

JULY 2015

MARIN COUNTY  
STORMWATER POLLUTION PREVENTION PROGRAM

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# Public Education Strategy

## Version 2



## **Executive Summary**

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The MCSTOPPP Public Education Strategy (MCSTOPPP Strategy) describes how MCSTOPPP and its member agencies will achieve compliance with the revised Statewide Phase II Stormwater Permit<sup>1</sup> (Phase II Permit).

The Marin County Stormwater Pollution Prevention Program (MCSTOPPP) Public Education Strategy is a living document that will improve and adapt as needed. This will promote wise stewardship of public funds and will allow MCSTOPPP to respond to opportunities, constraints and timely water quality issues.

The principal goals of the MCSTOPPP Strategy are to reduce the amount of pollution discharged to Marin's municipally owned storm drain systems and waterways and to measurably increase knowledge and awareness in target audiences of the impacts of stormwater pollution on creeks, bays, wetlands, the ocean and other waterways. The MCSTOPPP Strategy describes how Marin's municipalities and the County of Marin will achieve these goals through public involvement, participation, education, and outreach. The strategy will be executed through the implementation of tasks over several years. Ultimately, MCSTOPPP endeavors to change behaviors to protect water quality and care for local creeks and waterways and to provide potential solutions to water quality issues.

MCSTOPPP and local member agencies focus on priority pollutants identified by the San Francisco Bay Regional Water Quality Control Board, the Phase II Permit and statewide trash reduction requirements known as the Trash Amendments. Pollutants include pesticides, pet waste, sediment, and trash. In addition, MCSTOPPP provides information on how to report an illicit discharge, the benefits of water efficient and stormwater friendly landscaping. MCSTOPPP also focuses on target audiences. For example, messages are directed to school age children about storm water runoff and how to protect water quality habitat in the local watersheds.

Execution of the MCSTOPPP Strategy relies on public involvement, participation, education and outreach, including information dissemination at the site of the behavior, staff and target audience trainings and workshops, a well-functioning website, and community engagement at local events. The MCSTOPPP Strategy also utilizes other well recognized program's materials, integration of messages through partner agency programs, regional watershed-level planning, and materials provided in other languages where appropriate. Surveys of target audiences, public involvement and participation encouraged through interactive workshops and events, and citizen advisory committee engagement in planning are also incorporated.

Where feasible, the MCSTOPPP Strategy integrates enhanced efforts. These efforts include: optimized webpages, general public outreach messages through the MCSTOPPP wall calendar, commitment strategies (e.g. pledges to perform water quality-protecting behavior), and promoting community members modeling desired behavior changes.

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<sup>1</sup> State issued Phase II MS4 General Permit Order No. 2013-0001-DWQ regulates discharges of stormwater from small municipalities to comply with National Pollutant Discharge Elimination System (NPDES) permit. The permit term is from July 1, 2013 to June 30, 2018

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# **Marin County Stormwater Pollution Prevention Program Public Education Strategy**

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## **1.0 INTRODUCTION**

MCSTOPPP is a joint effort of Marin's 11 cities, towns, the County of Marin, and the Marin County Flood Control and Water Conservation District. Their goals are to: prevent stormwater pollution; protect and enhance water quality in creeks and wetlands; preserve beneficial uses of local waterways; and, comply with the Phase II Small Municipal Separate Storm Sewer System (MS4) General Permit<sup>2</sup> (Phase II Permit) and other state and federal regulations. Through MCSTOPPP, Marin's municipalities have implemented an innovative public information, participation, education and outreach program since the early 1990s.

On February 5, 2013, the State Water Resources Control Board (State Water Board) adopted a revised version of the 2013 Phase II Permit.<sup>3</sup> The 2013 permit requires municipalities to: develop and implement a comprehensive public education and outreach program, involve the public in the development and implementation of activities related to the stormwater program, and improve the stormwater program through program effectiveness assessment. The MCSTOPPP Public Education Strategy (MCSTOPPP Strategy) describes how MCSTOPPP and its member agencies will continue, expand and improve their existing stormwater program to meet the permit requirements.

The principal goals of the MCSTOPPP Strategy are to reduce the amount of pollution discharged to Marin's municipally owned storm drain systems and waterways and to measurably increase knowledge and awareness in target audiences of the impacts of stormwater pollution on creeks, bays, wetland, the ocean and other waterways. The MCSTOPPP Strategy describes how Marin's municipalities and the County of Marin will achieve these goals through public involvement, participation, education, and outreach. The strategy will be executed through the implementation of tasks over several years. Ultimately, MCSTOPPP endeavors to change behaviors to protect water quality and care for local creeks and waterways and to provide potential solutions to water quality issues.

### **1.1 MCSTOPPP Public Education Strategy and Permit Requirements**

The MCSTOPPP Strategy demonstrates how specific high priority stormwater quality issues in the community or local pollutants of concern are addressed by MCSTOPPP, local stormwater programs, and collaborative partners. The MCSTOPPP Strategy is designed to assist Marin's Cities, Towns and the County of Marin to meet the public education requirements in the following Phase II Permit provisions and in the statewide trash reduction provisions:

- E.7 Education and Outreach Program
- E.8 Public Involvement and Participation Program

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<sup>2</sup> This National Pollutant Discharge Elimination System (NPDES) permit regulates discharges of stormwater from small municipalities.

<sup>3</sup> Order No. 2013-0001-DWQ. The permit term is from July 1, 2013 to June 30, 2018.

- E.11.j Landscape Design and Maintenance
- E.14 Program Effectiveness Assessment and Improvement
- E.15 Total Maximum Daily Loads Compliance (Attachment G)<sup>4</sup>
- Statewide Trash Amendments to Water Quality Control Plans (adopted by the State Water Board on April 7, 2015)

The permit requirements are summarized in Attachment C.

## **2.0 STRATEGIC APPROACH**

The MCSTOPPP Strategy is a living document that will be updated as needed. This will promote wise stewardship of public funds and will allow MCSTOPPP to respond to opportunities, constraints and timely water quality issues.

MCSTOPPP and local member agencies focus on priority pollutants identified by the State Water Board, and by the San Francisco Bay Regional Water Quality Control Board (Regional Water Board). MCSTOPPP uses a collaborative and integrative approach to achieve increased knowledge and awareness of potential stormwater pollution among target audiences.

Section 3.0 of the strategy describes compliance and enhanced efforts that have been and will be implemented to meet and exceed the permit provisions. Planned projects as well as potential projects that could be implemented if additional staff resources, partnerships and/or funding are available are described in Attachment B.

The Strategy aligns with the Bay Area Stormwater Management Agencies Association (BASMAA) Phase II Committee Program Effectiveness Assessment and Improvement Plan (PEAIP). Integrating the PEAIP methods with the MCSTOPPP Strategy optimizes the stormwater program's ability to evaluate effectiveness. The PEAIP provides management questions for addressing priority pollutants, identified in adopted Total Maximum Daily Load (TMDL) plans.<sup>5</sup> The MCSTOPPP Strategy includes management questions for pollutants not covered by a TMDL plan using the same approach found in the PEAIP. The PEAIP also specifies data assessment strategies and data collection methods to address the management questions. The MCSTOPPP Strategy incorporates these management questions to address pesticides and pathogen indicators and uses data to evaluate program effectiveness. Data collection methods include, but are not limited to, surveys, website analysis, and review of other external data sources. The MCSTOPPP Strategy establishes management questions and effectiveness assessment and data collection methods for the pollutants and specific outreach and education messages not addressed in the PEAIP.

For the purpose of collaboration, MCSTOPPP reviews outreach activities of local, regional and state organizations that include, but are not limited to, the following:

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<sup>4</sup> Applicable TMDLs include those listed in Attachment G to the Phase II Permit (Tomales and Richardson Bay Pathogen TMDLs and Urban Creek Diazinon and Pesticide Toxicity TMDL affecting creeks draining to San Pablo Bay) and the Lagunitas Watershed Sediment TMDL in west Marin.

<sup>5</sup> A Total Maximum Daily Load (TMDL) is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that load among the various sources of that pollutant.

- Zero Waste Marin (Marin County Waste Management)
- Marin County Watershed Program
- Marin County Flood Control and Water Conservation District
- Marin County Parks
- Marin County Resource Conservation District
- San Rafael Clean and other litter abatement volunteer efforts (Clean Mill Valley, etc.)
- Marin Municipal Water District (MMWD)
- North Marin Water District (NMWD)
- Marin County Wastewater Treatment Agencies
- Marin County Creek Groups
- Students and Teachers Restoring a Watershed (STRAW, a program of Point Blue Conservation Science)
- North Bay Watershed Association (NBWA)
- California Stormwater Quality Association (CASQA)
- Bay Area Stormwater Management Agencies Association (BASMAA)
- Our Water Our World (OWOW) (This is a BASMAA program)
- Marin's educational institutions
- San Francisco Estuary Project (SFEP)
- Point Reyes National Seashore
- Other non-governmental organizations such as the Marin Conservation League

At least two surveys will be conducted by MCSTOPPP or a regional effort within the permit's five-year period to gauge the level of awareness in target audiences and effectiveness of education tasks implemented in Marin. The assessment method conducted by MCSTOPPP includes a mail-in survey attached to the MCSTOPPP wall calendar circulated through the local paper, public meeting halls and libraries. In addition, awareness and education effectiveness surveys will be generally included in MCSTOPPP's information, participation, education and outreach efforts. Potential regional survey efforts may be implemented through BASMAA, NBWA, the Our Water Our World program and/or the San Francisco Estuary Partnership.

## **2.1 Specific Pollutants**

The MCSTOPPP Strategy focuses on specific pollutants. Priority pollutants include pesticides (and herbicides), fecal coliform bacteria (pathogen indicators), sediment and trash. Through public education MCSTOPPP seeks to increase knowledge and awareness of the importance of and methods for keeping these priority pollutants out of stormwater and local waterways.

In addition, the MCSTOPPP Strategy addresses fertilizers, pollutants from construction and home improvement activities (sediment, paint, concrete wash water, etc.), chemicals, sediment, and metals in mobile surface cleaning wash water, and other pollutants that have the potential to impact water quality in creeks and other waterways.

## **2.2 Specific Messages**

The Phase II Permit requires municipalities to convey specific public education messages. MCSTOPPP will conduct public education and outreach on how to protect water quality from

specific pollutants such as pesticides, trash, sediment, and fecal coliform, and will encourage actions to support desired water quality outcomes. These messages include, but are not limited to, information on how to report illicit discharges to proper authorities, the benefits of water-efficient and storm water-friendly landscaping, and the need to reduce discharges from organized car washes, mobile cleaners, pressure washing operations, and landscape irrigation.

### 2.3 Target Audiences

The Phase II Permit also requires municipalities to reach target audiences and encourages dissemination of public education materials using printed materials, signage, stenciling, and websites. Table 1 below describes pollutants, educational messages and target audiences included in the MCSTOPPP Strategy.

**Table 1- Pollutants with corresponding educational messages and target audiences**

<b>Pollutant</b>	<b>Include in Message</b>	<b>Audience</b>
Pesticides	Proper application of pesticides, herbicides and fertilizers and IPM	Home Owners, Gardeners, Maintenance Landscapers, Golf Course Owners Staff applying or using pesticides
Fecal coliform bacteria from pet waste	Sources of fecal coliform and associated water quality impacts and health risks  Actions individuals can take	Pet owners (including horse owners and horse facility operators) and dog walkers. Extra focus on audiences in Richardson Bay and Tomales Bay watersheds (County of Marin, City of Mill Valley, City of Belvedere, City of Sausalito, Town of Tiburon)
Sediment	Erosion and sediment control best management practices (BMPs) selection, installation, implementation and maintenance	Homeowners Municipal staff, including roads maintenance staff, public project management staff, plan reviewers, permitting staff, erosion and sediment control inspectors, third-party plan reviewers Construction site operators, erosion and sediment control plan developers, development professionals, landscape professionals
Illicit discharges	How to report illicit discharges to proper authorities	Marin Residents Municipal Field Staff and their Contractors
Chemicals, metals and other pollutants in wash waters	Reduce or eliminate discharges, implement pollutant source control measures	Organized Car Washes, Mobile Cleaners, Pressure Washing Operations/Businesses, and Maintenance Landscapers
Pollutants in landscape irrigation runoff	Benefits and practices of water-efficient and stormwater-friendly landscaping	Marin residents in urban areas Municipal staff or irrigation system management contractors Landscape professionals
Pollutants school-age children can address	Describe stormwater runoff and how children can help protect water quality and habitat in local watersheds	Public and private schools students
Trash	Trash generation reduction	Marin Residents, Businesses and municipal staff

### **3.0 COMPLIANCE AND ENHANCED EFFORTS**

This portion of the MCSTOPPP Strategy lists local water quality problem pollutants, the specific activities and methods to reach target audiences, and examples of data collection methods to assess effectiveness. In general the strategy utilizes the following outreach approaches:

- Information dissemination and other educational efforts at the site of the behavior (e.g. point of sale of pesticides)
- Staff and target audience trainings incorporating simulations and hands on experience
- A well-functioning website
- Community engagement at local events (e.g. Public Works Week and Farmer's Markets)
- Integration of messages and data collection through partner agency programs
- Participation in regional programs (e.g. Our Water Our World, Bay Friendly Landscaping)
- Materials provided in Spanish where appropriate (e.g. Our Water Our World materials)
- Watershed-level planning through the Marin County Watershed Program, the NBWA Joint Technical Committee and the Bay Area Integrated Regional Water Management Plan (IRWMP)
- Two general public surveys within the permit term distributed within an informational wall calendar

Certain barriers prevent target audiences from performing best practices for water quality. To remove barriers, MCSTOPPP will provide easier access to information, will work to become a known source for information, will reinforce good practices, will offer role models, and will providing incentives to encourage changes in behavior.

The MCSTOPPP Public Education Strategy incorporates, where feasible;

- Optimized webpages
- Commitment strategies (e.g. pledges to perform correct behavior)
- General public interactive workshops
- Collaborative workshops with partner agencies
- Messages and information distributed through wall calendar and local e-mail newsletters
- Key community members modeling desired behavior changes

### **3.1 Pesticides**

The pesticide toxicity TMDL specifies the target audience as residents and pesticide operators. The primary information dissemination method for this is to provide ample opportunities for residents and maintenance landscapers to access the Our Water Our World (OWOW) program. Integrated pest management (IPM) factsheets are available at point of sale for pesticides, herbicides and fertilizers in English and Spanish at 16 partner stores in Marin. Shelf tags and special displays with the OWOW logo visually indicate which products above the tags are less toxic to the buyer. Interactive educational tabling events at OWOW stores feature an IPM Advocate and can accommodate Spanish speaking residents, employees and landscapers.



Partner stores participate in MCSTOPPP-provided employee trainings on how to promote less toxic pest control alternatives through the OWOW program. MCSTOPPP provides workshops for applicable municipal staff on stormwater requirements, best management practices, and awareness of local IPM policies or ordinances. The MCSTOPPP website provides information and website links for the public and pest control operators on less toxic methods of pest control and integrated pest management.

Management questions to consider for pesticides include:

- Are homeowners and gardeners aware of less toxic methods of pest control?
- Are maintenance landscapers aware of the actions they can take to reduce the presences of pesticides in surface waters?
- Do OWOW partner store employees know how to provide less toxic pesticide information to shoppers?
- Are pesticide operators receiving IPM training in their recertification?
- Are municipal employees who apply pesticides aware of the local IPM policy/ordinance?
- Do municipal employees understand how to implement the IPM practices?
- Are IPM training workshops held for municipal employees?

Effectiveness assessment and data collection methods include questions in the mail-in survey attached to an informational wall calendar on awareness of less toxic pesticide products, pre- and post-workshop/training surveys, website analytics, and training records from department staff, and stormwater managers.

Outreach methods for pesticides can be enhanced with websites links, pledge encouragement, effective advertising of upcoming events and interactive tools. Partner Agency workshops and newsletters can incorporate messages on least toxic pesticides. The wall calendar included monthly messages with the following titles: “Reduce Your Pesticide Use,” “What to do with an Ant Invasion,” “Healthy Gardens Benefit everyone – an introduction to integrated pest management,” and “Protect Your Creek” – a discussion on pyrethroids, in monthly messages. The Marin Home and Garden Expo, with 6,000-10,000 Marin resident attendees, provided an opportunity to disseminate less toxic pest control messages and utilize Bay Friendly Landscapers and Our Water Our World IPM Advocate expertise.

### **3.2 Pet Waste**

The pathogen TMDLs require public education regarding actions individuals can take to reduce the amount of fecal coliform bacteria in stormwater, sources of fecal coliform and associated health risks. The primary information dissemination method for dog owners and dog walkers utilizes local signage and newsletters. The primary method for reaching horse owners and equestrian facilities employs field staff to distribute stormwater friendly horse keeping practices binders.<sup>6</sup> The website and local newsletters convey messages to the general public on the

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<sup>6</sup> “Horsekeeping: A Guide to Land Management for Clean Water” is available for all horse owners, and has been distributed to horse owners in the Tomales Bay Watershed through previous workshops. City of Novato staff distributes similar materials to horse facilities leasing City owned property.

source and health risks as well as actions to take to reduce pathogens entering surface waters<sup>7</sup> from the care of dogs, cats and horses.

Management questions for this pollutant focus on:

- Are dog owners aware of the need to properly dispose of pet waste?
- Are dog owners properly disposing of pet waste?
- Are horse facility owners aware of the need to properly handle manure?
- Are horse facility owners properly handling manure?

Effectiveness assessment and data collection methods may include questions in the mail-in survey attached to an informational wall calendar to gauge general public awareness of proper pet waste disposal, website analytics, data collection of the number of brochures dispensed and the number of dog waste bags purchased and distributed by municipalities, and review of illicit discharge reports involving horse facilities.

Outreach methods for pet waste can be enhanced by encouraging pledges from pet owners to properly dispose of waste, potentially at dog licensing or at public events in the Richardson and Tomales Bay watersheds. In addition, the MCSTOPPP website includes and a “Composting Horse Stable Manure” presentation. Calendar messages included: “Help Your Pet Leave No Trace” and “Love Your Pet, Love the Environment” which include tips for dog, cat, and horse owners.

### **3.3 Sediment**

For sediment, the target audience includes municipal employees responsible for complying with the Lagunitas Creek Watershed sediment TMDL and those involved with implementing the construction site stormwater program. Additional target audiences include construction site contractors, residents, and landscapers. MCSTOPPP provides interactive trainings for municipal staff on evaluating construction site best management practices and inspection tracking.

Management questions for sediment control, where feasible, will include:

- Are the construction sites being managed to prevent sediment from leaving sites and so they are in compliance with the corresponding permits, local codes, and ordinances?
  - Are erosion and sediment control best management practices (BMP’s) being implemented and maintained?
  - What are the common issues with BMP implementation that are identified during inspections?
- Are road crew employees aware of the erosion and sediment control BMPs for maintenance of both paved and unimproved (dirt and gravel) roads and how to implement them?
  - Are the appropriate employees attending erosion and sediment control training sessions?

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<sup>7</sup> Marin’s creeks, wetlands, bays, the ocean and other waterways

Effectiveness assessment and data collection methods may include pre- and post-workshop surveys, workshop attendance sheets, and internal tracking for the number and percentage of sites requiring corrective action due to inadequate erosion and sediment control practices, and internal review of inspection reports for common issues.

Enhanced outreach on the MCSTOPPP website will include tools for how to comply with best practices, templates, guidance documents, training modules and presentations and checklists. Adding videos when available will also enhance the web pages. Expanding the audience to the general public, enhanced efforts include interactive workshops for Marin residents, and calendar messages such as “Keep Our Creeks Healthy, “Salmon Habitat” and “Protect Your Soil, Protect Our Creeks.”

### **3.4 Illicit Discharges**

The Phase II Permit requires messages aimed at the general public and municipal staff to reduce illicit discharges and to include information on how to report illicit discharges to proper authorities. All illicit discharge municipal contacts are listed on the MCSTOPPP website. All municipal websites link to the MCSTOPPP website and each municipality publicize their stormwater contact on their website as well.

The management question for illicit discharge is:

- Does the public know how to report an illicit discharge?
- Do municipal staffs know how to report an illicit discharge?

Effectiveness assessment and data collection methods may include website analytics, and internal tracking of illicit discharge complaints.

The calendar included enhanced outreach information on stormwater contacts for illegal discharges, where to properly dispose of pesticides, motor oil, antifreeze, paint, and other hazardous waste.

### **3.5 Wash Waters**

Required messages are aimed at car washing and organized car wash fundraisers, mobile cleaners, pressure washing operations, and mobile cleaning and pressure wash businesses. Outreach methods include the MCSTOPPP website, the [BASMAA pollution prevention training program for surface cleaners](#), and brochures in “road kits” for municipal field staffs who address water quality issues with the public, and stormwater friendly car wash kits and instructions provided by MCSTOPPP for schools engaged in fundraisers.

The management question for wash water is:

- Do mobile businesses know how to properly dispose of wash waters?
- Do students and advisors involved in school fundraisers know how to properly dispose of wash waters?

Effectiveness assessment and data collection methods may include website-use analytics, internal tracking of illicit discharge calls involving wastewaters, and internal tracking of schools borrowing stormwater friendly car wash kit for fundraisers.

Enhanced outreach in the MCSTOPPP calendar covered two topics in this permit cycle: “Mobile Cleaners Are on the Go,” and “Wash It Wisely,” - car washing and water conservation.

### **3.6 Water and Irrigation Runoff Reduction, and Stormwater Friendly Landscaping**

The Phase II permit requires general public education on the need to reduce landscape irrigation as well as the benefits of water-efficient and stormwater-friendly landscaping. Outreach methods include the MCSTOPPP calendar, the MCSTOPPP website with links to water purveyors and Bay Friendly Landscaping Coalition, and informational brochures in public locations at local municipal offices and outreach events.

To convey messages explaining the benefits of water conservation and reduction of irrigation runoff, the management question is:

- Are property owners and/or managers aware of the benefits of water conservation and reduction of runoff?

Effectiveness assessment and data collection methods may include website analytics, information obtained from local water districts, and calendar survey results.

Enhancing benefits of wise water use includes website information on composting, mulching, grasscycling, irrigation optimization, and rain gardens. Links to local water rebate programs provide incentives. Workshops on creative stormwater management educate homeowners on stormwater friendly landscaping and expose residents to Low Impact Development, bioretention (the use of soil and plants to filter pollutants from stormwater runoff), composting and mulching. Partnerships with Marin RCD and local water districts provide key community members modeling desired behavior changes. In addition to “Find Your Garden’s Water Needs”, “Water Plants Not Sidewalks,” “Be Water Smart,” the calendar included specific messages such as “Lose Your Lawn,” “Growing Gardens from Garbage- benefits of backyard composting” and “Letting It Soak In”- rain gardens techniques.

### **3.7 Good Housekeeping and Pollution Prevention Practices**

Municipal employees engaged in maintenance activities that could result in stormwater pollution must be trained on how to incorporate pollution prevention and good housekeeping techniques into maintenance operations, including landscape maintenance. MCSTOPPP staff and municipal staff provide interactive trainings on best management practices.

Management questions for municipal good housekeeping may include:

- Do the appropriate municipal employees have sufficient knowledge of good housekeeping and pollution prevention requirements and practices?
  - Are the appropriate employees attending good housekeeping practices training sessions?

Effectiveness assessment and data collection methods may include pre- and post-training surveys, and training records.

### **3.8 Schools**

MCSTOPPP also reaches school age children with messages about storm water runoff and how to protect water quality habitat in local watersheds. This is accomplished through the website and the Students and Teachers Restoring A Watershed (STRAW) program (classroom education and hands-on education through creek restoration projects). In addition, MCSTOPPP participates in the local wastewater agencies' annual "Wetland Days" event to provide stormwater pollution prevention education using the MCSTOPPP watershed diorama.

The management questions involving school age children are:

- Are stormwater runoff education materials provided to schools effective?
- Do students understand how they can help protect water quality and aquatic habitats in their local watersheds?

Effectiveness assessment and data collection methods may include website analytics and STRAW program curriculum effectiveness.

Outreach will be enhanced by incorporating lessons on how students can help protect water quality and their local watersheds into climate smart curriculum delivered to schools in Marin.

### **3.9 Trash**

Municipalities will assess trash generation in their jurisdictions, prioritize areas of concern, identify sources, and implement source reduction and treatment strategies. Where applicable, trash management strategies will establish target audiences and employ outreach methods. Source reduction efforts may range from signage for newly installed receptacles to litter campaigns and community-involved trash clean-ups. Municipalities and volunteer organizations employ litter abatement education strategies. An example includes the City of San Rafael's volunteer-led San Rafael Clean Program. San Rafael Clean initiated a "No Litter in Baseball" pledge campaign in collaboration with the local professional team. Team members model proper disposal of trash and fans pledge to not litter. In addition, Marin Clean Highways is working to encourage and require vehicles to cover loads countywide. The City of Novato engages residents and business leaders in cleaning up the commercial and retail areas and other trash hot spots with an annual Clean and Green event. Clean Mill Valley organizes volunteer clean-up efforts and encourages litter abatement collaboration across jurisdictional boundaries. With the implementation of source reduction through public education, municipalities will develop management questions and correlating effectiveness assessment and data collection methods.

The calendar covered trash in messages of "Keep Marin Litter Free" and "Coastal Clean-up." Within these pages are tips on how to help reduce the trash in our waterways. MCSTOPPP will work in the coming years to replicate and expand successful trash reduction programs.

### 3.10 Public Involvement and Participation

The permit requires the development of a public involvement and participation strategy to:

- Create citizens participation opportunities in implementing best management practices
- Ensure the public can easily find information about the stormwater program
- Engage participation in watershed level planning efforts, and establish the responsible party for goals and tasks.

The permit also encourages the development of a citizen advisory group.

The MCSTOPPP Strategy provides participation activities through hands-on workshops<sup>8</sup>, coordination of countywide restoration and clean-up events on Earth Day and Coastal Clean-up Day, local group storm drain marker installations, “Students and Teachers Restoring a Watershed”(STRAW) creek restorations, and interactive watershed diorama classroom and event presentations. Public access to information occurs through an effectiveness assessed website, a wall calendar distributed through local paper, and municipal and creek group newsletters. Watershed-level planning occurs through the Marin County Watershed Program, the NBWA Joint Technical Committee, and the Bay Area Integrated Regional Water Management Plan (IRWMP). Quarterly, MCSTOPPP convenes a Citizen’s Advisory Committee (CAC) to provide comments on countywide stormwater program elements. The CAC consists of eight representatives from Marin businesses, sanitary partner agencies, and environmental advocacy groups. This dedicated group provides community representation and program review of MCSTOPPP. They also assist with various outreach events, including staff training. The CAC vetted the MCSTOPPP Strategy and will continue to provide their input in the future. The responsible parties for goals and tasks are summarized in Attachment B.

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<sup>8</sup> Interactive Workshops include bio-technical sediment and erosion control stream bank stabilization, creative stormwater management through landscape design and maintenance, and native plant propagation for creek banks and gardens.

# **ATTACHMENTS**

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## **ATTACHMENT A - ACRONYMS**

### **Public Education Strategy Acronyms**

ABAG - Association of Bay Area Governments

BCDC - San Francisco Bay Conservation and Development Commission

BMP - Best Management Practice

CAC - Citizen's Advisory Committee

CWA - Federal Clean Water Act

IPM - Integrated Pest Management

IRWMP - Bay Area Integrated Regional Water Management Plan

OWOW - Our Water Our World

MCSTOPPP - Marin County Stormwater Pollution Prevention Program

MS4 - Municipal Separate Storm Sewer System

NBWA - North Bay Watershed Association Joint Technical Committee

NPDES - National Pollutant Discharge Elimination System

PEAIP - Program Effectiveness Assessment and Improvement Plan

RCD - Resource Conservation District

QSD - Qualified SWPPP Developer

QSP - Qualified SWPPP Practitioner

STRAW - Students and Teachers Restoring A Watershed

SWPPP - Storm Water Pollution Prevention Plan

TMDL - Total Maximum Daily Load

UC IPM - University of California at Davis Statewide Integrated Pest Management

**ATTACHMENT B – STRATEGY IMPLEMENTATION PLAN**

Permit Year <sup>1</sup>					Task	Implementation Responsible Party	Survey <sup>2</sup>	Permit Section(s) Addressed	TMDL	Pollutants of Concern	Target Audience	Partners or program materials
1	2	3	4	5								
X	X	X	X	X	Maintain MCSTOPPP Website (www.mcstoppp.org)	MCSTOPPP	Yes	E.7.a.(ii)(a) and (c) E.7.a.(ii)(h) E.7.a.(ii)(j) E.7.a.(ii)(k), (l), and (m) E.7.b.2.(b)(ii)(d) E.8.(ii)(d) E.15.a./Att. G Pp. 6, 7	Pesticide toxicity Sediment Pathogen	Multiple pollutants	General public, businesses, development professionals, construction contractors, landscapers, school-age children, municipal staff	Our Water Our World (BASMAA)
X	X	X	X	X	Conduct outreach and education at events through tabling and engagement activities	Local Programs also conduct this type of outreach from time to time MCSTOPPP	Yes	E.7.a.(ii)(a) and (c) E.7.a.(ii)(d) and (f) E.7.a.(ii)(g) E.7.a.(ii)(h) E.7.a.(ii)(i) E.8.(ii)(c) E.8.(ii)(d) E.15.a./Att. G Page 8	Pesticide toxicity Sediment Pathogen	Multiple pollutants	General public, businesses, development professionals, contractors, landscapers, school-age children, municipal staff	Share MCSTOPPP publications with various groups to increase contact with public (e.g. Master Gardeners, Zero Waste Marin, local creek groups, etc.)
X	X				MCSTOPPP Calendar	MCSTOPPP	Yes	E.7.a.(ii)(a) E.7.a.(ii)(c) E.7.a.(ii)(g) E.7.a.(ii)(h) E.7.a.(ii)(k), (l), and (m) E.8.(ii)(d) E.15.a./Attachment G Pages 6 and 7	Pesticide toxicity Sediment Pathogen	Multiple pollutants	General public	Sanitary Districts, Zero Waste Marin, Local Newspaper
X	X	X	X	X	Continue to develop and convey specific messages that focus on local stormwater pollutants of concern	MCSTOPPP	Where feasible	E.7.a.(ii)(a) and (c)	Pesticide toxicity Sediment Pathogen	Multiple pollutants	General public, businesses, development professionals, contractors, landscapers, school-age children, municipal staff	
X	X	X	X	X	Incorporate stormwater pollution prevention messages into local government newsletters	City, Town, or County stormwater program representative	Potential	E.7.a.(ii)(a) and (c)	Pesticide toxicity Sediment Pathogen	Multiple pollutants	General public	Jurisdictional newsletters



Permit Year <sup>1</sup>					Task	Implementation Responsible Party	Survey <sup>2</sup>	Permit Section(s) Addressed	TMDL	Pollutants of Concern	Target Audience	Partners or program materials
1	2	3	4	5								
X	X	X	X	X	Continue utilizing input from the MCSTOPPP Citizen Advisory Committee (CAC) to develop the program	MCSTOPPP	N/A	E.7.a.(ii)(e) E.8.(ii)(b)			N/A	Creek Groups, Sanitary Districts, Business Committee (i.e. Nurseries), Engineering Consultants
X	X	X	X	X	Continue to develop appropriate educational materials for target audiences, translate materials into appropriate languages when appropriate, and distribute materials using appropriate methods and procedures	MCSTOPPP	Where feasible	E.7.a.(ii)(d) and (f)	Pesticide toxicity Sediment Pathogen	Multiple pollutants	General public, businesses, development professionals, contractors, landscapers, school-age children, municipal staff	Our Water Our World
X	X	X	X	X	Promote, publicize, and facilitate anonymous public reporting of creek violations <b>and</b> illegal discharges to the municipal storm drain system. Ensure that local staff also know how to make reports.	Local programs and MCSTOPPP	Where feasible	E.7.a.(ii)(h)	Pesticide toxicity Sediment Pathogen	Multiple pollutants	General public, municipal staff	Jurisdictional Stormwater program
X	X	X	X	X	School classroom presentations and outdoor education	MCSTOPPP	Yes	E.7.a.(ii)(j) E.15.a./Attachment G Pages 6 and 7	Pesticide toxicity Sediment Pathogen	Multiple pollutants	public and private schools	STRAW, CMSA, MMWD, SASM
		X	R <sup>3</sup>	R	Provide Illicit Discharge Detection and Elimination trainings to all municipal staff who, as part of their normal job responsibilities may be notified of, come into contact with, or otherwise observe an illicit discharge or illegal connection	<ul style="list-style-type: none"> <li>Local Program Staff: require training of new employees within 6 months of hire date and assess employee knowledge of illicit discharge response annually, providing refresher trainings as needed</li> <li>MCSTOPPP: provide training opportunities and assess effectiveness</li> <li>Provide follow-up training as needed to address changes in procedures, techniques, or staffing</li> </ul>	Yes	E.7.b.1.	Pesticide toxicity Sediment Pathogen	Multiple pollutants	Municipal Staff	Jurisdictional Stormwater programs
X	X	X	X	X	Conduct staff Construction Site Reviewers and Inspectors trainings	<ul style="list-style-type: none"> <li>Local Program Staff: access training</li> <li>MCSTOPPP: provide training opportunities</li> <li>Both: assess effectiveness</li> </ul>	Yes	E.7.b.2.(a)	Sediment	Multiple pollutants	Municipal Staff	Jurisdictional Stormwater programs

Permit Year <sup>1</sup>					Task	Implementation Responsible Party	Survey <sup>2</sup>	Permit Section(s) Addressed	TMDL	Pollutants of Concern	Target Audience	Partners or program materials
1	2	3	4	5								
	X		X		<p>Conduct biennial Pollution Prevention and Good Housekeeping trainings for municipal staff who are involved in implementing PP/GH practices.</p> <p>Advanced/Specialty modules are recommended for specific target audiences and can be timed to coincide with the development/implementation of BMPs and controls for those activities, e.g., BMPs for O&amp;M activities.</p>	<ul style="list-style-type: none"> <li>Local Program Staff: require training of new employees within 1 year of hire date and assess staff knowledge annually, with the possibility of interim trainings as needed</li> <li>MCSTOPPP: provide training opportunities, including material for interim year trainings as needed, and assess effectiveness of trainings</li> </ul>	Yes	E.7.b.3. E.11	Pesticide toxicity Sediment Pathogen	Multiple pollutants	Municipal Staff	Jurisdictional Stormwater programs
X	X	X	X	X	Conduct Construction Site Operator education		Yes	E.7.b.2.(b)	Sediment		Development professionals, contractors, landscapers	Construction Association
X	X	X	X	X	Promote the benefits of water-efficient and stormwater-friendly landscaping	MCSTOPPP with MMWD and NMWD	Yes	E.7.a.(ii)(g)	Pesticide toxicity	Pesticides, herbicides, fertilizers	Marin residents in Urban Areas and maintenance landscapers	Marin RCD and Water Districts water efficient programs
X	X	X	X	X	Provide car wash kits for organized car washes	MCSTOPPP	N/A	E.7.a.(ii)(k) and (l)	Sediment	Washwaters	organized school and charity car washes	High Schools
X	X	X	X	X	Promote BASMAA Mobile Business Program on MCSTOPPP website	MCSTOPPP	N/A	E.7.a.(ii)(k) and (m)	Sediment	Multiple pollutants	mobile cleaners pressure washing operations/businesses	BASMAA
X	X	X	X	X	Promote and organize clean-up events (e.g. My Earth Day Marin, Coastal Clean-up Day, etc.)	MCSTOPPP	N/A	E.8.(ii)(c)		Trash	General public, businesses, creek groups, school-age children	Marin County Parks, MMWD, San Rafael Clean, CVNL
		X			Biotechnical erosion control and stream bank stabilization workshops	MCSTOPPP		E.8.(ii)(c)	Sediment	Sediment	General public	Marin Resource Conservation District, Point Blue Conservation Science
X	X	X	X	X	Continue storm drain marker projects where applicable with creek groups, scout troops, school groups, and other organizations	Local programs MCSTOPPP	N/A	E.7.a.(ii)(j) E.8.(ii)(c)	Pesticide toxicity Sediment Pathogen	Multiple pollutants	General public, creek groups, school-age children	creek groups, scout troops, school groups
X	X	X	X	X	Engage in watershed-level planning efforts	MCSTOPPP	N/A	E.8.(ii)(e)	Pesticide toxicity Sediment Pathogen	Multiple pollutants	Community leaders	BASMAA, CASQA, Bay Area IRWMP, NBWA, Marin County Watershed Program

Permit Year <sup>1</sup>					Task	Implementation Responsible Party	Survey <sup>2</sup>	Permit Section(s) Addressed	TMDL	Pollutants of Concern	Target Audience	Partners or program materials
1	2	3	4	5								
X	X	X	X	X	Provide BMP materials for manure, facility, and land management to Horse Facilities and Owners	MCSTOPPP	N/A	E.15.a./Attachment G Pages 6 and 7	Pesticide toxicity Sediment Pathogen	Multiple pollutants	Horse Owners in Tomales Bay Watershed	Bay Area Resource Conservation District
X	X	X	X	X	Maintain pet waste bag dispensers at appropriate public facilities - install new dispensers and signage as needed	City, Town, or County stormwater program representative	N/A	E.15.a./Attachment G Pages 6 and 7	Pathogen	Pathogens, nutrients	Dog owners	Jurisdictional Stormwater programs
X	X	X	X	X	Contract with IPM Advocate Professional to implement Our Water Our World with 16 partner stores in Marin (literature racks, shelf tags, tabling, signage, nursery staff trainings, direct education)	MCSTOPPP	Implement BASMAA PEAI <sup>4</sup>	E.7.a.(ii)(i) E.15.a./Att. G Page 8	Pesticide toxicity	Pesticides, herbicides fertilizers	General Public Maintenance Landscapers Nursery staff	BASMAA, IPM Advocates, UC Davis IPM, Master Gardeners
X	X	X	X	X	Contribute funds to the CASQA Pesticide Subcommittee through BASMAA dues and direct contribution when funds available	MCSTOPPP	Yes	E.15.a./Att.G Page 8	Pesticide toxicity	Pesticides, herbicides	N/A	BASMAA
X	X	X	X	X	Continuing Education for pesticide application license recertification	BASMAA OWOW, MCSTOPPP website, Agricultural Commissioner	N/A	E.15.a./Att. G Page 8	Pesticide toxicity	Pesticides, herbicides	Pesticide Operators	BASMAA
			X	X	Develop a Trash Reduction Implementation Plan	Local jurisdictions MCSTOPPP	TBD	Trash Amendment		Trash	TBD	TBD
Potential project					Expand Our Water Our World to Spanish Speaking Community with materials at additional locations tables at community events with Spanish speaking neighborhood champions additional tabling at established stores with Spanish speakers	MCSTOPPP	TBD	E.7.a.(ii)(i) E.15.a./Att. G Page 8	Pesticide toxicity	Pesticides, herbicides	Spanish speaking residents and maintenance landscapers	Our Water Our World (BASMAA) Promodores Verdes
Potential project					Produce "10 Most Wanted Bugs" brochure on beneficial insects in Spanish	MCSTOPPP	N/A	E.7.a.(ii)(i) E.15.a./Att. G Page 8	Pesticide toxicity	Pesticides, herbicides	Spanish-speaking residents	Our Water Our World (BASMAA)
Potential project					Develop a 'use less toxic methods for pest control' pledge program tied to website and utilizing social media	MCSTOPPP	TBD	E.7.a.(ii)(i) E.15.a./Att. G Page 8	Pesticide toxicity	Pesticides, herbicides	Residents	
Potential project					Enhance pesticide operator outreach with regional partnerships	MCSTOPPP	TBD	E.7.a.(ii)(i) E.15.a./Att. G Page 8	Pesticide toxicity	Pesticides, herbicides	Pesticide operators	BASMAA, SFEP, Bay Area Stormwater programs

Permit Year <sup>1</sup>					Task	Implementation Responsible Party	Survey <sup>2</sup>	Permit Section(s) Addressed	TMDL	Pollutants of Concern	Target Audience	Partners or program materials
1	2	3	4	5								
Potential project					Partner with Bay Friendly Landscape Coalition or Our Water Our World for trainings	MCSTOPPP	Yes	E.7.a.(ii)(i) E.15.a./Att. G Page 8	Pesticide toxicity	Pesticides, herbicides	Residents and maintenance landscapers	MAA, Our Water Our World, Bay friendly Landscaping
Potential project					Develop a 'pick up your pet waste' pledge program	MCSTOPPP	TBD	E.15.a./Att. G pp. 6 and 7	Pathogen	Pathogens, nutrients	Dog owners	Marin Humane Society (info and pledge at time of licensing)
Potential project					Perform visual audit of abandoned pet waste in a heavily used dog walking area. Place colorful flags for each abandoned pet waste, photograph flags for documentation and images for outreach materials, engage community leaders to model desired behavior.	MCSTOPPP	Yes	E.15.a./Att. G pp. 6 and 7	Pathogen	Pathogens, nutrients	Dog owners	Community Leaders, Local photographers donating drawing prizes
Potential project					Promote a logo contest at nearby school and on line through social media	Local jurisdictions MCSTOPPP	N/A	E.15.a./Att. G pp. 6 and 7	Pathogen	Pathogens, nutrients	Dog owners	Schools
Potential project					Create music video with local talent for social media and website	MCSTOPPP	N/A	E.15.a./Att. G pp. 6 and 7	Pathogen	Pathogens, nutrients	Dog owners	Local Music Artists, Schools, Local Videographers
Potential project					Conduct manure management workshops in the Tomales Bay watershed.	MCSTOPPP	Yes	E.15.a./Att. G pp. 6 and 7	Pathogen	Pathogens, nutrients	Horse owners and horse facilities	Horse organizations and the Marin County RCD
Potential project					Enhanced sediment and erosion control trainings formats	MCSTOPPP	Yes	E.7.b.2.(b)	Sediment	Sediment	Construction Site operators	Stormwater Programs in Bay Area
Potential project					Pledge campaign with incentives and a drawing to increase awareness best practices and who to contact regarding illicit discharges	MCSTOPPP	TBD	E.7.a.(ii)(h)	Pesticide toxicity Sediment Pathogen	Multiple pollutants	General public	
Potential project					Research high school car-washing fundraisers and secure car wash kits where needed	MCSTOPPP	TBD	E.7.a.(ii)(k) and (l)	Sediment	Washwaters	Organized school and charity car washes	High Schools
Potential project					Water conservation workshops including compost, mulch, and irrigation practices	MCSTOPPP	Yes	E.7.a.(ii)(g)	Pesticide toxicity	Pesticides, herbicides fertilizers	Marin residents in Urban Areas and maintenance landscapers	Zero Waste Marin, Water Districts and Bay Friendly Landscaping
Potential project					Additional opportunities for students and teachers in creek restoration projects with Students and Teachers Restoring A Watershed (STRAW) program	MCSTOPPP	Yes	E.7.a.(ii)(j) E.15.a./Attachment G Pages 6 and 7	Pesticide toxicity Sediment Pathogen	Multiple pollutants	Public and Private schools	STRAW, CMSA, MMWD, SASM

Permit Year <sup>1</sup>					Task	Implementation Responsible Party	Survey <sup>2</sup>	Permit Section(s) Addressed	TMDL	Pollutants of Concern	Target Audience	Partners or program materials
1	2	3	4	5								
Potential project					Pledge campaign to commit to one or more trash reduction actions	Local jurisdictions MCSTOPPP	TBD	Trash Amendment		Trash	TBD	TBD
<sup>1</sup> Permit year key: Year 1 = 2014 (July 1, 2013- June 30, 2014) Year 2 = 2015 (July 1, 2014- June 30, 2015) Year 3 = 2016 (July 1, 2015- June 30, 2016) Year 4 = 2017 (July 1, 2016- June 30, 2017) Year 5 = 2018 (July 1, 2017- June 30, 2018) <sup>2</sup> Either a survey or other assessment method will be conducted to gauge the level of target audience awareness and education task effectiveness <sup>3</sup> R = Indicates Permit Year during which refresher or interim training must be provided, as needed. <sup>4</sup> Use management questions and data assessment and collection methods from Table 7 of BASMAA PEaip												

## ATTACHMENT C - PERMIT REQUIREMENTS

Permit Requirement	Permit Requirement Description
E.7.a.(ii)(a)	Identify who is responsible for implementing specific education tasks that are based on water quality problems, target audiences, and anticipated task effectiveness and a schedule for task implementation.
E.7.a.(ii)(a) and (c)	To address specific high priority stormwater quality issues in the community, develop and convey specific messages that focus on local stormwater pollutants of concern, target audiences, and regional water quality issues.
E.7.a.(ii)(b)	Implement surveys at least twice during the permit term to gauge the level of awareness in target audiences and effectiveness of education tasks.
E.7.a.(ii)(d) and (f)	Develop appropriate educational materials for target audiences, translate materials into appropriate languages when appropriate, and distribute materials using appropriate methods and procedures.
E.7.a.(ii)(g)	Explain the benefits of water-efficient and stormwater-friendly landscaping
E.7.a.(ii)(h)	Promote, publicize (to both municipal staff and the public), and facilitate public reporting to proper authorities of illegal discharges to the municipal storm drain system through a central contact point, including phone numbers for complaints and spill reporting. If 911 is selected, create, maintain, and publicize a staffed, nonemergency phone number with voicemail, which is checked daily.
E.7.a.(ii)(i)	Develop and convey messages specific to proper application of pesticides, herbicides, and fertilizers.
E.7.a.(ii)(j)	Provide public and private schools with materials to effectively educate school-age children about stormwater runoff and how students can help protect water quality habitat in their local watersheds.
E.7.a.(ii)(k) and (m)	Develop and convey messages specific to reducing discharges from mobile cleaners, pressure washing operations
E.7.a.(ii)(k) and (l)	Conduct stormwater-friendly education for organized car wash participants and provide information pertaining to car wash discharge reduction
E.7.a.(ii)(k)	Develop and convey messages specific to reducing discharges from landscape irrigation.
E.7.b.1.	Illicit Discharge Detection and Elimination Staff Training
E.7.b.2.(a)	Construction Staff Training
E.7.b.2.(a)	Construction Site Operator Education
E.7.b.3., E.11	Pollution Prevention and Good Housekeeping Staff Training
E.7.a.(ii)(e) and E.8.(ii)(a)	Develop a public involvement and participation strategy and utilize public input to develop the outreach strategy.
E.8.(ii)(b)	Consider development of a citizen advisory group
E.8.(ii)(c)	Create opportunities for citizens to participate in projects to improve water quality – for example educational opportunities, stenciling storm drains, or cleaning up stream banks, beaches or lakesides.
E.8.(ii)(d)	Ensure easy access to information on the stormwater program
E.8.(ii)(e)	Actively engage in watershed-level planning efforts
E.11.j.(ii)(b)1)	Implement educational activities for municipal applicators and distributors
E.15.a./Attachment G Pages 6 and 7	In the Tomales Bay and Richardson Bay Watersheds, educate the public regarding sources of fecal coliform and associated health risks of fecal coliform in surface waters. Educate the public regarding actions that individuals can take to reduce pathogen loading.
E.15.a./Attachment G Pg. 8	Conduct outreach to residents and pest control applicators on less toxic methods of pest control.

# ATTACHMENT D - MAP OF MAJOR WATERSHEDS

