

REGIONAL MONITORING WORKGROUP – MEETING SUMMARY

County of San Diego
5201 Ruffin Road, Suite P
San Diego, CA 92123
Tuesday, September 29, 2009
10:00am – 12:00pm

Attendees:

Name	Organization
Jo Ann Weber	County of San Diego
Scott Norris	County of San Diego
Lisa Kay	Weston Solutions
David Renfrew	Weston Solutions
Steve Gruber	Weston Solutions
Phil Gibbons	Port of San Diego
Eric Steenblock	City of Encinitas
Chris Helmer	City of Imperial Beach
Joe Kuhn	City of La Mesa
John Quenzer	City of National City (D-MAX)
Alison Witheridge	City of Oceanside
Andre Sonksen	City of San Diego
Helen Perry	City of Santee
Jerome Jaminet	TRC Solutions
Annie Hill	Airport Authority
Blake Behringer	City of El Cajon
Khosro Aminpour	City of Chula Vista
Malik Tamimi	City of Poway

REGIONAL MONITORING

Weston provided the group with the following updates on monitoring activities:

Regional Monitoring

- Mass Loading Stations/ Temporary Watershed Assessment Stations
 - The Otay TWAS station was vandalized and the box stolen. Awaiting Port decision to move box.
 - Waiting for Caltrans permit for two other sites.
 - Because most of the southern sites are dry, they will wait to complete the ambient event until after base flow returns.
- Source ID Monitoring Program 09-10
 - Weston received the equipment and is planning to install the monitoring stations in Oceanside and Del Mar by the end of the second week of October.
- MS4 Outfall Monitoring Program
 - Targeted Wet weather stations are being installed.
- Weston is in the process of writing the Regional Monitoring Annual Report for FY08-09. The first draft will be given to the Copermitees by October 19th.
 - Weston will be sending out CDs of the Draft report. If you would like a hard copy contact JoAnn Weber.
 - Comments are due by November 18th
 - Closed meeting will be on December 15th to address comments.

REVIEW OF MS4 MONITORING DATA EVALUATION

It was decided that Weston would present the Basin Plan objectives in the Annual Report as a benchmark for MS4 evaluation. There was concern that these could be construed as numeric effluent limits. However, the intention is to use benchmarks to help answer the question "Does the MS4 discharge contribute to receiving waters water quality problems?" Steve Gruber (Weston) will send out a draft of the MS4 section for all to review the wording.

ANNUAL REPORT UPDATE (WESTON)

Weston provided a handout of a draft page of diamond rating tables. The ambient data, dry weather, and MS4 data were all separated.

- Last year, used NNE; this year using Basin Plan. Creates more diamonds primarily for Total Nitrogen because the Basin Plan objective is 1 mg/L in MS4 table. A Nitrate objective of 10 mg/L is still used for Dry Weather data.

BUDGET

COUNTY INVOICE

Last month, group approved the reimbursement of Copermittee invoices. Attached is the County of San Diego's invoice for group review. The main expense was the 5% contract fee for the Regional Monitoring contract. The group approved the invoice and all invoices will be sent to the Program Committee and ultimately to the Management Committee for final approval.

2008-09 BUDGET

The SCCWRP Microbiology contract did not get executed in time to conduct the bacteria regrowth study during a dry weather period. This amount, approx. \$199,000 (including 5% sub-contract fee) was proposed to be rolled-over to the 2009-10 budget and will be completed during the 2010 dry weather season.

There was an approximate \$33,000 carry-over proposed to the 2009-2010 budget because no TIEs were required during the 2008-09 fiscal year.

The group approved the rollover of funds to the 2009-2010 budget.

2010-11 BUDGET

There were two handouts: Weston proposed budget and Monitoring Workgroup budget.

- Weston Budget
 - MLS, bioassessment, and pyrethroid increased costs primarily due to two additional northern sites (compared to southern sites).
- Sub-workgroup Budget
 - Costs based on 2009-10 budgets
 - New item: Regional monitoring portion of Report of Waste Discharge (ROWD) and Long Term Effectiveness Assessment (LTEA).

2009-10 BUDGET

Subtask 2.D. was the creation of the conceptual Regional Watershed Monitoring Plan for \$50,000. We will discuss with WURMP Workgroup on how to proceed on this item.

303(d) LIST UPDATE

The extension for comments on the 2008 303(d) list was granted. Comments are due October 26th. If you find missing links on the RWQCB website, let the RB or JW know. Can query analytical data at <http://bdat.ca.gov/>. Suggest the first step in reviewing listings should be looking at the fact sheets and checking for accuracy.

UC-RIVERSIDE WATER SCIENCE & POLICY CENTER RESEARCH TOPICS

UC-Riverside, via Mo Lahsaie, is looking for relevant research topics for the new Water Science and Policy Center. Topics brainstormed:

- Bacteria Source Tracking
- Influences of groundwater and surface water interactions (such as TDS)
- Programmatic effectiveness assessments
- BMP effectiveness assessments
- Site specific nutrient data collection
- Transport mechanism of pollutants in water
- Aerial deposition (nutrients, metals, toxicity)
- Correlate assimilation capacity of receiving water with storm drain effluent levels. Or linking or not linking effluent limits with related pipe effluent and receiving water levels.

If you have any additional ideas, please forward to Mo at mlahsaie@ci.oceanside.ca.us.

SQO (SEDIMENT QUALITY OBJECTIVES) APPROVED BY EPA

SQO's were approved by EPA. It is not clear how the RWQCBs will use SQOs for future 303(d) listings.

FUTURE MEETING

The next Regional Monitoring Workgroup meets on **Tuesday, October 27, 2009** from 10am-12pm at the County of San Diego at 5201 Ruffin Road, Suite P, San Diego, CA 92123.

Tentative AGENDA
San Diego Regional Monitoring Workgroup
 County of San Diego, 5201 Ruffin Rd, Ste. P, San Diego, CA 92123
Tuesday, September 29, 2009
10:00 AM – 12:00 PM

1. Introductions (10 to 10:05 am)
2. Approve meeting notes from August 25, 2009 meeting
3. Regional Monitoring Activities Update (10:05 to 10:10)
 - Regional Monitoring Activities Update
4. Preliminary review of draft sections or consultant's questions on the 2008-2009 Runoff Annual Report due to RWQCB on February 1, 2010 (10:10 to 10:30)

Deliverable Schedule for 2008-2009 Annual Report	Date
Review Draft Outline of Watershed Section with Copermittees	7/28/2009
Draft Report to Copermittees	10/19/2009
Comments Due to Weston	11/18/2009
Provide a Proposed Response to Comments to Monitoring Group Chair	12/4/2009
Response to Comments Meeting	12/15/2009
Final Report to Copermittees	1/7/2010
Copermittee Management Committee votes for approval to submit Report to RWQCB on February 1, 2010	1/14/2010

5. Review of MS4 Monitoring Data Evaluation – What benchmark values will be used? (10:30 to 10:45)
6. Revisit approval of Copermittees Invoices for 2008-2009 (County of San Diego's invoice) and request to carry over funds to 2009-2010 budget (10: 45 to 11:00)
7. Discussion of 2010-2011 Regional Monitoring Budget (11:00 to 11:30)
8. Updates on 303(d) List (11:30 to 11:45)
9. Brainstorm Ideas for Mo's request – Research topics for the UC-Riverside Water Science & Policy Center (11:45 to 11:55)
10. Other Items (please bring to meeting)
11. Future Meetings - The following meetings are at the County of San Diego, Location will be 5201 Ruffin Rd, Ste. P, San Diego, CA 92123

Tuesday, October 27, 10 am to Noon
 Tuesday, November 24, 10 am to Noon
 Tuesday, December 15, 10 am to Noon (Copermittees-Only)
 Tuesday, January 26, 10 am to Noon

Note: Workshop #3 for Updating the Priority Rating System – Revamping the LTEA and Diamond Systems is to be scheduled for late October or November.

For updated meeting schedule, agendas and meeting summaries visit
www.projectcleanwater.org

DRAFT
County of San Diego Copermittees
Regional Receiving Waters and Urban Runoff Monitoring and Reporting Program
2010-2011 Monitoring Season Activities

Purpose and Objectives

The purpose of this document is to provide a comprehensive description of activities that will be completed during the 2010-2011 monitoring year by the County of San Diego Copermittees to comply with the Receiving Waters and Urban Runoff Monitoring and Reporting Program Number R9-2007-0001 (Order). Permit year four (October 1, 2010 through September 30, 2011) of the Order is being used as the basis for these activities. Monitoring will primarily occur in the northern section of San Diego County as outlined in Table 1 of the Order. The specific objectives of this monitoring program as stated in the Order and as it applies to this scope of services are intended to meet the following goals:

1. Assess compliance with Order No. R9-2007-0001;
2. Measure and improve the effectiveness of the Copermittees' urban runoff management programs;
3. Assess the chemical, physical, and biological impacts to receiving waters resulting from urban runoff discharges;
4. Characterize urban runoff discharges;
5. Identify sources of specific pollutants;
6. Prioritize drainage and sub-drainage areas that need management action;
7. Detect and eliminate illicit discharges and illicit connections to the MS4;
8. Assess the overall health of receiving waters.

In addition, this program is designed to answer the following core management questions:

1. Are conditions in receiving waters protective, or likely to be protective, of beneficial uses?
2. What is the extent and magnitude of the current or potential receiving water problems?
3. What is the relative urban runoff contribution to the receiving water problem(s)?
4. What are the sources of urban runoff that contribute to receiving water problem(s)?
5. Are conditions in receiving waters getting better or worse?

To accomplish the goals above:

- Monitoring occurs on a rotating schedule in the north and south portions of the County on an annual basis. The temporary watershed assessment stations (TWAS) are located upstream of the historical mass loading stations (MLS) or in other tributaries (where needed) and will allow for better spatial coverage of each watershed. The 2010-2011 monitoring of MLS and TWAS occurs in the northern watershed management areas (WMAs) (Santa Margarita River WMA, San Luis Rey River WMA, Carlsbad WMA, San Dieguito River WMA, and Peñasquitos WMA) and in Chollas Creek.
- Continued implementation of a monitoring and reporting program that allows for determination of annual and long-term trends of ecological health in receiving waters of the County based upon chemical, physical, and biological evidence. This program is designed to facilitate watershed-based assessments.

- Implement a program that assesses compliance with Regional Water Quality Control Board (RWQCB) Order No. R9-2007-0001.

Relevant sub-objectives include:

- Continued implementation of a phased and scientifically based program that provides mechanisms for identifying potential problems.
- Continued implementation of an adaptive approach that provides the data necessary to answer specific questions, or that can eliminate redundancy.
- Continued implementation of a program that measures the effectiveness of Urban Runoff Management Plans and other pollutant reduction strategies.
- Continued implementation of a program that integrates with other regional programs involved in assessing the overall health of receiving water in San Diego County and Southern California.

OUTLINE OF ACTIVITIES

The 2009-2010 monitoring year includes the following broad activities from the Core Receiving Waters Monitoring Program Section of the Order and from the Regional Monitoring workgroup meetings. Details of each activity are provided in the following pages. Activities identified are in the same order as presented in the Order.

Mass Loading Station and Temporary Watershed Assessment Station Monitoring

Monitoring will be conducted at Mass Loading Stations (MLS) and Temporary Watershed Assessment Stations (TWAS). Activities include identifying suitable locations and installing nine TWAS. The TWAS will be located upstream from the MLS in strategic locations designed to improve the understanding of where constituent loadings are occurring.

Chemical, bacteriological, and toxicity testing of dry weather (ambient) flows from seven MLS and nine TWAS located within the northern watersheds of San Diego County (including the MLS in Chollas Creek (total of 16 sites) as indicated in Table 1 of the Order. Wet weather monitoring will occur during the first rainfall event on or after October 1, 2010 and during one monitoring event after February 1, 2011. Trash assessments will be conducted at each site in accordance with the Monitoring Workplan for the Assessment of Trash in San Diego County. Dry weather monitoring will occur in fall 2010 and in spring 2011. The spring 2011 dry weather monitoring will coincide with the stream bioassessment task listed below in Activity #2.

Sediment samples will be collected within two weeks following the first storm of the season from seven MLS and nine TWAS located within the northern watersheds of San Diego County and in Chollas Creek (total of 16 sites). These samples will be analyzed for synthetic pyrethroids, total organic carbon, and grain size distribution. Samples will be collected in accordance with the Monitoring Workplan for the Assessment of Synthetic Pyrethroids in San Diego County.

Bioassessment Monitoring and 2011 SMC Monitoring Program

In accordance with Addendum No. 2 to Order R9-2007-0001, stream bioassessment surveys will occur at 19 stations and 3 reference stations during spring 2011. The Copermittees will also participate in the Storm Water Monitoring Coalition (SMC) spring 2011 Monitoring Program in lieu of conducting the fall 2010 Bioassessment Monitoring Program.

Bioassessment surveys will coincide with the spring dry (ambient monitoring) event described above in Activity #1. Benthic macroinvertebrates and physical habitat data will be collected following the *Surface Water Ambient Monitoring Program (SWAMP) Standard Operating Procedures for Collecting Benthic Macroinvertebrates and Associated Physical and Chemical Data* (Ode 2007) using the reach-wide benthos method. Benthic algae (periphyton) monitoring will be conducted in accordance with the *Draft SWAMP Reachwide Benthos Method for Stream Algae Sampling and Associated Physical Habitat Data Collection. California State Water Resources Control Board Surface Water Ambient Monitoring Program (SWAMP) Bioassessment SOP 00X* (Fetscher et al., 2009). Samples will be collected and processed for ash-free dry mass (AFDM), chlorophyll-A analysis, and periphyton taxonomy. Reach-wide algal cover will be quantified as part of the SWAMP physical habitat assessment.

The SMC Monitoring will be conducted following the protocols developed by the SMC Bioassessment Technical Workgroup. This program will be conducted throughout southern California and is anticipated to be included in future National Pollution Discharge Elimination System (NPDES) Permits. Twenty-four stations are scheduled for monitoring in San Diego County. The San Diego RWQCB has committed to sampling 8 stations. The Copermittees of San Diego have committed in the 2010-2011 monitoring season to sample the remaining 16 stations. Water quality monitoring, toxicity testing, and bioassessment monitoring will be conducted in accordance with the SMC Final Monitoring Workplan and Quality Assurance Program Plan developed during spring 2009.

Toxicity Identification Evaluations (Follow-Up Analysis and Actions)

Toxicity Identification Evaluations (TIEs) will be used to determine the causative agent of toxicity based on the Triad Approach to determining follow up actions. TIEs will be conducted on samples exhibiting persistent toxicity. During the 2007-2008 monitoring season, TIEs conducted in Agua Hedionda Creek identified synthetic pyrethroids as the likely causative agent of toxicity to *Hyalella azteca*. TIEs will not be conducted in Agua Hedionda Creek unless significant changes in water chemistry results are observed.

Ambient Bay and Lagoon Monitoring

Ambient Bay and Lagoon Monitoring (ABLM) will be conducted as a special study in accordance with goals listed in the Order and in the May 3, 2007 letter from the RWQCB (SWPU: 10-5000.03: bussel). The Copermittees have addressed these requirements by assessing the data collected to date and by developing a monitoring program that builds on recent lagoon monitoring program data.

During summer 2011, the Copermittees will conduct the ABLM Program in the Sweetwater River Estuary and San Elijo Lagoon. Samples will be collected from 6 sediment stations and 2

water quality stations in each estuary/lagoon in accordance with the 2010-2012 Ambient Bay and Lagoon Monitoring Workplan. Samples collected from sediment locations will be analyzed for sediment chemistry, sediment toxicity, and benthos for the purpose of assessing the data with respect to the recently developed Sediment Quality Objective Guidelines for Enclosed Bays and Estuaries. Water quality samples will be collected from two stations per estuary/lagoon and analyzed for chemistry and physical parameters.

The sampling design was developed to answer two specific questions as follows:

1. To determine the stressors (both natural and anthropogenic) that influences the distribution of benthic organisms.
2. To determine the stressors (both natural and anthropogenic) that contributes to amphipod toxicity.

Coastal Storm Drain Monitoring

The Coastal Storm Drain Monitoring Program is conducted by the coastal Copermittees. The Coastal Monitoring Program Workplan details their specific activities submitted with the Scope of Work for Monitoring Activities for 2010-2011.

Synthetic Pyrethroid Monitoring

Synthetic pyrethroid monitoring elements will be conducted in accordance with the Monitoring Workplan for the Assessment of Synthetic Pyrethroids in San Diego County and included in the Scope of Work for Monitoring Activities for 2007-2008. Post storm sediment samples will be collected from the northern MLS and TWAS locations and in Chollas Creek within two weeks following the first flush storm event. Synthetic pyrethroids are also analyzed during the wet weather water quality monitoring at the MLS and TWAS.

MS4 Outfall Monitoring

MS4 outfall monitoring will be conducted in accordance with the Municipal Separate Storm Sewer System (MS4) Outfalls Monitoring Program in San Diego County Watershed Management Areas Workplan. Activities include conducting wet weather and dry weather random sampling and wet weather and dry weather targeted sampling within each of the nine watershed management areas.

Under the wet weather and dry weather random sampling program, the Copermittees plan to collect 54 wet and 54 dry samples to be analyzed for chemistry and microbiology parameters. Six samples per WMA will be collected during wet events and six samples per WMA will be collected during dry events within each of the nine watershed management areas (total of 54 wet and 54 dry per year).

Wet weather targeted sampling will occur at three separate watershed stations during one wet weather event. Pollutograph sampling will be conducted for chemical, physical, and microbiology parameters. Dry weather targeted sampling will be conducted by individual jurisdictions during summer 2011. Samples will be analyzed for the priority water quality problem constituents specific to the WMA being sampled.

Source Identification Program Implementation

Source Identification monitoring will be conducted in accordance with the Urban Runoff Source Identification Program in San Diego County Watersheds Workplan. The 2010-2011 Source Identification Study is will be developed collaboratively within the Copermittee Monitoring Workgroup.

Dry Weather Field Screening and Analytical Monitoring

As part of its Jurisdictional Urban Runoff Urban Management Program (JURMP), each Copermittee conducts dry weather field screening and analytical monitoring that includes follow-up investigations as needed. The Copermittees voluntarily coordinate many aspects of this program through the Copermittees Dry Weather Monitoring Workgroup.

TMDL Monitoring

All monitoring shall be conducted as required in Investigation Order No. R9-2004-0277 for Chollas Creek. The Chollas Creek Watershed Copermittees have worked collaboratively to develop the Chollas Creek Dissolved Metals TMDL Implementation Plan. The monitoring plan developed under this program includes addressing the analytes required by Order No. R9-2004-0277 and includes special studies for assessing the jurisdictional boundaries, synthetic pyrethroids, metals source identification sites, and microbiology.

Regional Harbor Monitoring

The Regional Harbor Monitoring Program (RHMP) is implemented by a subset of Copermittees who have committed to continue implementing the program.

Monitoring Reporting

A report of results, data analysis, and findings from the 2010-2011 monitoring program will be presented to comply with the Order reporting requirements of Section III.A. The final annual report will be submitted to the SDRWQCB to meet the January 31, 2012 due date.

DETAILS OF ACTIVITIES

Additional details where warranted are provided in the following pages.

RECEIVING WATERS MONITORING

Mass Loading Station and Temporary Watershed Assessment Station Monitoring

Season Mobilization and Demobilization of MLS/TWAS Monitoring Stations

- MLS and TWAS will be installed and maintained to perform flow monitoring and sampling during the monitoring year (September 1-June 30).
- Site location planning and installation of Temporary Watershed Assessment Stations (TWAS).
- Flow monitoring data will be collected throughout the monitoring season for the purpose of estimating annual watershed loads.

Stream Ratings

Stream ratings will be performed using USGS stream rating techniques. Where necessary, MLS and TWAS channels will be surveyed and rating curves will be developed using appropriate flow equations. During wet weather monitoring events, flow rates will be measured using an acoustic doppler current profiler (ADCP), where conditions allow, to calibrate the upper range of the rating curve for each site. Ratings curves may require periodic validation or re-calibration based on channel dimensions that may shift due to channel bed erosion or deposition throughout the year. Regular station maintenance activities include periodic stream ratings.

Water Quality Monitoring at 7 Mass Loading Stations (MLS) and 9 Temporary Watershed Stations (TWAS) During Dry Weather (Ambient) Flow Events

- Event Mobilization and Demobilization
- Dry Weather Event Field Monitoring
- Dry Weather Event Chemistry Analyses
- Dry Weather Event Microbiology Analyses
- Dry Weather Event Toxicity Analyses
- Dry Weather Event Data Management and Report QA

Each MLS and TWAS will be monitored twice during the monitoring period for dry weather flow per the Order. This monitoring is performed on a rotating schedule in accordance with Table 1 of the Order. Dry weather monitoring events will occur during September or October of 2010 and May or June of 2011 at the following MLS sites (historical site locations will be used):

- Santa Margarita River
- San Luis Rey River
- Agua Hedionda Creek
- Escondido Creek
- San Dieguito River
- Los Peñasquitos Creek
- Chollas Creek

In the event that flow is not observed during the fall 2010 monitoring event, and if flow is observed during the wet weather season, sampling will occur during non storm events (e.g. > 72 hours after a storm event).

A total of nine TWAS will be sited and installed in the following waterbodies:

- San Luis Rey River (2 sites)
- Buena Vista Creek (1 site)

- Agua Hedionda Creek (1 site)
- Escondido Creek (1 site)
- San Dieguito River (2 sites)
- Los Peñasquitos (2 sites)

A summary of the site locations and the rationale for their selection are provided in Table 1 for the MLS and Table 2 for the TWAS.

Table 1. List of Mass Loading Station Locations for the 2010-2011 Monitoring Year

Station ID	Station Name	County	Watershed	Watershed Sub-Region	Watershed Sub-Region	Watershed Sub-Region	Watershed Sub-Region
010101	010101	010101	010101	010101	010101	010101	010101
010102	010102	010102	010102	010102	010102	010102	010102
010103	010103	010103	010103	010103	010103	010103	010103
010104	010104	010104	010104	010104	010104	010104	010104
010105	010105	010105	010105	010105	010105	010105	010105
010106	010106	010106	010106	010106	010106	010106	010106
010107	010107	010107	010107	010107	010107	010107	010107
010108	010108	010108	010108	010108	010108	010108	010108
010109	010109	010109	010109	010109	010109	010109	010109
010110	010110	010110	010110	010110	010110	010110	010110
010111	010111	010111	010111	010111	010111	010111	010111
010112	010112	010112	010112	010112	010112	010112	010112
010113	010113	010113	010113	010113	010113	010113	010113
010114	010114	010114	010114	010114	010114	010114	010114
010115	010115	010115	010115	010115	010115	010115	010115
010116	010116	010116	010116	010116	010116	010116	010116
010117	010117	010117	010117	010117	010117	010117	010117
010118	010118	010118	010118	010118	010118	010118	010118
010119	010119	010119	010119	010119	010119	010119	010119
010120	010120	010120	010120	010120	010120	010120	010120

Table 2. List of Temporary Watershed Locations for the 2010-2011 Monitoring Year

Watershed	Monitoring Location	Location	City/County	Monitoring Agency
Redwood Creek	RD-774-S-1		Washoe	Washoe County
Redwood Creek	RD-774-S-2		Washoe	Washoe County
Redwood Creek	RD-774-S-3		Washoe	Washoe County
Redwood Creek	RD-774-S-4		Washoe	Washoe County
Redwood Creek	RD-774-S-5		Washoe	Washoe County
Redwood Creek	RD-774-S-6		Washoe	Washoe County
Redwood Creek	RD-774-S-7		Washoe	Washoe County
Redwood Creek	RD-774-S-8		Washoe	Washoe County
Redwood Creek	RD-774-S-9		Washoe	Washoe County
Redwood Creek	RD-774-S-10		Washoe	Washoe County
Redwood Creek	RD-774-S-11		Washoe	Washoe County
Redwood Creek	RD-774-S-12		Washoe	Washoe County
Redwood Creek	RD-774-S-13		Washoe	Washoe County
Redwood Creek	RD-774-S-14		Washoe	Washoe County
Redwood Creek	RD-774-S-15		Washoe	Washoe County
Redwood Creek	RD-774-S-16		Washoe	Washoe County
Redwood Creek	RD-774-S-17		Washoe	Washoe County
Redwood Creek	RD-774-S-18		Washoe	Washoe County
Redwood Creek	RD-774-S-19		Washoe	Washoe County
Redwood Creek	RD-774-S-20		Washoe	Washoe County
Redwood Creek	RD-774-S-21		Washoe	Washoe County
Redwood Creek	RD-774-S-22		Washoe	Washoe County
Redwood Creek	RD-774-S-23		Washoe	Washoe County
Redwood Creek	RD-774-S-24		Washoe	Washoe County
Redwood Creek	RD-774-S-25		Washoe	Washoe County
Redwood Creek	RD-774-S-26		Washoe	Washoe County
Redwood Creek	RD-774-S-27		Washoe	Washoe County
Redwood Creek	RD-774-S-28		Washoe	Washoe County
Redwood Creek	RD-774-S-29		Washoe	Washoe County
Redwood Creek	RD-774-S-30		Washoe	Washoe County
Redwood Creek	RD-774-S-31		Washoe	Washoe County
Redwood Creek	RD-774-S-32		Washoe	Washoe County
Redwood Creek	RD-774-S-33		Washoe	Washoe County
Redwood Creek	RD-774-S-34		Washoe	Washoe County
Redwood Creek	RD-774-S-35		Washoe	Washoe County
Redwood Creek	RD-774-S-36		Washoe	Washoe County
Redwood Creek	RD-774-S-37		Washoe	Washoe County
Redwood Creek	RD-774-S-38		Washoe	Washoe County
Redwood Creek	RD-774-S-39		Washoe	Washoe County
Redwood Creek	RD-774-S-40		Washoe	Washoe County
Redwood Creek	RD-774-S-41		Washoe	Washoe County
Redwood Creek	RD-774-S-42		Washoe	Washoe County
Redwood Creek	RD-774-S-43		Washoe	Washoe County
Redwood Creek	RD-774-S-44		Washoe	Washoe County
Redwood Creek	RD-774-S-45		Washoe	Washoe County
Redwood Creek	RD-774-S-46		Washoe	Washoe County
Redwood Creek	RD-774-S-47		Washoe	Washoe County
Redwood Creek	RD-774-S-48		Washoe	Washoe County
Redwood Creek	RD-774-S-49		Washoe	Washoe County
Redwood Creek	RD-774-S-50		Washoe	Washoe County

The MLS and TWAS monitoring will occur in a similar time frame within each watershed to assess the spatial distribution of monitored parameters.

MLS are co-located with United States Geological Survey (USGS) flow monitoring stations where possible. Field personnel will measure the flow rate of streams at stations that are not rated using USGS stream profiling guidelines during the installation of each monitoring station, and in the event of major observed changes in the channels that have occurred during or after the storm season. This will be accomplished by manual rating techniques using a hand held flow meter. The resulting discharge rate will be used to calculate a discharge equation which will be utilized by the flow monitoring equipment.

Flow rates will be monitored using American Sigma flow meters with an ultrasonic sensor, bubbler, or submerged pressure transducer as the primary measuring device. The primary sensor will continuously measure stage (stream height) and relay that information to the flow meter. The flow meter will continually calculate flow rates by inserting the stage information into the preprogrammed discharge equation. Using this system the flow meter will be able to actuate the American Sigma 900 series sampler to achieve a flow weighted composite sample. Sampling and flow equipment will be monitored remotely and all data will be transferred to a permanent data system via land-line or cellular telephone.

All sampling and analyses conducted for MLS or TWAS will be in accordance with applicable USEPA regulation and guidance as summarized in Table 3. One flow-weighted composite will be collected by autosampler and field personnel will collect one grab sample. Flow weighted composite samples will be collected during representative flow conditions. A minimum of 3 sample aliquots will be collected, spaced at least 15 minutes apart, per the Order. Trash assessments will be conducted at each site in accordance with the Monitoring Workplan for the Assessment of Trash in San Diego County (Weston, 2007). A revised trash assessment field form is provided in Appendix B.

The dry weather monitoring will occur once during the fall of 2010 and once during the spring of 2011. Flow-weighted composite samples will be collected and will be analyzed for the following parameters:

Inorganic chemicals – Ammonia, total and dissolved organic carbon, total and dissolved phosphorus, nitrate, nitrite, total hardness, TKN, TDS, TSS, Turbidity, MBAS, COD

Metals (Total Metals and Dissolved Metals) – Antimony, Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Selenium, Zinc

Organophosphate pesticides – Diazinon, Chlorpyrifos, Malathion

Toxicity Testing – Conduct toxicity testing at each station using *Ceriodaphnia dubia* (acute and chronic), *Selenastrum capricornutum* (chronic), and *Hyaella azteca* (acute).

Organics – (Chollas Creek only) for PCBs, PAHs, and Chlordane to comply with section II.A.1.h of the Order.

The grab sample will be analyzed for the following parameters:

Field measurements of grab samples shall include temperature, pH, and specific conductance.

Laboratory measurements shall be conducted on grab samples for BOD, oil and grease, total coliform, fecal coliform, and enterococcus.

The MLS and TWAS equipment installed and monitored for dry weather will remain in place during the course of the wet weather season. Continual flow data will be downloaded remotely from each site on a bi-weekly basis to provide a better understanding of flow estimates for constituent loading information and to verify equipment functionality to reduce data gaps. Equipment will be maintained throughout this period to ensure it is in proper working order.

Water Quality Monitoring at 5 Mass Loading Stations (MLS) and 9 Temporary Watershed Stations (TWAS) During Wet Weather Flow Events

- Wet Weather Event Activation, Mobilization/Demobilization, and Maintenance
- Wet Weather Event Field Monitoring
- Wet Weather Event Chemistry Analyses
- Wet Weather Event Microbiology Analyses
- Wet Weather Event Toxicity Analyses
- Wet Weather and Dry Weather Event Data Management and Report QA

Each MLS and TWAS must be monitored twice during the wet weather monitoring season (defined as October 1st through April 30th) per the Order. The MLS and TWAS must be monitored and sampled during the first viable rainfall event of the monitoring season and one rainfall event after February 1st. A viable storm event is considered a minimum of 0.1 inch of rainfall. Each storm of at least 0.1 inch of rainfall must be separated by a minimum of 72 hours of rainfall, and the forecasted storm volume must be within $\pm 50\%$ of the average storm volume and duration for the region. This monitoring is also performed on a rotating schedule in accordance with Table 1 of the Order. This task complies with monitoring year three of the permit cycle. Monitoring will be performed at the preexisting stations established during the dry weather monitoring events outlined in Task #1 above.

The seven MLS sites are within the following waterbodies:

- Santa Margarita River
- San Luis Rey River
- Agua Hedionda Creek
- Escondido Creek
- San Dieguito River
- Los Peñasquitos Creek
- Chollas Creek

A total of nine Temporary Watershed Assessment Stations (TWAS) will also be monitored in the following waterbodies:

- San Luis Rey River (2 sites)
- Buena Vista Creek (1 site)
- Agua Hedionda Creek (1 site)
- Escondido Creek (1 site)
- San Dieguito River (2 sites)
- Los Peñasquitos (2 sites)

The MLS and TWAS monitoring will occur within the same relative time frame within each waterbody to assess the spatial variation of the distribution of monitored parameters.

Monitoring stations are co-located with United States Geological Survey (USGS) flow measuring stations where possible. Field crews will measure the flow rate of streams at stations that are not rated using USGS stream profiling guidelines prior to the beginning of the storm season, and in the event of major observed changes in the channels during the storm season. This will be accomplished by manual rating techniques using a hand held flow meter. The resulting discharge rate will be used to calculate a discharge equation which will be utilized by the flow monitoring equipment.

Flow rates will be monitored using American Sigma flow meters with an ultrasonic sensor, bubbler, or submerged pressure transducer as the primary measuring device. The primary sensor will continuously measure stage (stream height) and relay that information to the flow meter. The flow meter will continually calculate flow rates by inserting the stage information into the preprogrammed discharge equation. Using this system, the flow meter will be able to actuate the American Sigma 900 series sampler to achieve a flow weighted composite sample. Sampling and flow equipment will be monitored remotely and all data will be transferred back to a permanent monitoring database via land-line or cellular telephone.

All sampling and analyses conducted for the MLS/TWAS will be in accordance with applicable USEPA regulation and guidance as summarized in Table 3. One flow-weighted composite will be collected by auto sampler and field personnel will collect one grab sample.

The flow-weighted composite will be analyzed for the following parameters:

Inorganic chemicals – Ammonia, total and dissolved organic carbon, total and dissolved phosphorus, nitrate, nitrite, total hardness, TKN, TDS, TSS, Turbidity, MBAS, COD

Metals (Total Metals and Dissolved Metals) – Antimony, Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Selenium, Zinc

Organophosphate pesticides – Diazinon, Chlorpyrifos, Malathion

Synthetic Pyrethroids – Allethrin, Bifenthrin, Cyfluthrin, Cypermethrin, Danitol, Deltamethrin, L-Cyhalothrin, Permethrin, and Prallethrin.

Toxicity Testing – Conduct toxicity testing at each station using *Ceriodaphnia dubia* (acute and chronic), *Selenastrum capricornutum* (chronic), and *Hyaella azteca* (acute).

Organics – (Chollas Creek only) for PCBs, PAHs, and Chlordane to comply with section II.A.1.h of the Order.

The grab sample will be analyzed for the following parameters:

Field measurements shall be performed on grab samples for temperature, pH, and specific conductance.

Laboratory measurements shall be conducted on grab samples for BOD, oil and grease, total coliform, fecal coliform, and enterococcus.

Field observations including trash assessments will be performed at each site in accordance with the Monitoring Workplan for the Assessment of Trash in San Diego County (Weston, 2007).

Table 3. Analytical Requirements for Mass Loading Stations.

Constituent	Volume Required	Method	Target Reporting Limit	Units	Max Holding Time
General Physical and Inorganic Non-Metals					
Total Dissolved Solids (TDS)	100 ml	SM 2540C	20	mg/l	7D
Total Suspended Solids (TSS)	100 ml	SM2540D	20	mg/l	7D
Turbidity	100 ml	SM 2130A-B	0.1	NTU	48H
Total Hardness	150 ml	SM 2340B	10	mg/l	6M
pH	In field	EPA 150.1	0.1	S.U.	-
Specific Conductance	In field	SM 2510B	1	umhos/cm	-
Temperature	In field	Meter	-	-	-
Dissolved Phosphorus	250 ml	SM 4500PE	0.05	mg/l	48H
Total Phosphorus	250 ml	SM 4500PE	0.05	mg/l	28D
Nitrate	200 ml	SM4500NO3E	0.1	mg/l	48H
Nitrite	200 ml	SM4500NO2B	0.05	mg/l	48H
Total Kjeldahl Nitrogen (TKN)	500 ml	SM4500C	0.1	mg/l	28D
Ammonia	250 ml	SM 4500NH3D	0.1	mg/l	28D
Biological Oxygen Demand, 5-day (BOD)	1000 ml	SM5210B	2	mg/l	48H
Chemical Oxygen Demand (COD)	25 ml	EPA 410.4	25	mg/l	28D
Total Organic Carbon (TOC)	125 ml	SM 5310 B	1	mg/l	28D
Dissolved Organic Carbon (DOC)	125 ml	SM 5310 B	1	mg/l	28D
Organics					
Oil and Grease (O&G)	500 ml	EPA 1664	5	mg/l	14D
Diazinon	1 liter	EPA 625	0.05	ug/l	14D
Chlorpyrifos	1 liter	EPA 625	0.05	ug/l	14D
Malathion	1 liter	EPA 625	0.05	ug/l	14D
Synthetic Pyrethroids	1 liter	GC/MS NCI Mode	0.005	ug/l	7 D
Methylene Blue Active Substances (MBAS)	250 ml	SM 5540C	1	mg/l	48H
Chollas Creek Only (Additional Methods)	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)	1 liter	EPA 625	0.020	ug/l	14D
Chlordane	1 liter	EPA 625	0.005	ug/l	14D
Polycyclic Aromatic Hydrocarbons (PAHs)	1 liter	EPA 625	0.10	ug/l	14D
Metals, Total + Dissolved					
Antimony (Sb)	75 ml	EPA 200.8	0.002	mg/l	6M
Arsenic (As)	75 ml	EPA 200.8	0.001	mg/l	6M
Cadmium (Cd)	75 ml	EPA 200.8	0.001	mg/l	6M
Chromium (Cr)	75 ml	EPA 200.8	0.005	mg/l	6M
Copper (Cu)	75 ml	EPA 200.8	0.001	mg/l	6M
Lead (Pb)	75 ml	EPA 200.8	0.001	mg/l	6M
Nickel (Ni)	75 ml	EPA 200.8	0.002	mg/l	6M
Selenium (Se)	75 ml	EPA 200.8	0.002	mg/l	6M
Zinc (Zn)	75 ml	EPA 200.8	0.02	mg/l	6M
Bacteriological					
Total Coliform	200 ml	SM 9221B	*	MPN/100ml	6H
Fecal Coliform	200 ml	SM9221E	*	MPN/100ml	6H
Enterococcus	200 ml	SM 9230	*	MPN/100ml	6H
Toxicity	10 Liters				
96-hr acute and 7-day chronic and reproductive test with the cladoceran <i>Ceriodaphnia dubia</i>					
Chronic test with the freshwater algae <i>Selenastrum capricornutum</i>					
96-hr acute survival test with the amphipod <i>Hyaella azteca</i> .					

* To 6 dilutions – results will be reported as a number not as a greater than value

Bioassessment Monitoring, Benthic Algae (Periphyton) Monitoring, and SMC Monitoring Program Participation

Bioassessment monitoring will be conducted pursuant to SWAMP procedures as specified by the SMC Workplan (Appendix C) to provide a measure of stream health.

During the bioassessment surveys, benthic algae (periphyton) monitoring will be conducted in accordance with the SWAMP benthic algae protocol.

The following procedures will be used for Site Sampling and Analysis:

- Collect and analyze substrate samples for benthic macroinvertebrates (BMI) from each of 19 bioassessment monitoring stations and three reference stations. Station locations will be collocated with the MLS and TWAS where feasible but may be moved between sampling events depending on the physical conditions of the site (e.g. wet versus dry). Field measurements of pH, temperature, dissolved oxygen, conductivity, flow rate, percent gradient, sampling area physiography, and overall assessment of physical habitat (e.g., vegetative cover, bank stability, and other relevant observations) will be obtained at each station.
- Collect and analyze substrate samples for benthic algae from each of 19 bioassessment monitoring stations and three reference stations. Field surveys will be performed in conjunction with, and at the same locations as the benthic macroinvertebrate stations. Samples will also be collected and analyzed for chlorophyll-A and ash free dry mass (AFDM), and reach-wide algal cover will be quantified.

The surveys will occur from late April through July 15 of 2011 following the wet weather monitoring period and at least four weeks after the last scouring rain event. The surveys will be performed in coordination with the spring dry weather (ambient) monitoring events in order to compare water quality results with the bioassessment results.

Stations will be distributed to cover each of the five northern watershed management areas in San Diego County in accordance with Table 1 of the Order.

Hydrologic conditions permitting, the following water bodies will be sampled at the following locations (upstream/downstream):

- Santa Margarita River (1 site)
- San Luis Rey River (3 sites)
- Buena Vista Creek (1 site)
- Agua Hedionda Creek (2 Site)
- Escondido Creek (2 sites)
- San Dieguito River (3 sites)
- Los Peñasquitos (3 sites)
- Chollas Creek (1 Site)

- BMI samples will be analyzed pursuant to the SMC procedures. Periphyton taxonomy will be performed by Rosalina Stancheva of California State University- San Marcos Chlorophyll-A and AFDM will be analyzed by CRG Marine Laboratories, Inc.
- A 10% quality assurance check will be performed on benthic invertebrate taxonomic identification by the CDF&G Aquatic Bioassessment Laboratory.
- Sample data from all bioassessment monitoring stations in the receiving waters of the Copermittees will be analyzed. Multimetric assemblage analyses will be conducted simultaneously to analyze all of the populations of benthic invertebrates to provide a relative assessment of ecological health. Bioassessment data analysis will include the calculation of the Index of Biotic Integrity (IBI) for benthic macro invertebrates for all bioassessment stations as outlined in “A Quantitative Tool for Assessing the Integrity of Southern California Coastal Streams” by Ode et al., 2005.
- The Bioassessment Program will be performed in accordance with the minimum SWAMP protocols as required by the Order.

The SMC Regional Monitoring Program will be conducted following the protocols being developed by the SMC Bioassessment Technical Workgroup. This program will be conducted throughout southern California and is anticipated to be included in future National Pollution Discharge Elimination System (NPDES) Permits. Twenty-four stations are scheduled for monitoring in San Diego County (Year 3 of the SMC Regional Monitoring Program). The San Diego RWQCB has committed to sample 8 stations. The Copermittees of San Diego have committed to sample the remaining 16 stations. Water quality monitoring, toxicity testing, and bioassessment monitoring are planned in accordance with the SMC Final Monitoring Workplan and Quality Assurance Project Plan developed during spring 2009.

Toxicity Identification Evaluation Testing

Toxicity Identification Evaluations (TIEs) will be used to determine the causative agent of toxicity based on the Triad Approach to determining follow up actions. TIEs will be conducted on samples exhibiting persistent toxicity. During the 2007-2008 monitoring season, TIEs conducted in Agua Hedionda Creek identified synthetic pyrethroids as the likely causative agent of toxicity to *Hyalella azteca*. TIEs will not be conducted in Agua Hedionda Creek unless significant changes in water chemistry results are observed.

Ambient Bay, Lagoon, and Coastal Receiving Water Monitoring

The ABLM Program activities to be conducted during the 2010-2011 monitoring season are provided below (and details provided in Appendix D):

Samples will be collected from 6 sediment stations and 2 water quality stations within the Sweetwater River Estuary and 6 sediment stations and 2 water quality stations within San Elijo Lagoon in accordance with the 2010-2012 Ambient Bay and Lagoon Monitoring Workplan. Samples will be collected from 12 sediment locations and analyzed for sediment chemistry, sediment toxicity, and benthos for the purpose of assessing the data with respect to the recently developed Sediment Quality Objective Guidelines for Enclosed Bays and Estuaries. Water

quality samples will be collected from four stations and analyzed for chemistry and physical parameters.

The sampling design was developed to answer two specific questions as follows:

1. To determine the stressors (both natural and anthropogenic) that influences the distribution of benthic organisms.
2. To determine the stressors (both natural and anthropogenic) that contributes to amphipod toxicity.

The station locations were selected based on results from the Bight 08 study conducted during 2008, where one out of five locations was identified as being possibly impacted based on the SQO guidelines. The site result was driven primarily by a high impact for the benthic score while the chemistry and toxicity scores indicated a low impact. This is a common finding in other lagoons and suggests a need for study focus on the benthic community. The other four stations sampled under Bight 08 were identified as likely unimpacted or unimpacted. Therefore, the focus of the ABLM special study is directed toward assessing the impact to the benthic community.

The specific analyses and method detection limits (MDLs) for sediment samples are specified in Table 4.

Physical Analysis

Physical analyses of sediment will include grain size and percent solids. Grain size is analyzed to determine the general size classes that make up the sediment (e.g., gravel, sand, silt, and clay). The frequency distribution of the size ranges (reported in mm) of the sediment will be reported in the final data report. Grain size will be conducted using the gravimetric procedure described in Plumb (1981). Percent solids will also be measured to convert concentrations of the chemical parameters from a wet-weight to a dry-weight basis according to USEPA 160.3.

Chemical Analysis

Chemical analyses of sediment will include ammonia, dissolved and total sulfides, TOC, total nitrogen, total phosphorus, metals, synthetic pyrethroids, chlorinated pesticides, PCBs, and PAHs.

Table 4. Chemical and Physical Parameters for Sediment Samples

Parameter	Method	Procedure	Method Detection Limit (dry weight)	Reporting Limit (dry weight)
Physical / Conventional Tests				
Ammonia	SM 4500-NH3F	ICP/MS	0.03 mg/wet kg	0.03 mg/wet kg
Dissolved Sulfides	Plumb (1981)	Titrametric	0.2 mg/kg	0.4 mg/kg
Grain Size	Plumb (1981)	Sieve/Pipette	1.0%	1.0%
Percent Solids	USEPA 160.3	Gravimetric	0.1%	0.1%
Total Organic Carbon	USEPA 9060A	Combustion IR	0.01%	0.02%
Total Nitrogen	SM 4500-N	Colorimetric	2 mg/kg	4 mg/kg
Total Phosphorus	SM 4500-P E	Colorimetric	0.016 mg/kg	0.05 mg/kg
Total Sulfides	Plumb (1981)	Titrametric	0.2 mg/kg	0.4 mg/kg

Parameter	Method	Procedure	Method Detection Limit (dry weight)	Reporting Limit (dry weight)
Metals				
Aluminum (Al)	USEPA 6020m	ICP/MS	1 µg/g	5 µg/g
Antimony (Sb)	USEPA 6020m	ICP/MS	0.025 µg/g	0.05 µg/g
Arsenic (As)	USEPA 6020m	ICP/MS	0.025 µg/g	0.05 µg/g
Barium (Ba)	USEPA 6020m	ICP/MS	0.025 µg/g	0.05 µg/g
Beryllium (Be)	USEPA 6020m	ICP/MS	0.025 µg/g	0.05 µg/g
Cadmium (Cd)	USEPA 6020m	ICP/MS	0.025 µg/g	0.05 µg/g
Chromium (Cr)	USEPA 6020m	ICP/MS	0.025 µg/g	0.05 µg/g
Copper (Cu)	USEPA 6020m	ICP/MS	0.025 µg/g	0.05 µg/g
Iron (Fe)	USEPA 6020m	ICP/MS	1 µg/g	5 µg/g
Lead (Pb)	USEPA 6020m	ICP/MS	0.025 µg/g	0.05 µg/g
Mercury (Hg)	USEPA 245.7m	CVAFS	0.01 µg/g	0.02 µg/g
Nickel (Ni)	USEPA 6020m	ICP/MS	0.025 µg/g	0.05 µg/g
Selenium	USEPA 6020m	ICP/MS	0.025 µg/g	0.05 µg/g
Silver	USEPA 6020m	ICP/MS	0.025 µg/g	0.05 µg/g
Zinc (Zn)	USEPA 6020m	ICP/MS	0.025 µg/g	0.05 µg/g
Synthetic Pyrethroids				
Allethrin	USEPA 8270CmNCI	GC/MS-NCI	0.5 ng/g	2 ng/g
Bifenthrin	USEPA 8270CmNCI	GC/MS-NCI	0.5 ng/g	2 ng/g
Cyfluthrin	USEPA 8270CmNCI	GC/MS-NCI	0.5 ng/g	2 ng/g
Cypermethrin	USEPA 8270CmNCI	GC/MS-NCI	0.5 ng/g	2 ng/g
Danitol (Fenpropathrin)	USEPA 8270CmNCI	GC/MS-NCI	0.5 ng/g	2 ng/g
Deltamethrin	USEPA 8270CmNCI	GC/MS-NCI	0.5 ng/g	2 ng/g
Esfenvalerate	USEPA 8270CmNCI	GC/MS-NCI	0.5 ng/g	2 ng/g
Fenvalerate	USEPA 8270CmNCI	GC/MS-NCI	0.5 ng/g	2 ng/g
L-Cyhalothrin	USEPA 8270CmNCI	GC/MS-NCI	0.5 ng/g	2 ng/g
Permethrin	USEPA 8270CmNCI	GC/MS-NCI	5 ng/g	25 ng/g
Prallethrin	USEPA 8270CmNCI	GC/MS-NCI	0.5 ng/g	2 ng/g
Organochlorine Pesticides				
2,4'-DDD	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
2,4'-DDE	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
2,4'-DDT	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
4,4'-DDD	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
4,4'-DDE	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
4,4'-DDT	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Aldrin	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
BHC-alpha	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
BHC-beta	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
BHC-delta	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
BHC-gamma	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Chlordane-alpha	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Chlordane-gamma	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
cis-Nonachlor	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g

Parameter	Method	Procedure	Method Detection Limit (dry weight)	Reporting Limit (dry weight)
DCPA (Dacthal)	USEPA 8270Cm	GC/MS SIM	5 ng/g	10 ng/g
Dicofol	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Dieldrin	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Endosulfan I	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Endosulfan II	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Endosulfan Sulfate	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Endrin	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Endrin Aldehyde	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Endrin Ketone	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Heptachlor	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Heptachlor Epoxide	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Methoxychlor	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Mirex	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Oxychlorthane	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Perthane	USEPA 8270Cm	GC/MS SIM	5 ng/g	10 ng/g
Toxaphene	USEPA 8270Cm	GC/MS SIM	10 ng/g	50 ng/g
trans-Nonachlor	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
PCBs				
PCB Congeners	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
PAHs				
1-Methylnaphthalene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
1-Methylphenanthrene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
1,6,7-Trimethylnaphthalene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
2,6-Dimethylnaphthalene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
2-Methylnaphthalene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Acenaphthene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Acenaphthylene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Anthracene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Benzo(a)anthracene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Benzo(a)pyrene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Benzo(b)fluoranthene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Benzo(e)pyrene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Benzo(g,h,i)perylene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Benzo(k)fluoranthene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Biphenyl	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Chrysene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Dibenzo(a,h)anthracene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Fluoranthene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Fluorene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Indeno(1,2,3-cd)pyrene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Naphthalene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Perylene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Phenanthrene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g
Pyrene	USEPA 8270Cm	GC/MS SIM	1 ng/g	5 ng/g

Water Samples

The specific analyses of water samples are specified in Table 5. Water quality measurements will be taken in the field using YSI 6600 data sondes.

Table 5. Chemical and Physical Parameters for Water Samples

Parameter	Method/Instrument	Units	Reporting Limit
Field Measurements			
Dissolved oxygen	YSI 6600	mg/L	0.2
pH	YSI 6600	pH units	1-14
Salinity	YSI 6600	ppt	1-75
Temperature	YSI 6600	°C	0-100
Physical / Conventional Laboratory Tests			
Chlorophyll-a	SM 10200 H	mg/m ³	2
Dissolved Organic Carbon	SM 5310 B	mg/L	0.2
Total Nitrogen	SM 4500-N	mg/L	4
Total Phosphorus	SM 4500-P E	mg/L	0.05
Total Suspended Solids	SM 2540 D	mg/L	5

Coastal Storm Drain Monitoring

The Coastal Copermittees will conduct the CSDM Program in accordance with the Coastal Storm Drain Monitoring Plan.

Synthetic Pyrethroid Monitoring and Assessment

In addition to water quality monitoring for synthetic pyrethroids conducted at the MLS and TWAS as mentioned previously, one time sediment sampling will occur at each MLS/TWAS following the first storm event of the season. Monitoring and assessment will be conducted in accordance with the Monitoring Workplan for the Assessment of Synthetic Pyrethroids in San Diego County included in the County of San Diego Copermittees Scope of Work for the Regional Monitoring Program for 2007-2008. Monitoring will be conducted following the first flush rainfall event of the season. Five samples from 3 monitoring reaches at each site will be collected and composited into one sample (total of 16 samples in the northern watersheds and Chollas Creek). These samples will be submitted to a California state certified analytical laboratory to be analyzed for Synthetic Pyrethroids by GC/MS-NCI, total organic carbon, and grain size distribution. One duplicate and one equipment rinse blank will be collected during the monitoring event.

URBAN RUNOFF MONITORING

MS4 Outfall Monitoring

MS4 outfall monitoring will be conducted in accordance with the Municipal Separate Storm Sewer System (MS4) Outfalls Monitoring Program in San Diego County Watershed Management Areas Workplan. A revised plan that includes updates and corrections is attached in Appendix E.

The monitoring design is based on a combination of random and targeted sampling of discharges from MS4 outfalls that drain into receiving waters (Table 6). Both types of monitoring will be applied to dry weather and wet weather periods during the 2010-2011 permit year.

Table 6. Summary of the Proposed MS4 Outfall Monitoring Design

Season	Design Type	Outfall Diameter	Number of Samples
Dry	Random	≥36 inches	54 per year
	Targeted	Any	200 per year
Wet	Random	≥36 inches	54 per year
	Targeted	Any	9 per Permit cycle

Random Sampling

This approach is based on a stratified random study design to characterize the discharges of six MS4 outfalls discharging to receiving waters during dry and wet weather periods in each of the nine WMAs. In this design the region is divided into nine strata that are each defined by a WMA. The six samples are selected randomly within each strata or WMA.

Six random sample locations will be collected annually during the dry weather season from each of the nine (9) WMAs. Each site will be sampled during an index period beginning 4 weeks following the last significant rainfall (0.2 inches or greater), but after April 30, and ending August 1. In addition, no sampling shall occur within 72 hours of any measurable (greater than 0.1 inch) rainfall.

Six random sample locations will be collected annually during the wet weather season (October 1st through April 30th) from each of the nine (9) WMAs. Random wet weather samples will be collected during any part of a storm with at least 0.1 inch of predicted total rainfall. To the extent practical, the first storm events of the wet season will be equally sampled with subsequent storms during the later part of the wet weather season. The purpose will be to collect a distribution of grab samples from the MS4 outfalls in storms that are representative of the entire wet weather season.

Random samples of the discharges from the MS4 outfalls will be analyzed for the following analytes:

- Total Suspended Solids
- Total Phosphorus

- Total Nitrogen
- Total Coliforms
- Fecal Coliform, and
- Enterococcus.

Targeted Sampling

The targeted sampling approach focuses monitoring efforts on those MS4 outfalls that are most likely to contribute to receiving water problems (e.g., largest potential constituent loading). The Regional Monitoring Copermittees will collect up to 200 dry weather discharge samples from targeted MS4 outfalls in the region during the 2010-2011 monitoring year. The number of sites varies proportionally by watershed and jurisdiction. Sample analyses are based on the watershed water quality priorities, and where applicable, the 303(d) listed impairments within the watershed. Each site will be sampled during an index period beginning 4 weeks following the last significant rainfall (0.2 inches or greater), but after April 30, 2010, and ending August 1, 2010.

The wet weather targeted sampling approach is designed to quantify the relative loading of pollutants from MS4 outfalls that impact receiving waters. This approach focuses monitoring efforts on those MS4 outfalls that are most likely to contribute to receiving water problems (e.g., largest potential pollutant loading). Only outfalls that discharge directly (or the nearest safely accessible upstream location) to a river, stream, bay, estuary, or the Pacific Ocean will be targeted for sampling. Wet weather sampling will be conducted once in each WMA over the 5 year Permit period. Details of this program are attached in Appendix F.

Wet weather targeted sampling is planned for three separate watershed stations during one wet weather event during the 2010-2011 wet weather season. The three watershed management areas tentatively selected for monitoring include Santa Margarita River, San Luis Rey River, and Carlsbad.

The Copermittees will collect pollutograph samples for high priority constituents in the watersheds being sampled. During the monitoring event, up to three individual flow weighted pollutograph samples will be collected to characterize constituent concentrations over the course of a flow event. The individual results will also be used to calculate an event mean concentration (EMC) based on the flow proportioned samples. This sampling will follow similar methods recommended by the Southern California Coastal Water Research Project (SCCWRP, Ackerman and Stein, 2009). Up to three samples will be collected for bacteriological analyses (total coliform, fecal coliform, and enterococci).

Source Identification Monitoring

Source Identification monitoring will be conducted in accordance with the Urban Runoff Source Identification Program In San Diego County Watersheds Workplan.

This program will be developed during the 2009-2010 or early 2010-2011 monitoring period.

Annual Watershed Monitoring Reporting

The results of the monitoring activities conducted during the 2010-2011 monitoring year will be provided in an annual monitoring report and cover the following:

- MLS/TWAS wet and dry weather monitoring
- Rapid Stream Bioassessment and SMC Regional Monitoring Surveys
- Toxicity Identification Evaluations
- Ambient Bay and Lagoon Monitoring
- Dry Weather Field Screening and Analytical Monitoring Program
- Coastal Storm Drain Monitoring
- Pyrethroid Monitoring
- MS4 Outfall Monitoring
- Source Identification Monitoring
- Available Third Party Data from the 2010-2011 monitoring year

This report will include data and results summaries, explanations and discussions of data. Data comparisons, recommendations for future monitoring (based on the Watershed Data Assessment Framework developed collaboratively with the Copermittees during the 2009-2010 Monitoring Year); comparison of current storm water monitoring results to previous years monitoring results, watershed management area assessments, and identification of trends will be included in the report. This report will build upon the database developed during the previous seasons for long-term trend analysis and provide:

1. Watershed-based analysis of findings for each monitoring program component including:
 - Identification and prioritization of water quality problems
 - Watershed water quality characterization and potential source analysis
 - Load/Concentration Analyses at MLS
 - Statistical evaluation of loads/concentrations at MLS to land use, population, and sources
 - Source activity linkage to water quality impacts
 - Identification of recommended future monitoring to identify and address sources of water quality problems
 - Results and discussion of TIEs, along with actions to reduce pollutant discharge and abate sources causing toxicity. Identification of areas that may require TIEs based on analysis of chemical and toxicity data at the MLS as required in Order No. 2007-0001 (Section II.A.4)
2. Detailed description of all monitoring conducted under Investigation Order No. R9-2004-0277 for Chollas Creek, as well as information required by Investigation Order No. R9-2004-0277.
3. Discussion for each watershed and how the monitoring answers each of the management questions listed in section I.B of the Order.
4. Identification of how the goals listed in section I.A of the Order are addressed by monitoring, including:

- Compliance with the Order No. R9-2007-0001.
 - Measure and improve effectiveness of monitoring programs.
 - Assess chemical, physical, and biological impacts based on a “weight of evidence approach” in evaluating storm water effects. This includes creek health as measured by biological community diversity (bioassessment monitoring), as well as storm water quality measured at the mass loading station for chemical, physical and bacteriological contaminant levels (chemistry and microbiology tests) and toxic effects to organisms (toxicity testing).
 - Characterize urban runoff discharges by calculating wet and dry weather pollutant loading estimates based on almost year round flow data.
 - Identify sources of specific pollutants using the Source Identification monitoring program results.
 - Prioritize drainage and sub-drainage areas that need management actions by identification of potential areas of concern based upon exceedances of water quality objectives, toxic effects, or community degradation in hydrologic units.
 - Detect and eliminate illicit discharges and illicit connections to the MS4 through use of information collected in the Dry Weather Field Screening and Analytical Monitoring program.
 - Assess the overall health of receiving waters using information from all components of the receiving water monitoring program, including MLS, Bioassessment, ABLM, and monitoring data from participation in the Storm Water Monitoring Coalition Spring 2009 survey.
 - Use of third party data to assist in the assessment of watersheds as applicable and available.
 - Incorporation of the Long Term Effectiveness Assessment (BLTEA) rating tables presented in the 2005-06 Annual Report. This will be limited to reporting the assessment tables based on the previous five year data set.
5. Identification and analysis of long-term trends in storm water or receiving water quality using appropriate non-parametric methods.
 6. Calculation of annual pollutant loads (wet and dry weather) due to urban runoff, in watersheds identified in Table 4 of Order No. R9-2007-0001.
 7. Include an assessment for all monitoring program components listed above (both receiving water and urban runoff) for compliance with relevant water quality objectives or action levels as applicable.
 8. Describe monitoring station locations by latitude, and longitude, frequency of sampling, quality assurance/quality control procedures, and sampling analysis and protocols.
 9. A standard format will be used that includes a standalone comprehensive executive summary addressing all section of the monitoring report; comprehensive interpretations and conclusions; and recommendations for future actions.

Following the development and review of a draft Annual Monitoring Report, all comments received from the Copermittees will be addressed, summarized, and responses will be provided. Copermittees will collaborate to resolve comments, and the response to comments letter will be

incorporated as an appendix to the document. All necessary revisions will be made and a final report will be provided to meet the RWQCB January 31, 2012 deadline.

Referenced Workplans (previously submitted to SDRWQCB)

Monitoring Workplan for the assessment of Trash in San Diego County.

Monitoring Workplan for the Assessment of Synthetic Pyrethroids in San Diego County Watersheds

Regional Monitoring of Southern California's Coastal Watersheds, Stormwater Monitoring Coalition, Bioassessment Working Group, Final Draft

Coastal Storm Drain Monitoring Program

Municipal Separate Storm Sewer System (MS4) Outfalls Monitoring Program in San Diego County Watershed Management Areas

Urban Runoff Source Identification Monitoring Program in San Diego County Watersheds

Appendices Provided as Separate Files

TBD

Appendix G –2010-2011 Source Identification Monitoring Program Workplan

COPERMITTEE EXPENDITURES COVER AND CERTIFICATION SHEET

Regional Working Body: Regional Monitoring Workgroup	
Copermittee: County of San Diego	
Period: 1st, 2nd, 3rd Quarter FY 2008-09 (July 1, 2008 - Mar.31, 2009)	
Expenditure Type(s): Hourly AND Contract / Other Expenditures	
Hourly Expenditures Claimed:	\$ 2,963.50
Contract / Other Expenditures Claimed:	\$ 85,398.77

Copermittee Certification Statement

I certify that all documents submitted for this claim were prepared under my direction or supervision in accordance with a system designed to assure that expenditures were properly documented and submitted. It is to the best of my knowledge and belief, true, accurate, and complete. I am aware that additional documentation of expenditures may be required prior to the approval of reimbursement.

Jo Ann Weber
Water Quality Program Coordinator
County of San Diego

09/21/2009
Date

Signature

Working Body Budget Manager Review

Each of the expenditures claimed by this Copermittee has been authorized in accordance with the Copermittees' FY 2008-09 Regional Work Plan and Budget, has been satisfactorily documented, and has been approved in full by the Regional Program Planning Subcommittee for reimbursement or payment.

Jo Ann Weber
Water Quality Program Coordinator
County of San Diego

Date

Signature

COPERMITTEE EXPENDITURES CLAIM SHEET (HOURLY COSTS)

Regional Working Body: Regional Monitoring Workgroup

Copermittee: County of San Diego

Period: 1st, 2nd, 3rd Quarter FY 2008-09 (July 1, 2008 - Mar.31, 2009)

Date	Name	Job Classification	Hours	Rate	Total	Description of Work Conducted
Task D Monitoring Workgroup / Subtask 1.A. Regional Monitoring Workgroup Meeting Support						
08/20/2008	Jo Ann Weber	Supr Envir Health Spec	3.00	\$ 59.27	\$ 177.81	Provide input on Scope of Work deliverables and research agenda items
09/23/2008	Jo Ann Weber	Supr Envir Health Spec	3.00	\$ 59.27	\$ 177.81	Conduct additional research/review to support Reg Mon agenda preparation
10/21/2008	Jo Ann Weber	Supr Envir Health Spec	3.00	\$ 59.27	\$ 177.81	Conduct additional research/review to support Reg Mon agenda preparation
11/24/2008	Jo Ann Weber	Supr Envir Health Spec	3.00	\$ 59.27	\$ 177.81	Conduct additional research/review to support Reg Mon agenda preparation
12/11/2008	Jo Ann Weber	Supr Envir Health Spec	3.00	\$ 59.27	\$ 177.81	Conduct additional research/review to support Reg Mon agenda preparation
01/20/2009	Jo Ann Weber	Supr Envir Health Spec	3.00	\$ 59.27	\$ 177.81	Conduct additional research/review to support Reg Mon agenda preparation
02/17/2009	Jo Ann Weber	Supr Envir Health Spec	3.00	\$ 59.27	\$ 177.81	Conduct additional research/review to support Reg Mon agenda preparation
03/12/2009	Jo Ann Weber	Supr Envir Health Spec	3.00	\$ 59.27	\$ 177.81	Conduct additional research/review to support Reg Mon agenda preparation
04/21/2009	Jo Ann Weber	Supr Envir Health Spec	1.00	\$ 59.27	\$ 59.27	Conduct additional research/review to support Reg Mon agenda preparation
					\$ -	
Sub-total	\$	1,481.75				
Subtask 2.B. FY 2009-10 Work Plan and Budget						
08/22/2008	Jo Ann Weber	Supr Envir Health Spec	6.00	\$ 59.27	\$ 355.62	Oversee Weston prepare budget and provide comments
09/19/2008	Jo Ann Weber	Supr Envir Health Spec	5.00	\$ 59.27	\$ 296.35	Incorporate Copermittees Comments
10/03/2008	Jo Ann Weber	Supr Envir Health Spec	5.00	\$ 59.27	\$ 296.35	Further review and update
10/21/2008	Jo Ann Weber	Supr Envir Health Spec	4.00	\$ 59.27	\$ 237.08	Provide detailed worksheet and summary worksheet to Copermittees
01/20/2009	Jo Ann Weber	Supr Envir Health Spec	5.00	\$ 59.27	\$ 296.35	Modify format to fit Copermittees Program Working Group's Template
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
Sub-total	\$	1,481.75				
Subtask x.x. [ENTER APPLICABLE TASK OR SUB-TASK FROM WORK PLAN]						
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	

COPERMITTEE EXPENDITURES CLAIM SHEET (HOURLY COSTS)

Regional Working Body: Regional Monitoring Workgroup
Copermittee: County of San Diego
Period: 1st, 2nd, 3rd Quarter FY 2008-09 (July 1, 2008 - Mar.31, 2009)

Date	Name	Job Classification	Hours	Rate	Total	Description of Work Conducted
			0.00	\$ -	\$ -	
Sub-total \$ -						
Subtask x.x. [ENTER APPLICABLE TASK OR SUB-TASK FROM WORK PLAN]						
			0.00	\$ 77.42	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
Sub-total \$ -						
Subtask x.x. [ENTER APPLICABLE TASK OR SUB-TASK FROM WORK PLAN]						
			0.00	\$ 77.42	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
Sub-total \$ -						
Subtask x.x. [ENTER APPLICABLE TASK OR SUB-TASK FROM WORK PLAN]						
			0.00	\$ 77.42	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
			0.00	\$ -	\$ -	
Sub-total \$ -						

COPERMITTEE EXPENDITURES CLAIM SHEET (HOURLY COSTS)

Regional Working Body: Regional Monitoring Workgroup
Copermittee: County of San Diego
Period: 1st, 2nd, 3rd Quarter FY 2008-09 (July 1, 2008 - Mar.31, 2009)

Date	Name	Job Classification	Hours	Rate	Total	Description of Work Conducted
			0.00	\$ -	\$ -	
Sub-total \$ -						
Subtask x.x. [ENTER APPLICABLE TASK OR SUB-TASK FROM WORK PLAN]						
			0.00	\$ 77.42	\$ -	
			0.00	\$ 77.42	\$ -	
			0.00	\$ 77.42	\$ -	
			0.00	\$ 77.42	\$ -	
			0.00	\$ 77.42	\$ -	
			0.00	\$ 77.42	\$ -	
			0.00	\$ 77.42	\$ -	
Sub-total \$ -						

Copermittee Total \$ 2,963.50

COPERMITTEE EXPENDITURES CLAIM SHEET (CONTRACTS / OTHER)

Regional Working Body: Regional Monitoring Workgroup

Copermittee: County of San Diego

Period: 1st, 2nd, 3rd Quarter FY 2008-09 (July 1, 2008 - Mar.31, 2009)

Work Plan Task / Sub-task	Amount Paid	Date Paid	Expenditure Description / Work Plan Task
A. Contract Expenditures (List by Contract Name and # first, and then Contract Task or Sub-task)			
Contract 1. FY2008-09 Source Identification Work Plan -Weston			
Contract Subtask 2.D. FY 2008-09 Source Identification Work Plan			
\$10,000 paid			
5% contracting fee	\$ 500.00		
	\$ -		
Contract 2. FY2009-11 Targeted Wet Weather MS4 Program -Weston			
Contract Subtask 2.F. Targeted Wet Weather MS4 Program Work Plan		04/30/2009	4045.42 invoiced and paid
\$7,471.41 paid		05/29/2009	3425.99 invoiced and paid
	\$ 373.57		5% contracting fee
	\$ -		
Contract 3. FY 2009-10 Source Identification Work Plan- Weston			
Contract Subtask 2.E. FY 2009-10 Source Identification Work Plan		x/x/2009	Estimate that all funds will be spent by Sept 1, 2009
\$10,000 to be paid	\$ 500.00		5% contracting fee
	\$ -		
	\$ -		
	\$ -		
Contract 4. Bight 08- SCCWRP- Microbiology Study			
Contract Subtask 3.A- split from Subtask 3.A Regional Monitoring	\$ -		Estimate that all funds will be spent in FY 09-10 and FY 10-11
This will be a carry over item on the 2009-2010 budget	\$ -		5% contracting fee
	\$ -		
	\$ -		
	\$ -		
Contract 5. Bight 08- SCCWRP- Wetlands Study			

COPERMITTEE EXPENDITURES CLAIM SHEET (CONTRACTS / OTHER)

Contract Subtask 3.A- split from Subtask 3.A Regional Monitoring			08/20/2009	invoice paid
invoice of 143,541- paid to SCCWRP		\$ 7,177.05		5% contracting fee
		\$ -		
		\$ -		
		\$ -		
		\$ -		
Contract 6. Regional Monitoring Program - Weston				
Contract Subtask 3.A. Regional Monitoring Program			08/25/2008	\$146,750.26
TO be invoiced in total is \$1,536,963			09/30/2008	\$138,779
			10/30/2008	\$239,250.55
			12/28/2008	\$349,759.18
			02/28/2009	\$213,719.83
			03/30/2009	\$97,592.63
			04/28/2009	49290.58
			05/29/2009	\$53,268.26
			07/08/2009	\$71,960.01
			08/19/2009	\$96,036.05
				invoicing not completed
5% mark up		\$ 76,848.15		5% contract fee
Sub-total Contract Expenditures		\$ 85,398.77		
B. Other Expenditures				
		\$ -		
		\$ -		
		\$ -		
		\$ -		
		\$ -		
		\$ -		
Sub-total Other Expenditures		\$ -		
Total Expenditures		\$ 85,398.77		

Copermittee Working Bodies

Regional Program Planning Subcommittee
Fiscal, Reporting, and Assessment Workgroup
Education and Residential Sources Workgroup
Regional Monitoring Workgroup
Dry Weather Monitoring Sub-workgroup
Coastal Storm Drain Monitoring Sub-workgroup
Land Development Workgroup
Municipal Sources Workgroup
Industrial and Commercial Sources Workgroup
Regional WURMP Workgroup

Copermittees

County of San Diego
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
Port of San Diego
Regional Airport Authority

Quarterly Dates

1st Quarter FY 2008-09 (July 1- Sept. 30, 2008)

2nd Quarter FY 2008-09 (Oct. 1- Dec. 31, 2008)

3rd Quarter FY 2008-09 (Jan. 1- Mar. 31, 2009)

4th Quarter FY 2008-09 (April 1- June 30, 2009)

1st, 2nd, 3rd Quarter FY 2008-09 (July 1, 2008 - Mar.31, 2009)

Expenditure Type(s)

Hourly Expenditures Only

Contract / Other Expenditures Only

Hourly AND Contract / Other Expenditures

A

21-Sep-2009
 2008-2009 Monitoring Program
 Invoices Submitted by Copermittees

D. Monitoring Workgroup and Sub-workgroups

Task 1 Meeting Support

	Budgeted	Invoiced	Amt Different	Copermit	Balance
Subtask 1.A Regional Monitoring Workgroup Meeting Support	\$1,482.00	\$1,481.75	\$0.25	County	\$0.25
Subtask 1.B Dry Weather Monitoring Meeting Support					
D-Max Engin contract	\$12,600.00	\$9,891.00	\$2,709.00	La Mesa	
H. Perry	\$0.00	\$1,602.13	(\$1,602.13)	Santee	\$1,106.87
Subtask 1.C Coastal Storm Drain Monitoring Support					
Annual Report Prep	\$741.00	\$5,987.30	(\$5,246.30)	Port	
Annual Report Prep	741.00	\$3,603.75	(\$2,862.75)	Carlsbad	(\$8,109.05)

Task 2 Development of Miscellaneous Work

Products

Subtask 2.A Semi-annual Workgroup Update	593.00	\$0.00	\$593.00		593
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Subtask 2B. FY2009-10 Work Plan and Budget	1,482.00	\$1,481.75	\$0.25	County	0.25
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Subtask 2.C. FY2007-08 Regional URMP Annual Report	237.00	\$45.78	\$191.22	Santee	\$191.22
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Subtask 2.D. FY2008-09 Source Identification Work Plan					
Weston	10,000.00	\$10,000.00	\$0.00		0
5% mark up	500.00	\$500.00	\$0.00	County	0

Subtask 2.E. FY2009-10 Source Identification Plan					
Weston	10,000.00	\$10,000.00	\$0.00		0
includes 5 % mark up	500.00	\$500.00		County	0

	Budgeted	Invoiced	Amt Different	Copermit	Balance
Subtask 2.F. Targeted Wet Weather MS4 Program					
Weston	8,000.00	\$5,205.00	\$2,795.00		\$2,795.00
includes 5 %mark up	400.00	\$260.25	\$139.75	County	\$139.75

Task 3. Regional Monitoring Program

Subtask 3.A Regional Monitoring Program					
Weston	1,566,963.00	\$1,536,963.00	\$30,000.00		
SCCWRP- wetlands	143,541.00	\$143,541.00	\$0.00		
SCCWRP- Microbiol	189,823.00	\$0.00	\$189,823.00		
Consultant mark up 5%	95,016.35	84,025.20	\$10,991.15	County	
Total	\$1,995,343.35	\$1,764,529.20	\$230,814.15		\$230,814.15

Subtask 3.B. Southern California Stormwater Monitoring Coalition					
SCCWRP/San Bernardino	30,000.00	25,000.00	\$5,000.00	County	
Consultant mark up 5%	1,500.00	1,250.00	\$250.00	County	
Total	31,500.00	26,250.00	\$5,250.00	County	\$5,250.00

Total to carry over to 2009-2010	\$232,781.44
includes carry over for SCCWRP- Bight 08 Microbiology Study	\$189,823.00
with 5% consultant mark up for Bight 08Microbiology Study	\$9,491.15
Total of uncommitted funds to carry over to 2009-2010	\$33,467.29

D. Monitoring Workgroup Request for Amended 2009-2010 Budget- Sept 2009

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Task 1 Meeting Support				
Subtask 1.A. Regional Monitoring Workgroup Meeting Support. Provide ongoing support for Regional Monitoring Workgroup meetings (research and develop written materials, preparing presentations, etc).				
Completion date	As-needed (minimum quarterly)			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist - County	75	59.27	\$4,445
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total				\$4,445
Subtask 1.B. Dry Weather Monitoring Sub-workgroup Meeting Support. Provide ongoing support for Dry Weather Monitoring Sub-workgroup meetings (research and develop written materials, preparing presentations, etc).				
Completion date	As-needed (minimum quarterly)			
Party conducting work	Copermittees (TBD) with consultant support (TBD)			
Copermittee hourly costs	City of Santee (Stormwater Program Mgr)	20	91.55	\$1,831
	City of La Mesa (Stormwater Program Mgr)	5	122.31	\$612
		0	0	\$0
Contract costs				\$15,000
Contract management costs	Dry Weather Workgroup requested having the option to use a contractor to analyze data or provide specific support TBD by Dry Weather Group.			\$750
Other direct costs				\$0
Total				\$18,193
Subtask 1.C. Coastal Storm Drain Monitoring Sub-workgroup Meeting Support. Provide ongoing support for Coastal Storm Drain Monitoring Sub-workgroup meetings (research and develop written materials, preparing presentations, etc).				
Completion date	As-needed (minimum quarterly)			
Party conducting work	Copermittee (TBD)			
Copermittee hourly costs	Supervising Environmental Health Specialist	50	59.27	\$2,964
		0	0	\$0
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0

D. Monitoring Workgroup Request for Amended 2009-2010 Budget- Sept 2009

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Other direct costs				\$0
Total				\$2,964
Task 2 Development of Miscellaneous Work Products				
Subtask 2.A. Semi-annual Workgroup Updates. Provide written updates describing the key activities and accomplishments of the Regional Monitoring Workgroup and its sub-workgroups.				
Completion date	August 15, 2009 and February 15, 2010			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist - County	20	59.27	\$1,185
		0	0	\$0
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total				\$1,185
Subtask 2.B. FY 2010-11 Work Plan and Budget. Develop for submittal to the Regional Program Planning Subcommittee a FY 2010-11 work plan and budget covering the planned activities of the Regional Monitoring Workgroup and its sub-workgroups.				
Completion date	November 30, 2009			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist - County	30	59.27	\$1,778
		0	0	\$0
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total				\$1,778
Subtask 2.C. FY 2008-09 Regional URMP Annual Report Input. Provide subject area content as requested for inclusion in the Copermittees' FY 2008-09 Regional URMP Annual Report.				

D. Monitoring Workgroup Request for Amended 2009-2010 Budget- Sept 2009

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Completion date	November 30, 2009			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist - County	10	59.27	\$593
		0	0	\$0
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total				\$593
Subtask 2.D. Conceptual Regional Watershed Monitoring Plan. Consultant will develop a Conceptual Regional Watershed Monitoring Plan.				
Completion date	August 1, 2010			
Party conducting work	Consultant (TBD)			
Copermittee hourly costs		0	0	\$0
		0	0	\$0
		0	0	\$0
Contract costs	Consultant contract to be managed by County.			\$50,000
Contract management costs				\$2,500
Other direct costs				\$0
Total				\$52,500
Subtask 2.E. FY 2010-11 Source Identification Work Plan. Consultant will develop a Source Identification Program Project to satisfy Permit requirements for the 2010-2011 monitoring year and will be submitted with the Scope of Work due September 1, 2010.				
Completion date	August 1, 2010			
Party conducting work	Consultant (TBD)			
Copermittee hourly costs		0	0	\$0
		0	0	\$0
		0	0	\$0
Contract costs	Consultant contract to be managed by County.			\$15,000
Contract management costs				\$750
Other direct costs				\$0
Total				\$15,750
Task 3 Regional Monitoring Program				

D. Monitoring Workgroup Request for Amended 2009-2010 Budget- Sept 2009

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Task 3.A. Regional Monitoring Program. As directed, develop and implement regional monitoring programs and activities to satisfy the requirements of Receiving Waters and Urban Runoff Monitoring and Reporting Program No. R9-2007-0001 and other regional initiatives.				
Completion date	Ongoing			
Party conducting work	Consultant (Weston Solutions)			
Copermittee hourly costs		0	0	\$0
		0	0	\$0
		0	0	\$0
Contract costs	Consultant contract administered by County (see Contract 514270); Consultant expenses are invoiced and paid approximately monthly.			\$2,123,253
Contract management costs				\$106,163
Other direct costs				\$0
Total				\$2,229,416
Task 3.B. Southern California Stormwater Monitoring Coalition. Partner with other municipalities and the RWQCBs in Southern California to improve our understanding of stormwater.				
Completion date	As-needed			
Party conducting work	Consultants (TBD)			
Copermittee hourly costs		0	0	\$0
		0	0	\$0
		0	0	\$0
Contract costs	Memorandum of Agreement and subsequent research implementation agreements are administered by County; Payments are made approximately annually.			\$35,000
Contract management costs				\$1,750
Other direct costs				\$0
Total				\$36,750
Subtask 3.C. Unallocated. Activities or expenditures necessary to support Working Body MOU and Permit obligations, but not otherwise addressed in other Work Plan tasks. This task may not exceed 5% of the total Working Body budget.				
Completion date	TBD			
Party conducting work	TBD			
Copermittee hourly costs		0	0	\$0
		0	0	\$0
		0	0	\$0
Contract costs				\$0

D. Monitoring Workgroup Request for Amended 2009-2010 Budget- Sept 2009

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Contract management costs				\$0
Other direct costs				\$0
Total				\$0

Total Estimated Cost - Approved by Mngmt Comm on 3/19/09	\$2,363,573
Requested Carry-Over from 2008-2009- Unallocated Funds	\$33,467
Carry -Over from 2008-2009 Bight 08 Microbiology Study	\$199,314
Total Amended Budget	\$2,596,354

WESTON PROPOSED BUDGET 2010-2011 - Northern Watersheds
DRAFT - For Discussion Purposes- Sept 29, 2009

Activity #	Activity	Cost 09-10 (\$)	Cost 10-11 (\$)	Comments
1	Mass Loading Stations	1,049,250	1,122,288	14 stations in 09-10; 16 stations in 10-11 for northern rotation, 2 dry and 2 wet weather events. Costs increase due to 2 additional stations, increased management and monitoring hours, increased analytical costs from CRG, increased external expenses. Details provided in year by year contract comparison sheet for MLS/TWAS monitoring task.
2	Stream Bioassessment	204,606	208,692	Consistent with Proposed Addendum 2 of Permit 2007-0001. Permit-required bioassessment at 19 monitoring sites in northern watersheds plus 3 reference stations (\$68,606 in 09-10 and \$72,692 in 10-11) and SMC Regional Program at 16 SMC stations (\$136,000 same cost) during Spring 2011 (RWQCB conducts monitoring at 8 additional stations). SMC program includes costs for chemistry, toxicity, and bioassessment including periphyton taxonomy. Fall bioassessment not required if participate in SMC Program. This is an increase of \$4,086 from the 09-10 budget to accommodate monitoring 3 additional stations in the northern watersheds. Additional effort realized in SWAMP PHAB monitoring, additional periphyton sampling effort, and additional taxonomic QC for the additional sites. Equipment and external expenses remain same as 2009-2010. Management hours also added for meetings with SMC bioassessment group and program oversight. Details provided in year by year contract comparison,
3	Toxicity Identification Analyses	30,000	30,000	Reserved for three full TIEs, if needed. No change from the 2009-2010 budget.
4	Ambient Bay & Lagoon Monitoring	162,000	162,298	Revised program based on Bight 08 assessment a. No change from the 2009-2010 budget.
6	Pyrethroids Monitoring	17,442	18,713	Post storm sediment sampling for the pyrethroids program. Water column sampling included in Activity 1. No change from 2008-2009 budget. Cost increase reflects additional sampling locations in the northern watersheds. Previous sampling done by Camp Pendleton at SMR
7	MS4 Outfall Monitoring	145,118	165,155	Random design portion of the draft program- 6 wet and 6 dry per watershed (9 WMAs for a total of 54 wet and 54 dry samples per year) will be conducted for \$96,387. Also a wet weather targeted program that includes sampling 3 stations for 1 wet event with pollutograph sampling (multiple samples collected at different parts of the hydrograph) for chemistry and bacteria. Cost increase of \$20,037 due to Bacteria and Sampling Costs that were underestimated in previous years. See details provided in year by year costs.
8	Implement Source ID Program	100,000	100,000	This is a new permit-required program and may help with TMDLs as source-tracking is required. Same costs proposed for 2010-11. The Source-ID Work Plan for 10-11 will be developed during the 09-10 year.
9	Annual Monitoring Report	373,665	373,665	Report is consistent with new reporting requirements. This is the report for Oct 1, 2009 through Sept 30, 2010. This report will include the Southern watersheds from 09-10 and will include the newly developed assessment methodology that is under development. Bioassessment results from Spring 2010 effort, Source ID and MS4 data (random and Copermittees' data from the targeted program), and 3 rd party data incorporation. This is the same budget as in 2009-2010.
10	Annual Scope of Work to RWQCB	2,000	2,000	Annual Scope of Work for 2010-2011 due to RWQCB on 9/1/10. No change from the 2009-2010 budget.
11	Prepare Updated Constituent Priority System	50,000	0	Task completed.
13	SWMM Modeling	39,172	0	Task completed.
TOTAL		\$2,173,253	\$2,182,811	

Difference

\$9,558 Recommended overall increase

D. Monitoring Workgroup and Sub-workgroups

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Task 1 Meeting Support				
Subtask 1.A. Regional Monitoring Workgroup Meeting Support. Provide ongoing support for Regional Monitoring Workgroup meetings (research and develop written materials, preparing presentations, etc).				
Completion date	Ongoing (minimum quarterly)			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist	25	59.27	\$1,482
		0	0	\$0
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total Expended/ Revised budget				\$1,481.75
Subtask 1.B. Dry Weather Monitoring Sub-workgroup Meeting Support. Provide ongoing support for Dry Weather Monitoring Sub-workgroup meetings (research and develop written materials, preparing presentations, etc).				
Completion date	Ongoing (minimum quarterly)			
Party conducting work	Consultant (D-MAX Engineering)			
Copermittee hourly costs		0	0	\$0
City of Santee		0	0	\$1,602.13
		0	0	\$0
Contract costs	Contract to be administered by the City of La Mesa; The City will be credited for contract-related expenditures in FY 2009-10. Contract will be for the evaluation of historical data to update Dry Weather Action Levels. Exact scope TBD by Dry Weather Workg			\$9,420.00
Contract management costs				\$471.00
Other direct costs				\$0.00
Total Expended/Revised Budget				\$11,493.13
Subtask 1.C. Coastal Storm Drain Monitoring Sub-workgroup Meeting Support. Provide ongoing support for Coastal Storm Drain Monitoring Sub-workgroup meetings (research and develop written materials, preparing presentations, etc).				
Completion date	Ongoing (minimum quarterly)			
Party conducting work	Divided amongst sub-workgroup members			
Copermittee hourly costs	Supervising Environmental Health Specialist	0	59.27	\$0
Port of San Diego		0	0	\$5,987.30
City of Carlsbad		0	0	\$3,603.75
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0

D. Monitoring Workgroup and Sub-workgroups

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Total Revised Budget				\$9,591.05
Task 2 Development of Miscellaneous Work Products				
Subtask 2.A. Semi-annual Workgroup Update. Provide as requested by the Program Planning Subcommittee a written update describing the key activities and accomplishments of the Regional Monitoring Workgroup and its sub-workgroups for the period of July 1 through December 31, 2007.				
Completion date	February 15, 2009			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist	0	59.27	\$0
		0	0	\$0
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total Revised Budget				\$0
Subtask 2.B. FY 2009-10 Work Plan and Budget. Develop for submittal to the Regional Program Planning Subcommittee a FY 2009-10 work plan and budget covering the planned activities of the Regional Monitoring Workgroup and its sub-workgroups.				
Completion date	November 30, 2008			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist	25	59.27	\$1,482
		0	0	\$0
			0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total spent				\$1,481.75
Subtask 2.C. FY 2007-08 Regional URMP Annual Report Input. Provide subject area content as requested for inclusion in the Copermittees' FY 2007-08 Regional URMP Annual Report.				
Completion date	November 30, 2008			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist	0	59.27	\$0.00
		0	0	\$191.22
		0	0	\$0.00
Contract costs				\$0.00
Contract management costs				\$0.00
City of Santee		0	0	\$191.22

D. Monitoring Workgroup and Sub-workgroups

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Other direct costs				\$0.00
Total Revised Budget				\$191.22
Subtask 2.D. FY 2008-09 Source Identification Work Plan. Consultant will develop the detailed work plan for the residential source identification project identified in the Source Identification Monitoring Program submitted to the RWQCB on July 1, 2008.				
Completion date	April 1, 2009			
Party conducting work	County			
Copermittee hourly costs		0	\$0	\$0
		0	0	\$0
		0	0	\$0
Contract costs				\$10,000
Contract management costs				\$500
Other direct costs				\$0
Total				\$10,500
Subtask 2.E. FY 2009-10 Source Identification Work Plan. Consultant will develop a Source Identification Program Project to satisfy Permit requirements for the 2009-2010 monitoring year and will be submitted with the Scope of Work due September 1, 2009.				
Completion date	August 1, 2009			
Party conducting work	Consultant (TBD)			
Copermittee hourly costs		0	\$0	\$0
		0	0	\$0
		0	0	\$0
Contract costs				\$10,000
Contract management costs				\$500
Other direct costs				\$0
Total				\$10,500
Subtask 2.F. Targeted Wet Weather MS4 Program. In the June 30, 2008 MS4 Monitoring Program submitted to the RWQCB, Coeprmittees committed to providing the details of the targeted weather portion of the program in 2009. This will be included in the Scope of Work to be submitted to the RWQCB on September 1, 2008.				
Completion date	August 1, 2009			
Party conducting work	Consultant (TBD)			
Copermittee hourly costs		0	\$0	\$0
				\$0
				\$0
Contract costs				\$8,000

D. Monitoring Workgroup and Sub-workgroups

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Contract management costs				\$400
Other direct costs				\$0
Total Revised Budget				\$8,400
Task 3 Regional Monitoring Program				
Task 3.A. Regional Monitoring Program. As directed, develop and implement regional monitoring programs and activities to satisfy the requirements of Receiving Waters and Urban Runoff Monitoring and Reporting Program No. R9-2007-0001 and other regional initiatives.				
Completion date	Ongoing			
Party conducting work	Consultant (Weston Solutions)			
Copermittee hourly costs		0	\$0	\$0
				\$0
				\$0
Contract costs	Consultant contract administered by County (see Contract 514270); Consultant expenses are invoiced and paid approximately monthly.			\$1,900,330
Contract management costs				\$95,017
Other direct costs				\$0
Total				\$1,995,347
Task 3.B. Southern California Stormwater Monitoring Coalition. As directed by Copermittees, partner with other municipalities and the RWQCBs in Southern California to improve our understanding of stormwater.				
Completion date	Ongoing			
Party conducting work	Consultants (TBD)			
Copermittee hourly costs		0	\$0	\$0
				\$0
				\$0
Contract costs	Memorandum of Agreement and subsequent research implementation agreements are administered by County; Payments are made approximately annually.			\$30,000
Contract management costs				\$1,500
Other direct costs				\$0
Total				\$31,500
Task 3.C. Unallocated.				
Completion date	Ongoing			
Party conducting work	Consultants (TBD)			
Copermittee hourly costs		0	\$0	\$0
				\$0
				\$0

D. Monitoring Workgroup and Sub-workgroups

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Contract costs	Nothing assigned to "unallocated" because Task 3.A includes "as-needed" in consultant scope.			\$0
Contract management costs				\$0
Other direct costs				\$0
Total				\$0
Total Estimated Cost				\$2,080,485

D. Monitoring Workgroup and Sub-workgroups

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Task 1 Meeting Support				
Subtask 1.A. Regional Monitoring Workgroup Meeting Support. Provide ongoing support for Regional Monitoring Workgroup meetings (research and develop written materials, preparing presentations, etc).				
Completion date	Ongoing (minimum quarterly)			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist	25	59.27	\$1,482
		0	0	\$0
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total Expended/ Revised budget				\$1,481.75
Subtask 1.B. Dry Weather Monitoring Sub-workgroup Meeting Support. Provide ongoing support for Dry Weather Monitoring Sub-workgroup meetings (research and develop written materials, preparing presentations, etc).				
Completion date	Ongoing (minimum quarterly)			
Party conducting work	Consultant (D-MAX Engineering)			
Copermittee hourly costs		0	0	\$0
City of Santee		0	0	\$1,602.13
		0	0	\$0
Contract costs	Contract to be administered by the City of La Mesa; The City will be credited for contract-related expenditures in FY 2009-10. Contract will be for the evaluation of historical data to update Dry Weather Action Levels. Exact scope TBD by Dry Weather Workg			\$9,420.00
Contract management costs				\$471.00
Other direct costs				\$0.00
Total Expended/Revised Budget				\$11,493.13
Subtask 1.C. Coastal Storm Drain Monitoring Sub-workgroup Meeting Support. Provide ongoing support for Coastal Storm Drain Monitoring Sub-workgroup meetings (research and develop written materials, preparing presentations, etc).				
Completion date	Ongoing (minimum quarterly)			
Party conducting work	Divided amongst sub-workgroup members			
Copermittee hourly costs	Supervising Environmental Health Specialist	0	59.27	\$0
Port of San Diego		0	0	\$5,987.30
City of Carlsbad		0	0	\$3,603.75
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0

D. Monitoring Workgroup and Sub-workgroups

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Total Revised Budget				\$9,591.05
Task 2 Development of Miscellaneous Work Products				
Subtask 2.A. Semi-annual Workgroup Update. Provide as requested by the Program Planning Subcommittee a written update describing the key activities and accomplishments of the Regional Monitoring Workgroup and its sub-workgroups for the period of July 1 through December 31, 2007.				
Completion date	February 15, 2009			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist	0	59.27	\$0
		0	0	\$0
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total Revised Budget				\$0
Subtask 2.B. FY 2009-10 Work Plan and Budget. Develop for submittal to the Regional Program Planning Subcommittee a FY 2009-10 work plan and budget covering the planned activities of the Regional Monitoring Workgroup and its sub-workgroups.				
Completion date	November 30, 2008			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist	25	59.27	\$1,482
		0	0	\$0
			0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total spent				\$1,481.75
Subtask 2.C. FY 2007-08 Regional URMP Annual Report Input. Provide subject area content as requested for inclusion in the Copermittees' FY 2007-08 Regional URMP Annual Report.				
Completion date	November 30, 2008			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist	0	59.27	\$0.00
		0	0	\$191.22
		0	0	\$0.00
Contract costs				\$0.00
Contract management costs				\$0.00
City of Santee		0	0	\$191.22

D. Monitoring Workgroup and Sub-workgroups

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Other direct costs				\$0.00
Total Revised Budget				\$191.22
Subtask 2.D. FY 2008-09 Source Identification Work Plan. Consultant will develop the detailed work plan for the residential source identification project identified in the Source Identification Monitoring Program submitted to the RWQCB on July 1, 2008.				
Completion date	April 1, 2009			
Party conducting work	County			
Copermittee hourly costs		0	\$0	\$0
		0	0	\$0
		0	0	\$0
Contract costs				\$10,000
Contract management costs				\$500
Other direct costs				\$0
Total				\$10,500
Subtask 2.E. FY 2009-10 Source Identification Work Plan. Consultant will develop a Source Identification Program Project to satisfy Permit requirements for the 2009-2010 monitoring year and will be submitted with the Scope of Work due September 1, 2009.				
Completion date	August 1, 2009			
Party conducting work	Consultant (TBD)			
Copermittee hourly costs		0	\$0	\$0
		0	0	\$0
		0	0	\$0
Contract costs				\$10,000
Contract management costs				\$500
Other direct costs				\$0
Total				\$10,500
Subtask 2.F. Targeted Wet Weather MS4 Program. In the June 30, 2008 MS4 Monitoring Program submitted to the RWQCB, Coepmittees committed to providing the details of the targeted weather portion of the program in 2009. This will be included in the Scope of Work to be submitted to the RWQCB on September 1, 2008.				
Completion date	August 1, 2009			
Party conducting work	Consultant (TBD)			
Copermittee hourly costs		0	\$0	\$0
				\$0
				\$0
Contract costs				\$8,000

D. Monitoring Workgroup and Sub-workgroups

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Contract management costs				\$400
Other direct costs				\$0
Total Revised Budget				\$8,400
Task 3 Regional Monitoring Program				
Task 3.A. Regional Monitoring Program. As directed, develop and implement regional monitoring programs and activities to satisfy the requirements of Receiving Waters and Urban Runoff Monitoring and Reporting Program No. R9-2007-0001 and other regional initiatives.				
Completion date	Ongoing			
Party conducting work	Consultant (Weston Solutions)			
Copermittee hourly costs		0	\$0	\$0
				\$0
				\$0
Contract costs	Consultant contract administered by County (see Contract 514270); Consultant expenses are invoiced and paid approximately monthly.			\$1,900,330
Contract management costs				\$95,017
Other direct costs				\$0
Total				\$1,995,347
Task 3.B. Southern California Stormwater Monitoring Coalition. As directed by Copermittees, partner with other municipalities and the RWQCBs in Southern California to improve our understanding of stormwater.				
Completion date	Ongoing			
Party conducting work	Consultants (TBD)			
Copermittee hourly costs		0	\$0	\$0
				\$0
				\$0
Contract costs	Memorandum of Agreement and subsequent research implementation agreements are administered by County; Payments are made approximately annually.			\$30,000
Contract management costs				\$1,500
Other direct costs				\$0
Total				\$31,500
Task 3.C. Unallocated.				
Completion date	Ongoing			
Party conducting work	Consultants (TBD)			
Copermittee hourly costs		0	\$0	\$0
				\$0
				\$0

D. Monitoring Workgroup and Sub-workgroups

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Contract costs	Nothing assigned to "unallocated" because Task 3.A includes "as-needed" in consultant scope.			\$0
Contract management costs				\$0
Other direct costs				\$0
Total				\$0
Total Estimated Cost				\$2,080,485

Draft FY 2010-11 Regional Work Plan Summary Worksheets

D. Monitoring Workgroup and Sub-workgroups Draft 2010-2011 Sept 2009

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Task 1 Meeting Support				
Subtask 1.A. Regional Monitoring Workgroup Meeting Support. Provide ongoing support for Regional Monitoring Workgroup meetings (research and develop written materials, preparing presentations, etc).				
Completion date	Ongoing (minimum quarterly)			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist	80	59.27	\$4,742
		0	0	\$0
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total				\$4,742
Subtask 1.B. Dry Weather Monitoring Sub-workgroup Meeting Support. Provide ongoing support for Dry Weather Monitoring Sub-workgroup meetings (research and develop written materials, preparing presentations, etc).				
Completion date	Ongoing (minimum quarterly)			
Party conducting work	Consultant (D-MAX Engineering)			
Copermittee hourly costs	Santee	80	59.27	\$4,742
	La Mesa	80	59.27	\$4,742
		0	0	\$0
Contract costs	Contract to be administered by the City of La Mesa; The City will be credited for contract-related expenditures in FY 2009-10. Contract will be for the evaluation of historical data to update Dry Weather Action Levels. Exact scope TBD by Dry Weather Workg			\$0
Contract management costs				\$0
Other direct costs				\$0
Total				\$9,483
Subtask 1.C. Coastal Storm Drain Monitoring Sub-workgroup Meeting Support. Provide ongoing support for Coastal Storm Drain Monitoring Sub-workgroup meetings (research and develop written materials, preparing presentations, etc). Includes Preparing annual report.				
Completion date	Ongoing (minimum quarterly)			
Party conducting work	Divided amongst sub-workgroup members			
Copermittee hourly costs	Port	80	59.27	\$4,742
	City of Carlsbad	80	59.27	\$4,742
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0

Draft FY 2010-11 Regional Work Plan Summary Worksheets

D. Monitoring Workgroup and Sub-workgroups Draft 2010-2011 Sept 2009

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Total				\$9,483
Task 2 Development of Miscellaneous Work Products				
Subtask 2.A. Semi-annual Workgroup Update. Provide as requested by the Program Planning Subcommittee a written update describing the key activities and accomplishments of the Regional Monitoring Workgroup and its sub-workgroups for the period of July 1 through December 31, 2007.				
Completion date	February 15, 2011			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist	10	59.27	\$593
		0	0	\$0
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total				\$593
Subtask 2.B. FY 2011-12 Work Plan and Budget. Develop for submittal to the Regional Program Planning Subcommittee a FY 2011-12 work plan and budget covering the planned activities of the Regional Monitoring Workgroup and its sub-workgroups.				
Completion date	November 30, 2010			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist	25	59.27	\$1,482
		0	0	\$0
			0	\$0
Contract costs				\$0
Contract management costs				\$0
Other direct costs				\$0
Total				\$1,482
Subtask 2.C. FY 2009-10 Regional URMP Annual Report Input. Provide subject area content as requested for inclusion in the Copermittees' FY 2007-08 Regional URMP Annual Report.				
Completion date	November 30, 2008			
Party conducting work	County			
Copermittee hourly costs	Supervising Environmental Health Specialist	6	59.27	\$356
		0	0	\$0
		0	0	\$0
Contract costs				\$0
Contract management costs				\$0

Draft FY 2010-11 Regional Work Plan Summary Worksheets

D. Monitoring Workgroup and Sub-workgroups Draft 2010-2011 Sept 2009

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Other direct costs				\$0
Total				\$356
Subtask 2.D. FY 2011-12 Source Identification Work Plan. Consultant will develop the detailed work plan for the source identification project identified in the Source Identification Monitoring Program submitted to the RWQCB on July 1, 2008.				
Completion date	April 1, 2011			
Party conducting work	County			
Copermittee hourly costs		0	\$0	\$0
		0	0	\$0
		0	0	\$0
Contract costs				\$12,000
Contract management costs				\$600
Other direct costs				\$0
Total				\$12,600
Task 3 Regional Monitoring Program				
Task 3.A. Regional Monitoring Program. As directed, develop and implement regional monitoring programs and activities to satisfy the requirements of Receiving Waters and Urban Runoff Monitoring and Reporting Program No. R9-2007-0001 and other regional initiatives.				
Completion date	Ongoing - ASSUMING SAME COSTS AS IN 2009-2010 budget			
Party conducting work	Consultant (Weston Solutions)			
Copermittee hourly costs		0	\$0	\$0
				\$0
				\$0
Contract costs	Consultant contract administered by County (see Contract 514270); Consultant expenses are invoiced and paid approximately monthly.			\$2,173,253
Contract management costs				\$108,663
Other direct costs				\$0
Total				\$2,281,916
Task 3.B. Southern California Monitoring Coalition. Support of applied research in stormwater with Southern CA stormwater agencies and regulators developing the projects.				
Completion date	Ongoing			
Party conducting work	Consultants vary by project			
Copermittee hourly costs		0	\$0	\$0
				\$0
				\$0

Draft FY 2010-11 Regional Work Plan Summary Worksheets

D. Monitoring Workgroup and Sub-workgroups Draft 2010-2011 Sept 2009

Task	Description	Estimated Hours	Hourly Rate	Estimated Cost
Contract costs	SMC Agreements administered by County			\$30,000
Contract management costs				\$1,500
Other direct costs				\$0
Total				\$31,500
Task 3.C. 5-Year Regional Monitoring Program Assessment and Updating for ROWD and LTEA. As directed, evaluate and develop regional monitoring programs to recommend for the 2012 NPDES Permit.				
Completion date	Ongoing			
Party conducting work	Consultant (unassigned)			
Copermittee hourly costs		0	\$0	\$0
Contract costs	Consultant contract administered by County; Consultant expenses are invoiced and paid approximately monthly.			\$100,000
Contract management costs				\$5,000
Other direct costs				\$0
Total				\$105,000
Task 3.C. Unallocated.				
Completion date	Ongoing			
Party conducting work	Consultants (TBD)			
Copermittee hourly costs		0	\$0	\$0
Contract costs	Nothing assigned to "unallocated" because Task 3.A includes "as-needed" in consultant scope.			\$0
Contract management costs				\$0
Other direct costs				\$0
Total				\$0
Total Estimated Cost				\$2,457,154

Total Estimated Cost	\$2,457,154
FY 2009-2010 Budget (for comparison)	\$2,363,573
Difference	\$93,581

9/29 Regional Monitoring Meeting

Name	Organization	Email
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AUSON WITHERIDGE	City of Oceanside	awitheridge@ci.oceanside.ca.us
Tim Murphy	City of Carlsbad	tim.murphy@carlsbadca.gov
Terome Tammet	TRC	ttammet@trcsolutions.org
Annie Hill	Airport	AHill@San.org
Scott Norris	County	scott.norris@sdcounty.us.gov
Phil Gibbons	Port of SD	pgibbons@portofsandiego.org
Blake Behringer	City of El Cajon	bbehinger@ci.el-cajon.ca.us
Steve Gruber	Weston Solutions	Steve.gruber@westonsolutions.com
Lisa Kay	Weston	lisa.kay@westonsolutions.com
KHOSRO AMINPOUR	CHULA VISTA	kaminpour@ci.chula-vista.ca.us
David Reinfrew	Weston	dave.reinfrew@westonsolutions.com
Malik Tammini	City of Poway	mtammini@ci.poway.ca.us
Chris Helmer	City of Imperial Beach	chelmer@cityofIB.org
ANDRE SONKSEN	CITY OF SAN DIEGO	ASONKSEN@SAN DIEGO.GOV
ERIK STREIBER	City of Escondido	estreiber@cityofescondido.org
Joe Kuhn	City of La Mesa	jkuhn@ci.la-mesa.ca.us
John Quenzer	City of National City	jquenzer@dmmaxinc.com
Helen Perry	City of Santee	hperry@santee-ci.us