducted under coverage of a separate NPDES permit specific to that activity. Discharges from well heads and hydrostatic pipe testing shall be subject to a separate NPDES general permit coverage (CAG674001).

1. ~~Discharges of storm water from the MS4 to waters of the U.S. shall not exceed the Municipal Action Levels (MALs) for the pollutants listed in Attachment "C" (Municipal Action Levels) beginning (Year 3 after Order adoption date).~~
2. ~~A running average of twenty percent or greater of exceedences of any MAL will create a presumption that the Permittee(s) have not complied with the Maximum Extent Practicable (MEP) provision in Part 4 A.2., and have failed to implement adequate storm water control measures and BMPs to comply with the MEP standard.~~
3. ~~Each Permittee is affirmatively required to augment and implement all necessary storm water controls and measures to reduce the discharge of the pollutant(s) to the MEP and to not continue to be in violation of the municipal storm water discharge limitation.~~
4. ~~The "end of pipe" compliance points for the determination of compliance with the MALs are the major outfalls of discharge pipes to the receiving waters.~~
5. ~~The receiving water mass emission points of measurement will become default compliance points for "end of pipe" compliance with the municipal storm water discharge limitations, in the absence of representative "end of pipe" monitoring measurements.~~

## **PART 2 – MUNICIPAL ACTION LEVELS**

1. Each Permittee is affirmatively required to implement controls to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP).
2. Under this Order, the locally relevant Municipal Action Levels (MALs) listed in Attachment "C"<sup>5</sup> shall be utilized by Permittees to identify subwatersheds discharging pollutants at levels in excess of the normal range, and to ensure that, within those subwatersheds, Permittees take any additional action necessary to reduce the discharge of pollutants to the MEP.
3. In order to determine if MS4 discharges are in excess of the normal range, Permittees shall conduct outfall monitoring as required in the Monitoring and Reporting Program (MRP). An MAL Assessment Report shall be submitted to the Executive Officer within one year of Permit adoption. The Report shall present the monitoring data in comparison to the applicable MALs, and identify those subwatersheds with discharges in excess of the MALs.
4. Each Permittee shall submit to the Executive Officer within two years of Permit Adoption, an MAL Action Plan for those subwatersheds with discharges in excess of the MALs. The plan is to include an assessment of the

<sup>5</sup> It is proposed that MALs be developed for storm water pollutants of greatest concern and be set at the 80<sup>th</sup> percentile of countywide data for each land use classification (e.g., residential, industrial, commercial).

sources responsible for the abnormal pollutant levels, the existing BMPs that address those sources, an assessment of potential alternative BMPs and actions that could be implemented, the additional practicable BMPs and/or actions the Permittee proposes to ensure compliance with the MAL to the MEP standard, and an implementation schedule for such actions.

5. Within 90 days of the plan approval, the Permittee shall initiate the BMPs and actions proposed in the MAL Action Plan, together with any other practicable BMPs or actions that the Executive Officer determines to be necessary to comply with the MAL to the MEP standard. The Permittee shall complete the proposed actions in accordance with the approved implementation schedule.
6. Upon completion of the actions specified in the approved MAL Action Plan, the Permittee shall re-monitor the subject subwatershed in accordance with the MRP, and submit a Post-Project MAL Assessment Report to the Executive Officer.
7. The Executive Officer will either accept the report as evidence that the Permittee has complied with the MEP standard or, alternatively, identify additional actions which the Executive Officer determines necessary to comply with the standard.

### **PART 3 – RECEIVING WATER LIMITATIONS**

1. Discharges from the MS4 that cause or contribute to a violation of water quality standards are prohibited.
2. Discharges from the MS4 of storm water, or non-storm water, for which a Permittee is responsible, shall not cause or contribute to a condition of nuisance.
3. The Permittees shall comply with Receiving Water Limitations 1 and 2 ~~the Order~~ through timely implementation of control measures and other actions to reduce pollutants in ~~the storm-water~~ discharges in accordance with the Storm Water Management Plan (SWMP) and other requirements of this permit including any modifications this Order. The SWMP This Order shall be designed implemented to achieve compliance with rReceiving Wwater Llimitations 1 and 2. If exceedance(s) of water quality objectives or water quality standards (collectively, WQS) persist, notwithstanding implementation of the ~~SWMP Order and its components and other requirements of this permit~~ Order, the ~~p~~Permittees shall assure compliance with ~~discharge prohibitions and Rreceiving Wwater Llimitations 1 and 2~~ by complying with the following procedure:
  - (a) Upon an determination by either the permittees or the Regional Water Board that discharges are causing or contributing to an exceedance(s) of an applicable WQS ~~water quality standards or water quality objectives, which may be inferred from the results of the receiving water monitoring~~

~~program described in Attachment "F", all P, the permittee(s) upstream of the point of discharge shall promptly notify the Regional Water Board, within 30 days of any such inference of exceedance, and thereafter submit a Receiving Water Limitations (RWL) Compliance Report to the Regional Water Board Executive Officer that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of WQSS, for approval. The RWL Compliance Report may be incorporated in the annual update to the SWMP shall be included with the Annual Report, unless the Regional Water Board Executive Officer directs an earlier submittal. The Regional Water Board Executive Officer may require modifications to the report.~~

- ~~(b) Submit any modifications to the report required by the Regional Water Board Executive Officer within 30 days of notification. The RWL Compliance Report shall describe BMPs currently being implemented and the additional BMPs that will be implemented, to prevent or reduce the discharge of any pollutants that are causing or contributing to the exceedances of water quality standards.~~
- ~~(e)(b) The RWL Compliance Report shall include a BMP implementation schedule.~~
- ~~(d)(c) Within 30 days following approval of the RWL Compliance Report described above by the Regional Water Board Executive Officer, the permittees shall revise the SWMP and monitoring program to incorporate, the approved or modified suite of BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required shall be implemented.~~
- ~~(e) Modifications to the RWL Compliance Report, required by the Regional Water Board shall be submitted to the Regional Water Board Executive Officer within 30 days of notification.~~
- ~~(f)(d) Implement the revised SWMP and monitoring program according to the approved schedule.~~

~~4. So long as the permittees have complied with the procedures set forth above and are implementing the revised SWMP, the permittees do not will have to repeat the same procedure set forth above to comply with the receiving water limitations for continuing or recurring exceedances of the same receiving water limitations water quality standard(s) unless directed to otherwise by the Regional Water Board Executive Officer to develop additional BMPs.~~

~~5.4. Nothing in Part 3 shall prevent the Regional Water Board from enforcing any provision of this Order.~~

**REWRITE OF PARTS 6 AND 7**  
**AUGUST 28, 2007 DRAFT OF VENTURA MS4 PERMIT**

**October 12, 2007**

**PART 6 - TOTAL MAXIMUM DAILY LOAD PROVISIONS APPLICABLE TO MUNICIPAL SEPARATE STORM SEWER SYSTEM DISCHARGES**

- I. Part 6 of this Order incorporates provisions to assure that Ventura County MS4 Permittees comply with WLAs and other requirements of TMDLs covering impaired waters impacted by the Permittees' discharges.
- II. Each Permittee shall attain the storm water WLAs incorporated into this Order by implementing BMPs described in the TMDL technical reports or identified as a result of studies conducted during TMDL implementation.
- III. TMDLs in effect and covered in this Order are the following:
  - i. TMDL for Nitrogen Compounds for the Santa Clara River - (Effective date: March 23, 2004).
  - ii. TMDL for Toxicity, Chlorpyrifos and Diazinon in the Calleguas Creek, its Tributaries and Mugu Lagoon - (Effective date: March 24, 2006).
  - iii. TMDL for Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation in Calleguas Creek, its Tributaries and Mugu Lagoon - (Effective date: March 24, 2006).
  - iv. TMDL for Bacteria in Malibu Creek and Lagoon - (Effective date: January 26, 2006).
  - v. TMDL for Metals and Selenium in the Calleguas Creek, its Tributaries and Mugu Lagoon (Effective date: March 26, 2007)
- IV. TMDL WLAs not incorporated into this Order due to compliance dates which exceed the term of this Order are the following:
  - i. Final Wet Weather Bacteria WLAs for Malibu Creek and Lagoon - (Compliance date: January 24, 2016).
  - ii. Final Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation WLAs for Calleguas Creek, its Tributaries and Mugu Lagoon - (Compliance date: March 24, 2026).
  - iii. Final Metals and Selenium WLAs for Calleguas Creek, its Tributaries and Mugu Lagoon (Compliance date: March 26, 2022)
- V. TMDL WLAs and Other TMDL Provisions Incorporated into this Order are as follows:
  1. TMDL for Nitrogen Compounds in the Santa Clara River
    - (a) Waste Load Allocations:  
The Ventura County MS4 Permittees discharging to the Santa Clara River (the cities of Fillmore and Santa Paula) ("Santa Clara MS4 Permittees") shall

implement BMPs to achieve the following MS4 wasteload allocations applicable to River Reach 3:

Ammonia nitrogen 30-day average	2.0 mg/L
Ammonia nitrogen 1-hour average	4.2 mg/L
Nitrate + Nitrite nitrogen 30-day average	8.1 mg/L

(b) Compliance Monitoring:

- (1) Compliance with the WLAs is to be determined through receiving water monitoring conducted in accordance with the Santa Clara River Nitrogen TMDL Monitoring Program approved by the Executive Officer.
- (2) If any WLA is exceeded at a compliance monitoring site, the Regional Board will issue an appropriate investigative order pursuant to Cal. Water Code section 13267 or 13225 to the Permittees and other responsible agencies or jurisdictions within the relevant subwatershed to determine the source of the exceedance. Following these actions, Regional Board staff will evaluate the need for further enforcement action.

(c) Actions and Special Studies required of Santa Clara MS4 Permittees:

- (1) Annual Progress Reports. Santa Clara MS4 Permittees, either independently or in conjunction with other stakeholders, shall submit an annual progress report with respect to achievement of the WLAs.
- (2) If TMDL monitoring, as reported in any Annual Progress Report, indicates that the BMPs being implemented by Santa Clara MS4 Permittees are not achieving the WLAs in the receiving waters, the Permittees shall include in the Annual Progress Report a work plan to conduct a source identification study and to develop additional BMPs sufficient to achieve the WLAs in the receiving waters.

2. TMDL for Toxicity, Chlorpyrifos, and Diazinon in the Calleguas Creek, its Tributaries and Mugu Lagoon.

(a) Waste Load Allocations:

- (1) MS4 Permittees discharging to Calleguas Creek, its tributaries and Mugu Lagoon (Ventura County Watershed Protection District, County of Ventura and the cities of Camarillo, Moorpark, Oxnard, Simi Valley and Thousand Oaks) ("Calleguas MS4 Permittees") shall implement BMPs to achieve the following MS4 WLAs:

Toxicity WLA	1.0 TU <sub>c</sub>
Chlorpyrifos WLA	0.014 ug/L
Diazinon WLA	0.10 ug/L

- (2) Pursuant to the TMDL, the final storm water WLAs for Toxicity, Chlorpyrifos and Diazinon, listed above, are receiving water concentrations measured in-stream at the base of each subwatershed within the Calleguas Creek watershed.

(b) Compliance Monitoring:

- (1) Compliance with the WLAs is to be determined through the measurement of in-stream water quality at the base of each of the Calleguas Creek subwatersheds, in accordance with the Calleguas Creek Watershed TMDL Monitoring Program approved by the Executive Officer.
- (2) If any WLA is exceeded at a compliance monitoring site, the Regional Board will issue an appropriate investigative order pursuant to Cal. Water Code section 13267 or 13225 to the Permittees and other responsible agencies or jurisdictions within the relevant subwatershed to determine the source of the exceedance. Following these actions, Regional Board staff will evaluate the need for further enforcement action.
- (3) If as a result of compliance monitoring and subsequent investigations it is determined that a Calleguas MS4 Permittee is responsible for exceedance of the in-stream Toxicity WLA, that Permittee shall initiate the TRE/TIE process as outlined in USEPA's "Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the National Pollutant Discharge Elimination System Program" (2000) or the approved Toxicity TMDL monitoring plan, and take appropriate action to eliminate the identified source of the toxicity.

(c) Actions and Special Studies required of Calleguas MS4 Permittees:

- (1) Special Study #1. Together with Calleguas POTW Permittees, investigate the pesticides that will replace diazinon and chlorpyrifos in the urban environment, their potential impact on receiving waters and potential control measures. Special Study #1 is to be completed by March 24, 2008.
- (2) Special Study #2. Together with Calleguas Agricultural Dischargers, consider results of monitoring of sediment concentrations by source/land use type through the special study required in the Calleguas OC Pesticide, PCB and Siltation TMDL Implementation Plan. Complete within 6 months of completion of the OCs TMDL special study #1.
- (3) Pesticide Collection Program. Together with Calleguas POTW Permittees, develop and implement a collection program for diazinon and chlorpyrifos and an educational program. Collection and education could occur through existing programs such as household hazardous waste collection events. The Pesticide Collection Program is to be implemented by March 24, 2009.
- (4) Special Study #3. Together with Calleguas Agricultural Dischargers, consider the findings of transport rates developed through the OC Pesticide, PCB and Siltation TMDL Implementation Plan. Complete within 6 months of completion of the OCs TMDL special study #1.

3. TMDL for Organochlorine (OC) Pesticides, Polychlorinated Biphenyls (PCBs) and Siltation in the Calleguas Creek, its Tributaries and Mugu Lagoon.

(a) Waste Load Allocations:

- (1) MS4 Permittees discharging to Calleguas Creek, its tributaries or Mugu Lagoon (Ventura County Watershed Protection District, County of Ventura and the cities of Camarillo, Moorpark, Oxnard, Simi Valley and Thousand



Oaks) ("Calleguas MS4 Permittees") shall implement BMPs to achieve the interim WLAs listed in Table 11.

Table 11. Interim Sediment Concentration WLAs (ng/g)

Constituent	Subwatershed					
	Mugu Lagoon	Calleguas Creek	Revolon Slough	Arroyo Las Posas	Arroyo Simi	Conejo Creek
Chlordane	25	17	48	3.3	3.3	3.4
4,4-DDD	69	66	400	290	140	5.3
4,4-DDE	300	470	1600	950	170	20
4,4-DDT	39	110	690	670	25	2
Dieldrin	19	3	5.7	1.1	1.1	3
PCBs	180	3800	7600	25700	25700	3800
Toxaphene	22900	260	790	230	230	260

- (2) Pursuant to the TMDL, the interim storm water WLAs for OC Pesticides, PCBs and Siltation, listed above, are annual average, sediment-based concentrations measured in surface waters at the base of each subwatershed within the Calleguas Creek watershed.

**(b) Compliance Monitoring:**

- (1) Compliance with the WLAs is to be determined through the measurement of in-stream water quality at the base of each of the Calleguas Creek subwatersheds, in accordance with the Calleguas Creek Watershed TMDL Monitoring Program approved by the Executive Officer.
- (2) If any WLA is exceeded at a compliance monitoring site, the Regional Board will issue an appropriate investigative order pursuant to Cal. Water Code section 13267 or 13225 to the Permittees and other responsible agencies or jurisdictions within the relevant subwatershed to determine the source of the exceedance. Following these actions, Regional Board staff will evaluate the need for further enforcement action.

**(c) Actions and Special Studies required of Calleguas MS4 Permittees:**

- (1) Pesticide Collection Program. Together with Calleguas POTW Permittees, implement a collection program and source control measures pursuant to a work plan approved by the Executive Officer. The Pesticide Collection Program is to be implemented by March 24, 2011.
- (2) Special Study #1. Together with Calleguas POTW Permittees, Calleguas Agricultural Dischargers, and the Point Mugu Naval Base, submit a work plan to quantify sedimentation in the Calleguas Creek Watershed, evaluate management methods to control siltation and contaminated sediment transport to Calleguas Creek, identify appropriate BMPs to reduce sediment loadings and evaluate the effect of sediment on habitat preservation in Mugu Lagoon for approval by the Executive Officer. This special study is also to evaluate the concentration of OC pesticides and PCBs in sediments from various sources/land use types. Special Study #1 is to be completed by March 24, 2014.

- (3) Special Study #2. Together with Calleguas Agricultural Dischargers, identify areas of high OC concentrations and evaluate the effects of watershed protection and land use practices on water quality. Such practices include but are not limited to management of sediment reduction practices and structures, streambank stabilization, and other projects related to stormwater conveyance and flood control improvements in the Calleguas Creek watershed. Special Study #2 is to be completed based on the schedule provided in the workplan, submitted in March, 2007
- (4) Special Study #3 – Together with Calleguas POTW Permittees, Calleguas Agricultural Dischargers, and the Point Mugu Naval Base, evaluate natural attenuation rates and evaluate methods to accelerate organochlorine pesticide and polychlorinated biphenyl attenuation and examine the attainability of wasteload and load allocations in the Calleguas Creek Watershed. Special Study #3 is to be completed by March 24, 2016.

4. TMDL for Metals and Selenium in the Calleguas Creek, its Tributaries and Mugu Lagoon.

(a) Waste Load Allocations:

- (1) MS4 Permittees discharging to Calleguas Creek, its tributaries or Mugu Lagoon (Ventura County Watershed Protection District, County of Ventura and the cities of Camarillo, Moorpark, Oxnard, Simi Valley and Thousand Oaks) (“Calleguas MS4 Permittees”) shall implement BMPs to achieve the interim WLAs listed in Table 12 and Table 13.

Table 12. Interim WLAs for Copper, Nickel and Selenium (ug/L)

Constituent	Calleguas and Conejo Creek (a)			Revolon Slough		
	Dry Daily Maximum (ug/L)	Dry Monthly Average (ug/L)	Wet Daily Maximum (ug/L)	Dry Daily Maximum (ug/L)	Dry Monthly Average (ug/L)	Wet Daily Maximum (ug/L)
Copper	23	19	204	23	19	204
Nickel	15	13	(a)	15	13	(a)
Selenium	(b)	(b)	(b)	14 (c)	13(c)	(a)

- (a) The current loads do not exceed the TMDL under wet conditions, interim limits are not required.
- (b) Selenium allocations have not been developed for this reach as it is not on the 303(d) list.
- (c) Attainment of interim limits will be evaluated in consideration of background loading data, if available.

- (2) Pursuant to the TMDL, the interim storm water WLAs for copper, nickel, and selenium are receiving water concentrations measured in-stream at the base of Calleguas Creek and Revolon Slough and in Mugu Lagoon.

Table 13. Interim WLAs for Mercury in Sediment (lbs/yr)

Annual Cumulative Flow (million gallons per year)	Calleguas Creek (lbs/yr)	Revolon Slough (lbs/yr)
0-15,000	3.3	1.7
15,000-25,000	10.5	4
Above 25,000	64.6	10.2

- (3) Pursuant to the TMDL, the interim storm water WLAs for mercury are suspended sediment loads measured in-stream at the base of Calleguas Creek and Revolon Slough and in Mugu Lagoon.
- (4) Determination of the applicable interim WLA will be determined by calculating the total annual flow (October 1-September 30) in the Calleguas Creek watershed as measured by the flow gage at CSUCI.

**(b) Compliance Monitoring:**

- (1) Compliance with the WLAs is to be determined through the measurement of in-stream water quality and total suspended solids (TSS) at the base of Calleguas Creek, Revolon Slough and in Mugu Lagoon, in accordance with the Calleguas Creek Watershed TMDL Monitoring Program approved by the Executive Officer.
- (2) If any WLA is exceeded at a compliance monitoring site, the Regional Board will issue an appropriate investigative order pursuant to Cal. Water Code section 13267 or 13225 to the Permittees and other responsible agencies or jurisdictions within the relevant subwatershed to determine the source of the exceedance. Following these actions, Regional Board staff will evaluate the need for further enforcement action.

**(c) Actions and Special Studies<sup>1</sup> required of Calleguas MS4 Permittees:**

- (1) Conduct a source control study, develop and submit an Urban Water Quality Management Program (UWQMP) for copper, mercury, nickel, and selenium. Complete by March 26, 2009.
- (2) Implement the UWQMP within one year of approval by Executive Officer.
- (3) In cooperation with agricultural dischargers, evaluate the results of the OCs TMDL special study on sediment transport rates for applicability to the metals and selenium TMDL. Complete within 6 months of completion of the OCs TMDL special study #1.
- (4) In cooperation with agricultural dischargers, include monitoring for copper, mercury, nickel and selenium in the OC pesticides TMDL special study – Monitoring of Sediment by Source and Land Use Type. The special study is to be completed by March 26, 2014.
- (5) Evaluate the results of the OC Pesticides TMDL Special Study – Effects of BMPs on Sediment and Siltation, to determine the impacts on metals and

<sup>1</sup> The TMDL provides for a number of studies that are optional on the part of the dischargers. These are not incorporated into this Order because they are optional.

selenium. Complete within 6 months of completion of the OC Pesticides special study #1.

- (6) Evaluate the effectiveness of BMPs implemented under the UWQMP in controlling metals and selenium discharges. This is to be completed by March 26, 2013.
- (7) Re-evaluate urban waste load allocations for copper, mercury, nickel and selenium based on the evaluation of BMP effectiveness. By March 26, 2012, urban dischargers will have a required 25% reduction in the difference between the loadings at the time of the TMDL preparation and the final WLAs effective in 2022.
- (8) In cooperation with POTW permittees and agricultural dischargers, conduct a study to identify selenium contaminated groundwater sources. Special Study is to be completed within one year of the approval of the workplan.
- (9) In cooperation with agricultural dischargers, conduct a study to investigate metals "hot spots" and natural soils concentrations. This special study is to be completed within 2 years of the approval of the workplan.

5. TMDL for Bacteria in Malibu Creek and Lagoon

(a) Waste Load Allocations:

- (1) The Ventura County MS4 Permittees discharging to Malibu Creek or its tributaries (Ventura County Watershed Protection District, County of Ventura and the cities of Thousand Oaks and Simi Valley) ("Malibu MS4 Permittees") shall achieve the WLAs identified in Table 5. These WLAs are expressed as the number of daily or weekly sample days that may exceed the single sample limits or 30-day geometric mean bacteria targets identified in Table 6.

Table 5 – Wasteload Allocations expressed as the Number of Exceedence Days for Geometric Mean \ Single Sample - Dry Weather

Summer Dry Weather April 1 - October 31			Winter Dry Weather November 1 - March 31		
Geometric Mean	Single Sample		Geometric Mean	Single Sample	
30-day sampling (No. days)	Daily sampling (No. days)	Weekly sampling (No. days)	30-day sampling (No. days)	Daily sampling (No. days)	Weekly sampling (No. days)
0	0	0	0	3	1

Table 6 - Bacteria Targets

Parameters	Unit	Fresh Water Targets	
		Geometric Mean	Single Sample
E. coli	mg	126/ 100	235/ 100
Fecal coliform	mg	200/ 100	400/ 100

- (2) The wasteload allocations are to be achieved no later than January 26, 2012.

(b) Compliance Monitoring:

- (1) Achievement of the WLAs is to be determined through receiving water monitoring conducted in accordance with the Santa Monica Bacteria TMDL Compliance Monitoring Program approved by the Executive Officer.
- (2) If any WLA is exceeded at a compliance monitoring site, the Regional Board will issue an appropriate investigative order pursuant to Cal. Water Code section 13267 or 13225 to the Permittees and other responsible agencies or jurisdictions within the relevant subwatershed to determine the source of the exceedance. Following these actions, Regional Board staff will evaluate the need for further enforcement action.

(c) Actions and Special Studies required of Malibu MS4 Permittees:

- (1) If TMDL compliance monitoring indicates that the Malibu MS4 Permittees are causing or contributing to an exceedance of the WLAs in the receiving waters, the Permittees shall conduct a source identification study and implement additional controls sufficient to achieve the WLAs in the receiving waters.

**SUGGESTED OUTLINE OF ATTACHMENT H  
FOR VENTURA COUNTYWIDE MONITORING PROGRAM**

1) Objectives of Monitoring Program

- a) The primary objectives of the Monitoring Program include, but are not limited to:
  - i) Assessing the chemical, physical, and biological impacts of receiving waters resulting from urban runoff.
  - ii) Characterization of the quality of urban storm water discharges.
  - iii) Identifying urban sources of pollutants.
  - iv) Assessing the overall health and evaluating long-term trends in receiving water quality.
  - v) Assessing compliance with water quality objectives.
  - vi) Supporting the implementation of the Countywide Stormwater Management Program by measuring and improving the effectiveness of the control measures.
- b) The results of the monitoring requirements outlined below shall be used to refine BMPs for the reduction of pollutant loading and the protection and enhancement of the beneficial uses of the receiving waters in Ventura County.

2) Overall framework

- a) Core Monitoring (Baseline)
- b) Watershed specific
- c) TMDL
- d) Special Studies

3) Core Monitoring

- a) Objectives
  - i) Estimate the pollutant mass emissions in the primary watersheds in Ventura county.
  - ii) Assess trends in the mass emissions over time.
- b) Baseline
  - i) Locations
    - (1) ME-VR for Ventura River.
    - (2) ME-SCR for Santa Clara River.
    - (3) ME-CC for Calleguas Creek.
  - ii) Constituents
    - (1) All samples taken shall be analyzed for all constituents listed in Attachment "G" (Storm Water Monitoring Program's Constituents with Associated Minimum Levels). If a constituent is not detected at the Method Detection Limit (MDL) for its respective test method in more than 75 percent of the first 48 sampling events at a station, it need not be further analyzed unless the observed occurrences show concentrations greater than state water quality objective. The Principal Permittee shall conduct annual confirmation sampling for non-detected constituents during the first storm of the wet season every year at each station.
    - (2) Method
      - (a) Samples shall be flow-weighted composites. A minimum of 3 sample aliquots, separated by a minimum of 15 minutes, shall be taken within each hour of discharge, unless the Regional Water Board Executive Officer approves an alternate protocol.

- (3) Samples for mass emission monitoring may be taken with the same type of automatic sampler used under Order 00-108.
- (4) Samplers shall be set to monitor storms that produce 0.25 inches or greater of rainfall.
- (5) Samples are to be flow-weighted composites and can be collected manually or automatically. Flow may be estimated using EPA methods at sites where flow measurement devices are not in place.
- (6) Grab samples shall be taken for pathogen indicators and oil and grease, only.

iii) Frequency

- (1) 3 storm events including the first storm event of the wet season that produces at least 0.25 inches of rain.
- (2) 2 dry weather events according to the following schedule:
  - (a) 1 event prior to the onset of wet weather- October 1<sup>st</sup> (during the months of August - September).
  - (b) 1 post wet weather- April 15<sup>th</sup>
- (3) A total of 5 monitoring events (3 storm and 2 dry weather) shall be sampled per mass emission station. (during the months of May - June).

c) Toxicity

- (a) The objective of aquatic toxicity monitoring is to evaluate if urban storm water and non-storm water discharges are causing or contributing to acute and/ or chronic toxic impacts on aquatic life by the following:
  - (i) Toxicity at the mass emission stations is to be evaluated using marine test organisms to assess impacts on the marine or estuarine environments.
  - (ii) Toxicity at upstream stations is to be evaluated using freshwater test organisms to assess impacts on the freshwater environment.
- (b) The Principal Permittee shall analyze mass emission samples and upstream samples (as necessary see section 4.b.ii.1) for aquatic toxicity to evaluate the extent and causes of toxicity in receiving waters. Permittees shall utilize documents such as: Ventura County's Technical Guidance Manual for Storm Water Quality Control Measures and U.S. EPA's National Management Measures to Control Nonpoint Source Pollution from Urban Areas to implement measures to eliminate or reduce sources of toxicity in storm water.
  - (i) The Principal Permittee shall analyze samples for toxicity from 2 storm events (including, the first storm event that produces a rainfall of at least 0.25 inches) for each mass emission station and tributary station per wet season.
    1. A minimum of 1 marine species shall be used for toxicity testing for each mass emission station event. Specifically, *Strongylocentrotus purpuratus* (sea urchin) fertilization/ development tests shall be used. This test should include a dilution series (0.5x steps) that ranges from the undiluted sample (or the highest concentration that can be tested within the limitations of the test methods or sample type) to less than or equal to 6% sample. In no case shall the toxicity test species *Strongylocentrotus purpuratus* (sea urchin) be substituted with another organism unless Permittees receive written authorization from the Regional Water Board Executive Officer.
    2. A minimum of 1 freshwater species shall be used for toxicity testing for each tributary station event. Specifically, *Ceriodaphnia dubia* (water flea) 7-day survival/ reproduction tests shall be used. In no case shall the toxicity test

species *Ceriodaphnia dubia* (water flea) be substituted with another organism unless Permittees receive written authorization from the Regional Water Board Executive Officer.

3. When finalized the Santa Monica Bay Restoration Commission's Toxicity Monitoring and analysis Protocol may be used in place of the above.

#### 4) Targeted Watershed Monitoring

- a) Objectives of monitoring
  - i) To determine the extent (special and temporal) and magnitude of the receiving water quality problem in a specific watershed.
  - ii) Determine whether urban runoff contributes to the receiving water quality problem.
  - iii) Identify the sources (based on land uses) to urban runoff that contribute to the receiving water quality problem.
- b) Watershed Pollutant of Concern Studies
  - i) 2 year rotating cycle for major watersheds.
  - ii) 4 Stage progressive approach to meet the objectives stated above.
    - (1) Adaptive Triggers for transitioning from stage to stage
      - (a) Stage 1 - Identifying POCs from statistical summary of historical data and 303(d) listing policy.
        - (i) All receiving water and mass emission station data will be summarized and compared with the 303(d) listing policy for identifying potential water quality issues. Consistent with the listing policy a binomial test will be applied.
        - (ii) Constituents identified as urban POCs in 2005-2006 Annual Report will require Stage 2 monitoring.
      - (b) Stage 2 – Increase of POCs over upstream background.
        - (i) The monitoring locations for POCs will be spatially located to capture upstream and downstream samples of urban areas. For constituents that show a statistical difference between upstream and downstream samples (use the paired or unpaired t test for statistical differences between upstream and downstream at a 95% confidence level)
        - (ii) Constituents identified as having a statistical increase between upstream and downstream sites will require Stage 3 and Stage 4 analysis.
      - (c) Stage 3 – Estimate urban contributions from land use based datasets.
        - (i) Determine proportional contribution of urban runoff (based on land use types, e.g. residential, industrial, etc.) using historical data and modeling software. This study should be done concurrently with Stages 1 and 2.
      - (d) Stage 4 – Outfall monitoring to further define contributions to water body.
        - (i) Representative outfalls will be monitored for each urban area suspected through Stage 2 monitoring to likely be contributing a significantly larger quantity of POC(s) than Land Use data would predict.
        - (ii) Outfall monitoring will be compared with typical urban runoff characteristics to identify sources of pollutants. Typical urban runoff characteristics will be based on frequency distribution plots using Ventura County historical outfall monitoring for I-2 and R-1. Any outfall with discharges greater than the 75% probability values will be subject to a more intensive source identification.



(iii) Information from outfall monitoring will be used to assess and focus the Countywide Stormwater Management Program.

- iii) Chemical Constituents to be monitored
  - (1) POCs identified through Stage 1 evaluation
- iv) Sampling stations and locations
  - (1) Stage 2 - spatially located to capture upstream and downstream samples of urban areas.
  - (2) Stage 4 - to be determined based on stage 3 analysis.
- v) Frequency
  - (1) Dry and wet weather events same as Core Monitoring program or applicable TMDL monitoring plan.
  - (2) Two year study focused on a single watershed and rotated through the major watersheds

#### 5) TMDL

- a) In cases where Permittees are conducting TMDL monitoring, those efforts shall be an acceptable alternative to the corresponding constituent monitoring efforts required under this permit.
- b) To maximize resources the watershed specific monitoring can be done with the same frequency as required TMDL monitoring for other constituents, provided wet weather samples are included.
- c) The TMDL monitoring program may be augmented to integrate constituents identified in Stage 1 analysis of targeted watershed monitoring.

#### 6) Special studies

- a) Trash Study
  - i) The Principal Permittee shall perform the trash and debris study to accomplish the following objectives:
    - (1) Quantitatively assess the types and amount of trash and debris discharging from MS4s.
    - (2) Identify and to develop control strategies.
  - ii) The Trash Study shall follow a regionally accepted protocol.
- b) Southern California Bight Project
  - i) Participation in the Southern California Bight Project (SCBP).
- c) Volunteer
  - i) The Permittees shall offer to participate in the development and implementation of volunteer monitoring programs in the Ventura watersheds.
- d) Pyrethroids
  - i) The Program shall support the alternative pesticides study required under the monitoring plan for the Calleguas Creek organochlorine TMDL; and make an evaluation of this report to recommend whether to proceed with additional pyrethroid monitoring in other watersheds.
  - ii) Additional pyrethroid monitoring in the other watersheds will follow a logical progression to first identify if there is a problem then to if the sources are from urban runoff.
- e) Bioassessment
  - i) Participation in the Southern California Regional Bioassessment Program
    - (1) Level of effort per Watershed
    - (2) Probabilistic sites per watershed - Six.
    - (3) Integrator sites per watershed - One
  - ii) The Southern California Benthic Index of Biological Integrity (SoCal B-IBI) shall be used to develop a score for assessed sites until the Department of Fish and Game releases their index including low gradient streams.

- iii) The Principal Permittee at end of every monitoring year shall evaluate the WMA to estimate the percentage of stream segments that are in "very good", "good", "fair", "poor" and "very poor" condition based on the SoCal B-IBI.
- iv) The following results and information shall be included in the Annual Storm Water Report:
  - (1) All physical, chemical and biological data collected in the assessment.
  - (2) Photographs and GPS locations of all stations.
  - (3) Documentation of quality assurance and control procedures.
  - (4) Analysis that shall include calculation of the metrics used in the CSBP.
  - (5) Comparison of mean biological and physical/ habitat assessment metric values between stations and year-to-year trends.
  - (6) Comparison of biological and physical/ habitat data to the SoCal IBI.
  - (7) Electronic data formatted to the California DFG Aquatic Bioassessment Laboratory for inclusion in the Statewide Access Bioassessment Database.