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Staff Report

Implementation Status of the Municipal Regional Stormwater Permit

This report provides a review and status of implementation of the Municipal Regional Stormwater NPDES Permit (the Permit) that the Board adopted October 14, 2009, and became effective December 1, 2009. The Permit was issued to 76 municipalities and flood management agencies (known as the Permittees) in Alameda, Contra Costa, San Mateo, Santa Clara, and Solano counties. The Permit consolidated in a single Board-adopted order consistent requirements updated from the Permittees' six previous municipal stormwater permits and associated stormwater management plans. It also established new or improved requirements to control specific pollutants of concern and to implement wasteload allocations established by the total maximum daily loads (TMDLs) for mercury, PCBs, and pesticides that the Board has adopted. In response to the Permit, we are already observing more efficient and effective actions by Permittees, notwithstanding understandable challenges that come with a new permit and resource constraints.

In the following sections of this report, we provide a summary of our review of the Permittees' 2010 Annual Reports, the first annual reports submitted under the new Permit. We also provide a summary of implementation of specific requirements in the New and Redevelopment Projects, Water Quality Monitoring, Trash Load Reduction, and Mercury and PCBs Control provisions of the Permit. We end with a brief summary of our efforts to respond to unfunded state mandate claims filed by many of the Permittees.

Annual Report Review

One of the key opportunities and benefits of a single permit for 76 permittees is consistent reporting using a common format. All of the Permittees now follow the Permit's same annual reporting requirements, allowing much faster and more straightforward Board staff review of the annual reports. Based on the first year's reports submitted in September 2010, we observed some reporting shortcomings, but the results were generally positive given the major transition from the annual reporting requirements in previous permits. This annual report review gave us a good picture of how each Permittee is implementing Permit requirements and provided a mechanism to give Permittees feedback to improve both their implementation actions and the reporting process for next year and beyond.

We worked with the Permittees to develop and approve a standardized annual report template, with the understanding that it will be reviewed and adapted each year as necessary to be more user-friendly and useful to all parties. We expected there would be challenges with this first annual report since the template was completed very late in the 2009/10 fiscal year covered by the first report. Also, the effective date of the Permit was December 1, 2009, and, although the Permittees were not required to use the template for the earlier part of the fiscal year covered by their prior



permits that had different reporting requirements, in response to our request, they incorporated activities from their previous permits into the new template as much as possible.

Each Permittee's annual report is comprised of three parts: regional, countywide, and individual. Some requirements of the Permit are being implemented by the Bay Area Stormwater Management Agencies Association (BASMAA) on behalf of all Permittees. Other elements are being implemented collaboratively by the Permittees through their respective countywide programs. As such, BASMAA and the countywide programs submitted annual report elements on the regional and countywide collaborative tasks, respectively, on behalf of the Permittees, in addition to the individual Permittees' annual reports. All the annual reports are posted on our web site at www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/muni/mrp/2010_AR/index.shtml.

We conducted our review of annual reports in two phases. Phase one was a general review of all annual reports for completeness to determine if they included required elements and the information the reports provided was of the type expected. We noted entries that were left blank with no explanation, and entries indicating that required actions were not taken by their due dates. Phase two was a focused review of the sections of the annual reports that addressed the requirements of Permit Provision C.6 - Construction Site Control and Provision C.9 - Pesticides Toxicity Control.

Annual Report – General Review

In our general review of the annual reports, we checked whether the Permittees submitted the annual report on time (all but three Permittees submitted the report by the September 15, 2010, due date) and whether they complied with requirements that had due dates within the reporting period. These included the following Permit requirements:

- Provision C.2 - Municipal Operations requirement to have a Stormwater Pollution Prevention Plan for corporation yards (maintenance and storage facilities) by July 1, 2010 (all but one Permittee certified they had a Plan);
- Provisions C.4 - Industrial and Commercial Site Controls, C.5 - Illicit Discharge Detection and Elimination, and C.6 - Construction Site Control requirements to have Enforcement Response Plans for each program by April 1, 2010 (all but four Permittees certified they had Plans); and
- Provision C.9 - Pesticides Toxicity Control requirement to adopt Integrated Pest Management policies or ordinances by July 1, 2010 (all but four Permittees submitted a copy of their ordinance or policy).

We issued Notices of Violation to the Permittees that submitted a late annual report and to the Permittees that did not comply with the other noted requirements by the due dates. In response, all Permittees have now subsequently met the requirement (e.g., submitted an annual report) or are taking steps to comply in a timely manner.

In addition to the above compliance issues, the completeness of annual reports varied greatly from Permittee to Permittee. For example, some Permittees left sections blank without explanation, so it was unclear whether nothing was done, the task was "not applicable", or it was a reporting oversight by the Permittee. There was also a lack of standardization for the recording and reporting of violations for industrial, commercial, and construction site inspections.

The Permit requires recording of violations and correction of the violations in a timely manner (the goal is within ten days) and to include in the annual report a tally of the violations and the number

and percentage corrected. However, we found that some Permittees did not record what they consider minor violations or violations that were immediately corrected. A challenge is that the Permit does not define “violation”, and there is obvious reluctance to bear the recording and reporting burden for problems with little or no water quality consequences. On the other hand, there is inconsistency in how businesses are regulated among the Permittees, and there is the possibility that businesses with chronic minor violations will never be compelled to improve their management practices.

We have presented these and other observations from our annual report reviews at meetings with the Permittees. We are also sending letters to all Permittees that present our annual report findings, our suggestions and expectations for improvements in the coming year’s annual report, and our suggestions and expectations for consistency and improvements in Permittee actions that will affect future annual reports. We are also working with the Permittees on guidance to assist with annual report preparation and some minor modifications to the annual report template. In particular, we will be working with the Permittees in the coming months to standardize the way violations at industrial, commercial, and construction sites are identified, recorded, and reported.

Annual Report – Construction Site Control Review

We randomly selected 18 Permittees and conducted a focused review of their annual report section specific to Permit Provision C.6 - Construction Site Control. While several of the selected Permittees performed well, we found some missing data and discrepancies between recorded and reported data from almost all Permittees, and more serious problems with a few of the Permittees reviewed.

We focused primarily on the construction site inspection information that the Permit requires. All Permittees are required to submit a summary of their inspection efforts and findings in the annual report, but they also must record and track information in an electronic database or tabular format for each site inspection and submit it upon request. We requested this detailed construction inspection information from the 18 Permittees for the purpose of answering the following questions:

- Was an electronic database/tabular format used and required data entered?
- Did data in the tables match data reported in the annual report?
- Were all construction sites disturbing greater than one acre of soil and all high priority sites inspected once per month during the rainy season as required by the Permit?
- Were violations identified and corrected within the specified timeframe?

Our review of the 18 data sets showed that 5 of the Permittees had complete data sets that significantly enhanced our understanding of the quality of their inspections. We found that 92 of the 158 violations noted, primarily by these 5 Permittees, were corrected within three days. However, all but 2 of the Permittees reviewed had some discrepancies between their tabular data and their reported summaries. We also found 9 Permittees had failed to develop and implement an adequate electronic database or tabular format for recording inspections as required by the Permit. In response, we issued Notices of Violation to these Permittees to resolve these issues. As discussed above, we are working with all Permittees to improve reporting and to resolve the issue of inconsistencies in reporting violations.

Annual Report – Pesticides Toxicity Control Review

We also conducted a focused review of all Permittees' compliance with certain Provision C.9 - Pesticides Toxicity Control requirements based on their annual reports and associated submittals. All Permittees were required to submit copies of the Integrated Pest Management (IPM) policy or ordinance they had adopted and documentation to confirm compliance with the C.9 requirement to hire IPM-certified contractors or include contract specifications requiring contractors to implement IPM. All but four Permittees have adopted and submitted some form of IPM policy or ordinance. As noted above, we issued Notices of Violation to those four Permittees.

We reviewed the submitted policies or ordinances and found a lot of variation in their breadth and quality. Some were very thorough, but many appeared to have missing components or were too vague to determine whether their requirements were mandatory or optional, applied to all employees and operations or just some, included landscape and structure pest control or just landscape, or what pesticides are allowed or prohibited. It was also not possible to determine whether some Permittees have adequate contract specifications requiring IPM implementation. Consequently, we sent a letter to all Permittees that describes these issues and makes recommendations for improvements. We also asked all Permittees to review their IPM policies or ordinances and contracting documents, revise them as needed, and resubmit them with their 2011 annual reports. As noted in our March 2011 report to the Board on implementation of the Urban Creeks Pesticide Toxicity TMDL, we are now working with all municipalities to improve their IPM implementation and to focus more effort on outreach to professional pesticide applicators and their clients, to increase use of IPM methods.

New and Redevelopment (Provision C.3)

The Permit includes new requirements for new and redevelopment projects and associated submittal of reports or proposals. The main new requirement, effective December 1, 2011, is that all Permittees must require new and redevelopment projects to implement low impact development (LID) stormwater treatment measures. The goal of LID is to reduce runoff and mimic a site's predevelopment hydrology. The goal can be achieved by minimizing disturbed areas and impervious cover and implementing treatment measures including harvesting and reuse, infiltration, evapotranspiration, or biotreatment. However, biotreatment is allowed only if it is infeasible to implement harvesting and reuse, infiltration, or evapotranspiration at a project site.

The Permit requires a number of reports or proposals associated with LID implementation. These include: a proposed set of model biotreatment soil media specifications and soil infiltration testing methods by December 1, 2010; a report, by May 1, 2011, on the criteria and procedures each Permittee will employ to determine when stormwater harvesting and reuse, infiltration, or evapotranspiration is feasible or infeasible at a regulated new or redevelopment project site; and proposed minimum biotreatment specifications for green roofs by May 1, 2011. In addition, the Permit allowed all Permittees to submit, by December 1, 2010, a definition of Special Projects with environmentally beneficial attributes that may receive LID treatment reduction credits. All Permittees worked collaboratively with BASMAA on these submittals.

Biotreatment Soil Media Specifications

Soil media used in biotreatment systems must sustain plant growth and maximize stormwater runoff retention and pollutant removal. The Permittees submitted a proposed set of model biotreatment soil media specifications and soil infiltration testing methods on December 1, 2010. We circulated the

proposal to interested parties for review and received two comment letters. The proposal and comments letters are posted on our web site at www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/muni/mrp/12-2010/MRP_bioretention.shtml. The Permittees are currently addressing issues raised in the comment letters, and later this year we will present a proposed permit amendment to the Board that would approve the final specifications and testing methods.

Low Impact Development Feasibility

There are a number of project site conditions and other factors that affect the feasibility of stormwater harvesting and reuse, infiltration, or evapotranspiration. The Permittees submitted the required report on May 1, 2011, that provides the criteria and procedures they will employ to determine whether these measures are feasible or infeasible at a regulated project site. We have posted the report on our website at www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/muni/mrp/05-02-2011/Feasibility_Infeasibility.shtml and circulated the report to interested parties for review and comment. The Permit does not require Board approval of the criteria and procedures, but if we receive substantial comments from interested parties that cannot be resolved, later this year we will present a proposed permit amendment to the Board on this matter.

Green Roof Specifications

Green roofs may be considered biotreatment systems only if they meet certain minimum specifications approved by the Board. The Permittees submitted a report on May 1, 2011, with proposed minimum specifications for green roofs and guidance for applying the minimum specifications in a consistent and appropriate manner. We have posted the report on our website at www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/muni/mrp/05-02-2011/Green_Roof.shtml and circulated the report to interested parties for review and comment. We will work with the Permittees and interested parties to resolve any issues and then present a proposed permit amendment to the Board later this year that would approve the final green roof specifications.

Special Projects

When considered at the watershed scale, certain types of Smart Growth, high density, and transit-oriented development can either reduce existing impervious surfaces, or create less “accessory” impervious areas and automobile-related pollutant impacts. During preparation of the Permit ultimately adopted by the Board, the Permittees wanted the Permit to provide LID treatment reduction credits for these projects. Rather than treat all stormwater runoff with LID measures, the Permittees wanted to use or allow conventional filtration vault treatment for a percentage of stormwater runoff. However, there remained many unresolved issues with the proposals for these special projects when the Permit was adopted. Consequently, the Permit required submittal of a proposal by December 1, 2010, that would provide all information needed to consider and approve LID treatment reduction credits for special projects.

The Permittees submitted a special projects proposal on December 1, 2010. We circulated the proposal to interested parties for review and received comment letters from many parties including U.S. EPA, the San Francisco BayKeeper, the Natural Resources Defense Council, and various entities from the development and building industry. The proposal and comments letters are posted on our web site at www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/muni/mrp/12-

[2010/SPP.shtml](#). We will work with the Permittees and other interested parties to resolve all issues, but, as expected, there are conflicting interests in this manner. Nevertheless, we are optimistic that we will be able to present a proposed permit amendment to the Board later this year that provides LID treatment reduction credits for special projects.

Water Quality Monitoring (Provision C.8)

Provision C.8 of the Permit requires monitoring of San Francisco Estuary, local creeks, and pollutants of concern loads to the Estuary. All Permittees continue to participate in the San Francisco Estuary Regional Monitoring Program for Trace Substances (commonly known as the Regional Monitoring Program or RMP). Progress made in the other categories is summarized below.

The Permit gave the Permittees the option to collaborate on any and all monitoring efforts at the regional level rather than conducting monitoring individually. All Permittees chose this option and submitted letters by July 1, 2010, confirming participation in BASMAA's Regional Monitoring Coalition. By choosing to work collaboratively, the Permit allows a one-year delay in the date to begin collecting monitoring data (October 2011, rather than October 2010). The Permittees have used this interim year to plan and to develop the tools needed to conduct monitoring through the Coalition. We have tracked and participated in this effort by attending Coalition work group meetings and providing input as appropriate.

Status Monitoring/Rotating Watersheds

The Permit requires the Permittees to determine if water quality objectives are being met and beneficial uses are supported in the local creeks they discharge to by monitoring creeks in their watersheds on a rotating basis. The Permit prescribes the number of creeks that must be monitored in each county area, a combination of biological, chemical, and physical monitoring parameters that must be sampled, and the minimum frequency and number of samples that must be collected each year. The Permittees choose which creeks they will monitor each year.

Pollutants of Concern Loads Monitoring

The purpose of pollutants of concern loads monitoring is to assess loading of pollutants to the Bay from urban runoff and progress towards achieving wasteload allocations for Board-adopted TMDLs. The Permit allows an alternative approach to pollutant loads monitoring than that prescribed by the Permit provided that the alternative approach either generates similar data types, quality, and quantity at a level of effort equivalent to what is prescribed in the Permit or an equivalent level of monitoring effort is employed to answer the management information needs stated in the Permit. The Permittees have chosen to develop an alternative approach via BASMAA's Regional Monitoring Coalition discussed above.

The Permittees reported the status of their effort to develop an alternative approach to pollutants of concern monitoring in the *Regional Supplement for Pollutants of Concern and Monitoring* submitted with the regional programs component of their 2010 annual reports. This effort is being coordinated with implementation of the Small Tributaries Loading Strategy of the RMP, which includes input and review by local and national scientific experts. We are actively involved in the Coalition and RMP efforts.

Several studies were conducted during this past year to inform the development of the monitoring approach that will begin next wet season (starting in October 2011). First, several alternative

pollutant load monitoring strategies were evaluated in terms of accuracy, precision and cost. Second, watersheds in the region were classified according to features such as size, land use composition, and presence of certain facilities (e.g., power stations, railroads) associated with pollutants of concern. Last, stormwater samples were collected during the 2010/11 wet season from 16 watersheds to characterize runoff in a variety of watershed types. In the upcoming 2011 annual report, the Permittees will submit the specific alternative monitoring approach plan, which will describe station locations, numbers of samples, collection methods, and so forth.

Estimating pollutant loads is extremely challenging given the size of the region, the many places where one might measure loads, and the sheer difficulty of measuring urban runoff owing to its episodic nature. To extend the value of load monitoring through extrapolation to areas not monitored, a regional watershed spreadsheet model is also being developed through the RMP Small Tributaries Loading Strategy. The load monitoring data, the evaluation results from pilot-scale testing (C.11/C.12 provisions) and the watershed model will form the foundation for an information system that can be incrementally enhanced to analyze future loading and management scenarios, improve estimates of current and future loading, and identify data gaps.

Trash Load Reduction (Provision C.10)

All Permittees must implement a minimum amount of trash capture controls and cleanup and assess a minimum number of trash hot spots. The Permittees must also report by February 1, 2012, their baseline trash loads and a method to track trash load reductions.

Trash Hot Spots

All Permittees have submitted required trash hot spot designations that were due July 1, 2011, but we issued a Notice of Violation to one Permittee for a late submitted. The Permittees were required to select one trash hot spot in trash-impacted locations on State waters per 30,000 population, or one per 100 acres of retail/wholesale commercial land area, within their jurisdictions, whichever is greater. Each trash hot spot is a minimum of 100 yards of creek or 200 yards of shoreline. The location and description of each of the designated 225 trash hot spots is posted on our web site at www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/muni/mrp/07-2010/index.shtml.

All Permittees must clean up and assess these hot spots at least once annually. At a minimum, assessment entails describing the volume of trash removed, documenting the major trash types collected, and taking before and after photos at prescribed distances. Most Permittees completed their trash hot spot cleanups and assessments after July 1, 2010, and will submit cleanup and assessment information in their 2010/11 annual reports due September 15, 2011. However, all Contra Costa County Permittees completed their cleanups and assessments prior to July 1, 2010, and reported these with their hot spot designation submittals.

Minimum Full Trash Capture

Implementation of trash reduction requirements has been facilitated by the San Francisco Estuary Partnership's *Bay Area-wide Trash Capture Demonstration Project*, funded by the State Water Board's State Revolving Fund with \$5 million in federal stimulus monies. The Partnership has contracted with vendors of trash capture devices and is providing devices to participating Permittees. Upon installation, each Permittee will take ownership of its devices and maintain them. The Permittees must install and maintain a mandatory minimum number of full trash capture

devices to treat runoff from an area equivalent to 30 percent of retail/wholesale land that drains to storm drains within their jurisdictions. The Partnership project will result in significant progress but will cover only a fraction of trash-generating drainage areas. The Partnership will seek more funding through the State Revolving Fund for additional trash capture devices. However, only the poorer sections of Bay Area communities are eligible for these grants, which currently require a 50 percent match.

More than 60 of the Permittees have indicated their intention to join the current project, and more than 50 have completed the contracting requirements and are either installing devices now or planning to do so in the near future. A website with information on the project can be found at www.sfestuary.org/projects/detail.php?projectID=42.

Baseline Trash Load and Trash Load Reduction Tracking Method

All Permittees must determine their baseline trash load to establish the basis for trash load reductions and submit the determined load level to the Board by February 1, 2012, along with documentation of the methodology used to determine the load level. The submittal must also include a description of the trash load reduction tracking method that will be used to account for trash load reduction actions and to demonstrate progress toward attainment of trash load reduction levels.

The Permittees submitted a required February 1, 2011, progress report on development of a trash baseline load and trash load reduction tracking method. Via a BASMAA regional project, all Permittees are collectively developing a method that builds off of lessons learned from previous trash load studies. Starting with a conceptual model of trash sources and factors that may affect trash generation and transport, the method will develop baseline trash generation rates that will be applied to each Permittee's jurisdictional areas to develop trash baseline loads that account for Permittee-specific control measures currently in place. The method will include formulas and factors for quantifying trash load reductions attributable to specific control measures. Example measures include full and partial capture devices, street sweeping, litter pickup/removal, product bans and prohibitions (such as single-use bag bans), and public education and outreach programs. The method will be developed further through a BASMAA workgroup, which we and other interested parties, such as Save the Bay, participate on.

Mercury and PCBs Controls (Provisions C.11 and C.12)

The Permit contains requirements implementing the San Francisco Bay mercury and PCBs TMDLs that call for state-of-the-practice runoff control measures for which there is little implementation experience. Because of the scant experience in implementing controls to reduce runoff loads of these contaminants, the Permit calls for extensive pilot testing of various control measures to establish a knowledge base to inform adaptation and improvement of the control strategies in future permit terms.

Some of the control measures are resource-intensive and involve construction of new infrastructure, a significant challenge with current local government resource limitations. This resource limitation challenge was partially met when U.S. EPA awarded BASMAA a four-year, \$5 million grant for the purpose of pilot-testing methods to reduce the loading of PCBs, mercury, and other sediment-bound pollutants to San Francisco Bay.

In the following sections, we provide brief updates on activities associated with key mercury and PCBs requirements. The first one describes work required by a PCBs-specific provision, and the

other updates cover requirements applicable both to PCBs and mercury that are the heart of the Permit requirements for these pollutants.

Pilot Projects to Evaluate Managing PCBs-Containing Materials and Wastes during Building Demolition and Renovation (e.g., Window Replacement) Activities

The Permittees are required to evaluate the potential presence of PCBs at building demolition and renovation sites associated with historical use of PCBs containing caulks. The Permit requires the Permittees to sample at least ten buildings for PCBs; to select BMPs to reduce the discharge of PCBs during demo/renovation; and to develop model ordinances/policies, train inspectors, and pilot test the BMPs at five sites. The Permit requirements coincide with the terms of a State Proposition 50 grant to the San Francisco Estuary Partnership; so much of the required work will be funded by this grant. We, along with the Permittees, are active participants in the Partnership project. The sampling plan is complete, BMPs are being prepared, and preparations are underway for municipal staff training. However, there is a significant challenge to finding pilot test locations.

Federal regulations require prompt removal of PCBs-containing materials, and owners of candidate sites are wary of associated costs and liability. To overcome this hurdle, samples will be collected using blind sampling protocols that do not record sample location. Plans are also underway to conduct “mock” pilot projects, in which municipal employees would go through the actions of providing materials to demolition permit applicants and following up with inspections to confirm BMPs were followed. Using “mock” trials, the site proponent will not actually have to sample building materials, develop PCBs cleanup plans, and obtain U.S. EPA approval of these cleanup plans prior to demolition. Meanwhile, we continue to work with U.S. EPA staff to find means to resolve this regulatory dilemma.

Pilot Projects to Investigate and Abate On-land Locations with Elevated PCBs Concentrations

The essence of the Permit’s mercury and PCBs requirements is to find areas contaminated by these pollutants and try a variety of measures and practices to reduce these pollutants’ loading to the Bay. This requirement is a critical piece of that effort – identifying and selecting the drainage areas within which the pilot tests will largely be concentrated. The Permittees must identify five drainage areas that contain high levels of PCBs (and mercury if possible) – at least one area in each of the countywide programs – and conduct pilot projects to investigate and abate these high PCBs (and mercury) concentrations.

The Permittees have identified five candidate pilot-project watersheds:

- Parr Channel in Richmond (4.3 km² watershed in Contra Costa Co.)
- Lauritzen Channel in Richmond (3.8 km² watershed in Contra Costa Co.)
- Ettie Street Pump Station in Oakland (4.9 km² watershed in Alameda Co.)
- Pulgas Creek Pump Station in San Carlos (1.1 km² watershed in San Mateo Co.)
- Leo Avenue in San Jose (1.5 km² watershed in Santa Clara Co.)

The Permittees are currently working to identify PCBs and mercury source properties within these pilot watersheds. This process involves reviewing historical records, driving/walking surveys, facility inspections, and sediment/soil sampling. The Permittees will refer suspected contaminated private parcels to regulatory agencies for cleanup, but we expect that the municipalities themselves

may have some abatement responsibility for contamination that has migrated to public rights-of-way.

Conduct Pilot Projects to Evaluate and Enhance Municipal Sediment Removal and Management Practices

The Permittees already have routine maintenance and sediment management practices that could have a benefit for avoiding loads of PCBs and mercury, but these practices could be optimized and enhanced for greater pollutant removal. Moreover, there are additional enhanced sediment removal and management practices that could be employed at potentially little cost.

The Permittees are required to find ways to enhance PCBs and mercury load reduction benefits of operation and maintenance activities that remove or manage sediment and implement these management practices at the pilot scale mainly in the five pilot watersheds. The practices under consideration are (enhanced) municipal street sweeping, curb-clearing parking restrictions, inlet cleaning, catch basin cleaning, stream and stormwater conveyance system maintenance, and pump station cleaning via increased effort and/or retrofits, street flushing and capture, collection, or routing to the sanitary sewer.

The Permittees submitted a status report on the evaluation of all methods under consideration in the 2010 annual report, and they have recently prepared a compendium of the various approaches with guidance on how to select a practice given specific implementation circumstances. From this general guidance, the Permittees will develop specific workplans to implement measures in the five pilot watersheds and elsewhere.

Pilot Projects to Evaluate Onsite Stormwater Treatment via Retrofit

While it is desirable and cost effective to stop pollution right at the source, the fact is that finding ongoing sources is difficult. Sediments contaminated with PCBs, mercury and other pollutants migrate away from source areas, can be widespread throughout a drainage area, and continue to be transported to stormwater and receiving waters for some time even if a source is located. The Permittees are responsible for the contaminants in stormwater discharged to receiving waters and must consider a variety of options to reduce these pollutant loads, including stormwater treatment.

The Permit requires the Permittees to identify at least ten locations throughout their jurisdictions encompassing a variety of drainage characteristics and to install and evaluate a variety of onsite treatment systems. These systems can include detention basins, biotreatment units, sand filters, infiltration basins, and treatment wetlands.

In order to expedite the installation of these types of retrofits, the Permittees are trying to find capital improvement projects already in the pipeline that are suitable for the addition of a treatment retrofit component. At the same time, geographically-coded information about PCBs concentrations, current and historical land uses, presence of industries associated with PCBs, and other feasibility considerations will be used to select the final candidate drainages for retrofit installation. The Permittees will report on these candidate locations and the type of retrofit to be installed and evaluated for each location in their 2011 annual reports.

Diversion of Dry Weather and First Flush Flows

Because of their location near the industrialized Bay margin and proximity to municipal wastewater treatment facilities, stormwater pump stations offer valuable opportunities for managing polluted stormwater runoff by strategically routing it to these wastewater facilities. We expect the Permittees to fulfill all requirements of this provision while recognizing challenges in terms of cooperation and

coordination with wastewater treatment plants, the expense of modifying pump stations and providing the infrastructure to accomplish the flow diversion, and the novelty of the approach.

The Permittees must implement five pilot projects (at least one in each of the five counties covered by the Permit) for urban runoff flow diversion from stormwater pump stations to wastewater treatment facilities along with evaluation of the resulting reduced loads of mercury and PCBs. The experience gained through implementation will both inform future municipal infrastructure improvement decisions as well as flow diversion requirements in future permits.

The Permittees submitted a feasibility evaluation and selection criteria as part of the 2010 annual report, which will be used to select pilot project locations. The selection criteria included anticipated load reduction benefits, costs, availability of wastewater treatment facilities to accept the diversion, site features, and various feasibility considerations. The Permittees have identified candidate locations and are working on conceptual designs for the diversions. Pre-diversion monitoring will begin in at least one diversion project this coming wet season.

Regional Risk Reduction Program (C.11.i and C.12.i)

While reduction of mercury and PCBs in San Francisco Bay is our long-term goal, in the interim we are working to address the possible health risks to consumers of Bay fish. The Permittees are required to implement programs to reduce mercury and PCBs-related risks to humans and to quantify the resulting risk reductions. The California Department of Public Health (DPH) is managing a project in which community-based organizations will conduct outreach to people who are most at risk, such as children, pregnant women, and those who eat a significant amount of certain fish from the Bay. DPH has received proposals from community-based organizations for outreach to at-risk Bay fish-eating populations, and grants of up to \$25,000 each totaling \$100,000 will be made. Funding for this project comes from the Bay Area Clean Water Agencies, industrial dischargers, and the U.S. EPA grant to the Permittees noted above. We and Permittee representatives are on the project's Stakeholder Advisory Group.

Unfunded State Mandate Test Claims

Since adoption of the Permit, all of the Permittees in Alameda County, except the City of Piedmont, all Permittees in San Mateo County, the City of San Jose, and Santa Clara County have filed claims with the State Commission on Unfunded Mandates, claiming that several requirements of the Permit are unfunded mandates under State law. They are claiming certain Permit requirements call for a new or higher level of service than what was required in prior permits. All of these Permittees challenged the Permit's Water Quality Monitoring requirements, the Trash Load Reduction requirements, and the Mercury and PCBs Diversion of Flows requirements. In addition, San Jose challenged the Municipal Operations requirements. The Commission accepted a test claim from one Permittee covered by each of the prior permits, Alameda in Alameda County, Brisbane in San Mateo County, and Santa Clara County. In addition, the Commission accepted the Municipal Operations requirements claim by San Jose.

While we respect the right of the Permittees to file unfunded state mandate claims, we disagree with their claims that the challenged permit requirements are state mandates. The Permit is a federal NPDES permit and all requirements are driven by the federal Clean Water Act and federal NPDES regulations. Moreover, if all or parts of the Permittees' claims prevail, and the State does not provide funds, to sustain the associated permit requirements, which it likely will not, then it is fairly

certain that U.S. EPA will step in and take over the Permit, ensuring the requirements remain in place.

Preparation of a response to the claims is ongoing and has been arduous, requiring a large amount of our scarce staff and legal counsel time. This has had the unfortunate consequence of limiting our ability to work with the Permittees on Permit implementation. Meanwhile, although there are new and increased costs associated with the Permit requirements, they are not as high as initially feared by the Permittees, due to opportunities for collaboration with our involvement as indicated in this status report.

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