

THE UNIFIED WATERSHED URBAN RUNOFF MANAGEMENT PROGRAM

COUNTY OF SAN DIEGO, INCORPORATED
CITIES OF SAN DIEGO COUNTY AND THE SAN
DIEGO UNIFIED PORT DISTRICT



Prepared in Partial Fulfillment of the
Requirements of the Regional Water Quality Control Board
San Diego Region Municipal Stormwater Permit Order No. 2001-01

UNIFIED WATERSHED URMP

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EXECUTIVE SUMMARY

The overall goal of the Copermittee's Unified Watershed Urban Runoff Management Program (Unified Watershed URMP) and the nine individual Watershed Urban Runoff Management Program (Watershed URMP) documents is to establish a programmatic framework for the continued development and implementation of various programs and activities that meet or exceed the regulatory obligations established under Sections J, K and L of Municipal Storm Water Permit Order 2001-01 (Municipal Permit). The San Diego Regional Water Quality Control Board issued this permit on February 21, 2001 in an attempt to control waste discharges in urban runoff from the Municipal Separate Storm Sewer System (MS4) that drain the watersheds of the County of San Diego, incorporated cities of San Diego County and the San Diego Unified Port District.

This document, as well as the individual Watershed URMPs, includes material that describe the Copermittees' intended approach to meeting their watershed-related Municipal Permit obligations over the remainder of the Municipal Permit. This material is submitted pursuant to the Municipal Permit, and is subject to Section R.2 of the Municipal Permit concerning enforceability. These documents also include material describing the Copermittees' plans to go beyond the directives of the Municipal Permit. This additional material is provided for information only and is not submitted pursuant to the Municipal Permit. These two kinds of material are interwoven in these documents.

Section 1 of the Unified Watershed URMP includes a brief discussion of the Municipal Permit and the Watershed Urban Runoff Management Program. Section 2 outlines common activities such as preparation of jurisdictional certified statements, adoption of a memorandum of understanding, development of the Regional Stormwater Management Committee, Budget Committee, Monitoring Committee and Education and Outreach Committee, creation of Watershed URMP Workgroups and discussion of the mapping of the inventoried land uses.

Also included in the Unified Watershed URMP are the individual Watershed URMPs for the following watersheds:

***Santa Margarita
San Dieguito
San Diego River***

***San Luis Rey
Penasquitos
San Diego Bay***

***Carlsbad
Mission Bay
Tijuana River***

The individual Watershed URMPs describe the activities and requirements that the responsible Copermittee(s) has or will implement. More importantly, the documents describe the collaborative plans and efforts to reduce the impacts of urban activity on receiving water quality within each watershed boundary to the maximum extent practicable. The primary goal of these watershed programs is to positively affect the water resources of each watershed while balancing economic, social and environmental constraints. The following objectives, or version thereof, have been identified in order to achieve the program goal:

- *Develop/expand methods to assess and improve water quality within the watershed;*

- *Integrate watershed principles into land use planning;*
- *Enhance public understanding of sources of water pollution; and,*
- *Encourage and develop stakeholder participation.*

The Watershed URMPs are based upon the Model Watershed URMP guidance documents prepared by the various Copermittee/Project Clean Water working groups to ensure general regional consistency. However, the documents have been tailored to their respective watershed and may vary in terms of their overall approach to program development/Municipal Permit compliance. More specifically, the identified lead Copermittee for each watershed took responsibility for the direction and development of their respective Watershed URMP(s). In some cases, a lead Copermittee proposed a different philosophical approach to the development of the Watershed URMP than other Copermittees. When such differences of opinion occurred, the conflict resolution typically employed was a “majority rule,” where the matter was put to a vote between the impacted Copermittees.

The Unified and individual Watershed URMPs do not completely describe all water quality-related or all watershed programs planned or implemented by the Copermittees. The Copermittees commitment to water quality and broader environmental quality objectives encompasses many programs already in existence, many of which are working toward complementary goals and objectives. Many Copermittees have had habitat or species protection, resource conservation, or regional planning programs in place for many years. These programs address many of the same issues that watershed management programs address.

Acronyms and abbreviations are used throughout this document and the individual Watershed URMPs. Although these are defined on their first occurrence, the common acronyms outlined in the table below are used extensively throughout the various documents and therefore noted here to make it more easily readable.

Common Acronyms & Abbreviations

ABBREVIATION/ ACRONYM	DESCRIPTOIN
“SDRWQCB”	San Diego Regional Water Quality Control Board
“Copermittees”	County of San Diego, Incorporated Cities of San Diego County and San Diego Port District
“(Watershed Name) Watershed Copermittees”	Copermittees in a particular watershed
“NPDES”	National Pollutant Discharge Elimination System
“Municipal Permit”	Municipal Storm Water Permit Order 2001-01
“Watershed URMP”	Watershed Urban Runoff Management Program
“Unified Watershed URMP”	Unified Watershed Urban Runoff Management Program
“MS4”	Municipal Separate Storm Sewer System
“Watershed Name” Watershed URMP”	Watershed Urban Runoff Management Program for named watershed (e.g. San Diego Bay Watershed URMP).

UNIFIED WATERSHED URMP

CERTIFIED STATEMENT

I certify under penalty of law that the Unified Watershed Urban Runoff Management Program (excluding the attached individual Watershed Urban Runoff Management Programs) was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment for knowing violations.

ROBERT R. COPPER
Deputy Chief Administrating Officer
County of San Diego

UNIFIED WATERSHED URMP

I. INTRODUCTION

1. INTRODUCTION

1.a. The Municipal Permit: Order 2001-01¹



The Federal Clean Water Act was amended in 1987 to address urban runoff. Under these amendments, municipalities throughout the United States were directed to obtain National Pollutant Discharge Elimination System (NPDES) permits for discharges of urban runoff from their municipal separate storm sewer systems (MS4s) by specified dates. In response to the Clean Water Act amendment (and the pending Federal NPDES regulations which would implement the amendment), the San Diego Regional Water Quality Control Board (SDRWQCB) issued an “early” municipal storm water permit, Order No. 90-42, in July 1990 to various jurisdictions for their urban runoff discharges:

As the name implies, this “early” permit was issued prior to the November 1990 promulgation of the final federal storm water regulations. Although Order No. 90-42 contained the “essentials” of the then proposed 1990 regulations, the directives were written in very broad terms. This order did not require watershed based programs, but did encourage some regional cooperation and consistency among the jurisdictions.

Municipal Storm Water Permit Order No. 2001-01 (Municipal Permit) is the re-issuance of Order No. 90-42. The Municipal Permit addresses the basic requirement in federal law for a program that reduces pollutants discharged from municipal separate storm sewer systems (MS4s) to the maximum extent practicable, and also includes the specific program elements required by federal regulations. The Municipal Permit exceeds federal specification by also directing municipal storm water dischargers to meet water quality standards; by directing structural post-construction treatment best management practices (BMPs) of a specified size for new development and significant redevelopment; and by directing jurisdictions to cooperate in the development of watershed based programs.

The Municipal Permit was issued to the following jurisdictions or “Copermittees”:

¹ Source: San Diego Regional Water Quality Control Board (SDRWQCB) Fact Sheet/Technical Report For SDRWQCB Order No. 2001-01 Municipal Storm Water Permit For San Diego County And Cities. November 2001.

City of Carlsbad
City of Chula Vista
City of Coronado
City of Del Mar
City of El Cajon
City of Encinitas
City of Escondido

City of Imperial Beach
City of La Mesa
City of Lemon Grove
City of National City
City of Oceanside
City of Poway
City of San Diego

City of San Marcos
City of Santee
City of Solana Beach
City of Vista
County of San Diego
Unified Port District

The watershed provisions of the Municipal Permit recognize that local land use authority can be a useful tool for reducing the amount of pollution in urban runoff. The Municipal Permit requires that the Copermittees individually modify their land use approval processes to address stormwater concerns. The Municipal Permit also requires the Copermittees to develop “a mechanism to facilitate collaborative “watershed-based” (i.e., natural resource-based) land use planning with neighboring local governments in the watershed.”



Under the Municipal Permit, each Copermittee is directed to address the following principal elements:

- Establish and maintain adequate legal authority to control pollutant discharges into and from its MS4;
- Develop and implement a Jurisdictional Urban Runoff Management Program (Jurisdictional URMP), which will reduce discharges of pollutants and runoff flow during each major phase of urban development (i.e., planning, construction, and use or operation phases) within its jurisdiction;
- Collaborate with other Copermittees within its watershed(s) to develop and implement a Watershed Urban Runoff Management Program (Watershed URMP), which will identify and address the highest priority water quality issues/pollutants in their respective watershed(s);
- Collaborate with all other Copermittees to address common issues, promote consistency, and plan and coordinate urban runoff activities;
- Develop and implement a Receiving Waters Monitoring Program, which shall focus on the collection of monitoring data to be used for the achievement of water quality objectives and the protection of beneficial uses; and,
- Submit various reports describing the measures it is undertaking to meet the requirements of the Municipal Permit.

Storm water permits are issued to municipalities because they discharge water from point sources to waters of the State and the United States. Parts of the conveyance system through which pollutants and increased flows are conveyed, and ultimately discharged into San Diego’s natural receiving waters, are owned and operated by the local governments. Local governments are also able to implement regulatory programs to protect stormwater, and able, within the legal

constraints imposed by the state and federal Constitutions and state law, to regulate new land uses. Local governments have some control over each of the three major stages in the urbanization process: development planning, construction, and the use or operational stage. Regional cooperation on a watershed basis can help to ensure that local government tools are deployed more effectively, to address the most important issues affecting water quality in each watershed.

1.b. Watershed Urban Runoff Management Program

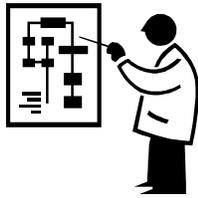
Section J, K and L of the Municipal Permit directs the Copermittees within each watershed listed in Table 1-1 to collaborate in developing and implementing Watershed URMP. The purpose of the Watershed URMPs is to identify and address the highest priority water quality issues/pollutants in each watershed. Pursuant to Section J.2 of the Municipal Permit, as part of the Watershed URMP, the Copermittees of a watershed are directed to:

- Map the watershed and identify all receiving waters, all impaired receiving waters, land uses, highways, jurisdictional boundaries, and mapped inventory of all commercial, industrial, construction, municipal sites, and residential areas within the watershed;
- Assess the water quality of all receiving waters in the watershed based on existing data, and eventually perform watershed based water quality monitoring;
- Identify and prioritize major water quality problems in the watershed caused or contributed to by discharges from MS4s, including potential sources of the problems;
- Develop and implement a time schedule of activities needed to address the highest priority water quality problems;
- Identify the Copermittee(s) responsible for implementing each recommended watershed activity;
- Develop and implement a mechanism for public participation in watershed activities;
- Develop and implement a watershed based education program;
- Develop a mechanism to facilitate “watershed-based” land use planning with neighboring local governments in the watershed; and,
- Develop a strategy for assessing the effectiveness of the Watershed URMP.

This Unified Watershed URMP includes nine individual Watershed URMPs for those watersheds located within greater San Diego County. A summary of the watersheds and Copermittees involved can be found in Table 1.1. This

document, as well as the individual Watershed URMPs, includes material that describe the Copermittees' intended approach to meeting their watershed-related Municipal Permit obligations over the remainder of the Municipal Permit. This material is submitted pursuant to the Municipal Permit, and is subject to Section R.2 of the Municipal Permit concerning enforceability. These documents also include material describing the Copermittees' plans to go beyond the directives of the Municipal Permit. This additional material is provided for information only and is not submitted pursuant to the Municipal Permit. These two kinds of material are interwoven in these documents.

The individual Watershed URMPs describe the activities that the Copermittees have or will implement. More importantly, these documents describe the collaborative plans and efforts to reduce the negative impacts of urban activity on receiving water quality within the respective watershed boundaries to the maximum extent practicable. The goal of these watershed programs is to positively affect the water resources of each watershed while balancing economic, social and environmental constraints. The following objectives, or version thereof, have been identified in order to achieve the program goal:



- *Develop/expand methods to assess and improve water quality within the watershed;*
- *Integrate watershed principles into land use planning;*
- *Enhance public understanding of sources of water pollution; and,*
- *Encourage and develop stakeholder participation.*

The Watershed URMPs are based upon the Model Watershed URMP guidance documents prepared by the various Copermittee/Project Clean Water working groups to ensure general regional consistency. However, the documents have been tailored to their respective watershed and may vary in terms of their overall approach to program development/Municipal Permit compliance. More specifically, the identified lead Copermittee for each watershed took responsibility for the direction and development of their respective Watershed URMP(s). In some cases, a lead Copermittee proposed a different philosophical approach to the development of the Watershed URMP than other Copermittees. When such differences of opinion occurred, the conflict resolution typically employed was a "majority rule," where the matter was put to a vote between the impacted Copermittees.

The documents are divided into three chapters (Introduction & Description, Water Quality Assessment and Plan of Action), with each chapter further divided into sections.

Table 1-1: Watersheds in Region 9

WATERSHED	RESPONSIBLE COPERMITEES	LEAD COPERMITTEE
Santa Margarita River	County of San Diego	County of San Diego
San Luis Rey River	City of Escondido City of Oceanside City of Vista County of San Diego	City of Oceanside
Carlsbad	City of Carlsbad City of Encinitas City of Escondido City of Oceanside City of San Marcos City of Solana Beach City of Vista County of San Diego	City of Encinitas
San Dieguito River	City of Del Mar City of Escondido City of Poway City of San Diego City of Solana Beach County of San Diego	City of San Diego
Penasquitos	City of Del Mar City of Poway City of San Diego County of San Diego	City of San Diego
Mission Bay	City of San Diego	City of San Diego
San Diego River	City of El Cajon City of La Mesa City of San Diego City of Santee County of San Diego	City of San Diego
San Diego Bay	City of Chula Vista City of Coronado City of Imperial Beach City of La Mesa City of Lemon Grove City of National City City of San Diego County of San Diego Unified Port District	Unified Port District
Tijuana River	City of Imperial Beach City of San Diego County of San Diego	City of Imperial Beach

UNIFIED WATERSHED URMP

II. COMMON ACTIVITIES

2. COMMON ACTIVITIES



Municipal Permit section N.1 requires that Copermittees collaborate to address common issues, promote consistency between Jurisdictional URMP and Watershed URMPs, and to plan and coordinate activities. Municipal Permit section L.2 further requires that the Unified Watershed URMP document include a section describing common activities that will be conducted by the Copermittees. The section below identifies common or regional activities that have been or will be completed as part of this process.

Copermittees will continue to collaborate on various programs and activities over the remainder of the Municipal Permit cycle. This section describes the approach that Copermittees intend to pursue in the development of common activities and in ensuring consistency between Watershed URMP elements. While it describes an overall general approach, there are many issues and areas where detailed information cannot yet be provided because additional program development work has yet to be completed.

This discussion is not intended as an exhaustive description of all collaboration to be conducted. Other subsets of Copermittees have also collaborated on various projects to date (e.g., baseline education surveys, etc.) and will continue to do so over the life of the Municipal Permit. Such activities will also be reflected as appropriate in Watershed URMP Annual Reports.

2.a. Certified Statements

Section L.3 (Universal Reporting Requirements) of the Municipal Permit directs the Copermittees to submit a signed certified statement for their individual WURMP(s). For logistical purposes, the Copermittees agreed to submit separate signed statements of certification, which are located in Appendix A.II.1 of the unified document.

2.b. Copermittee Memorandum of Understanding (MOU)

On December 3, 2001, the Copermittees completed and distributed for execution a Memorandum of Understanding (MOU) which establishes a management structure for Copermittee collaboration on the joint development and implementation of urban runoff program and activities. The MOU establishes specific roles and responsibilities of Copermittees with respect to four types of activities or programs: (1) Individual Programs, (2) Regional General Programs, (3) Watershed General Programs, and (4) Other General Programs. These program types are specifically defined in the MOU.

Terms of the MOU commenced on February 19, 2002 upon execution by the last signatory Copermittee. A copy of this MOU, including all signature pages, is included as Appendix A.II.2 of the Unified Watershed URMP.

2.c. Regional Stormwater Management Committee

MOU section II formally establishes a Regional Stormwater Management Committee (Management Committee) consisting of a single representative of each signatory Copermittee. The purpose of the Management Committee is to provide regional coordination of urban runoff management activities, to develop and implement Regional General Programs, and to develop a framework for consistency between individual, watershed, and other jointly conducted programs. As Principal Copermittee, the County of San Diego (County) chairs the Management Committee and is generally responsible for organizing and conducting meetings. The County also provides general administrative support for the development and implementation of regional programs and activities.



The Management Committee meets regularly on the third Thursday of every other month. These meetings provide a regular forum for the presentation and discussion of issues related to both Jurisdictional and Watershed URMP development and implementation. In addition to Copermittees, meetings are also attended by a variety of stakeholders and interested parties.

A major focus is to ensure adequate public participation in the activities of the Management Committee. To this end, the Copermittees have voluntarily consented to follow the requirements of the Ralph M. Brown Act, which governs open meetings for local government bodies. Public participation issues specifically addressed by the Brown Act, contained in section 54950 et seq. of the Government Code, include the following²:

- Public Testimony. The public may comment on agenda items before or during consideration by the Management Committee. Time must also be set aside for public comment on any other matters under the Management Committee's jurisdiction.
- Taping or Broadcasting. Meetings may be broadcast, audio-recorded, or video-produced so long as the activity does not constitute a disruption of the proceeding.
- Conditions to Attendance. The public may not be asked to register or identify themselves or to pay fees in order to attend public meetings.
- Public Records. Materials provided to a majority of the Management Committee which are not exempt from disclosure under the Public

² Source: California Attorney General's 1994 pamphlet, "The Brown Act: Open Meetings for Local Legislative Bodies."

Records Act must be provided, upon request, to members of the public without delay.

- Required Notices and Agendas. An agenda containing a brief general description (approximately twenty words in length) of each matter to be discussed must be posted at least 72 hours prior to each meeting. Addition requirements apply to special and emergency meetings. Exceptions are allowable in the case of emergency circumstances, or where a need for immediate action comes to the attention of the Management Committee after the posting of the agenda.

Brown Act compliance is specified in MOU section II.B.6, and is limited to meetings of the Management Committee³. Although subcommittees, workgroups, and other bodies established by the Management Committee are not subject to this requirement, Copermittees will generally endeavor to abide by these rules whenever appropriate.

2.d. Subcommittees and Workgroups

Subcommittees and workgroups⁴ have been established by the Copermittees, and will continue to be established, or discontinued, as necessary to address focused issues within their respective subject areas.

2.e. Budget Subcommittee

The Budget Subcommittee is tasked with developing by January 31 of each year⁵ a proposed budget of shared Copermittee costs for review and approval by the Management Committee. This budget addresses the following elements:



- Stormwater Permit Fees
- Receiving Waters Monitoring and Reporting Program
- Regional Outreach and Education Program
- Regional Stormwater Hotline
- Contribution to the California Stormwater Quality Task Force
- Additional elements which have received unanimous consent of the Management Committee

The Budget Subcommittee also coordinates with other subcommittees and workgroups tasked by the Management Committee with developing specific program content and budgets.

³ Copermittees do not waive their right to take the position that the Brown Act legally does not apply, but voluntarily agree to follow Brown Act procedures for Management Committee meetings.

⁴ Subcommittees and Workgroups are functionally the same. They are named differently because the Subcommittees were established by the Copermittees' Management Committee and the Workgroups were established under the County's Project Clean Water program. Both terms follow the convention under which they were established.

⁵ These timelines are not applicable for Fiscal Year 2001-02 since the Copermittee MOU was not formally executed. These deadlines will be adhered to for the remainder of the Permit cycle.

2.f. Monitoring Subcommittee

The Copermittees' Monitoring Subcommittee is responsible for working with the Copermittees' Receiving Waters Monitoring Program contractor to develop a scope-of-work and budget for the upcoming year, and for providing these to the Budget Subcommittee. This group also provides a forum for the collaborative development of standards and/or programs for monitoring activities not addressed as part of this regional program. To date, this has included the Copermittees' dry weather analytical and field screening monitoring programs and the Coastal Storm Drain Outfall Monitoring Program. As in the past, this group may also consider and recommend the funding of special studies not explicitly required in the Municipal Permit.



2.g. Education and Outreach Subcommittee

The Copermittees' Education Subcommittee is responsible for providing to the Budget Subcommittee a recommended annual budget and scope-of-work for shared regional outreach activities and programs. Additionally, this group provides coordination of outreach activities, which are jointly conducted by the Copermittees. Examples of activities that may be addressed include workshops and informational materials for businesses, measurement of program effectiveness, and the development of consistent outreach themes and training tools. The purpose of these activities will be to complement, rather than replace, other jurisdictional- and watershed-based efforts.



The Subcommittee also provides an ongoing forum for sharing resources, disseminating materials, developing collaborative programs, and promoting the regional application of shared resources such as the stormwater hotline. The Subcommittee will focus on the development and implementation of activities, which promote a consistent message to target populations.

2.h. Data and Information Management Workgroup

A Data and Information Management Workgroup was established in August 2001 to characterize data and information management issues and needs presented by the Municipal Permit, and to provide guidance to Copermittees in addressing these issues. A primary focus of the January 2002 Data and Information Plan developed by this group was the use of Geographic Information Systems (GIS) in supporting Municipal Permit compliance. This workgroup will continue to meet indefinitely to address ongoing data management needs and to investigate other tools, options, and technologies available to Copermittees to better support future management efforts.

2.i. **Watershed URMP Workgroup**

A regional Watershed URMP Workgroup, which is made up of representatives from each jurisdiction, began meeting in January 2002. Copermittees tasked this group with developing a “Model Watershed URMP” in an effort to ensure consistency in the development of watershed specific Watershed URMPs. The guidance document has since been completed, but this workgroup will continue to serve as an ad hoc forum, meeting as determined necessary by the Copermittees, for the future discussion of common watershed-level issues including the preparation of the model for Annual Reports.

Watershed specific Watershed URMP Workgroups began meeting in the summer of 2002. Copermittees tasked these groups with tailoring the Model Watershed URMP specifically to their individual watershed. It is intended that once the Watershed URMPs have been submitted to the Regional Water Quality Control Board, the groups will continue meeting as necessary to coordinate the implementation of the activities outlined in the document.

2.j. **Project Clean Water Technical Advisory Committees**

Project Clean Water, initiated in July 2000, established a framework for the broad-based and collaborative development of solutions to local water quality issues. The relationship of Project Clean Water policies to Municipal Permit compliance is important. An underlying tenet of this effort is that Municipal Permit compliance alone cannot achieve clean water. As such, Project Clean Water seeks to actively involve a multitude of stakeholders in exploring water quality issues, their causes, and their solutions. This significantly broadens the base of stakeholder input available to consider issues directly related to Municipal Permit compliance. As with Copermittee meetings, all Project Clean Water meetings are open to the public and participation is encouraged through a variety of avenues including a website, electronic notifications and personal phone calls.



Project Clean Water is generally organized according to two types of working bodies, Technical Advisory Committees (TACs) and Technical Workgroups⁶. TACs are responsible for the overall coordination and exploration of four broad subject areas crucial to water quality management; (1) Comprehensive Planning, (2) Legislative and Regulatory Issues, (3) Science and Technology, and (4) Education and Resource Development. Each TAC compiled a baseline inventory and initial assessment of activities and issues for its respective subject area during the first phase of the project, and is now conducting a more intensive issues characterization and implementing specific action items identified in the June 2001 Clean Water Strategic Plan Plan. Technical Workgroups generally explore more focused issues. During 2001, Technical Workgroups emphasized stormwater permit compliance, and developed eight model program guidances and other work products intended to ensure public input during the development

⁶ During 2001, all Copermittees and SDRWQCB staff participated in one or more Project Clean Water TACs or Technical Workgroups.

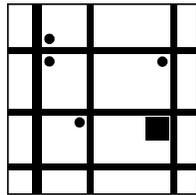
of these programs. Technical Workgroups will continue to deal with specific focused issues.

To provide information on meetings, work products, and other valuable links to the public and interested parties, a Project Clean Water website (www.projectcleanwater.org) was launched in January 2001. To date, interested parties have extensively utilized the site to post various work products for review and comment. It is the goal of the program to establish this site as a centralized source of water quality information for the San Diego region.

2.k. Other Subcommittees and Workgroups

Additional Subcommittees and Workgroups will be established as needed to address particular issues not yet identified. These may be permanent or ad hoc. Participation may vary depending on the particular focus of the group.

2.l. Inventoried Land Use – Action Plan



Section J.2.a of the Municipal Permit requires that each Copermittee collaborate with all other Copermittees to provide an accurate map (preferably in a Geographical Information System (GIS) format) that includes in part inventories of commercial, construction, industrial, municipal sites and residential areas. The Copermittees have discussed this requirement and their concerns about the usefulness of these maps with representatives from the SDRWQCB. Below are a few of the concerns that were raised by the Copermittees.

1. Accuracy of the Information. The information collected will only reflect a snapshot in time. Commercial and industrial businesses change regularly (businesses close, relocate, modify services, etc).
2. Availability of Information. Some jurisdictions currently lack the mechanism(s) needed to accurately track commercial and industrial business information in an economical and efficient manner. Such mechanisms are expected to be identified and refined over time, given the need to use the same information in implementation of the Jurisdictional URMPs.
3. Utility of Land Use Inventory. Once the businesses have been identified and plotted on a map, which will be presented as thousands of dots, the inventories map will look much like a land-use map. For this reason, the maps currently provided in the individual Watershed URMPs include the inventories indirectly as land use coverages.

The Copermittees continue to work collaboratively to identify appropriate ways and means of adequately satisfying the Municipal Permit requirements. Currently, the Copermittees have outlined the milestones necessary to complete this goal. The milestones are intended to coincide with the annual WURMP reporting requirements and are presented in Table 2-1 below.

The Copermittees may revisit the requirement and/or strategy to complete the inventories map based on further research into its utility.

Table 2-1: Milestones for Mapping Land Use Inventory

#	Activity	Copermittee Responsibility	Completion Date
1	Individual Copermittees code their respective inventoried list in a manner that allows for regional compilation of the data.	All Copermittees	January 2004
2	Copermittees identify and develop mechanisms to adequately map or alternatively display or provide the inventory information in a GIS or similarly useful format.	All Copermittees	January 2005
<i>Note: Copermittees will complete the above activities contingent upon adequate funding in future years.</i>			

2.m. **Standardized and Unified Reporting**

Watershed URMP. As directed by Municipal Permit section N.b, the Copermittees have collaborated to develop standardized formats and electronic reporting protocols for all reports specified under the Municipal Permit. Appendix A.2.2 of the Unified Jurisdictional URMP provides a Watershed URMP Standard Outline. It was further discussed in the Unified Jurisdiction URMP document that since Copermittees were still in the initial stages of developing an outline that addressed Watershed URMP content, changes to the standard outline were to be expected. As anticipated, the Copermittees have modified the Watershed URMP Standard Outline (the organization and headings have changed). Overall, however, the document closely follows the format originally submitted in the Unified Jurisdictional URMP. A copy of the revised standardized format can be found in Appendix A.II.3 of the Unified Watershed URMP. This format identifies the sections and headings that were agreed to by the Copermittees. Contents and organization within these sections and headings may vary between Watershed URMPs.



Watershed URMP Annual Reports. Appendix A.II.4 of the Unified Watershed URMP includes the standard formatting requirements for the Watershed URMP Annual Report. As with the Watershed URMP Standard Outline, this format will likely need to be augmented during 2003. If so, the Watershed URMP Workgroup will develop a more detailed format.

2.n. **Protocols for Reporting**

Unless otherwise directed, Copermittees will comply with the software requirements summarized in Table 2.2 below for all electronic submittals. Additional specificity may be added to these standards at a later time as program

requirements and data management strategies continue to evolve, or as other suitable file types and formats are identified.

Table 2-2: Software and File Type Standards for Electronic Submittal

Data Type	Software Standard
Text	Microsoft Word 2000, Adobe Acrobat (*.pdf), or compatible
Spreadsheets	Microsoft Excel 2000, Adobe Acrobat (*.pdf), or compatible
Databases	Microsoft Access 2000, Adobe Acrobat (*.pdf), or compatible
Maps	Industry accepted graphics formats (*.bmp, *.tif, *.jpg, *.pdf, etc.) unless otherwise specified

Except as otherwise specified, all reports will be submitted via the County in its capacity as Principal Copermitttee. To ensure that the County has adequate time to collate materials and to develop common sections, Copermitttees will meet the submittal deadlines summarized in Table 2.3.

Table 2-3: Copermitttee Annual Report Submittal Dates

Report	Date Due To Principal Copermitttee	Date Due To SDRWQCB
Watershed URMP Annual Report	January 1, 2004 / annual thereafter ¹	January 31, 2004 / annual thereafter

¹ On or within a few weeks of.

As per existing direction from the SDRWQCB, all annual report elements will be submitted both electronically and in hard copy as follows.

- Two hard copies (1 for the SDRWQCB; 1 for the Principal Copermitttee)
- Three electronic copies on CD-ROM (2 for the SDRWQCB; 1 for the Principal Copermitttee)

Where possible, Copermitttees will include all report elements (text, maps, etc.) in their electronic submittals. If some elements cannot be submitted electronically (e.g., hard copy maps which are too large to scan, etc.), the specifics of the situation will be documented in the submittal.

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III. CONCLUSIONS

3. CONCLUSIONS

The Copermittees recognize that they face several significant challenges in developing and implementing these programs. Further, the Copermittees consider these programs to be in their infancy and expect that they will need to be refined and augmented over the long term as we develop a better understanding of the complex issues affecting our watersheds and learn to identify and pursue joint opportunities to positively affect the water resources in the region.

In order to further build on these initial watershed programs, the programs have been developed as a cyclical process of watershed assessment, priority setting, monitoring, and implementation. At the conclusion of each yearly cycle, the process begins anew, allowing participants to respond to changing conditions or adjust strategies that have not performed as anticipated. This framework establishes mechanisms for the participants to evaluate priorities, improve coordination, assess program goals, and allocate finite resources within geographic areas. It will also better address the issue of impaired water quality caused by nonpoint sources.

Adaptive management is a key requirement for the process to work. Adaptive management allows adjustments in the management direction as new information becomes available. The combination of natural variability in the hydrologic cycle and the uncertainty associated with a complex system requires that watershed managers be flexible enough to modify implementation approaches based on progress and available information. Combinations of watershed characteristics, sources of pollutants, and management approaches are unique, and therefore, management efforts may not proceed exactly as planned. Adaptive management does not mean that the watershed's water quality goals would be modified based upon lack of progress, but that the results would be used to modify management objectives, strategies, practices, and operation and maintenance procedures to reach goals.

Although many of our programs and activities are already in place, the Copermittees emphasis will now shift toward continuing and/or improving upon them. It cannot be overstated that our approach needs to be iterative. Stormwater management is an evolving process for both regulators and regulated parties. The Copermittees committed to working cooperatively with SDRWQCB staff and interested stakeholders in continuing to improve our programs, as well as our overall understanding of the factors and processes that affect the quality of urban runoff. We are particularly committed to further developing the technical scientific basis upon which management decisions are based.



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APPENDICES

Appendix A: Documents Cited

- A.II.1 Signed Certified Statements
- A.II.2 Fully Executed Copy of the Memorandum of Understanding (MOU)
- A.II.3 Watershed URMP Standardized Outline
- A.II.4 Standardized Format for Watershed URMP Annual Report
- A.II.5 Individual Watershed URMPs

Appendix B: Bibliography and Works Cited

Project Clean Water. Project Clean Water Website (www.projectcleanwater.org)

San Diego Regional Water Quality Control Board (SDRWQCB). Fact Sheet/Technical Report For SDRWQCB Order No. 2001-01 Municipal Storm Water Permit For San Diego County And Cities. November 2001.

SDRWQCB. Municipal Storm Water Permit Order No. 2001-01. February 2001.

SDRWQCB. Water Quality Control Plan for the San Diego Basin (9). September 1994.