

San Diego Stormwater Copermittees
Jurisdictional Urban Runoff Management Program
(URMP)

Existing Residential Areas
Model Program Guidance

September 19, 2001



project clean water

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Section I. Background

More than 2.9 million people live and work in the eighteen cities and unincorporated portions of San Diego County. To varying degrees, each of these people contributes to existing water quality problems and therefore plays a part in their solution. Order No. 2001-01¹ (Permit) section F.3.d. establishes requirements for local jurisdictions to develop and implement a program to reduce contaminants in urban runoff originating from existing residential areas. It generally requires that high priority existing residential areas and activities be identified, that minimum Best Management Practices (BMPs) be established for each priority, and that a process for ensuring the application of these BMPs be implemented and enforced by Copermittees.

This document provides suggested guidance to Copermittees in developing the Existing Residential Areas element of their Jurisdictional Urban Runoff Management Programs² as required by Permit section H.1.(5)³ to be submitted to the SDRWQCB by February 21, 2002. It does not establish or promote the establishment of a particular set of minimum standards or program activities for Copermittee programs. Rather it provides guidance for establishing individual program priorities and requirements, as well as a description of viable options and approaches available to Copermittees in lawfully complying with their permit obligations. Recommended activities are based on the consensus of the Model Existing Residential Activities Technical Workgroup. A second and equally important focus of this guidance is to promote consistency between Copermittee programs. Permit section N.1. specifically requires that Copermittees “collaborate with all other Copermittees regulated under this Order to address common issues, promote consistency among Jurisdictional Urban Runoff Management Programs (Jurisdictional URMPs), and to plan and coordinate activities required under this Order.” Consistency is especially crucial to the citizens of San Diego County who must ultimately abide by the standards and requirements set forth in individual jurisdictional programs. This document represents the first phase of Copermittee collaboration with respect to existing residential areas. It is expected that additional collaboration will be necessary as Copermittees implement programs and evaluate their effectiveness over time.

¹ Order No. 2001-01, NPDES No. CAS0108758, Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County, and the San Diego Unified Port District.

² This element addresses only existing residential areas. Activities for addressing the impacts of new development and significant redevelopment are discussed in a separate model program guidance.

³ Requirements relating to existing residential areas are located in numerous sections throughout the Permit. Specific section references are provided as necessary. These sections are also included as Appendix A.

Section II. Program Objectives

The overall goal of the Existing Residential Areas Jurisdictional URMP element is to minimize the impact of discharges from residential areas on receiving waters and other environmental resources in the County of San Diego and, where possible, to enhance the quality of these resources. In support of this goal, this Model Program Guidance addresses the following primary objectives:

- o To provide useful guidance to Copermittees in developing programs for residential areas that will meet or exceed their compliance obligations under Order No. 2001-01,
- o To facilitate the development of clear, defensible, and implementable urban runoff activities and programs,
- o To provide a forum for interested stakeholders that allows for their input prior to the development and implementation of local urban runoff programs, and
- o To maximize consistency between Copermittee urban runoff programs on a regional basis.

Section III. Implementation Strategy

Implementation of a comprehensive program to effectively address stormwater discharges from existing residential areas will require that Copermittees develop and implement a number of program activities. This section provides an overview of these elements. Specific permit requirements pertaining to each are noted as applicable. Copermittees are also encouraged to continue identifying and implementing other elements not addressed here to augment and improve their programs for residential areas.

A. PRIORITIZATION OF RESIDENTIAL ACTIVITIES, SOURCES, AND AREAS

Copermittees must consider the types of residential activities and areas within their jurisdictions and establish their program priorities and requirements accordingly. Permit section F.3.d.(2) establishes the minimum residential activities which must be given high priority status by Copermittees. It additionally establishes three criteria which must be considered in determining whether other sources or residences should be considered high priority. Copermittee program activities and requirements must be established which appropriately reflect each of these priorities. The establishment of Copermittee program priorities for existing residential areas is described further in section IV of this document.

B. ESTABLISHMENT OF DISCHARGE PROHIBITIONS AND BMP REQUIREMENTS

Copermittees must establish and maintain adequate legal authority to implement the provisions of their urban runoff programs. This generally requires the establishment of two types of requirements: minimum Best Management Practices (BMPs) and discharge prohibitions. Permit section F.3.d.(4) requires Copermittees to enforce their stormwater ordinances, including any new requirements for residential BMPs, in residential areas. Local stormwater ordinances in many Copermittee jurisdictions do not yet require the use of BMPs in existing residential areas. Copermittees should review and revise these ordinances as necessary to actually implement and enforce this residential program. This should include a review of the Copermittee's authority to establish and enforce stormwater and non-stormwater discharge prohibitions in residential and other areas within their jurisdiction as per Permit sections A and B.

C. EDUCATION AND OUTREACH

The cornerstone of any program focused on changing people's attitudes and behaviors is education. Permit section F.4. requires that Copermittees implement an education component to "(1) measurably increase the knowledge of the target communities regarding MS4s, impacts of urban runoff on receiving waters, and potential BMPs for the [residential] target audience; and (2) to measurably change the behavior of [residential] target communities and thereby reduce pollutant releases to the environment." Permit sections F.4.a. and F.4.c. specify minimum content for these efforts. These requirements are addressed separately in the Copermittees' Model Outreach Program Guidance.

D. PUBLIC REPORTING

Permit section F.5.g. requires that Copermittees “promote, publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s ... through development and operation of a public hotline.” Hotlines must be capable of receiving reports in both English and Spanish 24 hours per day / seven days per week. Since the Permit allows that these hotlines may be either individual or shared by Copermittees, a number of viable options exist for meeting this obligation, including the establishment of hotlines by individual Copermittees, contracting of services to professional organizations, or participation in a regional stormwater hotline. Two regional stormwater hotline numbers are currently operational within San Diego County: the toll-free Regional Stormwater Hotline, 1-888-846-0800, and the Think Blue Hotline, 1-888-THINK BLue (1-888-844-6525). Both hotlines are answered by the County of San Diego, Department of Environmental Health, Monday through Friday, 8:00 a.m. - 5:00 p.m. In addition to personal service during regular business hours, the hotline provides a voice mail message for 24-hour public access in both English and Spanish. The County has provided these services to Copermittees since December 1997, and continues to provide them free of charge. Through this hotline, complaint information is forwarded to appropriate Copermittee contacts for follow up and/or investigation.

E. INSPECTION AND INVESTIGATION

1. MS4 Inspection

Permit section F.5.b. requires that Copermittees “investigate and inspect any portion of the MS4 that, based on dry weather analytical monitoring results or other appropriate information, indicates a reasonable potential illicit discharges, illicit connections, or other sources of non-stormwater (including non-prohibited discharge(s) identified in Section B. of this Order).”

2. Complaint Response

Permit section F.5.g. requires that Copermittees “respond to and resolve each reported incident [complaint]”. Complaints have traditionally focused on violations of discharge prohibition requirements. However, since Copermittees must now establish minimum BMP requirements, this will now include “BMP violations”. Copermittees should also endeavor to actively use the complaint investigation process as a means of educating residents on water quality issues. Rather than focusing solely on the resolution of complaints, Copermittees should endeavor to provide specific information that will assist the public in understanding the effects of stormwater pollution and how to prevent violations in the future. This information can be provided both by hotline operators and by complaint investigators in the field.

3. Municipal Field Staff

Municipal staff often spend time outdoors during various routine or unscheduled field activities (inspections, maintenance, spill response, vector control, etc.). As a result, they may observe activities such as car washing, automotive repair, etc., which can result in discharges of pollutants, or which are in violation of the minimum BMP requirements established pursuant to Permit section F.3.d.(3). Many Copermittees already provide training to these staff to recognize, report, and/or respond to illicit connections and illegal discharges (IC/IDs) observed during their work activities.

However, since this training has typically focused on identifying IC/IDs “after the fact” rather than the activities or practices causing them, Copermittees should also consider expanding their training to include a more proactive “eyes and ears” approach for residential and other areas. This approach can either be applied generally or specifically focused on the types of activities and the areas that Copermittees consider the highest priority (for instance, visiting neighborhoods where car washing occurs, etc.). This approach may also establish a more proactive community presence to educate residents and gain program support.

F. ENFORCEMENT

Permit section F.3.d.(4) requires that Copermittees enforce the provisions of their residential areas program elements to maintain compliance with the remaining portions of section F.3.d. Situations requiring enforcement may arise through various types of inspection and investigation activities. Enforcement of stormwater pollution prevention requirements should be conducted by staff with enforcement authority and, if necessary, by legal counsel.

Violations should always be documented and depending on the nature and severity of the violation, enforcement may consist of any of the following:

- o Verbal warning,
- o Written warning,
- o Orders to abate or correct, and
- o Fines.

Verbal warnings are a common first step in municipal enforcement programs, but each Copermittee should consider whether reliance on verbal warnings is appropriate for this program. If verbal warnings are used, they should, at a minimum, be documented by the Copermittee in a case file. This will allow the Copermittee to document its enforcement effort to the RWQCB if necessary. Whenever a violation is documented, appropriate follow-up (e.g., site visit, phone call, etc.) should be conducted to determine if corrective actions have been implemented in accordance with minimum requirements. Escalating enforcement measures should be imposed if time frames and/or remedies are not achieved.

Section F.5 of the Order additionally requires Copermittees to “immediately” eliminate all detected illicit discharges. These situations may therefore require prompt issuance of a written warning or Order, and special diligence in follow-up. If possible, the Copermittee should require the illegal discharge to be halted before they leave the residence, regardless of the actual level of threat posed by the illegal discharge. If any other significant or immediate threat to water quality is observed by the Copermittee, they should require immediate action by the resident to correct the violation causing that threat.

G. RECYCLING AND WASTE DISPOSAL

Permit section F.5.h. requires that Copermittees “facilitate the proper management and disposal of used oil, toxic materials, and other household hazardous wastes”. This must minimally include the following elements:

- o Educational activities (see section III.C. above),

- o Public information activities (see section III.D. above),
- o Establishment of collection sites, and
- o Curbside collection (encouraged for household hazardous wastes).

Collection opportunities for residentially generated hazardous wastes and used motor oil have increased in the San Diego region over the past 10 years. However, Permit section F.5.h. establishes minimum requirements for Copermittees to address the management and disposal of these wastes. While Copermittees may already be partially or fully in compliance with these requirements, opportunities for improvement may exist both with respect to public outreach and the convenience of collection facilities. Convenient and appropriate waste disposal and recycling options are necessary to prevent incidents of illegal disposal of wastes to the ground and stormwater systems.

1. Used Oil Recycling⁴

Permit section F.5.h. requires that Copermittees “facilitate the proper management and disposal” of used oil. Facilitation must include:

- o Educational activities,
- o Public information activities, and
- o Establishment of collection sites operated by the Copermittee or a private entity.

Proper management of used oil generated by residential “do-it-yourselfers” is crucial to the prevention of stormwater contamination. There are currently more than 250 State-certified used oil collection centers in San Diego County with at least one of these centers located in 17 of the 19 jurisdictions (Appendix B). Residents have numerous convenient, local options for disposal of used motor oil.

Copermittees should make their own determination as to whether the siting of additional collection facilities is necessary or cost-effective. However, to ensure the best use of existing resources and compliance with the Permit, Copermittees should consider at least the following: (1) continue working within existing programs to promote oil and oil filter recycling by the public, (2) maximize the use of existing and other potential financial resources (e.g., State Used Oil Block Grant funding, etc.), and (3) identify opportunities for consolidation of program resources, especially with respect to public outreach activities.

2. Household Hazardous Waste Management

Permit section F.5.h. requires that Copermittees “facilitate the proper management and disposal” of toxic materials and household hazardous wastes. Facilitation must include:

- o Educational activities,
- o Public information activities,
- o Establishment of collection sites, and
- o Curbside collection (encouraged).

⁴ Note: This section describes used oil recycling only. Contaminated oil which cannot be recycled can generally be disposed of at household hazardous waste collection sites or events.

Household Hazardous Waste (HHW) Program activities began in San Diego County in 1986 as one of the primary “tools” for protecting landfills and receiving waters from illegal hazardous waste disposal practices. There are currently nine (9) Permanent Household Hazardous Waste Collection Facilities (PHHWCFs) operating in San Diego County (Table 1). These facilities are located in the cities of Chula Vista, Coronado, El Cajon, La Mesa, Oceanside, Poway, San Diego, Vista, and the unincorporated community of Ramona. Jurisdictions that have not sited PHHWCFs have either entered into use-agreements with other jurisdictions operating PHHWCFs, or have opted to utilize door-to-door services or one-day collection events.

As the County’s population continues to grow, access to household hazardous waste disposal services and source reduction education, will become increasingly important in the protection of both public and environmental health. Local jurisdictions are currently increasing coordination of HHW Programs to establish consistent messages and convenient services for all residents of the region. Copermittees are encouraged to coordinate residential stormwater program activities with these programs to maximize the impact and effectiveness of their outreach and education activities.

While the siting of additional permanent facilities may not be necessary or cost-effective for individual Copermittees or the region, increasing hours and days of operation at existing facilities may be an option to increase proper disposal opportunities for residents. Inter-jurisdictional use-agreements are also important in providing convenient disposal opportunities for residents throughout the County. Temporary collection events in outlying areas should also be considered for providing continued service to residents with inadequate access to the PHHWCFs. As per Permit section F.5.h., Copermittees should also consider the feasibility of utilizing curbside collection as part of their overall program strategy.

H. SPILL RESPONSE

Permit section F.5.f. requires that Copermittees prevent, respond to, contain, and clean up sewage and other spills that may discharge to their MS4s from existing residential and other areas. These requirements are addressed separately in the Copermittees’ Model Illicit Discharge Elimination Element.

Table 1: Permanent Household Hazardous Waste Facilities in San Diego County

Facility Location	Facility Operator	Other Jurisdictions Served	Hotline
Chula Vista ⁵	City of Chula Vista	Coronado Imperial Beach National City	I Love a Clean San Diego 800-237-2583
Coronado	City of Coronado	None	City of Coronado Public Services 619-522-7380
El Cajon	City of El Cajon	Santee	Waste Management 619-596-5100
La Mesa	City of La Mesa	None	EDCO 619-287-5696 x4270
Oceanside	City of Oceanside	None	Waste Management 760-439-2824
Poway	Regional Solid Waste Authority	Del Mar Encinitas Imperial Beach National City San Marcos Solana Beach	Philips 800-714-1195
Ramona	County of San Diego	None	I Love a Clean San Diego 877-R-1-EARTH
San Diego	City of San Diego	Unincorporated	<u>City of San Diego</u> Pacific Gateway Group 619-235-2111 <u>Unincorporated</u> I Love a Clean San Diego 877-R-1-EARTH
Vista	Regional Solid Waste Association	Carlsbad Del Mar Encinitas Escondido National City Oceanside Poway San Marcos Solana Beach Unincorporated	<u>Cities</u> Philips 800-714-1195 <u>Unincorporated</u> I Love a Clean San Diego 877-R-1-EARTH

⁵ Planned operational date is October 2001

Section IV. Establishment and Maintenance of Program Priorities

Copermittees must consider the types of residential activities and areas within their jurisdictions and establish their program priorities and requirements accordingly. Permit section F.3.d.(2) establishes the minimum residential activities which must be given high priority status by Copermittees. Additionally, it establishes three criteria which must be considered in determining whether other residences or sources should be considered high priority. Copermittee program activities and requirements must be established which appropriately reflect each of these priorities. This section discusses mandated priorities and provides guidance for determining additional priorities. BMP requirements are discussed separately in section V.

A. MINIMUM HIGH PRIORITIES

1. High Priority Activities⁶

Permit section F.3.d.(2) identifies seven categories of minimum high priority activities. To simplify discussion and avoid redundancy, these are consolidated into five categories below by including disposal of household hazardous waste and disposal of green waste as subsets of home and garden care activities:

(a) *Automobile*⁷ repair and maintenance. Repair and maintenance of automobiles occurs frequently in residential neighborhoods, both by residents and by professional service providers. These activities have significance to urban runoff quality in two important ways. First, they have the potential to contribute many types of pollutants (such as motor oils, greases, antifreeze, solvents, trace metals and fuels) directly to Copermittee MS4s when they wash off driveways and streets. Second, well-running vehicles kept in good repair pollute less during their operation as they are less likely to leak fluids onto roadways, require less gasoline to operate, and produce lower tailpipe emissions of hydrocarbons and particulates, which can eventually be washed into receiving waters.

(b) *Automobile washing.* Pollutants generated by automobile washing can negatively impact water bodies through the excessive input of nutrient substances associated with phosphate-containing detergents, foaming agents, sediments, and a wide array of toxic substances including trace metals and various hydrocarbons. Runoff of wash water onto driveways, carports, streets, parking lots, etc. can carry these pollutants to storm drains or to other surfaces where they accumulate until rainfall subsequently washes them into the conveyance system and ultimately to receiving waters.

(c) *Automobile parking.* Parked automobiles present a problem in residential areas due to their potential collective effects on water quality. Poorly maintained vehicles leak oil, antifreeze, and other fluids when parked. As a result, parking areas can contain heavy deposits of many automotive pollutants. These pollutants accumulate on

⁶ Order No. 2001-01 establishes seven separate categories of high priority activity. Since disposal of household hazardous waste and green waste are subsets of home and garden care activities, this document combines them into a single category.

⁷ Copermittees may consider including the repair, maintenance, and/or washing of other types of vehicles (such as boats) as high priority. However, the evaluation of this or other potential priorities should be conducted pursuant to a rational and defensible methodology.

driveways, streets, parking lot surfaces, etc., and are directly transported to local receiving waters.

(d) Home and garden care activities and product use. Home and garden care activities make use of numerous substances, many of which are classified as hazardous wastes. These products, which include paints, insecticides, fertilizers, and cleaning products, require proper handling, storage, and disposal to prevent accidental releases. If introduced to surface waters, they can cause a variety of harmful impacts including aquatic toxicity (insecticides, pesticides, herbicides) and nutrient enrichment and algal blooms (fertilizers). Improper or excessive irrigation is often the most important contributing factor in the introduction of home and garden-generated pollutants to the MS4. Excessive irrigation water mobilizes pollutants by dissolving and/ or washing them into the storm drain system. In the absence of excessive irrigation water, these pollutants will often be broken down into non-toxic compounds or assimilated through natural processes. Green waste is a byproduct of gardening and other landscape maintenance activities and may contain insecticide, pesticide, and fertilizer residues. Green waste washed into surface waters increases the biochemical oxygen demand (BOD) of the water body resulting in the consumption of dissolved oxygen needed by aquatic organisms. Green waste washed into water bodies can also alter the natural flow and configuration of stream channels and suffocate sensitive benthic (bottom-dwelling) organisms.

(e) Disposal of pet waste. Pets are animals kept for pleasure or companionship rather than commercial purposes. In recent years, the potential contribution of pet wastes to the fecal contamination of local receiving waters has become an issue of concern. For this program, pets are assumed to include the most common pets (e.g., dogs, cats, and horses in some areas). Since most other pets are either less common or kept indoors, their designation as high priority would likely not be justified. There are three primary issues of concern with respect to pet waste. First, many pet owners do not clean up after their pets when they take them for walks. Fecal matter left on neighborhood lawns and sidewalks eventually washes onto streets and into waterbodies. Second, many animals contribute fecal matter in much the same way when they are allowed to roam residential neighborhoods freely. Third, many owners allow their pets to defecate on their own properties, but do not clean up the feces. In the case of horses, some owners do not properly compost, cover or dispose of manure that is generated. Each of these situations should be considered during the development of specific management strategies.

2. High Priority Residences and Sources

In addition to the activities discussed above, Permit section F.3.d.(2) requires that Copermittees treat as high priority all existing residences falling into each of the following three additional categories.

(a) Residential sources contributing significant pollutant loads to the Municipal Separate Storm Sewer System (MS4). “[a]ny other residential source that the Copermittee determines may contribute a significant pollutant load to the MS4.”

As per Permit section C., “significant” pollutant loads should be interpreted to mean those which “cause or contribute to the violation of water quality standards.” If the Copermittee determines that a residential discharge will cause or contribute to such a

violation, the source must be considered high priority and BMPs must be instituted to achieve appropriate load reductions. Copermittees should initially focus their attention on water bodies listed as impaired by the RWQCB. If most of the flow reaching these water bodies is residential area runoff and the water body is impaired for a pollutant that is known to be present in significant amounts in residential runoff, then the Copermittee should consider a further investigation or should consider identifying the residential activities that are a likely source of that pollutant as a high priority until the RWQCB completes a Total Maximum Daily Load (TMDL) study for that water body.

(b) Residences tributary to 303(d) water bodies. Permit section F.3.d.(2) requires that “[a]ny residence tributary to a Clean Water Act section 303(d) impaired water body⁸, for which the residence generates pollutants for which the water body is impaired” be considered high priority. Copermittees must therefore require the implementation of BMPs to decrease existing loadings from residences tributary to 303(d) listed water bodies prior to the establishment of specific load allocations through the TMDL process. The degree to which such reductions are necessary is not specified, and therefore must be determined by the Copermittee. Rather than attempting to make site-specific estimations of residential pollutant loadings, it is recommended that Copermittees conduct a general assessment that includes the following steps:

- (1) Identify Clean Water Act section 303(d) impaired water bodies and the contaminants causing these impairments. A current listing of 303(d) water bodies in the San Diego Hydrologic Unit (SDHU) is included as Appendix C. This list also identifies the contaminant(s) for which each listing was established. It can be downloaded from the State Water Resources Control Board web site at <http://www.swrcb.ca.gov/>.
- (2) Determine the residences which are “tributary to” the 303(d) listed water body. Since the term “tributary to” is not defined in the Permit, and has no prior Clean Water Act grounding, a reasonable working definition should be adopted by the Copermittee. The following is offered as suggested guidance in making this determination, but Copermittees must ultimately make their own determination and should consider all factors that they consider relevant.

In determining whether a residence is “tributary to” a 303(d) listed water body, Copermittees should consider whether discharges from that property reach: (1) concrete storm sewers that discharge into the impaired water; or (2) streams which reach the impaired water even during the dry season; or (3) ephemeral streams or other natural channels likely to contribute significant pollutant loads to an impaired water at any time during the year. In the latter instance, Copermittees may consider establishing an upstream distance (e.g., one mile, etc.) which is conservatively inclusive of these discharges.

⁸ Section 303(d) of the Federal Clean Water Act requires states to develop a list of water bodies that do not meet water quality standards. The CWA further requires that priority rankings for these water bodies be established and that Total Maximum Daily Loads (TMDLs) be developed for them. Through the TMDL process the maximum amount of a contaminant, which the impaired water body can receive and still meet water quality standards is established. Based on this estimate, pollutant loadings are allocated among the point and nonpoint sources of the pollutant for which the water body is impaired.

- (3) Determine whether the residence “generates pollutants for which the water body is impaired.” The discharge from the residence must contain the contaminant for which the receiving water is 303(d) listed. Additionally, since the generation of any pollutant on the 303(d) list is theoretically possible for all residences in the County, Copermittees should make a determination that the contaminant is present in discharges in sufficient quantity and/or concentration to have a reasonable potential to cause or contribute to an existing violation of a water quality standard. This interpretation is consistent with receiving water limitations contained in Permit section C.

Note: In evaluating the potential for causing or contributing to violations of water quality standards, Copermittees should consider the collective impact of all residences under consideration (e.g., the total number of homes or units, etc.) for a particular water body or segment.

(c) Residences discharging to an environmentally sensitive area (ESA). Permit section F.3.d.(2) also requires that “[a]ny residence within or directly adjacent to or discharging directly to a coastal lagoon or other receiving waters within an environmentally sensitive area (as defined in F.1.b.(2)(a)vii...)” be considered a high priority. Determination of whether individual residences are subject to this requirement should be made on a site-by-site basis using the following general steps. Initial mapping and identification of residences is best accomplished using a GIS.

- (1) Identify the receiving waters within ESAs. This includes all receiving waters within the following types of Environmentally Sensitive Areas.
- i. Clean Water Act section 303(d) impaired water bodies. This requirement is similar to that of III.2.b. above except it applies only to residences that meet the stricter criteria of “within or directly adjacent to or discharging directly to.” While it is theoretically included in III.2.b. above, Copermittees should consider making a distinction in the levels and types of BMP application since residences which are closer to or discharging directly to a 303(d) water body may have a greater potential for contributing to water quality impairments than those which are simply “tributary to.”
 - ii. Areas of Special Biological Significance (ASBS). The San Diego Basin Plan currently lists the following Areas of Special Biological Significance [Hydrologic Units (HUs) discharging to each are indicated].
 - o City of Encinitas Marine Life Refuge (HU 904.5)
 - o Batiquitos Lagoon Ecological Reserve (HU 904.5)
 - o Blue Sky Ecological Reserve (HU 905.5)
 - o Buena Vista Ecological Reserve (HU 904.2)
 - o McGinty Mountain Ecological Reserve (HU 909.3)
 - o San Dieguito Lagoon Ecological Reserve (HU 905.1)
 - o San Elijo Ecological Reserve (HU 904.6)
 - o San Mateo Creek Wetland Natural Reserve (HU 901.4)
 - o Los Penasquitos Marsh Natural Preserve (HU 906.1)

- o Tijuana River National Estuarine Research Reserve (HU 911.1)
 - o Sweetwater Marsh National Wildlife Refuge (HU 909.1)
- iii. Water bodies designated with the RARE beneficial use. The RARE beneficial use (Rare, Threatened, or Endangered Species) applies to habitats necessary, at least in part, for the survival and successful maintenance of plant and animals species established under state or federal law as rare, threatened, or endangered. A summary of water bodies within the San Diego Regional Water Quality Control Board jurisdiction that are designated with the RARE beneficial use are provided in Appendix D.
- iv. Multiple Species Conservation Program (MSCP) preserves.
- Permit section F.1.b.(a)vii. specifically references “areas designated as preserves or their equivalent under the Multi[ple] Species Conservation Program [MSCP] within the Cities and County of San Diego.” The MSCP is a cooperative effort between the County and twelve other local jurisdictions and agencies such as the U.S. Fish and Wildlife Service and California Department of Fish and Game. The program addresses the potential impacts of urban growth, natural habitat loss, and species endangerment and creates a plan to mitigate for the future potential loss of covered species and their habitat due to the direct impacts of future development within the MSCP area.
- Areas “equivalent” to MSCP preserves include those designated under the Multiple Habitat Conservation Program (MHCP), a comprehensive habitat conservation planning process that addresses multiple species needs and preservation of native vegetation communities for the cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach and Vista.
- GIS maps of MSCP boundaries can be obtained from the San Diego Association of Governments (SANDAG) at <http://www.sandag.org/>. MHCP boundaries will also be obtainable through SANDAG as they become available.
- v. Any other equivalent environmentally sensitive areas that have been identified by the Copermittee. The existence of other environmentally sensitive areas should also be considered in determining program priorities, but determination of the specific types of areas that are applicable locally should be left to individual Copermittees.
- (2) Map the boundaries of residential inclusion. This consists of circumscribing a line 200 feet outside of the boundaries of the targeted water bodies. Any residences within this line are potentially subject to the requirements of this section. Use of a GIS is recommended to complete this step.

- (3) Characterize the site flow. Regardless of whether a residence is within the circumscribed area, inclusion as high priority is only required if the discharge from the residence (1) enters the targeted receiving water and (2) is entirely from the residence and is not commingled with other flows from surrounding areas or other residences. Depending on the availability of maps, site plans, etc., this determination may require a site visit. However, since site visits can be time and resource intensive, Copermittees may alternatively consider designating all residences within 200 feet of an ESA as high priority.

B. DETERMINATION OF ADDITIONAL PRIORITIES

Although the Permit specifies minimum high priority areas and activities, section F.3.d.(2) further requires that prior to the February 21, 2002 submittal of their jurisdictional URMP, Copermittees must conduct an initial prioritization to determine whether additional high priorities should be established. Since the designation of any category as high priority will necessarily result in the establishment of minimum requirements which must in turn be borne by residents and businesses, it is crucial that this designation be based on a sound and defensible methodology. Additionally, program priorities should be periodically re-evaluated to ensure that resources are appropriately allocated.

This section provides suggested guidance for determining initial program priorities, and whether these priorities should be retained or others added in the future. Over time, monitoring or other data may provide support for the removal of a previously identified pollutant or presently prohibited activity⁹ from the Copermittee's high priority list. Sources of data and information which may be used individually or in combination to identify potential priorities are also described below.

1. Initial Prioritization (prior to submittal of Jurisdictional URMP)

Where possible, Copermittee prioritizations should focus on the identification of impacts, the pollutants of concern causing them, and the establishment of a nexus to residential sources or activities. Copermittees will initially be limited in their ability to establish this nexus since little quantitative data currently exists to substantiate these conclusions. A greater initial reliance on qualitative sources of data and information will therefore be required. Locally collected data and information should generally be given higher priority. However, Copermittees should consider other sources, especially during their initial prioritization when availability will generally be lacking. Applicable data and information can generally be derived from a number of sources including those described below.

(a) Review of monitoring results (including field screening). The Copermittees have conducted a wet weather monitoring program since 1993. Results of this program, as well as individual Copermittee dry weather field screening, may be useful in assessing initial program priorities. Additionally, Copermittees or other parties may have

⁹ Note: The priority ranking of mandated minimum high priority residential activities, areas or sources cannot be changed without a Permit amendment or other authorization from the RWQCB.

collected data within their jurisdictions or watersheds. Assessment of these data may also be useful in identifying potential priorities.

(b) Results of the non-stormwater discharge evaluation (Permit section B.3.)

Permit section B.3. requires that Copermittees evaluate categories of non-stormwater discharges which are currently exempted from the prohibitions of Permit section B.1. Results of this evaluation will provide important information as to whether these discharges may continue to be exempted. Since many of these sources are applicable to residential areas, results will directly support further prioritization efforts by Copermittees.

(c) Review of complaints, violations, and field investigations (Code enforcement, emergency response, etc.). Most Copermittees have responded to stormwater complaints and other types of code compliance issues for many years. Depending on the availability of data, Copermittees may consider evaluating historical trends to identify types of recurring violations or areas where problems occur most frequently. Interviewing field staff can also help to point out problem areas.

(d) Review of other anecdotal information (municipal staff street sweepers, trash collectors, maintenance staff). Many municipal employees spend significant amounts of time outdoors during their daily activities. These people often have extensive knowledge of the types and locations of recurring problems.

(e) Review of surveys. (e.g., outreach surveys conducted, etc.). Some surveys have been conducted to assess existing environmental conditions locally and elsewhere. While local information is preferable, surveys conducted in other areas may be of value in determining initial program priorities. Outreach surveys can also be useful since they provide an indication of the types of behaviors likely to be contributing to pollution problems.

Using these and other sources of data and information that the Copermittee determines are appropriate, an initial preliminary ranking of priorities should be conducted. Establishment of a matrix to compare activity or source categories with available data and information is recommended as a first step. Where possible, Copermittees should attempt to establish quantitative measures and consistent methodologies by which results can be evaluated.

2. Ongoing Prioritization Strategy

Regardless of the methods chosen by the Copermittee for their initial evaluation, program priorities should be reviewed periodically to ensure that they continue to reflect the best available data and information. In conducting these reviews, the following questions should be addressed.

- o Do the results support existing program priorities (continue)?
- o Do the results fail to support existing program priorities (discontinue)?
- o Do the results indicate that other priorities are needed (new listing)?

Based on these results, priorities should be amended as a more complete record is established.

Section V. Best Management Practice (BMP) Requirements and Recommendations

A. OVERVIEW OF BMP REQUIREMENTS

1. Minimum BMP Requirements

Permit sections F.3.d.(3)(a) and (b) require that Copermittees designate and require the implementation of a set of minimum BMPs for high threat to water quality residential areas and activities. This section provides a description of potential BMP options for each minimum high priority category described in section IV of this document. Particular BMPs are not advocated and are not presented here as recommended minimums since their proper application is best determined by jurisdiction in the context of local program priorities. Copermittees must individually determine the specific BMPs they will use to meet their minimum requirements. These should be area or activity specific and must appropriately reflect the priorities determined by the Copermittee pursuant to Permit section F.3.d.(2) and addressed in section IV above.

2. Additional BMPs

If determined by the Copermittee to be necessary to comply with the Permit, additional BMPs must also be implemented, or required to be implemented, for residential areas and activities (1) tributary to Clean Water Act Section 303(d) impaired water bodies, or (2) “within or directly adjacent to coastal lagoons or other receiving waters within environmentally sensitive areas”. It is important to note that for either of these situations, Copermittees may also elect to implement rather than require additional BMPs. The remainder of this section discusses potential BMP options that may be selected for each of the high priority areas previously discussed in section IV. No distinction is made in whether a particular activity would be initiated by the Copermittee or required of residents. Particular implementation strategies should be determined by individual Copermittees. In some instances, either approach might be valid. For instance, the proper disposal of automotive wastes could be required of residents, facilitated through Copermittee programs, or both.

3. Pollution Prevention Requirements

Permit section F.3.d.(1) requires that the use of pollution prevention BMPs by residents be encouraged where appropriate. Pollution prevention is defined as:

“...practices and processes that reduce or eliminate the generation of pollutants, in contrast to source control, treatment, or disposal.”

While the use of pollution prevention in particular instances or situations is not required, the application of these measures must be considered on a programmatic basis. Copermittees must exercise discretion in determining when pollution prevention is appropriate. While the strict requirement of these methods for residential areas may be impractical and unenforceable in many instances, it is recommended that Copermittees encourage their use whenever possible, and that pollution prevention be emphasized during public education.

B. BMPS FOR MINIMUM HIGH PRIORITIES

1. Automobile Repair and Maintenance

Although Copermittees' ordinances already establish discharge prohibitions which apply to automotive activities, the additional establishment of minimum BMPs is necessary to ensure adequate reductions and to meet Permit requirements. In establishing these minimums, Copermittees should make a distinction between residents and professional service providers. A higher standard can and should be expected from professional repair and maintenance service providers working in residential areas (e.g., mobile repair services, etc.) since they must already meet these standards in their workplaces. It may also be necessary to put some residents under permit (business licenses, hazardous materials permits, etc.) if they are determined to be conducting commercial activities.

(a) *Pollution Prevention*

- (1) Encourage residents to use routine preventative maintenance practices.
- (2) Encourage and/or facilitate reductions in vehicle use:
 - o Changes in driving habits
 - o Carpooling
 - o Increased use of public transportation
 - o Biking or walking for short trips
- (3) Encourage residents to make timely vehicle repairs.

(b) *Leaks and Spills*

- (1) Encourage or require residents to prevent leaks and spills from contacting stormwater:
 - o Use drip pans, plastic sheeting, or other materials to contain spills
 - o Work indoors or under shelter
 - o If working outdoors, don't do it in the rain
 - o Require that leaks and spills be cleaned up when they occur
 - o Use absorbent materials to clean up spills
 - o Establish cleanup standards
 - o Require that tools and parts be cleaned only in contained areas

(c) *Materials and Waste Management*

- (1) Require residents to properly manage and dispose of automotive wastes and materials:
 - o Proper and lawful disposal of wastes
 - o Recycling of oil and antifreeze
 - o Storage of materials and wastes indoor or under cover
 - o Use of secure and watertight containers when storing materials and wastes outside

(d) Restrictions on Activity

- (1) Encourage or require residents to use commercial repair and maintenance facilities to avoid the potential for pollution in residential areas.

2. Automobile Washing

The following potential practices should be considered by Copermittees in establishing minimum BMPs for automobile washing:

(a) Pollution Prevention

- (1) Establish limitations or the elimination of detergents and/or other cleaners when washing.
- (2) Encourage or require residents to use preventative practices to keep vehicles clean (park in a garage, under cover, etc.).

(b) Management / Reduction of Wash Water

- (1) Encourage or require residents to use dry cleaning methods to avoid the generation of wash and rinse water.
- (2) Encourage residents to turn off the water when not in use or use a controllable spray nozzle.
- (3) Encourage or require residents to contain, capture, or divert wash water from the conveyance system (berms, etc.).
- (4) Encourage or require residents to wash vehicles over porous surfaces (grass, dirt, etc.).
- (5) Encourage or facilitate the establishment of neighborhood wash areas where wash water and contaminants can be properly managed.

(c) Materials and Waste Management

- (1) Require residents to properly dispose of soapy water or bucket rinse water (sanitary sewer or soak into lawn).
- (2) Encourage or require residents to launder rags and towels or dispose of them in the trash.
- (3) Encourage or require residents to use dry methods to degrease or clean especially dirty parts prior to wet washing and rinsing (e.g., remove grease or brake dust using towels, etc.).

(d) Restrictions on Activity

- (1) Encourage residents to use commercial wash facilities to avoid the potential for pollution in residential neighborhoods.

3. Automobile Parking

BMPs that focus on keeping parked vehicles from leaking (preventive maintenance) or managing the effects of these leaks (parking over porous surfaces) are likely to be the most effective approaches. In some instances, Copermittees may consider establishing restrictions on parking, but this may not often be feasible since a lack of available parking space is an ongoing problem in many areas throughout the County. Copermittees should consider the following options in establishing BMP minimums for automobile parking:

- (1) Encourage or require the proper design and construction of parking areas in residences.
- (2) Establish and enforce design standards for parking areas in residences.
- (3) Encourage or require residents to park over pervious surfaces (over lawns, dirt, etc.).
- (4) Establish parking restrictions either generally or in priority areas (outdoors, near water bodies, etc.).
- (5) Encourage residents to use routine preventative maintenance practices and to make timely vehicle repairs.
- (6) Encourage or require cleaning of parking areas, especially where deposits have accumulated.

4. Home and Garden Care Activities and Product Use

Home and garden care activities are the focus of a number of existing programs such as household hazardous materials and used oil recycling programs. Copermittee programs should augment these existing efforts rather than replace them. In establishing minimum BMPs, Copermittees should consider the objectives of these programs in addition to their Permit requirements.

GARDEN AND YARD CARE

(a) Pollution Prevention

- (1) Encourage the use of safe substitutes and alternative methods for garden use:
 - o Teach and encourage integrated pest management techniques
 - o Recommend the use of native plants and drought tolerant species to reduce water use and greenery waste produced
 - o Encourage planting techniques to attract beneficial insects
 - o Encourage the use of biological controls

- o Encourage composting, vermiculture and yard waste recycling
- (2) Recommend and encourage practical purchasing practices for pesticides and fertilizers:
 - o Encourage residents to identify “pests” before attempting to eliminate them
 - o Encourage residents to always read label instructions and follow the instructions for garden care products
- (3) Encourage water conservation practices:
 - o Encourage the use of xeriscape gardening
 - o Encourage the use of drip irrigation
 - o Encourage the use of soaker hoses
 - o Encourage the use of micro-spray systems
 - o Encourage the repair or adjustment of irrigation that allows excessive runoff
- (4) Encourage planting or mulching of hillsides and slopes to prevent erosion.

(b) Leaks and Spills

- (1) Recommend immediate cleanup of spills of gardening chemicals, fertilizers, and soils.
- (2) Encourage residents to return spilled materials to the container for future use or proper disposal.

(c) Materials and Waste Management

- (1) Encourage the storage of lawn care products in closed labeled containers and in covered areas.
- (2) Discourage the use of materials during windy or rainy days.
- (3) Encourage or require stockpiles of soil, compost, or fertilizers be covered with plastic tarps to prevent dispersal by wind or rain.
- (4) Require disposal of household chemicals to household hazardous waste collection facilities or scheduled events.
- (5) Encourage or require dry sweeping techniques for clean up.
- (6) Encourage recycling of lawn clippings and greenery waste through local programs.

(d) Restrictions on Activities

- (1) Restrict hosing of paved surfaces to the street or gutter.

- (2) Prohibit disposal of hazardous waste to the trash, landfill or storm drain.

HOME CARE AND MAINTENANCE

(a) Pollution Prevention

- (1) Encourage purchasing practices that reduce waste.
- (2) Encourage the use of safe substitutes for home cleaning and maintenance.
- (3) Recommend product use only according to label instructions.
- (4) Encourage the use of water based paints when possible.

(b) Leaks and Spills

- (1) Require the cleanup of hazardous materials spills immediately.
- (2) Encourage or require the use of techniques for spill cleanup and proper waste disposal.

(c) Materials and Waste Management

- (1) Encourage storage of household hazardous materials in closed labeled containers in a covered area.
- (2) Encourage recycling of latex paint through community programs.
- (3) Encourage the disposal of unwanted household hazardous waste through household hazardous waste collection facilities.
- (4) Encourage recycling of unused, unwanted products.
- (5) Encourage recycling of unwanted appliances and household equipment.

(d) Restrictions

- (1) Restrict the disposal of wash waters (carpet cleaning, mop water, paint wash-up) from disposal to the street, gutter or storm drain.

5. Disposal of Pet Waste

Public awareness about the urban runoff problems associated with pet waste has increased greatly over the past few years. Many Copermittees already have ordinances in place that require pet owners to clean up and properly dispose of pet waste. Copermittees may therefore wish to initially focus their efforts on enforcement of these ordinances. Several other options may be pursued by Copermittees either individually or in combination with this approach.

(a) Pollution Prevention

- (1) Encourage or facilitate the use of spay / neuter programs to reduce feral dog and cat populations.
- (2) Establish limits on the numbers of pets allowed in residential neighborhoods.

(b) Waste Management / Disposal

- (1) Encourage or require that pet owners clean up after their pets when walking them in public places.
- (2) Encourage or require residents to clean up feces from their yards if pets are allowed to defecate outside.
- (3) Require the proper disposal of pet feces (toilet or trash).

(c) Pet Management (Dogs and Cats)

- (1) Prohibit residents from allowing their pets to run free in residential neighborhoods.

(d) Manure Management (Horses and Other Large Animals)

- (1) Encourage or require the proper management of manure (including the preparation of manure management plans when appropriate).
- (2) Encourage or require the composting of manure.

C. OTHER PRIORITY ACTIVITIES, SOURCES, AND RESIDENCES

Copermittees must determine whether there is a need for to establish additional BMP requirements based on the results of their assessments of program priorities (section III.B. above). Selection of additional BMP requirements should be conducted in a manner consistent with the guidance provided elsewhere in this document.

Section VI. Program Effectiveness

Assessing the performance of Copermittee program elements and the specific BMPs that comprise them is crucial to the successful implementation of a comprehensive receiving water pollution reduction program. This concept is addressed in Permit Section F.7.a., which requires that each Copermittee develop a long-term strategy for assessing the effectiveness of its individual Jurisdictional URMP. The effectiveness of each of the Copermittee's individual program elements, including the Existing Residential Areas Element, must accordingly be measured, assessed, and reported as part of each Jurisdictional URMP Annual Report. Permit Section J.2.i., further requires that Copermittees collaboratively develop measures for, and track the long-term effectiveness of, the Watershed URMPs in which they participate.

The effectiveness of BMPs whether considered individually or collectively is ultimately measured over time by changes in the pollutant levels found in downstream receiving waters. Information collected through the Copermittees' wet and dry weather monitoring programs will be useful in identifying trends and assessing the effectiveness of their programs. However, Copermittees will likely not be able to rely on this data to assess the effectiveness of individual program elements or BMPs that comprise their overall program. The basis for measuring the overall effectiveness of Copermittee programs must therefore be a collective assessment of the effectiveness of the BMPs implemented within that program. As such, specific measures should be developed and tracked at both the programmatic and specific BMP level. A suite of measures which allows for assessment on a variety of levels and time frames should therefore be developed. These measures are generally divided into two types, direct and indirect.

Whether using direct or indirect measures of effectiveness, baseline conditions must be defined. All future comparisons showing improvements will be made relative to these baseline conditions. In addition, the largest incremental improvements in receiving water quality are often realized at the beginning of an implementation program. In the absence of a well-defined baseline, these improvements cannot be adequately measured.

A. DIRECT MEASURES

Direct measures are those that focus on characterizing the quality of water bodies receiving discharges from Copermittee MS4s or on assessing other parameters with an immediate or well-established nexus to changes in the quality of those waters. Examples of direct measurement include receiving waters monitoring, estimation of pollutant loadings from specified areas (catchments, municipalities, watersheds, etc.), and focused evaluations of structural BMPs. Direct measures generally include actual measurement or quantification of pollutants (e.g., reductions in concentrations of chemicals of concern, etc.) or of the amount of materials extracted or diverted by a BMP (e.g, through household hazardous waste collection, etc.). Direct measures can generally be described according to the following categories:

1. Water Quality Measurement

The direct measurement of water quality, both with respect to receiving waters and discharges from Copermittee MS4s, is addressed through the Copermittees' Receiving Waters Monitoring Program (Permit Attachment B) and Dry Weather Analytical and Field

Screening Monitoring Program (Permit Attachment E). Results of these programs, as well as other relevant data collected by Copermittees or other parties, should be integrated into effectiveness assessment strategies. Permit Section F.7.a. requires that the role of monitoring data in substantiating or refining the Copermittees' Jurisdictional URMP Effectiveness Component be addressed.

2. Waste Diversion (Non-Structural BMPs)

A number of program activities focus on removing or diverting pollutants or materials that might otherwise be introduced to receiving waters via the Copermittee's MS4. Examples include household hazardous waste collection, used oil recycling, street sweeping, and conveyance facility cleaning. Such activities can be directly assessed by estimating or quantifying the contents of wastes collected, but, to be meaningful, evaluations should also consider the level of activity expended or other factors which may be relevant to the interpretation of results. For example, rather than quantifying only the amount of material collected through street sweeping, Copermittees should also report the amount per mile swept, the amount of staff hours spent on the activity, and any other quantifiable measure of effort.

3. Pollutant Reduction / Removal (Structural BMPs)

Copermittees may employ or require the use of a variety of structural controls (e.g., detention ponds, storm drain filters, etc.) to minimize or reduce the concentration of pollutants in discharges to their MS4. Evaluating structural controls may require the collection and analysis of materials collected or diverted from an MS4. For example, a direct measurement technique to assess the performance of a structural treatment BMP such as a detention pond downstream of a construction site would be the collection and analysis of samples for pollutants of concern. Given the expense of collecting and analyzing water samples, most Copermittees will not have sufficient resources to directly measure the performance of all BMPs that are employed. Copermittees should therefore endeavor to develop statistically valid sampling protocols that will provide representative data for each of the BMP types (e.g. retention ponds) that they utilize. In some instances, photographs may also be valuable in documenting the functionality of structural source control BMPs (e.g. slope stabilization BMPs installed at a construction site).

B. INDIRECT MEASURES

Because direct measures can be difficult and expensive to obtain, and because they often require long periods of time to fully assess, a variety of indirect measures are generally used to evaluate stormwater program effectiveness. Indirect measures are based on the assumption that the use of specific program activities is effective in decreasing stormwater pollution, and therefore in protecting water quality. They are typically used to assess the performance of non-structural source control BMPs such as storm drain stenciling and public education programs. As above, tracking the level of effort expended during BMP implementation may often be required. Level of effort can be measured by quantifying the hours spent on a pollution prevention activity, the number of employees trained, the number of times a maintenance activity is conducted or other similar measures.

Indirect measures typically focus on degrees of implementation or comparison to standards or goals rather than actual water quality assessment or measures of pollutant loading. By measuring the degree or success of implementation of BMPs, it may therefore be possible to make inferences about water quality benefits. Indirect measures should be pursued in combination with more broadly focused direct measures to allow Copermittees to prioritize limited resources, conduct meaningful assessments on intermediate time frames, and focus their efforts on particular BMPs and program elements.

Appendices

Appendix A. Stormwater Permit Excerpts Relating to Existing Residential Areas

F.3.d. Residential (Existing Development)

Each Copermittee shall implement a Residential (Existing Development) Component to prevent or reduce pollutants in runoff from all residential land use areas and activities. At a minimum the residential component shall address:

- F.3.d.(1) Pollution Prevention
- F.3.d.(2) Threat to Water Quality Prioritization
- F.3.d.(3) BMP Implementation
- F.3.d.(4) Enforcement of Residential Areas and Activities

F.3.d.(1) Pollution Prevention (Residential)

Each Copermittee shall include pollution prevention methods in its Residential (Existing Development) Component and shall encourage their use by residents, where appropriate.

F.3.d.(2) Threat to Water Quality Prioritization (Residential)

Each Copermittee shall identify high priority residential areas and activities. At a minimum, these shall include:

- Automobile repair and maintenance;
- Automobile washing;
- Automobile parking;
- Home and garden care activities and product use (pesticides, herbicides, and fertilizers);
- Disposal of household hazardous waste (e.g., paints, cleaning products);
- Disposal of pet waste;
- Disposal of green waste;
- Any other residential source that the Copermittee determines may contribute a significant pollutant load to the MS4;
- Any residence tributary to a Clean Water Act section 303(d) impaired water body, where the residence generates pollutants for which the water body is impaired; and
- Any residence within or directly adjacent to or discharging directly to a coastal lagoon or other receiving waters within an environmentally sensitive area (as defined in F.1.b.(2)(a)vii of this Order).

F.3.d.(3) BMP Implementation (Residential)

- (a) Each Copermittee shall designate a set of minimum BMPs for high threat to water quality residential areas and activities (as required under section F.3.d.(2)). The designated minimum BMPs for high threat to water quality municipal areas and activities shall be area or activity specific.
- (b) Each Copermittee shall require implementation of the designated minimum BMPs for high threat to water quality residential areas and activities. If particular minimum BMPs are infeasible for any specific site/source, each Copermittee shall require implementation of other equivalent BMPs. Each Copermittee shall also implement, or require implementation of, any additional BMPs as are necessary to comply with this Order.

Appendix A. Stormwater Permit Excerpts (continued)

- (c) Each Copermittee shall implement, or require implementation of, any additional controls for residential areas and activities tributary to Clean Water Act Section 303(d) impaired water bodies (where a residential area or activity generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for residential areas within or directly adjacent to or discharging directly to coastal lagoons or other receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)(vii) of this Order) as necessary to comply with this Order.

F.3.d.(4) Enforcement of Residential Areas and Activities (Residential)

Each Copermittee shall enforce its storm water ordinance for all residential areas and activities as necessary to maintain compliance with this Order.

F.4. Education Component

Each Copermittee shall implement an Education Component using all media as appropriate to (1) measurably increase the knowledge of the target communities regarding MS4s, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience; and (2) measurably change the behavior of target communities and thereby reduce pollutant releases to MS4s and the environment. At a minimum the education component shall address the following target communities:

- Municipal Departments and Personnel
- Construction Site Owners and Developers
- Industrial Owners and Operators
- Commercial Owners and Operators
- Residential Community, General Public, and School Children
- Quasi-Governmental Agencies/Districts (i.e., educational institutions, water districts, sanitation districts, etc.)

F.4.a. All Target Communities

At a minimum the Education Program for each target audience shall contain information on the following topics where applicable:

- State and Federal water quality laws
- Requirements of local municipal permits and ordinances (e.g., storm water and grading ordinances and permits)
- Impacts of urban runoff on receiving waters
- Watershed concepts (i.e., stewardship, connection between inland activities and coastal problems, etc.)
- Distinction between MS4s and sanitary sewers
- Importance of good housekeeping (e.g., sweeping impervious surfaces instead of hosing)
- Pollution prevention and safe alternatives
 - Household hazardous waste collection
- Recycling
- BMPs: Site specific, structural and source control
- BMP maintenance
- Non-storm water disposal alternatives (e.g., all wash waters)
- Pet and animal waste disposal
- Proper solid waste disposal (e.g., garbage, tires, appliances, furniture, vehicles)

Appendix A. Stormwater Permit Excerpts (continued)

- Equipment and vehicle maintenance and repair
 - Public reporting mechanisms
 - Green waste disposal
 - Integrated pest management
 - Native vegetation
 - Proper disposal of boat and recreational vehicle waste
 - Traffic reduction, alternative fuel use
 - Water conservation
-

F.4.c. Residential, General Public, School Children Communities

In addition to the topics listed in F.4.a. above, the Residential, General Public, and School Children Communities shall be educated on the following topics where applicable:

- Public reporting information resources
 - Residential and charity car-washing
 - Community activities (e.g., “Adopt a Storm Drain, Watershed, or Highway” Programs, citizen monitoring, creek/beach cleanups, environmental protection organization activities, etc.)
-

F.5. Illicit Discharge Detection and Elimination Component

F.5.a. Illicit Discharges and Connections

Each Copermittee shall implement a program to actively seek and eliminate illicit discharges and connections into its MS4. The program shall address all types of illicit discharges and connections excluding those non-storm water discharges not prohibited by the Copermittee in accordance with Section B of this Order.

F.5.b. Dry Weather Analytical Monitoring

Each Copermittee shall conduct dry weather analytical monitoring of MS4 outfalls within its jurisdiction to detect illicit discharges and connections in accordance with Attachment E of this Order.

F.5.c. Investigation / Inspection and FollowUp

Each Copermittee shall investigate and inspect any portion of the MS4 that, based on dry weather analytical monitoring results or other appropriate information, indicates a reasonable potential for illicit discharges, illicit connections, or other sources of non-storm water (including non-prohibited discharge(s) identified in Section B. of this Order). Each Copermittee shall establish criteria to identify portions of the system where such follow-up investigations are appropriate.

F.5.d. Elimination of Illicit Discharges and Connections

Each Copermittee shall eliminate all detected illicit discharges, discharge sources, and connections immediately.

F.5.e. Enforce Ordinances

Each Copermittee shall implement and enforce its ordinances, orders, or other legal authority

Appendix A. Stormwater Permit Excerpts (continued)

to prevent illicit discharges and connections to its MS4. Each Copermittee shall also implement and enforce its ordinances, orders, or other legal authority to eliminate detected illicit discharges and connections to its MS4.

F.5.f. Prevent and Respond to Sewage Spills (Including from Private Laterals and Failing Septic Systems) and Other Spills

Each Copermittee shall prevent, respond to, contain and clean up all sewage and other spills that may discharge into its MS4 from any source (including private laterals and failing septic systems). Spill response teams shall prevent entry of spills into the MS4 and contamination of surface water, ground water and soil to the maximum extent practicable. Each Copermittee shall coordinate spill prevention, containment and response activities throughout all appropriate departments, programs and agencies to ensure maximum water quality protection at all times.

Each Copermittee shall develop and implement a mechanism whereby it is notified of all sewage spills from private laterals and failing septic systems into its MS4. Each Copermittee shall prevent, respond to, contain and clean up sewage from any such notification.

F.5.g. Facilitate Public Reporting of Illicit Discharges and Connections - - Public Hotline

Each Copermittee shall promote, publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s. Each Copermittee shall facilitate public reporting through development and operation of a public hotline. Public hotlines can be Copermittee-specific or shared by Copermittees. All storm water hotlines shall be capable of receiving reports in both English and Spanish 24 hours per day / seven days per week. Copermittees shall respond to and resolve each reported incident. All reported incidents, and how each was resolved, shall be summarized in each Copermittee's individual Jurisdictional URMP Annual Report.

F.5.h. Facilitate Disposal of Used Oil and Toxic Materials

Each Copermittee shall facilitate the proper management and disposal of used oil, toxic materials, and other household hazardous wastes. Such facilitation shall include educational activities, public information activities, and establishment of collection sites operated by the Copermittee or a private entity. Curbside collection of household hazardous wastes is encouraged.

[section F.5.i not included]

F.6. Public Participation Component

Each Copermittee shall incorporate a mechanism for public participation in the implementation of the Jurisdictional URMP.

H. SUBMITTAL OF JURISDICTIONAL URMP DOCUMENT

The written account of the overall program to be conducted by each Copermittee within its jurisdiction during the five-year life of this Order is referred to as the "Jurisdictional URMP Document".

1. Individual – Each Copermittee shall submit to the Principal Permittee(s) an individual Jurisdictional URMP document which describes all activities it has undertaken or is

Appendix A. Stormwater Permit Excerpts (continued)

undertaking to implement the requirements of each component of the Jurisdictional URMP section F. of this Order.

- a. At a minimum, the individual Jurisdictional URMP document shall contain the following information for the following components:

[sections H.1.a.(1) through (4) not included]

- (5) Residential (Existing Development) Component

- (a) Which pollution prevention methods will be encouraged for implementation, and how and where they will be encouraged
 - (b) A completed inventory of high priority residential areas and activities
 - (c) Which BMPs will be implemented, or required to be implemented, for high priority areas and activities
 - (d) How BMPs will be implemented, or required to be implemented, for high priority areas and activities
 - (e) A description of enforcement mechanisms and how they will be used
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Appendix B. State-Certified Used Oil Collection Facilities in San Diego County

Source: California Solid Waste Integrated Management Board (8-01)
www.ciwmb.ca.gov/UsedOil/CCResults.asp

CHULA VISTA

Allen Gas and Truck Stop
3205 Main St.
Chula Vista, CA 91911
(619)585-3058
CIWMB#: 37-C-05446

AutoZone #2810
1315 Third Ave
Chula Vista, CA 91911
(619)425-8112
CIWMB#: 37-C-04392

AutoZone #2817
225 Broadway
Chula Vista, CA 91910
(619)425-6658
CIWMB#: 37-C-04393

AutoZone #5644
885 E H St Ste E
Chula Vista, CA 91910
(619)421-8477
CIWMB#: 37-C-04723

Bonita Point 76
1495 E H St
Chula Vista, CA 91910
(619)421-7600
CIWMB#: 37-C-01593

C & V Automotive
1131 Broadway
Chula Vista, CA 91911
(619)420-2171
CIWMB#: 37-C-05069

California Smog Check Center
425 C St.
Chula Vista, CA 91910
(619)585-8005
CIWMB#: 37-C-05468

Ecology Auto Wrecking
800 Energy Way
Chula Vista, CA 91911
(619)421-1161
CIWMB#: 37-C-05311

Ecology Auto Wrecking
825 Energy Way
Chula Vista, CA 91911
(619)529-8907
CIWMB#: 37-C-05312

Econo Lube N' Tune #165
3008 N. Second Ave.
Chula Vista, CA 91910
(949)364-5833
CIWMB#: 37-C-05239

Firestone Store #2243
830 Broadway
Chula Vista, CA 91911
(619)425-1515
CIWMB#: 37-C-01207

Fritz Garage
590 Arizona St # A
Chula Vista, CA 91911
(619)422-2949
CIWMB#: 37-C-03925

German Works
1409 Broadway Ste 101
Chula Vista, CA 91911
(619)425-2626
CIWMB#: 37-C-03886

J & L Auto Repair
273 Broadway
Chula Vista, CA 91910
(619)585-3119
CIWMB#: 37-C-04272

Jiffy Lube
593 E St.
Chula Vista, CA 91910
(619)476-0202
CIWMB#: 37-C-05611

Kragen Auto Parts #1153
241 Broadway Ave
Chula Vista, CA 91910
(619)426-2461
CIWMB#: 37-C-02814

Kragen Auto Parts #1486
1396 3rd Ave
Chula Vista, CA 91911
(619)427-2747
CIWMB#: 37-C-04568

Melrose 76
1495 Melrose Ave
Chula Vista, CA 91911
(619)427-8362
CIWMB#: 37-C-05073

Mike's Auto Repair & Smog Center

300 E Street
Chula Vista, CA 91910
(619)422-3498
CIWMB#: 37-C-05507

Octavio's Auto Specialists

3384 Main St.
Chula Vista, CA 91911
(619)426-5159
CIWMB#: 37-C-05444

One Stop Auto Electric

2827 Main Street
Chula Vista, CA 91911
(619)420-6201
CIWMB#: 37-C-05732

Pep Boys #651

454 Broadway
Chula Vista, CA 91910
(619)426-2444
CIWMB#: 37-C-03414

Pep Boys #872

1025 Tierra Del Rey
Chula Vista, CA 91910
(619)216-4604
CIWMB#: 37-C-05057

Pep Boys #989

1142 Broadway St
Chula Vista, CA 91911
(619)426-2133
CIWMB#: 37-C-03931

Pick Your Part

880 Energy Way
Chula Vista, CA 91911
(619)482-3770
CIWMB#: 37-C-03657

Tom Kurt's Automotive

1421 Broadway Cir suite 107
Chula Vista, CA 91911
(619)426-2626
CIWMB#: 37-C-05505

Valvoline Instant Oil Change

1556 E H St
Chula Vista, CA 91913
(619)273-8539
CIWMB#: 37-C-03686

Valvoline Instant Oil Change

899 E H St, #B
Chula Vista, CA 91910
(858)273-8539
CIWMB#: 37-C-05385

CARLSBAD

Firestone Store #2252

2545 El Camino Real
Carlsbad, CA 92008
(760)434-8392
CIWMB#: 37-C-01199

Jiffy Lube #1621

6021 Paseo Del Norte
Carlsbad, CA 92009
(760)431-9875
CIWMB#: 37-C-02977

Ken Grody GMC Pontiac

5445 Paseo Del Norte
Carlsbad, CA 92008
(760)438-1021
CIWMB#: 37-C-05563

CORONADO

Crown Auto & Towing Service

140 C Ave
Coronado, CA 92118
(619)435-1240
CIWMB#: 37-C-04982

EL CAJON

AutoZone #5646

1795 E Main St
El Cajon, CA 92021
(619)442-0471
CIWMB#: 37-C-04742

EZ Lube Inc - El Cajon

2658 Jamacha Rd
El Cajon, CA 92019
(619)660-7732
CIWMB#: 37-C-04114

JSA - Jeff Shekell's Auto

1222 N. Magnolia Ave.
El Cajon, CA 92020
(619)593-3777
CIWMB#: 37-C-05568

Kragen Auto Parts #1270

485 Broadway
El Cajon, CA 92021
(619)447-7431
CIWMB#: 37-C-02616

Pep Boys #813

201 Jamacha Rd
El Cajon, CA 92019
(619)590-0084
CIWMB#: 37-C-03442

AutoZone #5647

1103 Broadway
El Cajon, CA 92021
(619)579-5992
CIWMB#: 37-C-04743

Firestone Store #2254

435 N 2nd St
El Cajon, CA 92021
(619)440-2626
CIWMB#: 37-C-01197

K.B. Smog and Automotive

210 W Bradley Ste F
El Cajon, CA 92020
(619)562-7087
CIWMB#: 37-C-01422

Los Coches Mobil

8445 Los Coches Rd
El Cajon, CA 92021
(619)443-8888
CIWMB#: 37-C-04279

Satkowiak Lubes, Inc. dba Texaco Xpress Lube

1621 N Magnolia Ave
El Cajon, CA 92020
(760)941-4004
CIWMB#: 37-C-05194

Crest Auto Repair

128 La Cresta Rd
El Cajon, CA 92021
(619)588-8703
CIWMB#: 37-C-05065

Jiffy Lube #495

539 N 2nd St
El Cajon, CA 92021
(619)441-0110
CIWMB#: 37-C-04250

Kragen Auto Parts #1173

101 S Mollison
El Cajon, CA 92020
(619)579-3267
CIWMB#: 37-C-02606

Oil Changer #503

906 Fletcher Pkwy
El Cajon, CA 92020
(619)442-3900
CIWMB#: 37-C-00729

Universal Refuse & Recycling

1001 W Bradley Ave
El Cajon, CA 92020
(619)596-5123
CIWMB#: 37-C-03200

Valvoline Instant Oil Change

610 N 2nd St
El Cajon, CA 92021
(619)447-2844
CIWMB#: 37-C-00806

ENCINITAS

AutoZone #5657

120 Leucadia Blvd
Encinitas, CA 92024
(760)942-2662
CIWMB#: 37-C-04748

Charlie's Foreign Car

751 Second Street
Encinitas, CA 92024
(760)753-4969
CIWMB#: 37-C-05347

Encinitas Foreign and Domestic Auto Repair

901 2nd St
Encinitas, CA 92024
(760)632-0830
CIWMB#: 37-C-01056

Herman Cook Volkswagen Inc

1435 Encinitas Blvd
Encinitas, CA 92024
(760)753-6256
CIWMB#: 37-C-01334

Jiffy Lube #1764

221 N El Camino Real
Encinitas, CA 92024
(760)632-1155
CIWMB#: 37-C-03510

Kragen Auto Parts #1686

180 N El Camino Real
Encinitas, CA 92024
(760)753-4911
CIWMB#: 37-C-02611

Pep Boys #701

256 N El Camino Real
Encinitas, CA 92024
(760)944-7007
CIWMB#: 37-C-03428

Valvoline Instant Oil Change

127 S El Camino Real
Encinitas, CA 92024
(760)943-1517
CIWMB#: 37-C-02709

ESCONDIDO

AutoZone #5649

642 N Escondido Blvd
Escondido, CA 92025
(760)747-4840
CIWMB#: 37-C-00822

AutoZone #5650

2365 Vly Pkwy
Escondido, CA 92027
(760)745-9401
CIWMB#: 37-C-00823

AutoZone #5651

440 W Felicita #101-104
Escondido, CA 92025
(760)781-3177
CIWMB#: 37-C-04749

Econo Lube N' Tune #257

1122 W. Valley Pkwy
Escondido, CA 92025
(949)364-5833
CIWMB#: 37-C-05240

Econo Lube N' Tune #42

1988 E. Valley Pkwy
Escondido, CA 92027
(949)364-5833
CIWMB#: 37-C-05241

Grease Monkey

649 N Broadway
Escondido, CA 92025
(909)351-0604
CIWMB#: 37-C-04227

Jiffy Lube #415
314 W El Norte Pkwy
Escondido, CA 92026
(760)743-7766
CIWMB#: 37-C-04143

Kragen Auto Parts #0420
2401 E Vly Pkwy St
Escondido, CA 92027
(760)746-6593
CIWMB#: 37-C-02550

Kragen Auto Parts #1340
840 W Mission Ave
Escondido, CA 92025
(760)746-6762
CIWMB#: 37-C-02621

Kragen Auto Parts #1379
910 E Vly Pkwy
Escondido, CA 92025
(760)747-7040
CIWMB#: 37-C-02565

**Lake Wohlford Used Oil
Collection Center**
25453 Lake Wohlford Rd
Escondido, CA 92027
(760)839-4346
CIWMB#: 37-C-04009

Pep Boys #664
855 W Mission Ave
Escondido, CA 92025
(760)741-8426
CIWMB#: 37-C-03418

The Honest Mechanic Inc.
715 W. Mission Ave.
Escondido, CA 92025
(760)980-9831
CIWMB#: 37-C-05166

USA Lube & Auto Care #5
515 W Mission Ave
Escondido, CA 92025
(760)747-2378
CIWMB#: 37-C-05220

**Valvoline Instant Oil
Change**
2109 E Vly Pkwy
Escondido, CA 92027
(760)741-1236
CIWMB#: 37-C-00803

Valvoline Instant Oil Change
645 W Mission Ave
Escondido, CA 92025
(760)740-0899
CIWMB#: 37-C-00808

IMPERIAL BEACH

Gene's 76 Service
1085 Palm Ave
Imperial Beach, CA 91932
(619)423-6568
CIWMB#: 37-C-01771

Kragen Auto Parts #0536
1220 Palm Ave
Imperial Beach, CA 91932
(619)429-1303
CIWMB#: 37-C-02567

**Precision Foreign Car
Service**
1240 Palm Ave
Imperial Beach, CA 92032
(619)575-1767
CIWMB#: 37-C-05591

LA MESA

Aqua Clean Express Oil Change
7959 Parkway Dr
La Mesa, CA 91941
(619)698-6775
CIWMB#: 37-C-04062

AutoZone #2809
7791 El Cajon Blvd
La Mesa, CA 91941
(619)697-3275
CIWMB#: 37-C-04406

Big O Tire #5589
7589 El Cajon Blvd.
La Mesa, CA 91941
(949)443-4155
CIWMB#: 37-C-04011

Center City Shell Services

3810 Massachusetts Ave
 La Mesa, CA 91941
 (619)460-9194
 CIWMB#: 37-C-04108

EDCO Station

8184 Commercial St
 La Mesa, CA 91942
 (619)466-3355
 CIWMB#: 37-C-04670

Firestone Store #2244

5577 Lake Murray Blvd
 La Mesa, CA 91942
 (619)462-3280
 CIWMB#: 37-C-01209

Firestone Store #22W3

8784 Grossmont Blvd
 La Mesa, CA 91941
 (619)698-3940
 CIWMB#: 37-C-03696

Jiffy Lube #831

5540 Lake Murray Blvd
 La Mesa, CA 91942
 (619)698-9220
 CIWMB#: 37-C-04253

Kragen Auto Parts #0789

5350 Jackson Dr
 La Mesa, CA 91942
 (619)698-4391
 CIWMB#: 37-C-02635

Valvoline Instant Oil Change

7981 El Cajon Blvd
 La Mesa, CA 91941
 (619)668-0988
 CIWMB#: 37-C-00802

Z-Whizz Complete Auto Repair

7473 El Cajon Blvd
 La Mesa, CA 91941
 (619)589-5104
 CIWMB#: 37-C-02177

LEMON GROVE**AutoZone #5656**

7582 Broadway Blvd
 Lemon Grove, CA 91945
 (619)697-7711
 CIWMB#: 37-C-02717

EDCO Recycling

6700 Federal Blvd
 Lemon Grove, CA 91945
 (619)287-7555
 CIWMB#: 37-C-04684

Kragen Auto Parts #0713

6925 Federal Blvd
 Lemon Grove, CA 91945
 (619)697-2467
 CIWMB#: 37-C-02619

Rapid Oil Change

6945 Federal Blvd.
 Lemon Grove, CA 91945
 (619)668-1396
 CIWMB#: 37-C-05473

NATIONAL CITY**AutoZone #5658**

1539 Highland Ave
 National City, CA 91950
 (619)474-5196
 CIWMB#: 37-C-04840

AutoZone #5659

2500 E Plaza Blvd
 National City, CA 91950
 (619)475-9900
 CIWMB#: 37-C-04841

Firestone Store #2241

2531 Plaza Blvd
 National City, CA 91950
 (619)475-6171
 CIWMB#: 37-C-01205

Firestone Store #2245
943 Highland Ave
National City, CA 91950
(619)477-2109
CIWMB#: 37-C-01208

Frank Hyundai
3150 National City Blvd
National City, CA 91950
(619)474-5502
CIWMB#: 37-C-01639

Frank Toyota
2400 National City Blvd
National City, CA 91950
(619)474-5573
CIWMB#: 37-C-01638

Kragen Auto Parts #1722
1202 E Plaza Blvd
National City, CA 91950
(619)474-3312
CIWMB#: 37-C-02560

**McCune Chrysler Plymouth
Jeep Eagle**
2340 National City Blvd.
National City, CA 91950
(619)474-1557
CIWMB#: 37-C-05237

Webster Auto Group
2601 National City Blvd.
National City, CA 91950
(619)474-6633(220)
CIWMB#: 37-C-05447

OCEANSIDE

AutoZone #5660
3975 Mission Blvd
Oceanside, CA 92054
(760)967-7395
CIWMB#: 37-C-04850

Ecology Auto Parts
1030 Airport Rd.
Oceanside, CA 92054
(562)921-9974(3370)
CIWMB#: 37-C-05559

Econo Lube N' Tune # 50
1942 South Coast Highway
Oceanside, CA 92054
(760)757-4000
CIWMB#: 37-C-05246

Econo Lube N' Tune #68
3844 Plaza Dr
Oceanside, CA 92056
(760)945-1105
CIWMB#: 37-C-03731

Jiffy Lube #1278
1970 Oceanside Blvd. Suite D
Oceanside, CA 92054
(760)439-5050
CIWMB#: 37-C-05100

Kragen Auto Parts #0331
502 Oceanside Blvd
Oceanside, CA 92054
(760)722-1878
CIWMB#: 37-C-02534

Kragen Auto Parts #0794
3840 Plaza Dr
Oceanside, CA 92056
(760)940-1808
CIWMB#: 37-C-02662

Kragen Auto Parts #1329
3661 W Mission Ave
Oceanside, CA 92054
(760)439-3101
CIWMB#: 37-C-02571

Pep Boys #667
2041 Mission Ave
Oceanside, CA 92054
(760)721-1608
CIWMB#: 37-C-03419

Pep Boys #742
3752 Plaza Dr
Oceanside, CA 92056
(760)724-2726
CIWMB#: 37-C-03432

POWAY**AutoZone #5664**

13397 Poway Rd
Poway, CA 92064
(619)748-8564
CIWMB#: 37-C-00481

Jiffy Lube #1656

13409 Poway Rd
Poway, CA 92064
(858)513-1877
CIWMB#: 37-C-04252

Kragen Auto Parts #0538

13272 Poway Rd
Poway, CA 92064
(619)748-2352
CIWMB#: 37-C-02568

Oil Changer #604

12459 Poway Rd
Poway, CA 92064
(619)486-4208
CIWMB#: 37-C-00734

Precision Tune Auto Care

13867 Poway Rd
Poway, CA 92064
(858)486-4444
CIWMB#: 37-C-05020

Richardson Pontiac-Buick-GMC Inc

13811 Poway Rd
Poway, CA 92064
(619)679-6900
CIWMB#: 37-C-03900

SAN DIEGO**Aiwa Auto Repair Inc**

3150 Fairmount Ave
San Diego, CA 92105
(619)528-1770
CIWMB#: 37-C-04057

AutoZone #2808

1344 Palm Ave
San Diego, CA 92154
(619)575-7337
CIWMB#: 37-C-04418

AutoZone #2853

6402 El Cajon Blvd
San Diego, CA 92115
(619)286-9935
CIWMB#: 37-C-04419

AutoZone #5231

1304 S 43rd
San Diego, CA 92113
(619)263-9338
CIWMB#: 37-C-04608

AutoZone #5665

1950 Cable St
San Diego, CA 92107
(619)223-2397
CIWMB#: 37-C-00478

AutoZone #5667

6085 Balboa Ave
San Diego, CA 92111
(858)279-8778
CIWMB#: 37-C-00474

AutoZone #5668

4005 30th St
San Diego, CA 92104
(619)281-5576
CIWMB#: 37-C-00473

AutoZone #5669

5006 El Cajon Blvd
San Diego, CA 92115
(619)287-2702
CIWMB#: 37-C-00475

AutoZone #5671

5073 Federal Blvd
San Diego, CA 92102
(619)527-4101
CIWMB#: 37-C-00477

AutoZone #5672

2211 Imperial
San Diego, CA 92102
(619)702-9461
CIWMB#: 37-C-04034

AutoZone #5673

3842 University
San Diego, CA 92105
(619)283-5574
CIWMB#: 37-C-04032

AutoZone #5674

2865 National Ave
San Diego, CA 92113
(619)232-2393
CIWMB#: 37-C-04031

AutoZone #5675

3860 Convoy St
 San Diego, CA 92111
 (858)573-8623
 CIWMB#: 37-C-04033

AutoZone #5886

3321 Palm Ave
 San Diego, CA 92154
 (619)575-2258
 CIWMB#: 37-C-00479

Big O Tires Convoy

4183 Convoy St
 San Diego, CA 92111
 (858)278-7611
 CIWMB#: 37-C-03598

Cosby Oil Co / San Diego

6220 Fairmount Ave
 San Diego, CA 92120
 (619)280-6884
 CIWMB#: 37-C-03180

Ecology Auto Wrecking

1180 Heritage Rd.
 San Diego, CA 92154
 (619)661-4538
 CIWMB#: 37-C-05313

Econo Lube N' Tune #113

2924 Damon Ave
 San Diego, CA 92109
 (858)581-9442
 CIWMB#: 37-C-02383

Econo Lube N' Tune #163

7979 Aero Drive
 San Diego, CA 92111
 (858)694-0104
 CIWMB#: 37-C-05029

EZ Lube Inc - Clairemont

2585 Clairemont Dr
 San Diego, CA 92117
 (619)276-2934
 CIWMB#: 37-C-04113

Firestone Store #2242

8788 Navajo Rd
 San Diego, CA 92119
 (619)460-6607
 CIWMB#: 37-C-01206

Firestone Store #2246

16646-A Bernardo Ctr Dr
 San Diego, CA 92128
 (858)487-3302
 CIWMB#: 37-C-01210

Firestone Store #2247

1136 C St
 San Diego, CA 92101
 (619)233-7121
 CIWMB#: 37-C-01211

Firestone Store #2249

9690 Reagan Rd
 San Diego, CA 92126
 (858)271-0260
 CIWMB#: 37-C-01212

Firestone Store #2250

1245 Garnet Ave
 San Diego, CA 92109
 (858)272-9232
 CIWMB#: 37-C-01213

Firestone Store #2255

4161 Convoy St
 San Diego, CA 92111
 (858)279-7472
 CIWMB#: 37-C-01196

Firestone Store #22F2

6977 Friars Rd, Ste 140
 San Diego, CA 92108
 (619)297-6440
 CIWMB#: 37-C-01201

Firestone Store #22W1

1735 Morena Blvd
 San Diego, CA 92110
 (619)276-0577
 CIWMB#: 37-C-03698

Firestone Store #22W2

5880 Balboa Ave
 San Diego, CA 92111
 (858)277-0089
 CIWMB#: 37-C-03697

Frontierman Jiffy Lube

1574 Palm Ave
 San Diego, CA 92154
 (619)575-1913
 CIWMB#: 37-C-04144

Garcia's Auto Repair

2340 Newton Ave
 San Diego, CA 92113
 (619)232-5864
 CIWMB#: 37-C-03929

Genie Car Wash & Oil Change

3949 W Pt Loma Blvd
 San Diego, CA 92110
 (619)223-6830
 CIWMB#: 37-C-00947

Genie Oil

5985 University Ave
 San Diego, CA 92115
 (619)583-1433
 CIWMB#: 37-C-02707

Guy Hill Cadillac
4275 Mission Bay Dr
San Diego, CA 92109
(619)276-7000
CIWMB#: 37-C-03532

Hans Foreign Car Service
4306 Pacific Hwy
San Diego, CA 92110
(619)298-6575
CIWMB#: 37-C-00987

Harbor Island Fuel Dock
2040 Harbor Island Drive
San Diego, CA 92101
(619)291-6443
CIWMB#: 37-C-05145

Jiffy Lube #1019
2651 Garnet Ave
San Diego, CA 92109
(858)273-7757
CIWMB#: 37-C-04251

Jiffy Lube #1675
3775 Rosecrans St
San Diego, CA 92110
(619)295-1999
CIWMB#: 37-C-03047

Jiffy Lube #1763
6696 Miramar Rd #K
San Diego, CA 92121
(858)452-6340
CIWMB#: 37-C-03511

Jiffy Lube #1869
7207 Clairemont Mesa Blvd
San Diego, CA 92111
(858)279-1869
CIWMB#: 37-C-03917

Jiffy Lube #1894
1005 B St
San Diego, CA 92101
(619)230-1894
CIWMB#: 37-C-04060

Jiffy Lube #1968
3982 Convoy St
San Diego, CA 92111
(858)492-1181
CIWMB#: 37-C-04362

**John Hine Auto and Truck
Center**
1545 Camino Del Rio S
San Diego, CA 92108
(619)297-4251
CIWMB#: 37-C-05570

Kragen Auto Parts #0320
10656 Camino Ruiz
San Diego, CA 92126
(858)695-9605
CIWMB#: 37-C-02525

Kragen Auto Parts #0329
2810 El Cajon Blvd
San Diego, CA 92104
(619)282-7604
CIWMB#: 37-C-02532

Kragen Auto Parts #0525
3548 National Ave
San Diego, CA 92113
(619)235-0116
CIWMB#: 37-C-02559

Kragen Auto Parts #0711
3950 Convoy St
San Diego, CA 92111
(858)560-7454
CIWMB#: 37-C-02618

Kragen Auto Parts #0764
5177 Waring Rd
San Diego, CA 92120
(619)583-0775
CIWMB#: 37-C-02592

Kragen Auto Parts #0778
1753 Euclid Ave
San Diego, CA 92105
(619)264-1932
CIWMB#: 37-C-02631

Kragen Auto Parts #1026
13181 Black Mtn Rd
San Diego, CA 92129
(858)538-0944
CIWMB#: 37-C-02670

SAN MARCOS**AutoZone #5723**

195 Rancho Santa Fe Rd
San Marcos, CA 92069
(760)752-1734
CIWMB#: 37-C-04919

Jiffy Lube #1966

765 W San Marcos Blvd
San Marcos, CA 92069
(760)591-4366
CIWMB#: 37-C-04361

Jiffy Lube #1967

218 S Rancho Santa Fe Rd
San Marcos, CA 92069
(760)598-5823
CIWMB#: 37-C-04360

Kragen Auto Parts #1431

255 S. Rancho Santa Fe Rd.
San Marcos, CA 92069
(760)510-6633
CIWMB#: 37-C-05319

SANTEE**Firestone Store #2251**

9763 Mission Gorge Rd
Santee, CA 92071
(619)449-9440
CIWMB#: 37-C-01214

Kragen Auto Parts #1419

9675 Mission Gorge Rd
Santee, CA 92071
(619)448-3162
CIWMB#: 37-C-02626

Pep Boys #898

10041 Mission Gorge
Santee, CA 92071

CIWMB#: 37-C-05058

Vortex

9201 Isaac St
Santee, CA 92071
(619)258-9660
CIWMB#: 37-C-00682

Wigington Petroleum Inc

11427 Woodside Ave
Santee, CA 92071
(619)448-5891
CIWMB#: 37-C-03887

VISTA**AutoZone #2819**

1410 N Santa Fe Ave
Vista, CA 92083
(760)806-9784
CIWMB#: 37-C-04426

AutoZone #5679

573 Vista Way
Vista, CA 92083
(760)941-8885
CIWMB#: 37-C-04961

Kragen Auto Parts #1192

1220 E Vista Way
Vista, CA 92084
(760)639-0095
CIWMB#: 37-C-02593

Masterlube #105

243 Sycamore Avenue
Vista, CA 92083
(760)598-1576
CIWMB#: 37-C-05471

North County Nissan Specialist

241 N. Emerald Dr.
Vista, CA 92083
(760)945-0266
CIWMB#: 37-C-05140

Santa Fe Auto Repair

1045 N Santa Fe Ave
Vista, CA 92084
(760)945-4264
CIWMB#: 37-C-03952

**Satkowiak Lubes, Inc. dba
Texaco Xpress Lube**

786 East Vista Way

Vista, CA 92084

(760)941-4004

CIWMB#: 37-C-05197

Tony's Mobil

801 S Santa Fe

Vista, CA 92083

(760)726-4990

CIWMB#: 37-C-00260

UNINCORPORATED

Ramona

AutoZone #2845

370 Pala St.

Ramona, CA 92065

(760)787-0489

CIWMB#: 37-C-05432

Kragen Auto Parts #1062

1935 Hwy 67

Ramona, CA 92065

(760)789-7109

CIWMB#: 37-C-02653

Oil Changer #619

1809 Main St

Ramona, CA 92065

(760)789-5426

CIWMB#: 37-C-01731

Ramona Motor Works

2317 Main St Ste D

Ramona, CA 92065

(760)789-3094

CIWMB#: 37-C-01854

Ramona Texaco Ryder Truck

1210 Main

Ramona, CA 92065

(760)789-2411

CIWMB#: 37-C-03498

Lakeside

AutoZone #3341

12421 Woodside Ave

Lakeside, CA 92040

(619)561-5625

CIWMB#: 37-C-05548

Kragen Auto Parts #0327

9530 Winter Gardens

Lakeside, CA 92040

(619)561-3966

CIWMB#: 37-C-02531

Spring Valley

Kragen Auto Parts #0543

8375 Paradise Vly Rd

Spring Valley, CA 91977

(619)479-0198

CIWMB#: 37-C-02580

Kragen Auto Parts #0739

10050 Campo Rd

Spring Valley, CA 91977

(619)670-5888

CIWMB#: 37-C-02667

Tom Russell Automotive Repair

10012 Casa De Oro Blvd

Spring Valley, CA 91977

(619)670-8055

CIWMB#: 37-C-01782

**Valvoline Instant Oil
Change**

483 Sweetwater Rd

Spring Valley, CA 91977

(619)461-4704

CIWMB#: 37-C-00807

Valley Center

Terry's Auto Repair

27847 Vly Center Rd

Valley Center, CA 92082

(760)749-3443

CIWMB#: 37-C-03535

Fallbrook**AutoZone #5652**

1081-95 S Mission Rd
Fallbrook, CA 92028
(760)728-5974
CIWMB#: 37-C-03723

Econo Lube N' Tune #195

742 S Main St
Fallbrook, CA 92028
(760)728-9773
CIWMB#: 37-C-04600

Kragen Auto Parts #1163

812 S Main St
Fallbrook, CA 92028
(760)723-1109
CIWMB#: 37-C-02591

Ray's Insta Tune

212 E Alvarado St
Fallbrook, CA 92028
(760)728-8659
CIWMB#: 37-C-05006

Julian**Norm's Service**

1913 Main ST
Julian, CA 92036
(760)765-0774
CIWMB#: 37-C-04225

Alpine**Alpine Auto Center**

2042 Alpine Blvd
Alpine, CA 91901
(619)445-7100
CIWMB#: 37-C-02345

Attachment C: 1998 California 303(d) List and Priority Schedule (Region 9)

Hydrologic Unit	Watershed	Major Water Bodies	Water Body Type	Pollutant / Stressor	Sources	Impaired Beneficial Uses	TMDL Priority
900.00	San Diego Bay	San Diego Bay; Shelter Island Yacht Basin (900.00)	B	Copper	Point / Nonpoint	Aquatic life	High
		San Diego Bay; Near Sub Base (900.00)	B	Benthic Comm. Effects, Sediment Toxicity	Point / Nonpoint	Aquatic life	High
		San Diego Bay; Near Grape Street (900.00)	B	Benthic Comm. Effects, Sediment Toxicity	Point / Nonpoint	Aquatic life	High
		San Diego Bay; Downtown Piers (900.00)	B	Benthic Comm. Effects, Sediment Toxicity	Point / Nonpoint	Aquatic life	High
		San Diego Bay; Near Switzer Creek (900.00)	B	Benthic Comm. Effects, Sediment Toxicity	Point / Nonpoint	Aquatic life	High
		San Diego Bay; Near Coronado Bridge (900.00)	B	Benthic Comm. Effects, Sediment Toxicity	Point / Nonpoint	Aquatic life	High
		San Diego Bay; Near Chollas Creek (900.00)	B	Benthic Comm. Effects, Sediment Toxicity	Point/ Nonpoint	Aquatic life	High
		San Diego Bay; San Diego Naval Station (900.00)	B	Benthic Comm. Effects, Sediment Toxicity	Point/ Nonpoint	Aquatic life	High
		San Diego Bay; Seventh Street Channel (900.00)	B	Benthic Comm. Effects, Sediment Toxicity	Point/ Nonpoint	Aquatic life	High
		San Diego Bay; North of 24th Street Marine Terminal (900.00)	B	Benthic Comm. Effects, Sediment Toxicity	Point/ Nonpoint	Aquatic life	High
901.00	San Juan	Aliso Creek, Mouth of (901.13)	E	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2	Medium
		Aliso Creek (901.13)	R	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2	Medium
		Pacific Ocean, Laguna Beach HSA (901.12)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Medium
		Pacific Ocean, Aliso HSA (901.13)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2	Low
		Pacific Ocean, Dana Point HSA (901.14)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2	Low
		San Juan Creek (Mouth) (901.200)	E	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low
		Pacific Ocean, Lower San Juan HSA (901.270)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low

Attachment C: 1998 California 303(d) List and Priority Schedule (Region 9; Continued)

Hydrologic Unit	Watershed	Major Water Bodies	Water Body Type	Pollutant / Stressor	Sources	Impaired Beneficial Uses	TMDL Priority
901.00 (cont.)		Lower San Juan Creek (901.270)	R	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low
		Pacific Ocean, San Clemente HA (901.30)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low
902.00	Santa Margarita	Santa Margarita Lagoon (901.110)	E	Eutrophic	Point/ Nonpoint	Rec-1, Rec-2, Aquatic life	High
		Rainbow Creek (902.200)	R	Eutrophic	Point/ Nonpoint	Aquatic life	High
903.00	San Luis Rey	Pacific Ocean, San Luis Rey HU (903.00)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low
		Guajome Lake (903.110)	L	Eutrophic	Point/ Nonpoint	Aquatic life	Medium
904.00	Carlsbad	Pacific Ocean, Loma Alta HAS (904.10)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low
		Loma Alta Slough (904.100)	E	Eutrophic	Nonpoint	Aquatic life	Low
				High Coliform Count		Rec-1, Rec-2	
		Pacific ocean, Buena Vista HA (904.20)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low
		Buena Vista Lagoon (904.210)	E	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2	Low
				Nutrients		Aquatic life	Medium
				Sedimentation/Siltation			
		Agua Hedionda Lagoon (904.310)	E	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low
				Sedimentation/Siltation		Aquatic life	Medium
		Pacific Ocean, San Marcos HA (904.50)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low
		Pacific Ocean, Escondido Creek HA (904.60)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low
San Elijo Lagoon (904.610)	E	Eutrophic	Point/ Nonpoint	Aquatic life	Low		
		High Coliform Count		Rec-1, Rec-2, Shellfish harvest, Fish consumption			
		Sedimentation/Siltation		Aquatic life		Medium	

Attachment C: 1998 California 303(d) List and Priority Schedule (Region 9; Continued)

Hydrologic Unit	Watershed	Major Water Bodies	Water Body Type	Pollutant / Stressor	Sources	Impaired Beneficial Uses	TMDL Priority
905.00	San Dieguito	Pacific Ocean, San Dieguito HU (905.00)	C	High Coliform Count	Rec-1, Rec-2, Shellfish harvest	Rec-1, Rec-2, Shellfish harvest	Low
906.00	Mission Bay	Los Penasquitos Lagoon (906.100)	E	Sedimentation/Siltation	Point/ Nonpoint	Aquatic life	Medium
		Pacific Ocean, Scripps HA (906.30)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low
		Mission Bay (906.400)	B	Eutrophic	Point/ Nonpoint	Aquatic life	Medium
				High Coliform Count		Rec-1, Rec-2, Shellfish harvest	Low
				Lead		Aquatic life	Medium
		Famosa Slough & Channel (906.400)	E	Eutrophic	Nonpoint	Aquatic life	Medium
		Tecolote Creek (906.500)	R	Cadmium	Point/ Nonpoint	Aquatic life	Medium
				Copper			
Lead							
Zinc							
Toxicity							
High Coliform Count	Rec-1, Rec-2	Low					
907.00	San Diego	Pacific Ocean, San Diego HU (907.00)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low
908.00	San Diego Bay (Pueblo San Diego)	San Diego Bay, Lindbergh (908.210)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2	Low
		Chollas Creek (908.220)	R	Cadmium	Point/ Nonpoint	Aquatic life	High
				Copper			
				Lead			
				Zinc			
				Toxicity			
High Coliform Count	Rec-1, Rec-2	Low					

Attachment C: 1998 California 303(d) List and Priority Schedule (Region 9; Continued)

Hydrologic Unit	Watershed	Major Water Bodies	Water Body Type	Pollutant / Stressor	Sources	Impaired Beneficial Uses	TMDL Priority
909.00	San Diego Bay (Sweetwater)	San Diego Bay, Telegraph HAS (909.11)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2	Low
910.00	San Diego Bay (Otay)	Pacific ocean, Coronado HA (910.10)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2, Shellfish harvest	Low
911.00	Tijuana	Pacific Ocean, Tijuana HU (911.00)	C	High Coliform Count	Point/ Nonpoint	Rec-1, Rec-2	Low
		Tijuana River Estuary (911.110)	E	Eutrophic	Point/ Nonpoint	Aquatic life	Low
				Lead			
				Nickel			
				Trash			
				Thallium			
				Pesticides			
				High Coliform Count			
		Tijuana River (911.110)	R	Eutrophic	Point/ Nonpoint	Aquatic life, Fish Consumption	Low
				High Coliform Count		Rec-1, Rec-2, Fish consumption	
				Org. Enrichment/Low D.O.		Aquatic life	
				Pesticides		Fish consumption	
				Solids		Aquatic life	
Synthetic Organics	Aquatic life, Fish Consumption						
Trace Elements	Aquatic life, Fish Consumption						
Trash	Fish consumption						

Water Body Types

B=Bays and Harbors
 C=Coastal Shorelines
 E=Estuaries

G=Ground Water
 L=Lakes/Reservoirs
 O=Ocean and Open Bays

R=Rivers/Streams
 S=Saline Lakes
 T=Wetlands, Tidal

W=Wetlands and Freshwater

Appendix D: Designated RARE Water Bodies in the San Diego Region*

WATERSHED										
San Juan	Santa Margarita	San Luis Rey	Carlsbad	San Dieguito	Penasquitos/ Mission Bay	San Diego River	Pueblo SD	Sweetwater	Otay	Tijuana
INLAND SURFACE WATERS										
San Mateo Creek San Onofre Canyon S. Fork Las Flores Cr Piedra de Lumbre Canyon Aliso Canyon French Canyon	Santa Margarita River DeLuz Creek Pueblitos Canyon	San Luis Rey River Pilgrim Creek	Buena Vista Creek	Santa Ysabel Creek San Dieguito River unnamed Trib San Bernardo Valley	Carol Canyon unnamed Trib San Clemente Canyon	San Diego River Sycamore Cyn 2 unnamed Tribs Clark Canyon Spring Canyon Murphy Canyon		Sweetwater River unnamed Trib	Dulzura Creek Jamul Creek unnamed Trib Otay River	Tijuana River Cottonwood Creek
RESERVOIRS AND LAKES										
	O'Neill Lake	Lake Henshaw		Lake Hodges Sutherland Lake		El Capitan Resivor Cuyamaca Resivor				Lake Barrett Morena Resivor
COASTAL WATERS										
Pacific Ocean Dana Pt. Harbor Aliso Creek mouth San Juan Creek mouth San Mateo Creek mouth San Onofre Creek mouth	Pacific Ocean Oceanside Harbor Santa Margarita Lagoon	Pacific Ocean S. Luis Rey R. mouth	Pacific Ocean Batiquitos Lagoon San Elijo Lagoon Agua Hedionda Lagoon Buena Vista Lagoon Loma Alta Slough	Pacific Ocean Del Mar Boat Basin San Dieguito Lagoon	Pacific Ocean Mission Bay L. Penasquitos Lagoon	Pacific Ocean Mouth of San Diego River	Pacific Ocean San Diego Bay	Pacific Ocean San Diego Bay	Pacific Ocean San Diego Bay	Pacific Ocean Tijuana Estuary

* Source: Water Quality Control Plan, San Diego Basin, Region 9, Chapter 2.

Appendix E. Abbreviations, Acronyms and Definition of Terms

Abbreviations and Acronyms

BMP	Best Management Practices
CWA	Clean Water Act
EPA	United States Environmental Protection Agency
IC/ID	Illicit Connection/Illegal Discharge
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
RWQCB	California Regional Water Quality Control Board
SWRCB	California State Water Resources Control Board
TMDL	Total Maximum Daily Load
URMP	Urban Runoff Management Plan
WDR	Waste Discharge Requirements

Definition of Terms

Beneficial Uses: The uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals “Beneficial Uses” of the waters of the State that may be protected against include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. Existing beneficial uses are uses that were attained in the surface or ground water on or after November 28, 1975; and potential beneficial uses are uses that would probably develop in future years through the implementation of various control measures. “Beneficial Uses” are equivalent to “Designated Uses” under federal law. [California Water Code Section 13050(f)].

Best Management Practices: Best Management Practices (BMPs) are defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In the case of municipal storm water permits, BMPs are typically used in place of numeric effluent limits.

Biological Controls: Is the use of one organism to suppress another.

Biological Oxygen Demand: A measure of the amount of oxygen required to neutralize organic wastes.

Compost: A mixture of decayed organic matter used as fertilizer.

Contamination: As defined in the Porter-Cologne Water Quality Control Act, contamination is “an impairment of the quality of waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. ‘Contamination’ includes any equivalent effect resulting from the disposal of waste whether or not waters of the state are affected.”

Copermittee (or Co-permittee): A permittee to an NPDES permit that is only responsible for permit conditions relating to the discharges from its area of jurisdiction.

Discharge: The volume of water that passes a given point within a given period of time. It is an all-inclusive outflow term, describing a variety of flows such as from a pipe to a stream, or from a stream to a lake or ocean.

Dry Weather Season: May 1 through September 30 of each year

Dry Sweeping Techniques: Cleaning techniques which include use of a broom and dustpan, a vacuum, or dry absorbant to clean up spills or debris, rather than washing down with water.

Ephemeral: Water bodies, or segments thereof, that contain water for only a short period following precipitation

Erosion: When land is diminished or worn away due to wind, water, or glacial ice. Often the eroded debris (silt or sediment) becomes a pollutant via storm water runoff. Erosion occurs naturally but can be intensified by land clearing activities such as farming, development, road building, and timber harvesting.

Evaluation: Refers to the analysis and interpretation of information obtained through monitoring.

Geographic Information System (GIS): Is a computer system capable of assembling, storing, manipulating, and displaying geographically referenced information, i.e. data identified according to their locations.

Good Housekeeping: A common practice related to the storage, use or cleanup of materials performed in a manner that minimizes the discharge of pollutants.

Hazardous Waste: Hazardous waste is defined as “any waste which, under Section 600 of Title 22 of this code, is required to be managed according to Chapter 30 of Division 4.5 of Title 22 of this code.” [CCR Title 22, Division 4.5, Chapter 11, Article 1]

Herbicides: Chemical compounds that are used to control weeds.

Hydrocarbons: Any of a vast family of compounds originating in materials containing carbon and hydrogen in various combinations. Some may be carcinogenic; others are active participants in photochemical processes in combination with oxides of nitrogen.

Hydrologic Unit: A subunit of a basin as defined by a RWQCB.

Illicit (Illegal) Connection: Any discharge to a municipal separate storm sewer that is not composed entirely of stormwater and is not authorized by an NPDES permit, with some exceptions (e.g., discharges due to fire-fighting activities).

Illicit (Illegal) Discharge: Any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.

Impairment: A condition whereby a water body that does not meet one or more of its beneficial uses as defined in the water Quality Control Plan for the San Diego Basin (Basin Plan).

Integrated Pest Management (IPM): A combination of biological, cultural, and genetic pest control methods with use of pesticides as the last resort. IPM considers a targeted species' life cycle and intervenes in reproduction, growth, or development to reduce the population. Land use practices are examined for possible change; other animals, birds, or reptiles in the ecosystem are used as natural predators.

Insecticide: Chemical compounds that are used to kill insects.

Irrigated: Artificially supplied with water.

Load Allocations: The maximum amount of a pollutant that can be discharged from a particular point or non-point source in a Total Maximum Daily Load (TMDL) program.

Maximum Extent Practicable (MEP): MEP is the technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) that municipal dischargers of storm water (MS4s) must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of treatment and best management practices (BMPs). MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). MEP considers economics and is generally, but not necessarily, less stringent than BAT. A definition for MEP is not provided either in the statute or in the regulations. Instead the definition of MEP is dynamic and will be defined by the following process over time: municipalities propose their definition of MEP by way of their Urban Runoff Management Plan. Their total collective and individual activities conducted pursuant to the Urban Runoff Management Plan becomes their proposal for MEP as it applies both to their overall effort, as well as to specific activities (e.g., MEP for street sweeping, or MEP for municipal separate storm sewer system maintenance). In the absence of a proposal acceptable to the SDRWQCB, the SDRWQCB defines MEP.

Monitoring: Refers to a variety of activities and processes through which Copermittees may obtain information relevant to implementation of their stormwater quality management programs so that the need for and/or opportunities for revision or refinement can be identified.

Municipal Separate Storm Sewer System (MS4): MS4 is an acronym for Municipal Separate Storm Sewer System. A Municipal Separate Storm Sewer System is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, natural drainage features or channels, modified natural channels, man-made channels, or storm drains): (i) Owned or operated by a State, city town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Historic and current development make use of natural drainage patterns and features as conveyances for urban runoff. Urban streams used in this manner are part of the municipalities MS4 regardless of whether they are natural, man-made, or partially modified features. In these cases, the urban stream is both an MS4 and a receiving water.

Micro-Spray Systems: Low volume irrigation system: a reduced volume of water is sprayed in the air, very efficiently, to specific areas or plants.

Mulching: Any loose covering of soil with organic residues, such as grass, straw, or wood fibers, to check erosion and stabilize exposed soil.

National Pollution Discharge Elimination System (NPDES): These permits pertain to the discharge of waste to surface waters only. All State and Federal NPDES permits are also WDRs.

Non Point Source (NPS): Non point source refers to diffuse, widespread sources of pollution. These sources may be large or small, but are generally numerous throughout a watershed. Non Point Sources include but are not limited to urban, agricultural, or industrial areas, roads, highways, construction sites, communities served by septic systems, recreational boating activities, timber harvesting, mining, livestock grazing, as well as physical changes to stream channels, and habitat degradation. NPS pollution can occur year round any time rainfall, snowmelt, irrigation, or any other source of water runs over land or through the ground, picks up pollutants from these numerous, diffuse sources and deposits them into rivers, lakes, and coastal waters or introduces them into ground water.

Non-Storm Water Discharge: Any discharge to a storm drain system or receiving water that is not composed entirely of storm water.

Non-Structural Control: A type of best management practice (BMP) that employs institutional, educational or pollution prevention practices to limit the generation of, or reduce the amounts of pollutants contained in stormwater runoff.

Nutrients: Any substance assimilated by living things that promotes growth. The term is generally applied to nitrogen and phosphorus in wastewater, but is also applied to other essential and trace elements.

Outfall: The point source where a municipal storm sewer discharges to waters of the United States.

Particulates: Liquid or solid particles such as dust, smoke, mist, or smog found in air emissions.

Permit: Refers to the NPDES Municipal Storm Water Permit (Order No. 2001-01) adopted by the RWQCB on February 21, 2001.

Pesticide: Any material used to control pests. Includes insecticides, herbicides and rodenticides.

Point Source: Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which pollutants are or may be discharged.

Pollutant: A pollutant is broadly defined as any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated.

Pollutant Loading: The quantity of a pollutant found in runoff expressed in mass per unit of time. Pollutant loadings are commonly expressed in units of tons/year or pound/year.

Pollution Prevention: Pollution prevention is defined as practices and processes that reduce or eliminate the generation of pollutants, in contrast to source control, treatment, or disposal.

Preventative Maintenance: Involves the regular inspection, testing, and replacement or repair of equipment and operational systems.

Wet Weather Season: The October 1 through April 30.

Receiving waters: All surface water bodies within the permit area into which wastewater or treated effluent is discharged. (See also (1) Waters of the State (2) Waters of the United States)

Regional Water Quality Control Board (RWQCB): "Regional Board" means any California regional water quality control board for a region as specified in Section 13200 of the California Water Code.

Residence: A building designed to be occupied by human(s). The place in which one lives; a dwelling.

Sediment: Organic or inorganic material that is carried by or is suspended in water and that settles out to form deposits in the storm drain system or receiving waters.

Spill: An accidental dumping or spilling of a potential pollutant onto the ground or into a waterway.

State Water Resources Control Board (SWRCB): As delegated by EPA, California agency that implements and enforces CWA Section 401(p) NPDES permit requirements, and is issuer and administrator of the Permit. Works with the nine RWQCBs.

Storm Water (or Stormwater): “Storm water” is as defined urban runoff and snowmelt runoff consisting only of those discharges which originate from precipitation events. Storm water is that portion of precipitation that flows across a surface to the storm drain system or receiving waters. Examples of this phenomenon include: the water that flows off a building’s roof when it rains (runoff from an impervious surface); the water that flows into streams when snow on the ground begins to melt (runoff from a semi-pervious surface); and the water that flows from a vegetated surface when rainfall is in excess of the rate at which it can infiltrate into the underlying soil (runoff from a pervious surface). When all factors are equal, runoff increases as the perviousness of a surface decreases. During precipitation events in urban areas, rain water picks up and transports pollutants through storm water conveyance systems, and ultimately to waters of the United States.

Storm Water Conveyance System: Streets, gutters, inlets, conduits, natural or artificial drains, channels and watercourses, or other facilities that are owned, operated, maintained and used for the purpose of collecting, storing, transporting or disposing of storm water.

Structural Control: A type of best management practice (BMP) that employs engineered and constructed systems to improve the quality and/or quantity of runoff (e.g. detention ponds and constructed wetlands).

Total Maximum Daily Load (TMDL): The TMDL is the maximum amount of a pollutant that can be discharged into a water body from all sources (point and non-point) and still maintain water quality standards. Under Clean Water Act section 303(d), TMDLs must be developed for all water bodies that do not meet water quality standards after application of technology-based controls.

Toxicity: Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies). The water quality objectives for toxicity provided in the Water Quality Control Plan, San Diego Basin, Region 9, (Basin Plan), state in part... “*All waters shall be free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life....The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge*”.... Urban runoff discharges from MS4s are considered toxic when (1) the toxic effect observed in an acute toxicity test exceeds zero Toxic Units Acute ($T_{ua}=0$); or (2) the toxic effect observed in a chronic toxicity test exceeds one Toxic Unit Chronic ($T_{uc}=1$). Urban runoff discharges from MS4s often contain pollutants that cause toxicity.

Urban Runoff: Urban runoff is defined as all flows in a storm water conveyance system and consists of the following components: (1) storm water (wet weather flows) and (2) non-storm water illicit discharges (dry weather flows).

Vermiculture: Is the process of using worms to decompose organic food waste, turning the waste into a nutrient-rich material capable of supplying necessary nutrients to help sustain plant growth.

Xeriscape: Creative landscaping for water and energy efficiency and lower maintenance. The seven xeriscape principles are: good planning and design; practical lawn areas; efficient irrigation; soil improvement; use of mulches; low water demand plants; good maintenance.

Waste Discharge Requirements: Permits issued in California for the discharge of wastes to waterways or to land pursuant to the Water Code section 13260. WDRs for discharges to federal waters (“waters of the U.S.”) are concurrently NPDES permits.

Watershed: That geographical area which drains to a specified point on a watercourse, usually a confluence of streams or rivers (also known as drainage area, catchment, or river basin).

Waters of the State: Any water, surface or underground, including saline waters within the boundaries of the State [California Water Code Section 13050 (e)]. The definition of the Waters of the State is broader than that for the Waters of the United States in that all water in the State is considered to be a Waters of the State regardless of circumstances or condition. Under this definition, a Municipal Separate Storm Sewer System (MS4) is always considered to be a Waters of the State.

Waters of the United States: Waters of the United States can be broadly defined as navigable surface waters and all tributary surface waters to navigable surface waters. Groundwater is not considered to be a Waters of the United States. Under this definition (see below), a Municipal Separate Storm Sewer System (MS4) is always considered a Waters of the United States.

As defined in the 40 CFR 122.2, the Waters of the U.S. are defined as: “(a) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (b) All interstate waters, including interstate “wetlands;” (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands,” sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as waters of the United States under this definition; (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition; (f) The territorial seas; and (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.”, or river basin).

Water Quality Standards: Are defined as the beneficial uses (e.g., swimming, fishing, municipal drinking water supply, etc.,) of water and the water quality objectives necessary to protect those uses.

Wetland: Those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support vegetation typically adapted for life in saturated soil conditions. Generally includes playa lakes, swamps, marshes, bogs, mudflats, natural ponds and similar areas.