

July 16, 2007

San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Sent via electronic mail to MRP@waterboards.ca.gov

**RE: Comments on the May 1, 2007 Draft Municipal Regional Urban Runoff
NPDES Permit**

Dear Regional Board Staff:

On behalf of Baykeeper and its members, thank you for the opportunity to once again provide feedback on a working draft of the Municipal Regional Urban Runoff NPDES Permit (“Permit”). We appreciate the considerable thought and time that has gone into producing this draft and look forward to see continued improvement and refinement in the next iteration.

Ensuring that municipalities—which have the authority to regulate land use and which recognize the benefits of urban development—take consistent and measurable steps to reduce pollutants in stormwater discharges is necessary to ensure protection of beneficial uses. According to the United States Environmental Protection Agency (EPA) urban runoff is one of the leading sources of water quality impairment to our nation’s estuaries.¹ In the Bay Area, many pollutants in urban stormwater are known to impair beneficial uses of the Bay and local creeks, lakes and reservoirs.² In recent years, urban stormwater has been identified as the leading controllable source of impairing pollutants, such as the pesticide diazinon and bioaccumulative polychlorinated biphenyls (PCBs).

Because regulation of stormwater discharges from municipal separate storm sewer systems (MS4s) is not focused on end of the pipe effluent limitations, determining municipalities’ compliance with federal and state requirements, as expressed in permits,

¹ EPA 841-F-03-003, *Protecting Water Quality from Urban Runoff* (February 2003).

² According to the State 303(d) list, stormwater is a significant source of many impairing pollutants, including pesticides, PCBs, PAHs, selenium, nutrients and pathogens. California State Water Quality Control Board, 2006 Clean Water Act Section 303(D) List Of Water Quality Limited Segments, available at http://www.swrcb.ca.gov/tmdl/303d_lists2006.html.

is, at best, challenging.³ As recognized by EPA, a high level of specificity is necessary to provide MS4s with a “clear target to achieve.”⁴ It is also necessary to determine whether the permittee is in compliance with the terms of the permit and whether the terms of the permit are stringent enough to ensure compliance with applicable water quality standards. Our comments below focus on specific sections of the draft Permit, but in general we ask that the Regional Board once again review the draft Permit with an eye towards ensuring all requirements and performance measures contain objective criteria with which compliance can easily be determined. If staff has not already done so, we respectfully recommend review of EPA guidance entitled *Storm Water Phase I MS4 Permitting: Writing More Effective, Measurable Permits*.⁵

1. Section A. Discharge Prohibitions

- *Discharge Prohibition A.1. wrongly applies the iterative process to non-stormwater discharges.*

Discharge Prohibition A.1. inappropriately conditions compliance with the prohibition on non-stormwater discharges with the iterative process outlined in C.1. Section 402 of the Federal Water Pollution Control Act (Clean Water Act)⁶ requires that all permits for discharges from MS4s “include a requirement to effectively prohibit non-stormwater discharges into the storm sewers.”⁷ Contrary to the language in the draft Permit, compliance with this requirement cannot be demonstrated through the Permittee’s implementation of C.1.⁸ Conditioning the prohibition on the iterative process is confusing and inconsistent with the plain language of the Clean Water Act.

We ask that the Section A.1. be modified to read as follows:

The Permittees shall, within their respective jurisdictions, effectively prohibit the discharge of non-stormwater (materials other than stormwater) into the storm drain systems and watercourses unless such discharges are either authorized by a separate National Pollutant Discharge Elimination System permit or not prohibited in accordance with section C.15.⁹

- *The Permit may not authorize discharges of non-stormwater if they are sources of pollutants.*

³ Kosco, J. et al., *Lessons Learned from In-Field Evaluations of Phase I Municipal Storm Water Programs*, pg. 195, prepared by Tetra Tech, Inc. and U.S. EPA Region IX, available at www.epa.gov/owow/nps/natlstormwater03/19Kosco.pdf.

⁴ Gentile, L. and Tinger, J, *Storm Water Phase I MS4 Permitting: Writing More Effective, Measurable Permits*, pg. 139. Available at <http://www.epa.gov/owow/nps/natlstormwater03/>.

⁵ *Id.*

⁶ 33 U.S.C. 1251 et seq.

⁷ 33 U.S.C. § 1342(p)(3)(B) (ii).

⁸ Draft Permit at 24.

⁹ This language is based on similar language in the San Diego permit.

San Diego Region Regional Water Quality Control Board, Order No. R9-2007-0001, NPDES No. CA0108758 (January 24, 2007) (hereinafter “San Diego Permit”).

Discharge prohibition A.1 also mistakenly purports to authorize non-stormwater discharges provided that they contain no pollutants of concern at concentrations that will impact beneficial uses or cause exceedances of water quality.¹⁰ As stated above, the Clean Water Act requires Permittees to effectively prohibit discharges of non-stormwater to their systems. Permittees must develop a program to control non-stormwater discharges from an enumerated category of discharges or flows if those discharges are “identified by the municipality as sources of pollutants to waters of the United States.”¹¹

The threshold for control of non-stormwater discharges, therefore, is not whether they contain pollutants of concern at concentrations that may violate water quality standards but whether they are sources of pollutants. To ensure that Discharge Prohibition A.1 correctly states federal regulations, we recommend that the second sentence (beginning “C.15. describes a tiered categorization”) be deleted in its entirety.

2. Section C.1. Water Quality Standards Exceedances

- *The reference to MEP in Provision C.1. should be deleted.*

The second sentence of Provision C.1.—which requires Permittees to implement control measures to the maximum extent practicable (MEP)—should be removed. While somewhat conflated in the draft Permit, compliance with the federal MEP standard and compliance with receiving water limitations are two different requirements.

Section 402 of the Clean Water Act requires that permits contain “controls to reduce the discharge of pollutants to the maximum extent practicable.”¹² State Board orders impose an additional requirement that all municipal stormwater permits contain language specifically requiring compliance with discharge prohibitions and receiving water limitations via an iterative process.¹³ The Santa Ana and San Diego Regional Boards have issued permits with similar language, including no reference to MEP, that have been challenged and upheld in litigation.¹⁴

Presumably, the intent of mentioning MEP in Provision C.1., on page 25 of the draft Permit, is to state that the permit requirements are intended to achieve the federal standard by reducing the discharge of pollutants to the maximum extent practicable. We recommend, instead, that the sentence related to MEP be deleted and a finding added that states the Regional Board’s express intent that implementation of the permit requirements is intended to reduce the discharge of pollutants to the maximum extent practicable as

¹⁰ Draft Permit at 24.

¹¹ 40 C.F.R. § 122.26(d)(2)(iv)(B)(1).

¹² 33 U.S.C. § 1342(p)(3)(B)(iii).

¹³ SWRCB Order No. 99-05 (June 17, 1999) (revising SWRCB Order No. WQ 98-01).

¹⁴ *Building Industry v. Ass’n of San Diego Cty v. State Water Resources Control Board*, 124 Cal. App. 4th 866 (Cal. Ct. App. 2005); *City of Rancho Cucamonga v. Regional Water Quality Control Board, Santa Ana Region*, 153 Cal. App. 4th 1377 (Cal. Ct. App. 2006).

required by Clean Water Act section 402. This change will clearly distinguish between the federal and state requirements and will ensure that Provision C.1 is consistent with precedential State Board orders.

- *The process described in Section C.1. should not terminate after only one iteration.*

As written, Provision C.1. only requires Permittees to identify and implement additional stormwater control measures/BMPs once when receiving limitations are violated unless otherwise directed by the Regional Board. To truly be iterative, the process described in Provision C.1. must be implemented until receiving water limitations are met. We suggest that, as long as violations of water quality objectives occur, the Permittees should be required to annually propose and implement changes to their permit requirements. To this end, we ask that the last paragraph of section C.1. be revised as follows:

As long as Permittees have complied with the procedures set forth above and are implementing the revised Permit, they do not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations more than once each year unless directed by the Water Board to develop additional control measures and BMPs, and re-initiate the Permit amendment process.¹⁵

3. Section C.2. Municipal Maintenance

- *The Permit should require mapping of major storm drain outfalls, pump stations, and the conveyance system.*

As part of the permit application process, dischargers must identify the location of any major outfall that discharges to waters of the United States, as well as the location of major structural controls for storm water discharges.¹⁶ A major outfall is any outfall that discharges from a single pipe with an inside diameter of thirty-six (36) inches or more or, for areas zoned for industrial activities, any pipe with a diameter of twelve (12) inches or more. The permitting agency may not process a permit until the applicant has fully complied with the application requirements.¹⁷ If, at the time of application, the information is unavailable, the Permit must require implementation of a program to meet the application requirements.¹⁸

Although the Permit requires that Permittees maintain for inspection all maps of storm drain inlets, outfalls and drainage areas, information currently available to us strongly

¹⁵ We recognize that the language of section C.1. is based on State Water Resources Control Board Order WQ 99-05 (June 17, 1999) and emphasize that the Regional Boards have authority to implement more stringent requirements than those contained in that order. If the Regional Board determines that more frequent revisions of the permit are necessary to ensure attainment of Basin Plan objectives, it has the authority to require them.

¹⁶ 40 C.F.R. § 122.26(d)(1)(ii)(B)(1), (d)(2)(ii).

¹⁷ 40 C.F.R. § 124.3 (applicable to State programs, see § 123.25).

¹⁸ 40 C.F.R. § 122.26(d)(1)(iv)(E).

suggests that most Permittees do not have such maps and/or that they have failed to provide them to the Regional Board or otherwise identify the location of major outfalls and structural controls.

Failure to require basic information about the location of major outfalls and other significant components of the MS4s is not only at odds with long-standing federal regulations, it impedes effective implementation of the Permit. For example, the MS4 regulations contemplate that field screening for illicit discharge detection begin at major outfalls, where detecting illicit discharges should be easiest.¹⁹ Many communities have found that mapping storm sewer outfalls and pipes is useful in conducting and prioritizing field investigations for illicit discharges.²⁰ Additionally, as discussed in more detail below, federal regulations require monitoring of stormwater from outfalls representative of various land use activities. Identification of illicit discharges and representative monitoring locations cannot occur unless the Permittee has a complete map of its MS4, including outfalls.

Furthermore, many other permitting agencies already impose mapping requirements. The State of Washington requires permittees to implement an “ongoing program for mapping and documenting the MS4.”²¹ Similarly, New Jersey requires municipalities to annually certify that an outfall pipe map has been completed or is being prepared in accordance with permit conditions and to report the number of outfall pipes mapped within the year and the total number of outfall pipes mapped to date.²² The recently issued San Diego permit requires each Permittee to develop and/or update a “labeled map of its entire MS4 system and the corresponding areas within its jurisdiction” and to check the map’s accuracy during dry weather field screening.²³

To ensure that this Permit reflects applicable regulations and requires a level of effort consistent with the most recent round of California MS4 permits, we ask that it impose a deadline for Permittees to map, electronically, all major outfalls, pump stations, and other key components of the permittees’ storm water system. The Permit should further require regular updating of the map and consistent reporting of progress in developing and/or updating the map.

4. Section C.3. New Development and Redevelopment

Baykeeper’s comments on the draft Permit’s New and Redevelopment section can be found in the letter submitted jointly by Natural Resources Defense Council and Baykeeper on July 12, 2007.

¹⁹ 40 C.F.R. § 122.26(d)(1)(iv)(D).

²⁰ Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, pg. 28 (October 2004).

²¹ Phase I Municipal Stormwater NPDES and State Waste Discharge General Permit for Western Washington, p. 7 (January 17, 2007).

²² New Jersey Tier B Permit at pg. 15.

²³ San Diego Permit at 42.

5. Section C.4. Industrial and Commercial Inspections

- *Section C.4.b.ii.(3) (Types/Contents of Inspections) misapplies the MEP standard.*

Section C.4.b.ii.(3) requires Permittees to conduct inspections that include “[p]revention of stormwater runoff pollution or illicit discharge by implementing appropriate BMPs to the MEP.”²⁴ As discussed above, MEP describes the extent to which the Permittees must reduce discharge of pollutants. It does not, as is suggested by the language in the draft Permit, describe the degree to which stormwater BMPs must be implemented by private facilities. The correct requirement is that inspections ensure that commercial and industrial facilities do not discharge non-stormwater and are implementing BMPs in compliance with all municipal and county ordinances. Please make the following change to section C.4.b.ii.(3)(a):

Prevention of stormwater runoff pollution or illicit discharge by implementing appropriate BMPs ~~to the MEP~~

- *Require inspectors be trained in Statewide general permit requirements and recommend adoption of requirements consistent with the general permit.*

A relatively recent audit of MS4 permits in California that included several Bay Area permit concluded that local MS4 industrial and construction inspectors are often unaware of State general industrial and construction permit requirements.²⁵ It further concluded that, while this is often intentional so that MS4s can avoid responsibility of enforcing the statewide permits, the lack of familiarity with state requirements complicates compliance for both inspectors and the facilities being inspected. Consistent with the recommendations that followed from that audit, we ask that the Permit include (1) a recommendation that Permittees adopt legal requirements consistent with or identical to the statewide permit requirements for a stormwater pollution prevention plan and (2) require that all inspectors receive training on the statewide permit requirements.

- *Implementation of the Industrial and Commercial Inspection Program should include establishment of a database of facilities identified as being subject to the State Board General Industrial Permit.*

The regional Permit, when issued, should require submission of an annually updated database of facilities subject to the General Industrial Permit and ensure that all those facilities which were inspected maintain a SWPP onsite. Other Regional Boards regularly require more information than that currently required by the draft Permit. For

²⁴ Draft Permit at 52.

²⁵ Kosco, J. et al., *Lessons Learned from In-Field Evaluations of Phase I Municipal Storm Water Programs*, pg. 195, prepared by Tetra Tech, Inc. and U.S. EPA Region IX, available at www.epa.gov/owow/nps/natlstormwater03/19Kosco.pdf.

example, the 2001 Los Angeles permit requires permittees annually update a database of facilities subject to the General Industrial Permit with the facility's name, site address, SIC code, and NPDES storm water permit coverage state. It also requires that inspections include confirmation that the facility has a proper WDID and has a SWPP onsite.²⁶

- *Permittees should not provide facilities advance notice of inspections.*

Most facilities can largely control stormwater pollution through implementation of good housekeeping measures. By their nature, housekeeping controls require relatively little effort, but their ongoing effectiveness during the rainy season is based on regular and consistent implementation. If Permittees provide advance notice of an inspection to facilities that primarily use housekeeping best management practices, these facilities may remedy any existing violations before the inspection, but since inspections are bound to occur infrequently, they cannot ascertain whether BMPs are regularly implemented. To ensure the effectiveness of housekeeping BMPs, we strongly recommend that the Permittees be prohibited from providing advance notice of inspections.

6. Section C.5. Illicit Discharge Detection and Elimination

- *The illicit discharge detection and elimination requirements are inadequate because they fail to require proactive efforts to identify illicit discharges.*

The field screening requirements for detection of illicit discharges fail to meet federal requirements. Applicants for a municipal separate storm sewer system NPDES permit must include in their application results of a field screening analysis for illicit connections that includes, at a minimum, a description of visual observations made at each designated field screening point.²⁷ Field screening points are either all major outfalls or outfall points randomly located throughout the storm drain system and identified by overlaying the system with a 0.5 mile square grid system and selecting one field screening point for every 1/16th square mile cell.²⁸

As far as we are aware, the Regional Board has not asked Permittees to submit the required field screening information or conduct the level of screening necessary to generate the information required by the regulations governing MS4 permit applications. The proposed Permit appears to require Permittees to conduct screening only when "Permittee staff are working in the collection system and at strategic collection system access points."²⁹ We interpret this to mean that, if no staff work on the system at or near strategic collection system access points, then no screening is required. Our reading is supported by finding number 54, which states that "Permittee staff can detect discharges during the course of other tasks, business owners and other aware citizens can observed [sic] and report suspect

²⁶ Los Angeles permit at 28 and 31

²⁷ 40 C.F.R. § 122.26(d)(1)(iv)(D).

²⁸ *Id.*

²⁹ Draft permit at 59.

discharges.” At a minimum, the Permit must require Permittees to conduct field screening consistent with federal application requirements, which require proactive efforts to identify illicit discharges.

The draft Permit’s failure to require proactive screening is particularly concerning considering the audit results of several Bay area stormwater programs. A summary of the audits conducted by Tetra Tech, concluded that “[M]any MS4s fail to identify and eliminate dry weather discharges.”³⁰ In 2003, Tetra Tech, Inc. audited the Santa Clara Valley MS4 program and noted it was deficient in that the Permittee conducts investigations based solely on complaints.³¹ An audit of San Mateo’s program identified the same flaw and singled out the permit’s performance standard for criticism: “The illicit discharge performance standards rely on municipal and county staff to identify evidence of illicit discharges ‘while conducting other routine work.’ The performance standard does not require regularly scheduled screening for illicit discharges or dry weather flows. Regular and consistent dry weather outfall screening is an effective method to proactively identify chronic or ongoing illicit discharges.”³²

Other permitting authorities have found much more rigorous field screening requirements to be practicable, which suggests to us that the level of effort required in the proposed permit does not meet the MEP standard. For example, New Jersey requires that permittees conduct an initial physical inspection of all outfall pipes.³³ Washington requires that each city covered by the permit conduct field screening for at least 60% of the conveyance systems no later than four years after the effective date of the permit.³⁴ Los Angeles requires screening of all major outfalls during the permit term, and defines “screening” as “using proactive methods.”³⁵ San Diego requires screening of at least one point in each drainage area during the dry season.³⁶ In contrast to these permits, the Regional Board’s proposal is insufficient in

³⁰ Kosco, J. et al., *Lessons Learned from In-Field Evaluations of Phase I Municipal Storm Water Programs*, prepared by Tetra Tech, Inc. and U.S. EPA Region IX, available at www.epa.gov/owow/nps/natlstormwater03/19Kosco.pdf.

³¹ Program Evaluation Report Santa Clara Valley Urban Runoff Pollution Prevention Program: County of Santa Clara and City of San Jose, NPDES Permit No. CAS029718 (January 20, 2004), available at <http://www.epa.gov/region09/water/npdes/ms4audits.html#caleval>.

³² Program Evaluation Report San Mateo Area Stormwater Program, NPDES Permit No. CAS0029921 (October 24, 2003), available at <http://www.epa.gov/region09/water/npdes/ms4audits.html#caleval>.

³³ NJPDES Tier A Municipal Stormwater General Permit, Permit No. NJ0141852; issued August 1, 2005; effective September 1, 2005; pg. 15. Available at http://www.njstormwater.org/tier_A/index.htm.

³⁴ State of Washington, Dep’t of Ecology, NPDES and State Waste Discharge General Permit for discharges from Large and Medium Municipal Separate Storm Sewer Systems; issued January 17, 2007; effective February 16, 2007; pg. 18. Available at <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/index.html>.

³⁵ Los Angeles Regional Water Quality Control Board, Order No. 01-182, NPDES Permit No. CAS004001; Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles, and the Incorporated Cities Therein, Except the City of Long Beach; adopted December 13, 2001; amended September 14, 2006 by Order R4-2006-0074; pg. 56, 64.

³⁶ San Diego Regional Water Quality Control Board, Order No. R9-2007-000; NPDES No. CAS0108758; Waste Discharge Requirements For Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County Of San Diego, the Incorporated Cities of San Diego County, the San Diego Unified Port District, and the San Diego County Regional Airport Authority; Receiving Waters And Urban Runoff Monitoring And Reporting Program, pg. 11.

terms of designation of field screening stations and requiring regular monitoring of those stations.

We ask that the Permit clearly state the minimum number of field screening points to be designated, how they are to be selected, and how frequently they are to be inspected. We further suggest that the Regional Board look to the San Diego and Los Angeles permits for help in developing appropriate performance standards.

7. Section C.6. Construction Inspections

- *Section C.6.c.ii.(1)(h) (Minimum Required Management Practices) misapplies the MEP standard.*

As mentioned in the context of industrial and commercial inspections, MEP describes the extent to which the Permittees must reduce the discharge of pollutants. Section C.6.c.ii.(1)(h) misapplies the MEP standard to retention, reduction and proper management. We recommend that the language be changed to “[R]etention, reduction, and proper management of all pollutant discharges.”

- *Require inspectors be trained Statewide general permit requirements and recommend adoption of requirements consistent with the general permit.*

As discussed in more detail in the industrial and commercial inspection section, making municipal requirements and training consistent with the statewide general construction permit would benefit the construction community as they would have only one set of stormwater requirements with which to comply. We request that that section C.6.a. (Legal Authority) recommend that Permittees establish legal authority consistent with the terms of the general statewide permit and that section 6.6.g (Staff Training) require that all staff conducting inspections be trained on the requirements of the general statewide permit.

- *Permittees should report on the minimum set of BMPs designated to be implemented at construction sites.*

As drafted, section C.6.c. (Minimum Required Management Practices) does not contain any reporting requirements. Permittees should be required to at least identify in their annual reports the minimum BMPs and other measures required to be implemented at construction sites.

- *Please articulate the basis for selecting 50 acres as the size threshold for high priority construction sites.*

The statewide General Permit for Discharges of Storm Water Associated with Construction Activity regulates all construction activities that disturb one or more acres of land because stormwater discharges from that size project can cause or contribute to

violations of water quality standards. In light of the General Permit's size threshold, please explain the rationale for selecting 50 acres as the threshold for high priority sites.

8. Section C.7. Public Information and Outreach

- *Please explain why advertising campaigns must only target two pollutants of concern.*

The draft Permit identifies ten pollutants of concern, yet the public information and outreach provisions only require advertising campaigns address two. Please explain the rationale for only requiring campaigns to target two pollutants and include in the Permit the factors to be considered by the Permittees in selecting which pollutants to target.

- *Permittees should conduct outreach to pesticide companies.*

Section C.7.k. should include the option to conduct outreach directed at pesticide application companies to ensure that they are not illegally discharging polluted non-stormwater from, for example, allowing wash water to reach storm drains.

9. Section C.8. Water Quality Monitoring

- *The Permit lacks monitoring of actual stormwater as required by federal regulations.*

We strongly support the detailed and comprehensive nature of the monitoring program described in the Permit, but find it lacking in one significant respect: it fails to require sufficient monitoring of actual stormwater discharges. Monitoring of stormwater discharges is necessary to determine when the iterative process described in section C is triggered and to comply with federal regulations, which require characterization of stormwater discharges and monitoring sufficient to estimate mass loadings of pollutants from stormwater.

Federal MS4 regulations require permit applicants to submit quantitative monitoring data from five to ten outfalls or field screening points that are representative of commercial, residential and industrial land use.³⁷ For each outfall, samples must be collected from three storm events occurring at least one month apart and must be analyzed for a suite of parameters, including organic pollutants, toxic metals, and cyanide.³⁸ If data is not available, then the permit application must include "a proposed monitoring program for representative data collection for the term of the permit that describes the location of outfalls or field screening points...[and] why the location is representative."³⁹

MS4 permits issued by other permitting agency require monitoring of outfalls. The San Diego permit, for example requires implementation of monitoring sufficient to characterize discharges from MS4 outfalls in each watershed during both wet and dry weather, including

³⁷ 40 C.F.R. § 122.26(d)(2)(iii).

³⁸ 40 C.F.R. § 122.26(d)(2)(iii)(A)(3).

³⁹ 40 C.F.R. § 122.26(d)(2)(iii)(D).

the rationale and criteria for selection of outfalls to be monitored.⁴⁰ The state of Washington requires all permittees to monitor at least one outfall that represents commercial, high density residential, and industrial land uses for 75% of storms.⁴¹

To ensure implementation of a monitoring program that is consistent with federal law and that can be used to determine whether stormwater is causing or contributing to an exceedance of water quality standards, the Permit must require monitoring of stormwater. Baykeeper recommends that a new subsection be added that requires Permittees to identify of major outfalls that drain various land uses and develop a monitoring program for those outfalls that (1) requires monitoring of at least three storm events, including first flush, (2) describes why those monitoring locations are representative of stormwater discharges, and (3) describes how the monitoring results will be used to estimate mass loading and determine compliance with receiving water limitations.

10. Section C.9. Pesticides Toxicity Prevention

- *The Permit should identify model Integrated Pest Management policies or ordinances.*

Integrated Pest Management (IPM) varies widely statewide – many different definitions and applications exist. The Permit should define IPM and ensure that Permittees adopt definitions and ordinances that are at least as stringent as the example. As a starting point, we recommend the definition contained in the city of San Francisco’s IPM ordinance:

"Integrated pest management" means a decision-making process for managing pests that uses monitoring to determine pest injury levels and combines biological, cultural, physical, and chemical tools to minimize health, environmental and financial risks. The method uses extensive knowledge about pests, such as infestation thresholds, life histories, environmental requirements and natural enemies to complement and facilitate biological and other natural control of pests. The method uses the least toxic synthetic pesticides only as a last resort to controlling pests.⁴²

11. Section C.10. Trash Reduction

San Francisco Bay’s trash problem is not trivial. Data collected at fourteen Bay Area creeks as part of the Surface Water Ambient Monitoring Program (SWAMP)⁴³ led researchers to conclude that trash is “a ubiquitous problem at the bottom of all

⁴⁰ San Diego MS4 Permit at 9.

⁴¹ Western Washington Permit at 41.

⁴² San Francisco City and County Environment Code § 301(f).

⁴³ “A Rapid Assessment Method Applied to Waters of the San Francisco Bay Region: Trash Measurement in Streams,” Draft Report, San Francisco Bay Regional Water Quality Control Board (August 22, 2005).

watersheds...with particularly high plastic levels in wet weather.”⁴⁴ The study also noted that the already “alarmingly high” levels of trash may actually be rising in some locations.⁴⁵ Studies by other groups have led to similar conclusions: one conducted at Baxter Creek concluded that a previous restoration effort intended to improve beneficial uses for wildlife and humans was undermined by “the large volume of trash and its negative effects on water quality.”⁴⁶ The presence of trash and other debris is impacting important urban creek beneficial uses, such as fish migration, marine habitat, and recreation.

As the population in the San Francisco Bay region grows, the amount of trash inevitably will too. The Regional Board should take immediate steps to decrease the impact of trash on water quality. The San Francisco Bay Trash TMDL should include more aggressive measures in order to better protect water quality.

- *The Permit should define trash.*

Including definitions for trash will ensure consistency in identification of the types of discharges that constitute trash. We suggest that the Permit incorporate the definition used by the Los Angeles Regional Board in their recently issued and proposed TMDLs. The Los Angeles Regional Board defines “trash” as: “man-made litter as defined in California Government Code Section 68055.1(g)...for purposes of this TMDL, we will consider trash to consist of litter and particles of litter, including cigarette butts.”⁴⁷ By establishing a basic definition of “trash,” the Regional Board can more clearly set out its goals to reduce trash.

- *The Permit should articulate a “zero trash” goal.*

Baykeeper believes the Regional Board should implement a “zero trash” goal over a ten-year time frame. The San Francisco Bay Basin Plan contains a number of provisions relating to trash; it prohibits floating material, suspended, settleable materials that cause nuisance or adversely affect beneficial uses.⁴⁸ Even small quantities of trash violate the Basin Plan objectives by harming habitat and maiming or killing wildlife that becomes entangled in, or ingests the debris.

The trash TMDL issued by the Los Angeles Regional Board recognizes that small amounts of trash impair beneficial uses: the TMDL contains a “zero trash” numeric

⁴⁴ “Executive Officer’s Report,” California Regional Water Quality Control Board, San Francisco Bay Region, page 6 (September 2005). Available at http://www.waterboards.ca.gov/sanfranciscobay/Agenda/09-21-05/_Toc114474055.

⁴⁵ Rapid Assessment, pg. 29.

⁴⁶ Bronner, C. et al., “Post-Project Appraisal of Baxter Creek at Booker T. Anderson Park: Shopping Carts-the New Boulders,” Water Resources Center Archives, University of California (2005).

⁴⁷ Los Angeles Regional Water Quality Control Board, Staff Report: Trash Total Daily Maximum Loads, p.4 (March 20, 2007).

⁴⁸ San Francisco Bay Basin Plan, Chapter 3: Water Quality Objectives, 3.3.6 Floating Material; 3.3.13 Settleable Material; and 3.3.14 Suspended Material.

target derived from the Los Angeles Basin Plan narrative water quality objectives similar to those in the San Francisco Bay Basin Plan.⁴⁹ While LA TMDL's "zero trash" goal was challenged in *City of Arcadia v. State Water Resources Control Board*, the Court of Appeals determined that setting a load allocation of zero was not an abuse of the Regional Board's discretion or arbitrary and capricious.⁵⁰

The draft Permit, however, states no overarching trash goal except a desire "to address this [the Basin Plan] and to control the discharge of trash." Simple assessment of the trash problem, however, does not solve the trash problem. General requirements imposed on Permittees can be ineffective without the larger context of an overall trash-control strategy.

The Los Angeles TMDL explicitly outlines requirements such as a "full capture system" in order to reach its "zero-trash" goals. The TMDL defines the full capture system and its specifications including a "5mm mesh screen with a design treatment capacity of not less than the peak flow rate of $Q = C \times I \times A$." The proposed Permit would be more effective if it incorporated numeric goals both for overall trash reduction as well as numerical value of technologies required.

- *The Permit should require measurable reductions over a specified timeframe.*

The Regional Board's proposed time frame for controlling trash is short-term and does not specify measurable reductions in trash discharges over its 5-year implementation schedule. For example, the proposed Permit only refers to trash assessments and an action level required in Year 4 if assessments indicate trash accumulation rates/scores that are worse than an accumulation rate of 2 pieces per 100-foot segment per day (wet season) and 1 piece per 100-foot segment per day (dry season). Rather than additional assessments, the Permit should implement a specific trash reduction goal to be met each year (such as 70% in the first year, and a 10% reduction each subsequent year, like the Los Angeles TMDL). A greater focus on implementation now will help the Regional Board make significant reductions in the Bay Area's trash problem.

- *The Regional Board should require the use of full-capture systems.*

The trash provisions of the draft Permit are unduly monitoring-focused and should instead require installation of strategically placed full-capture systems in order to immediately reducing trash loading. We suggest something similar to the requirement imposed by the LA Trash TMDL, which defines full capture systems as "any device or series of devices that traps all particles retained by a 5mm mesh screen and has a design treatment capacity of not less than the peak flow rate resulting from a one-year, one-hour, storm in the subdrainage area."⁵¹ The Regional Board should identify key outfalls

⁴⁹ Los Angeles Regional Water Quality Control Board, Trash Total Maximum Daily Loads for the Los Angeles River Watershed, p. 16 (September 19, 2001).

⁵⁰ *City of Arcadia v. State Water Resources Control Board* 135 Cal.App.4th 1411 (2006) at 1427-30.

⁵¹ Los Angeles Regional Water Quality Control Board. *Amendments to the Water Quality Control Plan – Los Angeles Region for the Los Angeles River Trash TMDL*.

contributing trash to the Bay, such as pump stations, and initiate aggressive trash management by requiring full-capture devices at these critical locations.

12. Section C.11. Mercury Load Reduction

- *The Permit should require Permittees to address potential air sources of mercury within their jurisdiction.*

The load estimate for stormwater includes airborne mercury deposited on the Bay watershed and carried into the Bay via stormwater runoff. While minimizing mercury discharges in the runoff is important, to be as effective as possible, the draft Permit should require actions to address air sources that are likely contributing to mercury concentrations in runoff. Specifically, we ask that a new subsection be added to Section C.11 that requires identification of potential air sources of mercury in runoff, including refineries, cement manufacturers, and crematoriums.

- *The risk reduction language is inappropriate.*

Section C.11.b (and section C. 12.i relating to PCBs) requires development and implementation of a regional risk reduction program “to mitigate loads of mercury.”⁵² The purpose of risk reduction is to mitigate the risk to individuals who rely on Bay fish for consumption, not to mitigate loading of mercury to the Bay. We recommend that the risk reduction language be revised accordingly.

- *The Permit should quantify the level of load reduction required.*

The mercury TMDL contemplates significant reductions in mercury loading from urban stormwater, yet the draft Permit fails to quantify the progress that Permittees should make towards reducing loading. The Permit should communicate the expected load reductions and should require Permittees to estimate load reductions using all four of the methods described in section C.11.e. Requiring the use of all methods will help reduce the uncertainty in estimating reductions and help ensure that Permittees are making significant progress towards achieving their TMDL wasteload allocations.

- *Inspections should include an evaluation of and control measures for airborne sources of pollutants*

With regard to implementation actions to achieve the mercury TMDL waste load allocations, the draft Permit should require identification of potential airborne sources of mercury in their watershed. These sites should be inspected and assessed for further actions to reduce aerial deposition of mercury into stormwater runoff.

⁵² Draft permit at 96.

13. Section C. 12. PCBS

- *Permittees should be required to identify and clean up abandoned industrial sites containing significant amounts of PCBs.*

Many abandoned industrial sites are known to contain high levels of PCBs as a result of the use of PCB-laden construction materials. These sites are not inspected as part of regular industrial inspections because they are not in use and, therefore, may escape attention. The Permittees should be required to identify abandoned industrial sites with high levels of PCBs and use their legal authority to require clean up of these sites.

14. Miscellaneous

- *A consistent and detailed reporting format should be used for all Permittees.*

One of the conclusions from Tetra Tech, Inc.'s review of California Phase I permits was that "poor [MS4] programs can hide behind well-written annual reports."⁵³ The lack of standardized reporting "allows each MS4 to choose the type of information it wants to present."⁵⁴ A detailed and uniform reporting format would minimize the likelihood that Permittees could avoid scrutiny based on selective reporting. It would also greatly facilitate comparing a Permittee's performance from year to year and comparing the performance of several Permittees. We suggest that the Regional Board work towards developing a reporting format that captures the same information for the various Permittees.

* * *

We look forward to discussing these and other issues. Please feel free to contact us at (415) 856-0444 with any questions.

Sincerely,

Amy Chastain
Staff Attorney

Sejal Choksi
Program Director

⁵³ Kosco, J. et al., at page. 196.

⁵⁴ *Id.*