



CONTRA COSTA
CLEAN WATER
PROGRAM

MANAGEMENT COMMITTEE MEETING

August 15, 2007

1:30 p.m.

Pleasant Hill City Offices'

"Large Community Room"

100 Gregory Lane, Pleasant Hill, CA

City of Antioch	:	Phil Hoffmeister / Julie Haas-Wajdowicz
City of Brentwood	:	Jeff Cowling / Jagtar Dhaliwal
City of Clayton	:	Laura Hoffmeister / Jeremy Graves
City of Concord	:	Jeff Roubal / Qamar Khan / Bruce Good
Town of Danville	:	Christine McCann / Michael Stella
City of El Cerrito	:	Bruce King / Melanie Mintz
City of Hercules	:	Erwin Blancaflor / Jose Pacheco
City of Lafayette	:	Donna Feehan / Ron Lefler
City of Martinez	:	Alex Stroup / Khalil Yowakim / Tim Tucker
Town of Moraga	:	Jill Mercurio / Frank Kennedy
City of Oakley	:	Frank Kennedy (Vice-Chair) / Jason Vogan
City of Orinda	:	Cathy Terentieff / Janice Carey
City of Pinole	:	Nancy Voisey / Junior Castro
City of Pittsburg	:	Chris Barton / Laura Wright
City of Pleasant Hill	:	Rod Wui / Steve Wallace
City of Richmond	:	Mary Phelps / Lynne Scarpa
City of San Pablo	:	Karineh Samkian (Chair) / Adèle Ho
City of San Ramon	:	Steven Spedowfski / Maria Robinson
City of Walnut Creek	:	Rinta Perkins / Diana Walker
Contra Costa County	:	Rich Lierly / David Swartz
Contra Costa County Flood Control & Water Conservation District	:	Greg Connaughton / Mitch Avalon

PLEASE MARK YOUR CALENDAR NOW!!!

Next Management Committee Meeting:

Wednesday, September 19, 2007 – 1:30 p.m.

Pleasant Hill City Offices'

"Large Community Room"

100 Gregory Lane, Pleasant Hill, CA

**CONTRA COSTA CLEAN WATER PROGRAM
Management Committee Meeting Agenda
August 15, 2007**

AGENDA

Public Comments: Any member of the general public may address the Management Committee on a subject within their jurisdiction and **not** listed on the agenda. Remarks should not exceed three (3) minutes.

Presentations:

- A. Green Landscaper Certification Program (Rinta Perkins, City of Walnut Creek) 30 min.

Consent Calendar: 05 min.

(All matters listed under the CONSENT CALENDAR are considered to be routine and can be acted on by one motion. There will be no separate discussion of these items unless requested by a member of the Management Committee or a member of the public prior to the time the Management Committee votes on the motion to adopt.)

- A. July 12, 2007 C.3 Implementation Work Group Meeting Summary (Dan Cloak – Program Consultant, Tom Dalziel)
- B. July 18, 2007 Management Committee (MC) Meeting Minutes (Michelle McCauley, Donald P. Freitas)
- C. July 19, 2007 Municipal Maintenance Workgroup Meeting Minutes (Elisa Wilfong)
- D. July 19, 2007 Public Education & Industrial Outreach Committee Meeting Minutes (Astone – Program Consultant, Donald P. Freitas)
- E. July 24, 2007 Watershed Assessment and Monitoring Committee Meeting Minutes (Michelle McCauley, Jamison Crosby)
- F. July 25, 2007 New Development & Construction Controls Committee Meeting Minutes (Michelle McCauley, Tom Dalziel)
- G. July 26, 2007 Commercial Industrial Ad-Hoc Advisory Group Meeting Minutes (Elisa Wilfong)
- H. August 7, 2007 Administrative Committee Meeting Minutes (Michelle McCauley, Tom Dalziel)

Actions:

- A. APPROVE Program Manager’s Fiscal Year 2007/2008 Goals (Greg Connaughton, Donald P. Freitas) 05 min.
- B. APPROVE the New Development & Construction Controls Committee’s Recommendation to Conduct a Construction Site Inspector Annual Training Workshop on September 26, 2007 in Walnut Creek for a Cost Not to Exceed \$5,000 10 min.

Staff Reports:

- A. Annual Report Review and Update (Tom Dalziel) 10 min.
- B. Municipal Regional Permit (MRP) Update (Donald P. Freitas/Tom Dalziel) 15 min.
- C. Senate Constitutional Amendment (SCA 12 – Torlakson) Update (Donald P. Freitas) 05 min.
- D. Selecting and Implementing Stormwater Treatment Controls in Compliance with Provision C.3 (Tom Dalziel) 10 min.
- E. California Stormwater Quality Association (CASQA) Website “Members Only” Section Login Passwords (Kristen Hardeman) 10 min.

Regional Board Staff Comments/Reports:

- A. San Francisco Bay RWQCB – Matt Graul
- B. Central Valley RWQCB – Greg Vaughn

Information Items:

- A. Article – “State cuts allowable mercury,” *Contra Costa Times*, July 18, 2007
- B. Article – “Opposition to Building-Permit Changes Mounts,” *San Francisco Daily Journal*, July 20, 2007

Old/New Business:

Adjournment: 115 minutes (3:25 p.m. target adjournment time)

UPCOMING EVENTS and/or DEADLINES:

- September 10 – 12, 2007** **CASQA 2007 Annual Conference**, September 10, 11 and 12, Costa Mesa, California. For more information or to register online, visit CASQA's website at: www.casqa.org or go to the conference web page at: <http://stormwaterconference.com/>.
- September 26, 2007** **Contra Costa Clean Water Program's Construction Site Inspector Annual Training Workshop** to be held in Walnut Creek (*pending approval by the Program's Management Committee*).
- October 1 – 4, 2007** **NAFSMA's 2007 Annual Meeting**, Hyatt Regency, Newport, Rhode Island. Visit www.NAFSMA.org and click on "meetings."
- October 2, 2007** **RMP 2007 Annual Meeting**, Oakland Museum, Oakland, CA. Register online at www.sfei.org. For more details, please call (510) 746-SFEI (7334).
- October 16 – 18, 2007** **8th Biennial State of the Estuary Conference 2007** sponsored by the San Francisco Estuary Project. The event will be held at the Scottish Rite Center, 1547 Lakeside Drive in Oakland. Registration brochure will be mailed in August 2007. For additional information, please contact the **San Francisco Estuary Project** at (510) 622-2398.
- November 15, 2007** **Contra Costa Watershed Symposium** hosted by the Contra Costa Watershed Forum. The event will be held at the Shadelands Art Center in Walnut Creek.

PROGRAM COMMITTEE MEETINGS:

- August 25, 2007** Public Education & Industrial Outreach Committee Meeting, **10:00 a.m. – 12:00 p.m.**, 600 Main Street, Martinez, CA, "Shasta" Room
- August 25, 2007** New Development & Construction Controls Committee Meeting, **2:00 p.m. – 4:30 p.m.**, 600 Main Street, Martinez, CA, "Shasta" Room
- September 7, 2007** Administrative Committee Meeting, **9:30 a.m. – 12:00 p.m.**, 600 Main Street, Martinez, CA, "Shasta" Room
- September 19, 2007** Management Committee Meeting, **1:30 – 5:00 p.m.**, Pleasant Hill's Large Community Meeting Room, Pleasant Hill City Offices, 100 Gregory Lane, Pleasant Hill, CA
- September 25, 2007** Watershed Assessment & Monitoring Committee Meeting, **9:00 a.m. – 11:00 a.m.**, *location to be determined*
- September 26, 2007** Public Education & Industrial Outreach Committee Meeting, **10:00 a.m. – 12:00 p.m.**, *location to be determined*
- September 26, 2007** New Development & Construction Controls Committee Meeting, **2:00 p.m. – 4:30 p.m.**, *location to be determined*



CONTRA COSTA
CLEAN WATER
PROGRAM

Date: August 15, 2007

To: Management Committee

From: Rinta Perkins, City of Walnut Creek
By: Tom Dalziel, Assistant Program Manager
Contra Costa Clean Water Program

Subject: Presentation Item A – Green Landscaper Certification Program

Recommendation:

Receive presentation on the development of a Green Landscaper Certification Program.

Background:

The City of Walnut Creek, in coordination with *The Gardens at Heather Farm*, are soliciting interest from the Central Contra Costa County Sanitary District (CCCSD), East Bay Municipal Utility District (EBMUD), Contra Costa Water District (CCWD), the Contra Costa Green Business Program and others in the development and implementation of a Green Landscaper Certification Program. Representatives from the Marin Stormwater Pollution Prevention Program have also expressed an interest in introducing this program in Marin.

Rinta Perkins and representatives from *The Gardens at Heather Farm* will provide an overview of this effort.

Fiscal Impact:

Unknown.

Attachment(s):

None.

**Contra Costa Clean Water Program
C.3 Implementation Work Group**

Date: **12 July 2007, 9:00 am – 11:30 am**

Location: Shasta Room, 600 Main Street, Martinez

Members: Mark Boucher Contra Costa Flood Control District
Phil Hoffmeister City of Antioch
Frank Kennedy City of Oakley
Jolan Longway City of Pittsburg
Lynne Scarpa City of Richmond
Alan Parkman City of Orinda
Karineh Samkian City of San Pablo
Scott Wikstrom City of Walnut Creek

Absent: Mitch Avalon Contra Costa Flood Control District
Victor Carniglia City of Antioch
Rich Chamberlain Town of Moraga
Greg Connaughton Contra Costa Flood Control District
Slava Gospodchikov Contra Costa
Scott Harriman City of Walnut Creek
Mike Hollingsworth Contra Costa
Steve Lake Town of Danville
Rich Lierly Contra Costa
Chris McCann Town of Danville
Rinta Perkins City of Walnut Creek
Jeff Rogers City of Concord
Christine Sinnette City of Lafayette
David Swartz Contra Costa
Cathleen Terentieff City of Orinda
Shinei Tsukamoto City of San Ramon
Diana Walker City of Walnut Creek
Khalil Yowakim City of Martinez

Staff: Tom Dalziel Contra Costa Clean Water Program
Dan Cloak Dan Cloak Environmental Consulting

Welcome and Introductions

Tom welcomed the attendees and noted all had previously been introduced to each other.

Updates and Reports

Municipal Regional Permit

Tom noted tomorrow (13 July) is the deadline for comments. He said the Program has encouraged municipalities to submit comments individually, in addition to the Program's comments. A key message is that the current

draft isn't substantially different from what was circulated previously—there is still no prioritization of objectives or tasks.

Tom said BASMAA met four times with Water Board staff during June. Portions of the meetings were attended by Dale Bowyer, Bruce Wolfe, Shin-Roei Lee, and Tom Mumley. The meetings went well, in that Water Board staff listened to BASMAA's suggestions and seemed amenable to incorporating some of them. (Water Board staff will also be meeting with staff from the National Resources Defense Council and from Baykeeper regarding the permit.)

Some specific proposals:

- Water Board staff now proposes C.3 requirements apply to reconstruction of arterials only, rather than all street reconstruction (not including repaving or overlay).
- Water Board staff's previously proposed 50% of existing street sweepers would be replaced with new high-efficiency (e.g., regenerative air) street sweepers within the permit term. Their latest proposal would require 75% of street sweepers replaced during the permit term have particulate removal performance of regenerative air sweepers or better. The cities successfully communicated that it was useful to have different types of sweepers available for different seasons and types of jobs.
- As a compromise, BASMAA proposed making lower thresholds for C.3 more consistent with Phase II, which specifies a narrow set of land uses to which the requirements apply (i.e., gas stations, vehicle repair facilities, restaurants, parking lots).

The group discussed the difficulty and costs of collecting data on imperviousness added by small projects. Karineh suggested it would be better to simply agree on a threshold, if reasonable, than be subjected to difficult and unproductive data-collection requirements. Dan suggested that instead of arguing about the threshold, it would make more sense to focus on improving implementation of "maximum extent practicable" controls for projects below the threshold.

Water Board staff asked BASMAA to propose draft language in accordance with the suggestions. These drafts will be distributed to municipalities through the countywide programs' respective management committees, revised in response to comments, and then provided to Water Board staff by 3 August.

The next step will likely be a Tentative Order with the requisite 45 days for public comment.

HMP Submittal to Water Board

Tom asked Dan to report on the 2 July 2007 letter to Water Board staff. The letter is on the C.3 web page. Dan noted the letter fulfills a requirement in the HMP Order that the Program submit additional information about input parameters used in modeling anticipated performance of the IMPs. Dan and Tom recalled that, during a discussion with Jan O'Hara and Dale Bowyer the afternoon before the 12 July 2006 hearing, Program consultants noted these requirements were based on Water Board staff's misunderstandings of how modeling is done and how modeling input parameters are derived. Rather than make a last-minute

change in the Tentative Order, Dale suggested the Program simply respond to the requirement with a letter clarifying the misunderstanding.

Tom noted the Order also required the Program to submit the *Stormwater C.3 Guidebook, 3rd Edition* by October 1 for Water Board staff review. The Program complied with this requirement; however, Water Board staff never provided any comments in response to that submittal.

HMPs and LID—Recent Statewide Activity

Dan noted the following:

- San Diego's reissued permit contains HMP language very similar to the Bay Area permits. They recently awarded a consultant contract to a team of Brown and Caldwell, Philip Williams and Associates, and Dan Cloak Environmental Consulting to begin work preparing their HMP.
- San Diego is also preparing an LID manual and is investigating how to integrate the permit-mandated LID requirements with the HMP requirements.
- The December 2006 draft Ventura municipal NPDES permit includes HMP requirements. However, the draft calls for projects smaller than 50 acres to match the pre-project 2-year peak flow and duration (i.e., an event-based standard) and for larger projects to conduct an analysis of sediment transport using the E_p concept.
- A February workshop sponsored by Sacramento County drew State Board and Region 5 staff. Dan presented Contra Costa's approach to LID design.
- A 22 June workshop sponsored by the California Water Environment Modeling Forum also drew State Board staff and the staff of Regional Boards and municipal stormwater NPDES programs around California. The workshop included presentations of different modeling programs (HEC-HMS, HSPF, SWMM, others), but audience interest seemed focus on applications related to HMPs.
- Riverside County is in discussions with Santa Ana Water Board staff regarding the potential addition of HMP requirements to their permit. They have an LID manual in progress. They have requested Dan to provide a presentation about the Contra Costa experience.
- Dan is developing a LID-based approach for meeting NPDES Phase II new development requirements in Marin County.
- San Bernadino County has an RFP out for a LID manual intended to be used throughout Southern California.
- The California Ocean Protection Council awarded a contract to Tetra Tech to prepare a report on how to encourage municipalities to implement LID through their development review process.
- Kennedy-Jenks drafted an LID manual for the City of Salinas. Staff from the Central Coast Regional Board are actively involved in development of the manual, which is currently under review.

In conclusion, Dan said that LID and HMPs are both spreading throughout the state. Water Boards and NPDES Programs are beginning to figure out that they need to develop detailed criteria and methods for designing developments (and preparing submittals) so that LID may be

used to demonstrate compliance with both treatment and HMP requirements, as is done in Contra Costa.

Upcoming Conferences

The following upcoming conferences were noted:

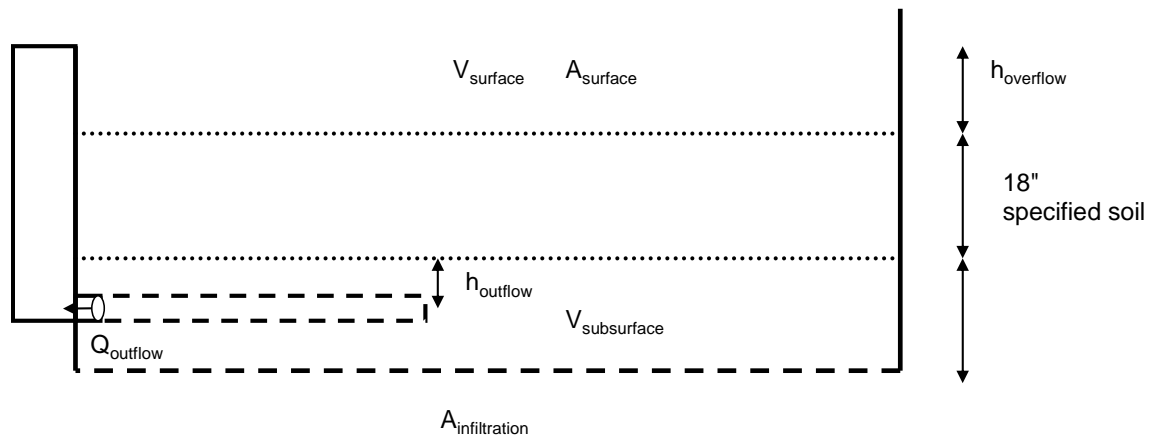
- California Association of Stormwater Quality Agencies (CASQA), September 10-12, Costa Mesa. Info at www.casqa.org.
- Public Works Conference 2007, October 25-26, San Ramon. Info at www.apwanorcal.org.

Dan said he will be presenting Contra Costa's experience with LID for stormwater NPDES compliance at both of these conferences.

Design of Integrated Management Practices

Update on Development of IMP Designs and Sizing Factors

Dan drew a figure similar to this one on the whiteboard:



He explained that he has been working with PWA to develop and evaluate a “generic” sizing method for bioretention-type facilities (in-ground planters, swales, and bioretention areas). The majority of facilities being designed for Contra Costa developments are of this type.

Using this method, the sizing tool would specify a minimum volume for the surface storage. The designer could then configure the side slopes or transitions as they pleased, as long as the detained volume between the soil height and the overflow height was at least the minimum volume.

The method would also specify a minimum volume for the subsurface storage. This is now calculated as the volume of gravel times the assumed porosity of 0.4. The designer could achieve this volume by using buried perforated pipes, for example.

Currently, Tony Dubin in Brown and Caldwell's Seattle office is investigating the sensitivity of the sizing factors and will report back whether this “generic” sizing method is feasible.

Tony will also develop sizing factors for a modified dry well design. The design omits gravel fill—it is basically just a vault with perforations. This is intended to reduce the required size of the facility and the costs and environmental impacts associated with the gravel fill. In addition to determining sizing factors for flow-control (HMP), Tony will also determine the sizing factors for treatment-only based on infiltration of 80% of total runoff over a 30-year simulation period.

Once this information is in hand, the next step will be for PWA to produce a list of drawings to be included in the “fact sheets” for the 4th Edition of the *Stormwater C.3 Guidebook*. Drawings will include:

1. Diagrams to support the sizing method.
2. Cross-sections and sketches of different suggested ways to configure the edges of a swale/bioretention area/in-ground planter to achieve the required volume.
3. Sketches showing how these facilities can be integrated into typical residential subdivisions and parking lots.

The group discussed the proposed “generic” sizing method. Noting the simplicity of the approach, as well as the additional flexibility this provides to landscape architects, the group expressed general support for the approach.

Specifications for Imported Soils in IMPs

Dan summarized the status of the specifications for imported soils in swales, bioretention areas, and planter boxes. Currently, updates to the *Guidebook* recommend a mix of sand and compost and suggest a 50%-50% ratio. Dan noted there is also the “Lenox” mix used in the Pine Hollow Estates development in Clayton. Alameda developed a detailed specification which was distributed to the group previously.

The group discussed options for specifying a mix, as well as a field method for ensuring the required infiltration rate is achieved. Consensus recommendations were as follows:

- The specification should emphasize the required infiltration rate, rather than required components of the material.
- The test for the infiltration rate should be simple. Since the material is granular and must be placed, it was recommended to use a “bucket” test before placement rather than testing the material after placement.
- The initial infiltration rate should be higher than the long-term minimum. A 10"/hr. minimum initial rate was suggested.
- The guidance should note that, to achieve the specified infiltration rate, the mix should have no clay, and certainly not more than 5% clay.

4th Edition, *Stormwater C.3 Guidebook*

Dan distributed a 12 July memorandum listing ideas for improvements from the current 3rd edition. He asked for feedback on these suggestions and for additional suggestions from the group.

Karineh noted the persistent problem of receiving design submittals with inconsistencies between the C.3 compliance design and the landscape

design. She has attempted to get developer design teams better focused by insisting swale designs be submitted on a separate landscape plan sheet.

Phil noted the landscape plans for a J.C. Penny's in Antioch did not consider the required special fill material for the in-ground planters. Although the plant selection is probably fine, the landscape plan specified soils which are inappropriate for the planters. Scott noted the need to check to ensure IMPs are served by a separate irrigation controller.

Phil said he is considering requiring project landscape architects, as well as project civil engineers, to sign off on C.3 plans.

C.3 Annual Reporting

Tom noted he had received some questions regarding the reporting tables for this year's annual report and had issued some clarifications. He asked if there were remaining questions regarding reporting.

The group discussed when projects should be on Table "A" vs. Table "B" and when they can cease reporting on completed projects. Tom noted Table "A" is for projects "approved" during the year, and Table "B" is for projects not yet approved or approved during previous years.

The group discussed when projects need no longer be listed on Table "B". Frank suggested this could be when the public improvements are accepted. Scott suggested it should be when the O&M agreement is recorded—from then on the project is in the municipalities' O&M verification program.

Operation and Maintenance of Stormwater Facilities

Update on C.3 Legal Work Group

Tom reported the C.3 Legal Work Group met on 5 July. On the whiteboard, he sketched the layout of a tentative map for the "Sunnyvale Estates" subdivision in Walnut Creek. Tom explained that at the 5 July meeting, Tom Haas presented this tentative map to the Legal Work Group. Following discussion there, it was decided to use this project as an example for the purposes of developing model language for a Stormwater Facilities Operation and Maintenance Agreement and for proposed language to be included in CC&Rs.

As Tom Dalziel explained to the Implementation Work Group, this 8-lot subdivision includes a proposed "Parcel A," to contain a bioretention area serving all 8 lots plus the street, and to be jointly owned by the 8 property owners. Parcel 8 adjoins Parcel A, and it will need to be determined what special rights and responsibilities the owner of Parcel 8 may have regarding Parcel A. It would be advantageous to the City to have only one homeowner to deal with regarding operation and maintenance of the facility. However, the developer may feel the responsibilities accruing to the owner of that parcel would make the parcel less desirable and that the parcel would therefore have to be discounted for sale.

C.3 Project Currently Under Review

Karineh asked if other municipalities were using the IMP Sizing Calculator consistently or if applicants subject to treatment-only requirements were still using the spreadsheet from the 2nd Edition. Of the municipalities represented, some are allowing use of the spreadsheet, but others are requiring the IMP Sizing Calculator output. The results for treatment-only facilities are the same regardless.

The group discussed the use of trees within bioretention areas and swales. Scott said Walnut Creek is allowing trees which may grow up to 9 inches in diameter; trees larger than this are subject to the City's tree preservation ordinance and would therefore be more difficult to remove if needed for maintenance of the facility.

Phil said Antioch is allowing trees to be located on the side of the swale with a root barrier to protect adjacent pavement.

Dan said municipalities may consider whether it is more important, all things considered, to encourage use of large shade trees. He noted there are concerns about root balls changing grades enough to prevent flow into and through a facility; however that issue can be addressed by anticipating it in design. Tree roots are generally very effective at absorbing and retaining water and might be considered equivalent or better than the soil they displace. And although it is possible tree roots could invade and clog an underdrain system, this would only reduce the rate of drainage and would not render the facility ineffective.

Next Meeting

The group agreed to cancel the August meeting. The next C.3 Implementation Work Group meeting is scheduled for Thursday, 13 September 2007 at 9 am.



**CONTRA COSTA
CLEAN WATER
PROGRAM**

CONTRA COSTA CLEAN WATER PROGRAM
Management Committee
July 18, 2007 Minutes

Attendance:

MUNICIPALITY

City of Antioch
City of Brentwood
City of Clayton

City of Concord
Town of Danville
City of El Cerrito
City of Hercules
City of Lafayette
City of Martinez
Town of Moraga
City of Oakley
City of Orinda
City of Pinole
City of Pittsburg
City of Pleasant Hill
City of Richmond
City of San Pablo
City of San Ramon
City of Walnut Creek
Contra Costa County
Contra Costa County Flood Control
& Water Conservation District

ATTENDED

Phil Hoffmeister
Jeff Cowling
Laura Hoffmeister
Erika Crane
Jeff Roubal
Chris McCann
Melanie Mintz
Jose Pacheco
Donna Feehan
Alex Stroup
Jill Mercurio
Frank Kennedy
Cathy Terentieff
Nancy Voisey
Chris Barton
Rod Wui
Mary Phelps
Karineh Samkian
Steve Spedowfski
Scott Wikstrom
Rich Lierly

ABSENT

Greg Connaughton
Mitch Avalon

I. **Introductions:** Absent the Chairperson or Vice-chairperson Donald Freitas began the meeting at 1:35 p.m.

II. **Presentations:**

- A. **Contech Stormwater Solutions** – Tom Dalziel introduced Kurt Kruger of CONTECH Stormwater Solutions. Kruger introduced his team to the Committee. Freitas asked co-permittees to make self-introductions prior to Kruger's PowerPoint presentation. Kruger introduced CONTECH as primarily a Civil Engineering firm. Kruger and his team represented the stormwater side of the

firm. CDS, one of CONTECH's subgroups provides media filtration devices of varying shapes and sizes. These devices consist of a vault containing a filter that collects floatables, sediment and dissolved pollutants. The filtration devices can also provide separator and screening capabilities. The Separator and Screening models provide a filtration screen that catches anything larger than a match head. Kruger cited examples of their trash removal systems being used in locations around Lake Merritt in Oakland. Kruger stated CONTECH also provided flow-control products to meet Hydrograph Modification Management Plan (HMP) requirements. Kruger advocated for the use of proprietary systems in projects where it makes sense. Questions were asked and answered.

- B. Introductory Presentation by the Program's New Technical Services Consultant, Brown and Caldwell - Jamison Crosby introduced Mike Flake and Khalil Abusaba of Brown and Caldwell (B&C). This consulting firm will be providing general technical support services to the Program in Fiscal Year 2007/08. Flake provided a PowerPoint presentation of B&C and noted MACTEC and Armand Ruby Consultants were sub-consultants. Flake pointed out B&C has a strong presence in the Western Region of the United States, particularly in Southern California, which may be helpful in dealing with the impending trash TMDLs. Flake has fifteen (15) years of stormwater experience and will be the Program Manager for the Program. Khalil Abusaba will be the Technical Leader. B&C brings an abundance of experience in monitoring and special studies.
- C. Fiscal Year 2005/06 Annual Report Comments – Matt Graul of the Regional Board (RB) apologized for the delay in getting comments to co-permittees and assure co-permittees they would have individual, general comments by Monday July 23, 2007. Graul stated there were no obvious non-compliance issues and he commended the Program for showing regional leadership in C.3 and Operations & Maintenance (O&M). Graul particularly appreciated municipalities providing a ratio of enforcement actions relative to inspections as well as such quick response times for emergencies such as spills.

Graul distributed a handout of "Possible Changes to the Contra Costa Clean Water Program's Fiscal Year 2006/07 Annual Report Format." His recommendations were as follows:

- Only describe activities once, refer back to the original description;
- Activities that have not changed can be referred to the previous year's report;
- Attachments should only be included if changed from the previous year; and,

Graul also commented he did not like opening individual .PDF files and agreed to accept combined section .PDF files in lieu of a hard copy.

Graul noted New Development and Municipal Maintenance will probably be the focus of the Annual Report review in FY 2006/07.

Freitas asked for, and Graul agreed, to provide a formal letter describing authorized changes in the Annual Report format.

III. **Consent:**

- A. June 20, 2007 Management Committee (MC) Meeting Minutes (Michelle McCauley, Donald P. Freitas)
- B. June 27, 2007 Public Education & Industrial Outreach (PEIO) Committee Meeting Minutes (Astone – Program Consultant, Donald P. Freitas)
- C. June 27, 2007 New Development & Construction Controls Committee Meeting Minutes (Michelle McCauley, Tom Dalziel)
- D. July 5, 2007 C.3 Legal Work Group Meeting Summary (Dan Cloak – Program Consultant, Tom Dalziel)
- E. July 10, 2007 Administrative Committee Meeting Minutes (Michelle McCauley, Tom Dalziel)

Frank Kennedy moved/Chris McCann seconded/To Approve the Consent Items as submitted. Passed unanimously.

IV. **Action:**

- A. APPROVE Fiscal Year 2007/2008 Management Committee and Subcommittees Membership – Freitas distributed the Fiscal Year 2007/2008 Management Committee Designations and Sub-committee Assignments and asked co-permittees to review it and refer any errors or omissions to Kristen Hardeman. Freitas also distributed the final draft version of the Committees and Sub-committees Roster. Co-permittees asked the Program to send an electronic final version of the roster.

Chris McCann moved/Laura Hoffmeister seconded/To Approve the committee and sub-committee designations as indicated. Passed unanimously.

V. **Staff Reports:**

- A. Legislative Update – Dalziel reminded co-permittees of the details of Senate Constitutional Amendment (SCA) – 12 (Torlakson) which includes stormwater and urban runoff exemptions to Proposition 218. the Program received seven (7) letters of support from municipalities and was told more may be approved by additional municipalities during the week of July 16, 2007. If SCA 12 passes, there is the possibility additional revenue to implement the Joint NPDES Permits for all twenty-one (21) co-permittees may become a reality.

Dalziel distributed information regarding 2007 Proposed State Legislation – Partial Watch List, a summary of 11 potential legislative bills that could benefit stormwater programs if passed. Freitas commented he had never seen such a “green” legislature in his thirty (30) years of government experience. Dalziel stated Program staff would monitor potential legislation and keep co-permittees apprised.

- B. Municipal Regional Permit (MRP) Update – Freitas reminded co-permittees BASMAA met directly with Regional Board (RB) staff, including Bruce Wolfe and Dale Bowyer four (4) times in June. Freitas noted the meetings seemed productive. BASMAA submitted comments by the deadline of July 13, 2007. The Program received copies of ten (10) comment letters sent by Program municipalities.

Freitas expects the MRP to approved in late fall 2007. The major areas of concern continue to be the MRP is written so all requirements are a priority; there is an abundance of implementation deadlines in the first year; and, TMDL development and implementation activities and cost. The Public Managers' Association and City Mangers are very concerned.

Freitas also asked co-permittees to provide the number of pump stations in their municipality to Dalziel as soon as possible.

- C. C.3 Implementation Update – Dalziel stated work had begun on the 4th Edition of the C.3 Guidebook to improve Operation & Maintenance & Covenants, Conditions 7 Restrictions. Dalziel expects the new edition to be ready in Fall 2007.
- D. Request for Pool/Spa Tracking Database Feedback – Crosby requested co-permittee comments such as the number and complexity of calls received from residents in the Pool/Spa tracking database. Crosby asked co-permittees to provide her this data by August 1, 2007 so she can include it in the FY 2006/07 Annual Report. Crosby also asked co-permittees to post the Pool/Spa brochure on their municipal websites.
- E. Report from the PCB TMDL Informational Workshop, June 29, 2007 – On June 22, 2007 the San Francisco Bay Regional Water Quality Control Board (RB) released as part of a Basin Plan Amendment a Total Maximum Daily Load (TMDL) for PCBs not to exceed 10 kg/year. The goal is to lead to attainment of the numeric target of 10 ug total PCBs per kg of typically consumed fish. The focus will be on reducing PCBs primarily in urban runoff since natural attenuation is expected to be achieved in the Central Valley. The load allocation assigned to Urban Stormwater Runoff is 2 kg/year, or a 95% reduction. Achievement of the urban runoff allocation is projected to take twenty (20) years.

- F. San Francisco Bay Regional Water Quality Control Board's (SFBRWQCB's) Strategic Plan Process – Program staff attended a workshop on June 13, 2007 to engage in discussion of an updated Strategic Plan. Various aspects of the plan were discussed among municipal representatives and state and regional water board representatives. The Water Board will use the input they received in developing the draft Strategic Plan which will be considered for adoption in the summer of 2007.
- G. Annual Report Update – Dalziel reported four (4) municipalities submitted draft sections and reminded co-permittees the final Draft of the FY 2006/07 Annual Report is due to Michelle McCauley on CD at 1:30 on Wednesday, August 15, 2007, the Management Committee meeting.

VI. **Regional Board Staff Comment/Reports:**

- A. San Francisco Bay RWQCB – Matt Graul
- B. Central Valley RWQCB – Greg Vaughan - Not Present

VII. **Information Items:**

- A. None

VIII. **Old/New Business:**

- A. None

IX. **Adjournment:**

Samkian adjourned the meeting at 3:35 pm.



CONTRA COSTA
CLEAN WATER
PROGRAM

CONTRA COSTA CLEAN WATER PROGRAM
Municipal Maintenance Workgroup
July 19, 2007 Minutes

Attendance:

MUNICIPALITY

City of Antioch
City of Antioch
City of Hercules
City of Orinda
City of Pinole

ATTENDED

Tom Sains
Roger Clarke
Glenn Moniz
Rob Tavenier
John Anderson

Program Staff

Elisa Wilfong

- I. Introductions: Elisa Wilfong began the meeting at 1:30 p.m. with self-introductions. She then proceeded to the agenda.
- II. MRP May Draft MUNI Section Discussion: Wilfong discussed the Water Board's Municipal Regional Permit (MRP) which was posted on the Water Board website in May 2007. Wilfong summarized the most significant Best Management Practice (BMP) changes to the municipal section of the Permit in comparison to the current BMP requirements for stormwater permit compliance. Wilfong explained the most significant changes to stormwater compliance would be a more aggressive street sweeping plan, a more detailed Integrated Pest Management (IPM) plan, and more involved reporting requirements. The Workgroup members took notes on the changes and expressed their disconcertment with the level of reporting and BMP upgrades required by the new draft MRP over such a short period of time. Wilfong informed the Workgroup the permit approval schedule is not known but a projected adoption could be fall of 2007, with the new permit being accepted and implemented for fiscal year 2007/2008. Wilfong will be providing the Workgroup with more updates as the year progresses.
- III. CCCWP IPM Policy Discussion: Due to the new projected MRP requirements for stormwater compliance, Wilfong has begun to prepare a countywide IPM policy. This policy document would provide co-permittees with guidelines for all IPM

BMPs and requirements for permit compliance, and list suggested outreach methods to residents for IPM practices. Wilfong presented the Workgroup with a draft table of contents of the countywide IPM policy. The Workgroup suggested a few additions to the table of contents including a contractor section and listing a proactive section for pesticide reduction, which would include ideas for reducing areas that would require pesticides. Wilfong plans to have a draft IPM policy for the Workgroup to review by the next Workgroup meeting in October.

- IV. Fiscal Year 06-07 MUNI Section Discussion: Wilfong provided this time in the agenda to hear and answer any questions members of the Workgroup had for completing this year's annual report. Most Workgroup members were not directly responsible for writing the MUNI annual report section. There were no questions, so Wilfong reminded the Workgroup members about the annual report submittal deadline and what should be included in the report. Wilfong also reminded them about dry weather reporting/implementation for this coming fall season.
- V. Review of MUNI Workshop: Wilfong briefly reviewed the MUNI workshop activities that took place in May of 2007. Overall the workshop was successful and feedback received from attendees was very positive. Wilfong has been approached by a few agencies to host a road repair and maintenance workshop for clean water during the fall of 2007 or spring of 2008. Wilfong presented this idea to the Workgroup members and all thought this was a good idea. Wilfong will keep the Workgroup updated as to the development of this event. This workshop proposal could serve as the next workshop for municipal maintenance. An additional workshop could be planned as well if all co-permittees could not attend the road repair workshop.
- VI. Next Meeting Date and Topics: The next meeting date is October 18, 2007. Meeting topics will include updates on the draft IPM policy and up and coming workshops.
- VII. Adjournment: Wilfong adjourned the meeting at 3:30 p.m.

ATTENDEES

Members: Steven Spedowfski, Chair, City of San Ramon
Laureteen Brazil, City of El Cerrito
Ashvin Desai, City of Richmond
Julie Haas-Wajdowicz, City of Antioch
Laura Wright, City of Pittsburg
Andrew Kennedy, City of Moraga
Peter Inouye, County of Contra Costa

Staff: Donald P. Freitas, Program Manager
Michelle McCauley, Program Staff

Consultants: ASTONE: Shelley McKenry and Amanda Gray

MEETING DATE: July 19, 2007

NOTES BY: Amanda Gray

SUBJECT: PEIO Meeting # 1

Materials provided: Final Public Opinion Survey Update
PSA Sample Reel
New Media Concepts

- I. Introductions.** Meeting began at 10:11.
- II. 2007-2008 Chair Elections.** The Committee nominated Julie Haas-Wajdowicz as Chair and Laureteen Brazil as Vice-Chair. Haas-Wajdowicz and Brazil were elected unanimously.
- III. Redesign Program Folders.** Donald P. Freitas provided a background on the current design of the CCCWP folder. Folders are due to be re-ordered. Freitas suggested that the Committee consider a redesign of the folder at this time. The Committee agreed and determined that the following elements should be considered in the new folder designs.
 - Recycled paper
 - Soy based ink
 - Double scored spine
 - Tagline: "Water is Life"
 - Visual of the hands
 - CCCWP logo

The Committee expressed interest in three concepts; one that is simple, one that incorporates the hands, and one that uses water visuals. Freitas requested that Astone provide quotes for 2,500 folders.

- IV. **TAG Grant Proposals.** A discussion took place regarding the Teacher Action Grants. Freitas provided an overview of the Program. A motion was made to approve the Teacher Action Grants as presented by the Watershed Project for a total grant amount of \$17,385.17, Steven Spedowski approved and Andrew Kennedy seconded the motion. Passed unanimously.
- V. **Public Opinion Final Report.** Shelley McKenry presented the 2007 Public Opinion Survey. McKenry Reviewed “2007 at a Glance” and the Principal Findings. The Committee requested that Astone provide the Public Opinion Survey in a PDF format.
- VI. **PSA Production Timeline & Budget.** The Committee reviewed the Program Branding Video. McCauley stated that video captures good use of imagery and that the connection between the healthy economy is clearly made. The Committee agreed that the introduction was too slow and requested that the opening music be changed. The Committee would like to see a faster opening and a quicker comparison of polluted water and the oil spill.

Astone presented television samples to the Committee which compared the quality and budgets of standard definition, high definition, and film. Freitas agreed that film is the best choice but wasn't sure that it would be necessary for the Committee at this time due to the costs associated in media placement. The Committee agreed that high definition would be a good compromise for TV. The San Diego Foundation spot was a favorite amongst the Committee and would like to see TV concepts that, in some way, mirror what the San Diego Foundation has done.

The Committee would like Astone to present concepts that brand the Program as good environmental stewards of the community and create a trust for the Program in the public eye. Freitas would like to see a concept that shows three different messages with program branding. Kennedy agreed and stated that the messages would need to have positive impact on the viewer. Laura Wright introduced the concept of highlighting the people who manage the watershed creating a “this is who we are concept”. Freitas also stated that the fish symbol used on storm drains has gotten a lot of attention and really resonates with the public. The Committee would like to incorporate the tagline, “Water is Life” and, if possible, the images of moms with children, a dad and child fishing from pier, and a maintenance worker hard at work with statements like “Water is life because....we use it to play” and “The Contra Costa Clean Water Program is here to protect your water supply.

Freitas stated that the 2007-2008 contract agreement is that the Program would develop two campaigns one in Fall (\$300,000) and one in Spring (\$300,000).

- VII. **New Media Concepts.** McKenry presented new media concepts and discussed which options may be appropriate for the Committee. The Committee discussed the options and all agreed that the Program needs to take advantage of new media to reach the public. The Committee will review the options and make recommendations of appropriate partnerships. With the Committee's direction, Astone will develop a new media marketing strategy for the Program.

V. **Other.** McKenry provided Michelle McCauley with the annual report and media reconciliation for 2006-2007.

VI. Adjournment

The Committee addressed the possibility of two meeting in August or September. Astone will follow up with McCauley on the dates. The Meeting adjourned at 12:00. The next meeting will be held:

**August 22, 2007
10:00 a.m. - 12:00 p.m.
600 Main Street, Martinez**



CONTRA COSTA
CLEAN WATER
PROGRAM

CONTRA COSTA CLEAN WATER PROGRAM
Watershed Assessment & Monitoring Committee
July 24, 2007 Meeting Minutes

Attendance:

MUNICIPALITY

ATTENDED

ABSENT

City of Antioch

Phil Hoffmeister

City of Concord **(Chairperson)**

Jeff Roubal

City of Orinda **(Vice-Chairperson)**

Cathy Terentieff

City of Richmond

Lynne Scarpa

City of Walnut Creek

Rinta Perkins

Contra Costa County

Peter Inouye

Non-Voting Members

Flood Control District

City of San Pablo

Karineh Samkian

Program Staff:

Jamison Crosby

Michelle McCauley

-
- I. Introductory Remarks and Announcements: Karineh Samkian began the meeting at 9:15 am. Jamison Crosby distributed to each WAM member hard copies of the final "Summary of Polychlorinated Biphenyls (PCBs) Case Studies" report and final "Contra Costa Monitoring and Assessment Program, Preliminary Assessment of Aquatic Life use Condition in Contra Costa Creeks, Summary of Benthic Macroinvertebrate Bioassessment results from 2001-2006". For a more comprehensive overview of the reports see the April 24, 2007 WAM Committee minutes.

 - II. TMDL Status Update – Crosby distributed "Total Maximum Daily Load (TMDL) Status Report," which is a summary of all TMDLs projects ongoing in the San Francisco Bay Regional Water Quality Control Board (Water Board) both those in progress and those already approved by the State Water Resources Control Board (SWRCB). The summary organized the TMDLs by impaired water body name; pollutant; status of the TMDL; and, what it means to co-permittees of the Contra Costa Clean Water Program. Crosby particularly emphasized the PCB TMDL requiring a 95% reduction over twenty (20) years. Crosby also focused

on the Diazinon TMDLs, one already approved by the SWRCB in November 2006 which sets numeric targets for pesticide-related toxicity in urban creeks; and, the other TMDL for the San Francisco Bay that is expected to be complete in 2008. Crosby indicated the urban creeks TMDL is awaiting approval by the US EPA.

Crosby will provide TMDL status updates periodically as activity requires.

III. Grant to Study PCBs in Building Materials – Crosby stated she spoke to the Management Committee at their June 20, 2007 meeting about a Prop 50 grant entitled “Taking Action for Clean Water: Bay Area TMDL Implementation Project” awarded jointly to the San Francisco Estuary Project and Association of Bay Area Governments by the SWRCB. The grant entails several tasks, one of which is to study PCBs used in historic building materials. In response to the PCBs TMDL, the Clean Estuary Partnership (CEP) evaluated available data on sources of PCBs in urban runoff and recommended approaches for addressing two (2) major sources: past PCBs releases to soil and sediments and PCB-containing historic building materials, specifically sealants, caulking and paints. PCBs were used in these materials and have been identified in concentrations exceeding 10% by weight. Some discussion ensued and Crosby stated the purpose of the grant would be to do sampling of these materials in buildings and structures constructed from the 1950’s to 1970’s to ascertain what concentrations are found in Bay Area structures and do something toward meeting the PCB TMDL. Crosby asked co-permittees to consider locating possible sample sites in their municipality that can be evaluated to determine the amount of polluted material. One co-permittee suggested a mobile home site that will be demolished within the next year. Co-permittees were fearful of potential disposal costs of contaminated materials to a household hazardous waste (HHW) facility. Co-permittees had numerous concerns regarding nominating structures from their jurisdictions for the study including what, if any, notification would be triggered if PCBs were found and if these materials would then have to be disposed of as “hazardous” waste. They also asked if it would be possible for the grant to assist in paying for the additional disposal fees that cities might incur. Crosby will attend a meeting regarding this project on July 25th and will pass on the concerns to the group.

IV. Program Updates – Crosby distributed Program Updates for July 2007. Michelle Luebke will commence GPS Data collection in September 2007; the Volunteer Monitoring Advisory Committee will discuss sampling priorities at their July 26, 2007 meeting.

The Brake Pad Partnership (BPP) has determined 240,000 kg of copper were released due to human activity in Bay Area Watersheds in 2003, the largest share (100,000 kg) coming from pesticides applied to urban land. The second largest source was from brake pads which constituted 87,000 kg. The remaining

53,000 kg came from miscellaneous sources including pools/spas/fountains, architectural copper and agricultural pesticides. Air, watershed and bay modeling are being done to estimate the amount of copper reaching each. Crosby will attend a stakeholder conference of the BPP on July 31st and will report back to WAM via email regarding information gathered.

- V. Election of New Chairperson and Vice-chairperson - Karineh moved/Phil Hoffmeister seconded/To nominate Jeff Roubal for Chairperson. Passed unanimously.

Karineh Samkian move/Peter Inouye seconded/To nominate Cathy Terentieff for Vice-chairperson. Passed unanimously.

- VI. Summary of Action Items and Agenda Items for Next Meeting:

1. Co-permittees agreed to change the WAM meeting time to 9:30 am.
2. Co-permittees agreed to cancel the August WAM meeting due to a light agenda. Crosby will instead provide an email update regarding information gathered at the BPP conference and the Prop. 50 Grant on PCB containing building materials.
3. Crosby will inquire as to whether Matt Graul has submitted his comments regarding last year's annual report (FY 05/06) formally, as he promised to do at last Management Committee meeting.

- VII. Adjournment: Samkian adjourned the meeting at 10:15 am.

Next Watershed Assessment & Monitoring Committee Meeting:

Tuesday, September 25, 2007

9:30 a.m. to 11:30 a.m.

Shasta Conference Room

600 Main Street

Martinez, CA 94553



CONTRA COSTA
CLEAN WATER
PROGRAM

CONTRA COSTA CLEAN WATER PROGRAM
New Development & Construction Controls Committee
July 25, 2007 Conference Call Summary Minutes

Attendance:

MUNICIPALITY

ATTENDED

ABSENT

City of Antioch		Phil Hoffmeister
City of Brentwood (Chairperson)	Jeff Cowling	
	Laurie Monte	
City of Clayton	Laura Hoffmeister	
City of Concord		Jeff Rogers
Town of Danville	Chris McCann	
City of Hercules	Jeff Brown	
City of Lafayette	Christine Sinnette	
City of Martinez		Khalil Yowakim
Town of Moraga	John Sherbert	
City of Pinole		Nancy Voisey
City of Pittsburg	Majeed Bahri	
City of Pleasant Hill		Rod Wui
City of San Ramon	Theresa Peterson	
City of Walnut Creek (Vice-chairperson)	Rinta Perkins	
Contra Costa County	David Swartz	

Non-Voting Members

Program Staff:

Tom Dalziel
Michelle McCauley

-
- I. Introductions, Announcements, Changes to Agenda: Christine Sinnette, Chairperson, began with a roll call of committee members at 2:07 pm, then asked if there were any announcements or proposed changes to the agenda. Hearing none, Christine proceeded to the agenda.
 - II. Consent Calendar: Dalziel reviewed the changes made to the revised June 27, 2007 NDCC draft summary meeting minutes, which were emailed to committee members shortly after a first draft of the minutes were sent on July 24, 2007. The change corrects the dates for the two (2) planned construction-site stormwater quality workshops to be held in Contra Costa County on September 25th and 26th. The revised minutes indicate the municipal workshop will be held on the 26th, and the developer workshop will be held on the 25th.

Rinta Perkins moved / Laurie Monte seconded / To approve the revised June 27, 2007 draft summary minutes. Passed unanimously

III. Action Calendar:

- A. Nominate & Elect NDCCC Chair and Vice-chair for Fiscal Year 2007/2008 – Dalziel welcomed new committee members and explained the purpose of the NDCC Committee – to review, research and make recommendations to the Management Committee on stormwater compliance and policy matters related to construction activities and new development and redevelopment. Dalziel then explained the first action of the NDCCC each fiscal year is to nominate and select a Chair and Vice Chair. The duties of the Chair and Vice-Chair include running the meetings, coordinating agenda items with Program staff, and representing the NDCCC at the Management Committee and in other forums (e.g., Program Workshops). Christine Sinnette then asked for nominations for Chair of the NDCCC for Fiscal Year 2007/2008. Perkins moved / Sinnette seconded to nominate Jeff Cowling for Chairperson. Cowling moved / Chris McCann seconded to nominate Perkins for Chairperson. Hearing no other nominations, Sinnette asked if both were willing to serve as Chair. Cowling and Perkins agreed to be Chair and Vice-chair, respectively, for Fiscal Year 2007/2008. McCann moved / Sinnette seconded / to nominate Cowling and Perkins for Chair and Vice-chair, respectively. Passed unanimously.

IV. Reports:

A. C.3 Implementation Update

1. Preparation of Stormwater C.3 Guidebook, 4th Edition – Dalziel reported Dan Cloak, with assistance and under the direction of the C.3 Implementation Workgroup, had begun preparations on a 4th Edition Stormwater C.3 Guidebook. Dalziel also briefly described the ongoing work of Philip Williams & Associates (PWA) in reviewing and enhancing the Integrated Management Practices (IMPs), outlined in “Appendix C” in the 3rd Edition Guidebook, and indicated this work will be incorporated into the 4th Edition Guidebook. The goal of PWA’s review is to improve the flexibility, constructability and efficiency of the IMPs. Brown & Caldwell, sub-consultant to PWA, is preparing to model the enhanced IMP designs and will be responsible for updating the IMP sizing tool provided in “Appendix I” in the Guidebook. Cloak will ensure all parts integrate seamlessly into the 4th Edition Guidebook. Cowling asked if the 4th Edition Guidebook would address proprietary stormwater treatment systems. Dalziel indicated the Management Committee’s adopted “Policy on the Use of Hydrodynamic Separators” is currently in the 3rd Edition Guidebook, and that the more recent “Policy on the Selection of Stormwater Treatment Measures”, adopted by the Management Committee in March 2007, would be incorporated into the 4th Edition Guidebook. Both policies address propriety stormwater treatment systems. There was some discussion regarding a

recent presentation to the Management Committee by representatives of CONTECH Stormwater Solutions and their subsequent calls to individual municipalities. Dalziel reminded committee members the Management Committee's adopted policies, mentioned above, provides a countywide consistent framework for how municipality's review and consider proposals for complying with Regional Board's treatment and flow control requirements contained in Provision C.3. Municipalities, however, are ultimately responsible for determining acceptable designs and implementation strategies, and for ensuring ongoing operation and maintenance of stormwater management facilities for the life of the project.

2. C.3 Legal Workgroup – The reconstituted C.3 Legal Workgroup has been meeting monthly since May 2007, and is focused on Operation and Maintenance (O&M) compliance strategies for small residential subdivisions (fewer than 20 lots). Dalziel briefly reviewed the challenges in funding and ensuring O&M compliance with individual home owners in relatively small subdivisions. Legal Workgroup members are currently reviewing recommended model language to be incorporated into a revised model O&M agreement and example language for Conditions, Covenants and Restrictions (CC&Rs). The Workgroup's recommendations, if adopted by the Management Committee, will also be incorporated into the 4th Edition Guidebook. A current proposed eight (8) lot subdivision, titled *Sunnyvale Estates*, located in the City of Walnut Creek, is being used as a test case for these preliminary recommendations.

Chris McCann expressed concern that one developer is currently installing previously approved stormwater management facilities (i.e., IMPs) designed in accordance with specifications that have since been updated. Dalziel recalled and reviewed the following revisions to IMP specifications based on national experience using similar facilities, which are outlined in the "Updates and Errata" sheet on the Program's C.3 website:

- (Updated December 2006) Elimination of the filter fabric between the soil and gravel layer in the "dry" swale, in-ground "infiltration" planter, flow-through planter, and bioretention IMPs. Also specifies to not wrap filter fabric around the gravel layer or the underdrain (if applicable). Experience has shown that the filter fabric material is prone to clogging.
- (Updated December 2006) Replace the IMP bottom layer (i.e., 1/2 inch gravel / drain rock) with "Class 2 permeable" material per Caltrans specification 68.1.025. This helps minimize the migration of fines from the soil layer while still providing sufficient storage and infiltration.
- (Updated March 2007) For the soil / filter / planting material, use a uniform mix of sand and organic material, such as compost, free of stones, stumps, roots, or similar objects, and also free of noxious weeds.

Majeed Bahri expressed concern regarding subsequent revisions to current IMP specifications, and asked who is responsible for the failure of old designs. Laura Hoffmeister indicated this concern is inherent in any revised local design requirements and specifications, but acknowledged this situation is exacerbated by the fact that stormwater management technologies lag behind the Water Board's ever-changing and increasingly more stringent regulations. Hoffmeister indicated that ultimately developers and/or the owners of required stormwater management facilities need to be made responsible for ensuring their systems operate effectively in perpetuity, and that municipalities must determine for themselves how best to manage their liability for ensuring compliance with Provision C.3 and ensuring property owners and/or homeowner associations operate and maintain effective facilities. Laura indicated the Legal Work Group is reviewing draft language to assist municipalities in managing this risk; but noted there is no perfect solution. For example, the Legal Work Group will likely recommend O&M Agreements include language requiring the developer to warranty the proper operation and maintenance of all newly installed stormwater management facilities for a period of two to five (2-5) years.

Dalziel encouraged committee members to remind current and future project proponents/applicants to check the "Updates and Errata" for any revisions to designs and specifications contained the most recent edition of the Stormwater C.3 Guidebook.

- B. July 5, 2007 BASMAA New Development Committee Meeting Canceled – No report. The July 5, 2007 BASMAA NDCC meeting was not held.
- C. Stream, Wetland, and Riparian Area Protection Policies – The San Francisco Bay Regional Board has been working for many years on the development of a Stream & Wetlands System Protection Policy. In the last year, this effort was expanded to include the North Coast Regional Water Quality Control Board. As previously reported to the NDCCC, this proposed policy would be adopted as an amendment to the San Francisco Bay Basin Plan and include two (2) new beneficial uses (i.e., *Flood Peak Attenuation/Flood Water Storage* and *Water Quality Enhancement*) and several new water quality objectives designed to protect these beneficial uses. Implementation of new protection policies would be implemented through Municipal NPDES Permits, 401 Water Quality Certifications, and other Waste Discharge Permits issued by the San Francisco Bay Regional Water Quality Control Board. Further development of this proposed policy is awaiting additional grant funding for this fiscal year.

In March 2007, the State Water Quality Control Board initiated development of a proposed Statewide Wetland and Riparian Area Protection Policy. This effort is exploring options for filling regulatory gaps for protection of California wetlands resulting from a recent US Supreme Court decision, which reportedly limits

federal jurisdiction of isolated wetlands under the Clean Water Act. How this policy will be coordinated with the policy under development by San Francisco Bay Regional Board staff remains to be seen.

The purpose of this agenda item was to report there was no new significant information on either of these regulatory initiatives. Program staff will continue to provide updates on these two efforts as new information becomes available.

- D. State's Preliminary Draft Construction General Permit – A preliminary Draft Construction General Permit was released in February 2007. Comments were due in May 2007. BASMAA and CASQA provided comments by this deadline on behalf of Bay Area Stormwater Programs. The State Board is now reportedly working on a second preliminary draft General Permit, which will likely be available this coming fall.

Further updates on this topic will be provided as new information becomes available.

V. Discussion Items:

- A. BASMAA Executive Board's July 12, 2007 Draft Mark-Up of the Water Board Staff's May 1, 2007 Draft MRP: Provision C.6 "Construction Inspections" – Dalziel explained BASMAA's July 12, 2007 draft mark-up of Water Board staff's May 1, 2007 Municipal Regional Permit (MRP) Administrative Draft was intended to be consistent with BASMAA's previous proposed MRP language provided to Water Board staff in September 2006, and also intended to document discussions held between BASMAA and Water Board staff on the 5th, 8th, 18th, and 19th of June 2007. The BASMAA Executive Board was scheduled to meet on July 30, 2007 to finalize their mark-up for submittal to Water Board staff on August 3, 2007. This document is intended to assist Water Board staff in their preparation of next draft MRP.

Dalziel then conducted a detailed review of BASMAA's mark-ups on Provision C.6 "Construction Inspections" (an excerpt containing Provision C.6 was emailed along with the July 25, 2007 NDCCC meeting agenda on July 24, 2007). Committee members asked questions and provided input, which Program staff would review with the BASMAA Executive Board members on July 30, 2007. Dalziel reported BASMAA's August 3, 2007 submittal would be provided to Water Board staff with the caveat that:

- A thorough vetting of the mark-up by BASMAA members was not possible due to time constraints
- The mark-up is the BASMAA Executive Board's best effort to prioritize and incorporate MRP provisions that optimize existing stormwater quality protection activities and incorporate enhanced activities, such as TMDLs and enhanced Monitoring Requirements)
- The mark-up represents BASMAA's best effort to incorporate provisions local

governments might support given limited available funding and severe constraints on local government's ability to increase revenues for the ever-increasing and more stringent stormwater regulations.

B. September 26, 2007 Municipal Construction-site Stormwater Quality Training Workshop at Shadelands Civic Arts Education Center in Walnut Creek – Dalziel confirmed the Municipal Construction-Site Stormwater Quality Workshop, if approved by the Management Committee, will be held on Wednesday, September 26, 2007 at the Shadelands Civic Arts Education Center in Walnut Creek. Dalziel reported Scott Taylor of RGF Consulting, a potential presenter discussed at the June NDCCC meeting, is not available on the 26th of September. Jennifer Krebs of Friends of the San Francisco Estuary recommended Lucinda Dustin as an alternate. Committee members reviewed a resume of Dustin, who has many years of stormwater experience. Dalziel was given and had reviewed a presentation Dustin provided to a Napa audience in January 2007. Dalziel reported the presentation appeared professional, comprehensive and consistent with Bay Area management practices. Jeff Cowling and Laurie Monte of Brentwood met Dustin and felt she would be a competent trainer and presenter for construction-site inspectors. Dalziel reviewed the Program's available NDCC workshop budget and Dustin's rates and charges. Dalziel was directed to negotiate the most favorable rate for Dustin's time, and to ensure the municipal workshop remained within the Program's budget.

VI. Old/New Business: Laura Hoffmeister reported Senate Constitutional Amendment (SCA) – 12 (authors Tom Torlakson and Leland Yee, co-author Sheila Kuehl) had successfully completed a third (3rd) reading in the State Senate. SCA -12 would exempt new or increased stormwater and urban runoff management fees or charges from the California Constitutional voter approval requirements (i.e., Proposition 218) for property-related fees and charges. Hoffmeister explained this was a significant step forward. Hoffmeister had to confirm the next location for the bill.

VII. Meeting Adjourned: Cowling adjourned the conference call at 4:05.

NEXT NEW DEVELOPMENT & CONSTRUCTION CONTROLS COMMITTEE MEETING:

Wednesday, August 22, 2007

2:00 PM

600 Main Street

Shasta Room

Martinez, CA 94553

MM/TD/DPF:kh

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CONTRA COSTA
CLEAN WATER
PROGRAM

CONTRA COSTA CLEAN WATER PROGRAM
Commercial/Industrial Ad-Hoc Advisory Workgroup
July 26, 2007 Minutes

Attendance:

MUNICIPALITY

Central Contra Costa Sanitary District
Delta Diablo Sanitary District
East Bay Municipal Utilities District (EBMUD)

ATTENDED

Colleen Henry
Darrell Cain
Molly Ong

Program Staff

Elisa Wilfong

- I. Introductions: Elisa Wilfong began the meeting at 10:00 a.m. with self-introductions and introductory remarks. She then proceeded to the agenda.
- II. 2006/2007 Annual Report Goals and Reporting Discussion: Wilfong set aside time in the agenda for Workgroup members to ask any questions and communicate concerns about this fiscal year's annual report. The attendees of this meeting were all POTW representatives from the Program's inspection contract who are not responsible for writing the annual report. They only report direct information, so the discussion revolved around improving communication between the service provider and the client. Wilfong also got a chance to hear some of the inspection activities a few of the cities are engaged in, including surveillance inspections during the weekend.
- III. New MRP Draft Discussion: Wilfong facilitated a discussion regarding the new Water Board draft of the Municipal Regional Permit (MRP) posted on the Water Board's website in May 2007. Wilfong wanted to keep the Workgroup apprised of the development of the MRP so inspectors were aware of what Best Management Practices (BMPs) were being proposed by the Water Board. Wilfong summarized the most significant changes from the current stormwater BMPs in the MRP. These changes include a detailed list of all facilities required to be inspected, the increased frequency they are to be inspected, and the reporting requirements for the annual report. Wilfong read the list of facilities to the POTW inspectors and some concerns were expressed by them regarding the amount of work proposed by the Water Board. Wilfong cautioned them that due to the proposed increase in the types of facilities inspected and the number of inspections proposed, the Program's inspection contracts will have to be changed significantly before fiscal

year 2007/2008. Wilfong stated the Water Board has not give a definite schedule for the new MRP's adoption, but the final permit is projected to be written and finalized during the fall of 2007; and, adopted for fiscal year 2007/2008.

- IV. Fall Workshop Planning: Wilfong did not include this topic in the agenda but needed to discuss the next inspection training workshop scheduled for fall 2007. Wilfong opened the discussion by soliciting input from Workgroup members regarding possible topics for the next workshop. The idea was expressed to revisit individual training sessions for different types of facilities given the proposal in the MRP to add types of facilities not previously requiring inspections. The list of facilities for the workshop included nurseries, horse facilities, cemeteries, and a golf course. It was suggested to provide a field trip during the workshop in the afternoon as an "onsite" inspection at one type of facility discussed during the lecture portion of the workshop. Wilfong will start planning for a full-day workshop for the inspectors, tentatively scheduled for October of 2007. The workshop will include a field trip in the afternoon to serve as a "hands-on training" session for the inspectors.
- V. Auto Shop Outreach Piece: Wilfong did not have time to discuss this topic in depth with the Workgroup. Wilfong will continue to gather BMPs associated with auto shops and present a draft of an outreach piece to the Workgroup during their next quarterly meeting in October.
- VI. Establish Date and Topic for Next Commercial/Industrial Ad-Hoc Advisory Workgroup Meeting: The next meeting for the Workgroup is scheduled for October 25, 2007 from 10:00 a.m. to 12:00 p.m. Topics will include reviewing new outreach pieces to be developed.
- VII. Adjournment: Wilfong adjourned the meeting at 12:00 p.m.

EW/DPF:kh

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CONTRA COSTA
CLEAN WATER
PROGRAM

CONTRA COSTA CLEAN WATER PROGRAM
Administrative Committee
August 7, 2007 Meeting Minutes

Attendance:

MUNICIPALITY

City of Antioch (**Vice-chairperson**)
City of Concord
Contra Costa County
Flood Control District
City of Lafayette
City of Oakley
City of Richmond
City of San Pablo (**Chairperson**)

ATTENDED

Phil Hoffmeister
Bruce Good
David Swartz
Greg Connaughton
Donna Feehan
Frank Kennedy
Mary Phelps
Karineh Samkian

ABSENT

Non-Voting Members

Town of Danville
Flood Control District

Chris McCann
Greg Connaughton

Program Staff

Donald P. Freitas
Tom Dalziel
Jamison Crosby

-
- I. Introductory Remarks: Karineh Samkian, Chair, began the meeting at 9:30 AM and asked if there were any announcements. Hearing none, Samkian proceeded to the agenda.

 - II. Municipal Regional Permit (MRP) Update: Tom Dalziel reported the BASMAA Executive Board prepared and submitted to San Francisco Bay Water Board staff members Dale Bowyer and Tom Mumley, on August 3, 2007, a detailed "mark-up" of the May 1, 2007 MRP Administrative Draft on a CD. The "mark-up" included: (1) specific language tentatively agreed to with Water Board staff in the joint meetings held on June 5, 8, 18 and 19, 2007; (2) additional proposed language on specific sections which the Water Board staff had solicited input; and, (3) additional language consistent with BASMAA's previous submittal of September 22, 2006. BASMAA's August 3, 2007 submittal was provided with the caveat that: (1) Bay Area permittees had not had an opportunity to review in detail the BASMAA Executive Board's submittal; (2) additional comments from Bay Area permittees would be forthcoming; and, (3)

the proposed language reflected the BASMAA Executive Board's best professional judgment as to what Bay Area permittees might support. Program staff will email a copy of BASMAA's August 3, 2007 submittal to municipalities.

Donald Freitas reported he contacted San Francisco Bay Water Board Executive Officer Bruce Wolfe to personally inform him of BASMAA's August 3, 2007 submittal, and to inquire if he would also like a copy of the CD. Wolfe did request a copy and also revealed Water Board staff retained Tetra Tech Consultants to assist in preparation of the next draft MRP, which Water Board staff was to have begun writing in mid-July. Wolfe further indicated the next draft MRP would be a formal Administrative Draft MRP, which would be followed by two (2) public workshops. Next, Water Board staff would prepare and release a Tentative Order which is subject to noticing requirements and a 45-day public comment period. Freitas indicated it was possible the formal Administrative Draft MRP draft could be released as early as September 2007 and the Tentative Order adopted by late fall or early winter in 2007.

Dalziel then reported Program staff compiled and submitted, on behalf of Oakley, Pittsburg, Richmond and Contra Costa County, the stormwater pump station information requested by Water Board staff member Shin-Roei Lee. Collectively, there are 19 known stormwater pump stations in Contra Costa County. Water Board staff's May 1, 2007 MRP Administrative Draft contains requirements for listing, characterizing, and potentially diverting dry weather and first flush pump station discharges to local POTWs. Permittees would be required to conduct one or more pilot studies to evaluate the feasibility for such diversions. These requirements mostly impact the low-lying communities along the Bay and Delta fringes.

Senate Constitutional Amendment (SCA) -12 (Torlakson) Update: Program staff contacted Senator Tom Torlakson's staff regarding the status of SCA-12. Reportedly, SCA-12 is scheduled for a "third" reading on the Senate Floor when the Senate reconvenes on August 20, 2007.

- III. Program Manager's Goals for Fiscal Year 2007/2008: Freitas referenced an email from Greg Connaughton (provided with the agenda), which states further discussion on the Program Manager's goals for the current fiscal year was needed, particularly goals #1, #14, and #15. Freitas requested input from committee members on the process to follow for this needed discussion. A committee member noted the item was on the draft Management Committee agenda both as a presentation and action item. Freitas indicated this was tentative pending review and input from the Administrative Committee. Committee members then agreed to review the goals. The following changes were suggested:

- Combine goals #1 and #2, and clarify that “legislative lobbying” would be coordinated primarily through the Program Manager’s leadership and participation in the Bay Area Stormwater Management Agencies Association (BASMAA) and the California Stormwater Quality Association (CASQA), respectively.
- Goal #8 was revised by replacing “completion” with “adoption”.
- Goal #11 will be reworded to acknowledge this goal is contingent on timely adoption of the MRP by the Water Board.
- Goal #14 was changed to read: “*Strive* to maintain group expenditures at current level in subsequent fiscal years until increased funding is available.”
- Goal #15 will be modified and call for budget reviews coinciding with first, second, and third stormwater utility assessment disbursements to municipalities.
- Goal #21: Committee members agreed to defer discussion on this item to the Management Committee on August 15, 2007.

Committee members agreed Greg Connaughton will redraft the Program Manager’s goals, which will be provided to the Management Committee for consideration at their August 15, 2007 meeting.

IV. Annual Report Update: Dalziel reminded committee members the final draft Municipal Annual Reports were due to Program staff by 1:30 PM on Wednesday, August 15, 2007. Final draft Municipal Annual Report submittals need to be provided on a CD, along with a signed, original (hard-copy) certification letter. Freitas reiterated this deadline was critical given the Program’s planned move in mid-September (see item “VI” below), and Program staffs’ attendance at the September 10-12, 2007 CASQA Annual Conference.

Dalziel reported six (6) municipalities submitted first draft Municipal Annual Reports for Program staff’s review (i.e., Hercules, Moraga, Oakley, Pinole, Danville, and Richmond) by the July 13th deadline. Program staff’s comments were provided back to municipalities on July 27, 2007.

V. Update on Fiscal Year 2006/2007 Encumbrances: Freitas reported encumbrances were typically reviewed by the Management Committee in June of each year; however, this year information from the Public Works’ Accounting division was not yet available. Freitas indicated this item may be addressed at the August 15, 2007 Management Committee meeting.

VI. Update on Program’s Move Back to 255 Glacier Drive, Martinez: Freitas reported work on the new building at 255 Glacier Drive was ahead of schedule. Tentatively, the schedule for the Program to move back to 255 Glacier Drive was September 15 & 16, 2007. However, Freitas has requested this move be

delayed to September 29, 2007 or September 22, 2007, to avoid, as much as possible, conflicts with Annual Report preparation and Program staff's attendance at the September 10-12, 2007 CASQA conference. Freitas had not yet received a response to his request.

VII. APPROVE Draft August 15, 2007 Management Committee Agenda: Administrative Committee members approved the draft August 15, 2007 Management Committee agenda with the following change:

- Eliminate Presentation Item "B" – "Program Manager's Fiscal Year 2007/2008 Goals" – This item will be handled as an action.

VIII. Old/New Business & Adjournment: Samkian asked if there were any old or new business items for discussion. Hearing none, the meeting was adjourned at approximately 10:45 A.M.

Next Administrative Committee Meeting:

Tuesday, September 4, 2007

9:30 a.m. to Noon

"Shasta Room"

600 Main Street

Martinez, CA 94553

TD/DPF:kh

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Date: August 15, 2007

To: Management Committee

From: Greg Connaughton, Assistant Chief Engineer
Contra Costa County Flood Control &
Water Conservation District

Subject: Action Item A – APPROVE Program Manager’s Fiscal Year 2007/2008 Goals

Recommendation:

Approve Fiscal Year 2007/2008 goals for the Program Manager.

Background:

In accordance with established practice, the Assistant Chief Engineer of the Flood Control District in consultation with the Management Committee prepared an evaluation of the Contra Costa Clean Water Program Manager’s (Stormwater Pollution Control Manager’s) performance during Fiscal Year 2006/2007 and drafted a set of goals to guide the performance of the Program Manager during Fiscal Year 2007/2008. Both the performance evaluation and the goals were discussed with the Program Manager in closed session on June 20, 2007. Due to the limited time available and the complexity of the issues facing the Program, the Management Committee and the Program Manager were unable to complete the discussion of goals #1, #14 and #15 on June 20th.

The Administrative Committee discussed the above goals during its meeting of August 7, 2007 and authorized the Assistant Chief Engineer to finalize a draft of the Fiscal Year 2007-2008 goals for consideration by the Management Committee at its August 15, 2007 meeting.

Fiscal Impact:

None.

Attachment(s):

1. Draft 2007-2008 Goals for Don Freitas Stormwater Pollution Control Manager

2007-2008 Goals for Don Freitas Stormwater Pollution Control Manager

General Work Procedures

1. Continue to promote a region wide legislative lobbying effort to garner support for Stormwater Pollution Agency positions on regulatory issues (i.e., participate with BASMAA and CASQA); and, continue efforts with the appropriate RWQCB staff to address their inadequate responses to perceived arbitrary directions concerning Permit compliance.
2. Continue to work with BAASMA and the RWQCB on the issues of establishing and monitoring TMDLs.
3. Continue to proactively suggest responses to changes in C.3 requirements and other programs for most effective, economical and practical implementation.
4. Develop a strategy for long term funding for implementation of C3 requirements and new NPDES permit conditions.

Knowledge of Program

5. Provide continued leadership on regional, state and federal organizations that directly relate to the implementation of our Joint Municipal NPDES Permits (BASMAA, CEP, CASQA, NAFSMA, PMA, etc.)
7. Provide continued oversight and status reports to the Management Committee regarding legal challenges affecting the Program.
8. Upon adoption of the new five-year NPDES permit, develop a Clean Water Program five-year plan including goals, prioritized program activities and an estimate of annual activity expenditures.

Work Organization

9. Continue compliance with the San Francisco Bay and Central Valley RWQCB's Municipal NPDES Permits. Ensure the 2006/2007 Annual Report is complete within its prescribed timelines.
10. Continue to advocate for BAASMA Regional Municipal NPDES permit conditions that are feasible and reasonable.

11. Craft a new Stormwater management plan when adoption of the new Municipal NPDES Permit occurs within established budget limits.
12. Continue to work to provide adequate long term funding for the Watershed Program including preparation for a 218 election if feasible.
13. Review, monitor and approve all expenditures in a fiscally conservative manner in accordance with the Program's 2007/08 fiscal year approved budget. Ensure all grants are properly administered according to their contract provisions. Ensure all agreements, consultant contracts and purchase orders are properly administered according to their contract provisions once negotiated between the various parties and the Program. Administer contract renewal and other processes in a timely manner.
14. Strive to maintain group expenditures at current levels in subsequent fiscal years until increased funding is available.
15. Work with co-permittees to establish some form of periodic financial assessment of the Program that clarifies revenue allocations and expenditures.
16. Continue positive and constructive communication with co-permittees, the Regional Board and others.
17. Continue to respond to co-permittee requests for presentations to city authorities.

Supervisory and Administrative Skills

18. Continue to complete all Program tasks as outlined in our C.3 implementation work plan.
19. Ensure staff support for all Management, Administrative and Public Education & Industrial Outreach Committees including their agendas, minutes, activities, etc.
20. Provide direction to staff regarding their work assignments to ensure they are being properly completed on time and on budget.
21. Adhere to a budget schedule with benchmarks of: January for the Program staff proposal, March for approval by the Management Committee and April for adoption by the cities. Determine the amount of budget detail required by the co-permittees to facilitate informed decision on the budget by their managers. Furnish an appropriately detailed budget proposal for F.Y. 2008-2009 by the end of February 2008.



Date: August 15, 2007

To: Management Committee

From: Tom Dalziel, Assistant Program Manager
Contra Costa Clean Water Program

Subject: Action Item B – APPROVE the New Development & Construction Controls Committee's Recommendation to Conduct a Construction-Site Inspector Annual Training Workshop on September 26, 2007 for a Cost Not to Exceed \$5,000

Recommendation:

Approve the New Development & Construction Controls Committee's (NDCCC's) recommendation to conduct a Construction-Site Inspector Annual Training Workshop on September 26, 2007 for a cost not to exceed \$5,000.

Background:

New Development & Construction Controls Performance Standard NDCC-24 requires each municipality to educate construction-site inspectors on the proper implementation and maintenance of erosion and sediment controls and materials/waste management best management practices. To encourage countywide consistency, eliminate redundancy, and maximize local resources, municipalities have conducted training as a group since the inception of the Program. Historically, these workshops have been well attended and received by municipal construction-site inspectors.

The NDCCC is in the process of planning another training workshop for municipal construction site inspectors to be held, if approved by the Management Committee, on September 26, 2007 at the Shadelands Civic Arts and Education Center in Walnut Creek. This workshop is being coordinated with the San Francisco Bay Regional Water Quality Control Board and Friends of the San Francisco Estuary as part of a series of regional workshops being conducted throughout the San Francisco Bay Area. For example, the Program is assisting Friends of the San Francisco Estuary conduct another training workshop on September 25, 2006, also at Shadelands in Walnut Creek, for developers, consultants and contractors. The September 26th workshop for municipal

inspectors would be funded by the Program, while funding for the September 25th workshop for the private sector will be generated from registration fees (i.e., \$150.00 per participant).

The agenda for the proposed September 26, 2007 municipal workshop would be similar to previous years and include presentations covering regulatory drivers, responsibilities of municipalities under the Municipal NPDES Permit, potential construction site water quality impacts, erosion and sediment control and construction site management best management practices, and either an interactive group exercise or a field visit to a nearby construction site. While the agenda will be similar to previous years, the New Development & Construction Controls Committee is recommending retaining Lucinda Dustin to provide the core training curriculum at this year's workshop. A copy of Ms. Dustin's resume is attached. Representatives from the City of Brentwood have attended previous trainings provided by Ms. Dustin, and felt she was well qualified and capable of presenting to construction site inspectors. Ms. Dustin will be providing the training at the private sector workshop on September 25th.

The NDCCC is recommending Management Committee approval to conduct a Construction-Site Stormwater Quality Training Workshop for Municipal Inspectors on September 26, 2007 in Walnut Creek for a cost not to exceed \$5,000.

Fiscal Impact:

The subject workshop would be conducted for a cost not to exceed \$5,000. This covers all costs associated with retaining Ms. Dustin, facility rental, food, handouts, and bus transportation (if necessary). The Program's 2007/2008 Fiscal Year Budget (see Budget Line Item 4.C.2. "Workshop Activities – Construction Controls") provides \$5,000 for workshops, of which, no monies have yet been expended.

Attachment(s):

1. Resume for Lucinda J. Dustin

Lucinda J. Dustin
3026 Swallows Nest Drive
Sacramento, CA 95833
916.995.6717
lucinda.dustin@comcast.net

Summary: Erosion Control Industry

- 20+ years with Green Industry and building
- 13 years in Erosion/Sediment Control Industry
- Senior Storm Water Management Consultant
- Erosion/Sediment Control Consultant
- Instructor for International Erosion Control Association; Building Industry Asso.; builder clients; specialty trades, numerous municipalities
- Storm Water Project Manager for high profile and habitat sensitive projects, both commercial and residential

Consulting

- Primary consultant to major Public Utility Districts (PUD's) throughout northern California
- Special consultant for high risk developments and developments in non-compliance
- Produce installation specifications and training for major Best Management Practice's (BMP) within the industry.
- Create corporate and site specific training for the building industry and large commercial and industrial projects.
- Provide in-house training for project managers and site personnel
- Provide video training tapes for building industry
- Represent clients during non-compliance hearings with regulatory agencies
- Write bid requests for clients covering SWPPP for development and installation
- Review and field test specific products for the industry
- Create training programs and instruct for the International Erosion Control Association
- Review existing SWPPP plans, inspect high-risk projects, provide reports and recommendations for compliance
- Instructor to major municipalities and regulatory agencies that manage enforcement under the Clean Water Act and NPDES II
- Produce SWPPP's for large multi-use projects and for commercial and industrial projects
- Project manager for commercial, industrial and PUD projects

Experience

Stevens, Ferrone and Bailey, Inc (08/2002-11/2006)

- Senior Storm Water Management Specialist
- Erosion/Sediment Control Consultant
- Manage junior management Storm Water Specialists
- Oversee large high risk projects
- Prepare SWPPPs
- Create and teach industry specific training for the building industry and related trades
- In house advisor on site specific controls, inspections, training, compliance issues
- Oversee and train field training staff on SWPPP inspection and compliance
- Project Manager for PUD projects, commercial and industrial projects, for SWPPP

CH2M Hill

- SWPPP Project Manager for energy clients
- Prepared SWPPPs
- Produced video training and on-site training for clients
- Conducted full over site of all SWPPP issues for clients
- Worked with the California Energy Commission and its consultants on behalf of CH2M Hill Clients
- Reviewed and recommended products on a per project basis, including projects overseas
- Worked directly with the environmental division to ensure compliance for clients during all aspects of a project
- Responsible party for on-site compliance during construction of energy plants, working with the client to ensure compliance with all the regulatory agencies

CALFED Bay-Delta Project (CH2M Hill)

- Project Assistant for Environmental Water Account (EWA)
- Worked with Project Manager to complete the required responses for the EWA portion of the EIR/EIS
- Scheduled and handled all logistics for the various Federal/State and Stakeholder teams that were responsible for the development of the EWA
- Worked closely with the various team members that did modeling to produce the documentation of the modeling results
- Coordinated both public and private sectors to coordinate and monitor all the various work units involved in developing the EWA

Erosion and Green Industry

- Partner, Verdant Resources, a storm water management & erosion/sediment control project management company, specializing in education, training, specification writing, SWPPP documents, site inspections and any environmental over site required
- Work with numerous engineering firms in related areas of SWPPP design, product identification for projects, project inspections
- Experienced in multiple land use issues, which have included but not limited too, the BART extension to San Francisco International Airport; widening of Highway 92; various water and environmental issues
- Past partner in Commercial Real Estate Appraisal Company. Special areas included land use, demographics, marketing research, client research and requirement negotiation
- Owned and operated landscape and irrigation design business
- Conducted water audits for municipalities, local government agencies, including City of Davis, City of Sacramento and the Oakland School District

Additional Services Provided

- Conduct field testing for major manufacturers of new products within the erosion/sediment control industry and for storm water management compliance
- Work with habitat and wetlands restoration firms to ensure best management and compliance for client
- Recommend and specify site specific products for development sites, research and work with suppliers for best product and pricing
- Assist in preparing contracts for erosion/sediment control sub-contractors to ensure compliance for specific projects
- Assist in creating bid requests specific to SWPPP for projects
- Work with pre-development team at design level, team with landscape contractors to maximize design to meet new regulations and requirements for NPDES Phase II post construction runoff and management
- Train and oversee in-house SWPPP maintenance staff for client

Other

- Appointee to Governor Wilson, Department of Housing, Conflict Management
- Chairman, Republican Party of San Mateo County
- Conflict Management and Master Facilitator
- Consultant to homeowner associations on a variety of issues, including post-construction compliance
- Board of Directors for Habitat for Humanity, San Mateo County and Sacramento County, Consultant and fund-raiser for Human Investment Project, a shared housing program, San Mateo County, CA
- House captain and crew member for Christmas in April, Northern California (15 years, including house sponsored by Gov. Wilson)
- Member of the Government Relations Committee, IECA. Politically active within the ESC industry, specifically in the areas of certification and licensing
- Member National Association of Home Builders; California Building Industry Assoc.; International Erosion & Sediment Control Assoc (IECA).; Western IECA; American Water Works Assoc. and the California Landscape Contractors' Assoc.

Education

- University of Minnesota, industrial psychology
- Advanced Facilitation Training, California State University
- Advanced Train the Trainer, CSUS
- Advanced Certification, E. H. Porter Institute, Relationship Awareness Theory
- Cal Poly, San Luis Obispo, College Irrigation Engineering and Design
- College of San Mateo, Horticulture, Landscape Design, Soils
- University of Wisconsin, Soils Engineering for Erosion and Sediment Control Design
- IECA certified ESC courses, including Certified Professional in Erosion & Sediment Control; Certified Storm Water Management Consultant; Soil loss Estimation for Construction Lands using RUSLE 2.0, Wind Erosion Management
- Co-author "How to Write and Implement a SWPPP", an IECA certified program
- On going classes to maintain standing within the industry (60 certified professional units required annually)

Partial Client List

- Pacific Gas & Electric
- Lawrence Livermore Labs
- CH2M Hill Engineering
- Calpine Energy
- Diablo Grande Development
- Olympus-Calistoga Development
- Pulte Homes
- Industrial Commercial Contractors, LP
- VSattui Winery
- Teichert Construction
- City & County of Napa
- City of Patterson
- Aetna Springs Resort

References upon request.





CONTRA COSTA
CLEAN WATER
PROGRAM

Date: August 15, 2007

To: Management Committee

From: Tom Dalziel, Assistant Program Manager
Contra Costa Clean Water Program

Subject: Staff Report A – Annual Report Review and Update

Recommendation:

Receive report on the status of the Fiscal Year 2006/2007 Municipal Annual Report preparation process, and first and final draft Municipal Annual Report submittals.

Background:

Program staff distributed and reviewed the Fiscal Year 2006/2007 Municipal Annual Report packets at the May 16, 2007 Annual Report Special Meeting. Included in the packets were the *2006/2007 Annual Report Timeline*, *Annual Report Instructions*, and *Annual Report Forms*. Applicable municipalities¹ also were provided an electronic copy of their 2005/2006 Organophosphate Pesticide Reduction Workplans (Pesticide Workplans).

First Draft Annual Report Forms submitted to the Program by July 13, 2007 were reviewed and provided back to municipalities with comments on July 27, 2007. Six (6) municipalities provided first draft Annual Report forms for review and comment by Program staff.

Final Draft Annual Report Forms are due to Michelle McCauley by **1:30 P.M., Wednesday, August 15, 2007**. Program staff is expecting the delivery of each municipality's completed and final draft Annual Report on a CD, along with an original, hard copy certification letter signed by the City/Town/County Manager at the beginning of the Management Committee meeting on Wednesday, August 15, 2007. Program staff will provide a status report on the submittal of Municipal Annual Reports at the meeting.

Household Hazardous Waste Data – Each year, municipalities report the amount (in gallons) of household hazardous waste (HHW) collected from their residents in

¹ Some East County municipalities within the jurisdiction of the Central Valley Regional Water Quality Control Board do not prepare and submit the Organophosphate Pesticide Reduction Plans.

the "Public Education & Industrial Outreach (PEIO) Quantitative Results" table. As in years past, Program staff has coordinated the collection of available HHW data from most regional collection facilities and provided this information to municipalities. Available HHW data was emailed to municipalities on July 30, 2007; however, additional data was to be forthcoming. Michelle McCauley will provide an oral update on the collection and distribution of HHW data at the August 15, 2007 Management Committee meeting.

Fiscal Impact:

Provision C.6 and C.5 in the Joint Municipal NPDES Permits issued by the San Francisco Bay and Central Valley Regional Water Quality Control Boards, respectively, require submittal of an Annual Report documenting the status of activities implemented during the previous year.

Failure to submit an Annual Report may result in an enforcement action by either the San Francisco Bay or Central Valley Regional Water Quality Control Board for non-compliance. Enforcement can and will, when necessary, be pursued only against the individual co-permittee responsible for the violation and could result in an Administrative Civil Liability with fines up to \$10,000 per day.

Attachment(s):

None.



CONTRA COSTA
CLEAN WATER
PROGRAM

Date: August 15, 2007

To: Management Committee

From: Tom Dalziel, Assistant Program Manager
Contra Costa Clean Water Program

Subject: Staff Report B – Municipal Regional Permit (MRP) Update

Recommendation:

Receive update.

Background:

The BASMAA Executive Board prepared a detailed “mark-up” of the May 1, 2007 MRP Administrative Draft and submitted it on CD to Water Board staff members Dale Bowyer and Tom Mumley on August 3, 2007. This submittal is intended to assist Water Board staff in preparation of the next draft MRP. A copy of BASMAA’s August 3, 2007 “mark-up” was emailed to Management Committee members on August 7, 2007. The “mark-up” included: (1) specific language tentatively agreed to with Water Board staff in the joint meetings held on June 5, 8, 18 and 19, 2007; (2) additional proposed language on specific sections which the Water Board staff solicited input; and, (3) additional language consistent with BASMAA’s previous submittal on September 22, 2006. BASMAA’s August 3, 2007 submittal was provided with the caveat that: (1) Bay Area permittees had not had an opportunity to review the BASMAA Executive Board’s submittal; (2) additional comments from Bay Area permittees would be forthcoming; and, (3) the proposed language reflected the BASMAA Executive Board’s best professional judgment as to what Bay Area permittees might support. Program staff will email a copy of BASMAA’s August 3, 2007 submittal to municipalities.

On August 2, 2007 Donald Freitas called Water Board Executive Officer Bruce Wolfe to personally inform him of BASMAA’s planned August 3, 2007 submittal, and to inquire if he would also like a copy of the CD. Wolfe did request a copy and revealed Water Board staff retained Tetra Tech Consultants to assist in preparation of the next draft MRP, which Water Board staff was to have begun writing in mid-July. Wolfe further indicated the next draft MRP would be a formal Administrative Draft, which would be followed by two public workshops. Next,

Water Board staff would prepare and release a Tentative Order, which is subject to noticing requirements and a 45-day public comment period. It is possible the formal Administrative Draft MRP draft could be released as early as September 2007 and the Tentative Order adopted by late fall or early winter.

Program staff compiled and submitted on August 2, 2007, on behalf of Oakley, Pittsburg, Richmond and Contra Costa County, the stormwater pump station information requested by Water Board staff member Shin-Roei Lee. There are collectively 19 known stormwater pump stations in Contra Costa County. Water Board staff's May 1, 2007 MRP Administrative Draft contains requirements for listing, characterizing, and potentially diverting dry weather and first flush pump station discharges to local POTWs. Permittees would be required to conduct one or more pilot studies to evaluate the feasibility for such diversions. These requirements mostly impact the low-lying communities along the Bay and Delta fringes.

Program staff will provide an oral update on the MRP process at the Management Committee meeting.

Fiscal Impact:

None.

Attachment(s):

None.



CONTRA COSTA
CLEAN WATER
PROGRAM

Date: August 15, 2007

To: Management Committee

From: Tom Dalziel, Assistant Program Manager
Contra Costa Clean Water Program

Subject: Staff Report C – Senate Constitutional Amendment (SCA 12 –
Torlakson) Update

Recommendation:

Receive report and update.

Background:

For further background regarding proposed Senate Constitutional Amendment (SCA) 12 authored by Senators Tom Torlakson and Leland Yee, and co-author by Sheila Kuehl, please review Staff Report "A" in the July 18, 2007 Management Committee agenda packet.

Program staff contacted Senator Tom Torlakson's staff on August 7, 2007 regarding the status of SCA-12. Reportedly, SCA-12 is scheduled for a "third" reading on the Senate Floor when the Senate reconvenes on August 20, 2007.

Any further updates regarding this proposed constitutional amendment will be provided at the Management Committee meeting.

Fiscal Impact:

None.

Attachment(s):

None.



CONTRA COSTA
CLEAN WATER
PROGRAM

Date: August 15, 2007

To: Management Committee

From: Tom Dalziel, Assistant Program Manager
Contra Costa Clean Water Program

Subject: Staff Report D – Selecting and Implementing Stormwater Treatment Controls in Compliance with Provision C.3

Recommendation:

Receive report. Program staff strongly encourages Municipal Stormwater Managers to review and discuss any issues or concerns regarding existing Program guidance and policies with the C.3 Work Groups, and the Management Committee, in order to maintain, as much as possible, consistent countywide application and implementation of the new development and redevelopment performance standards contained in our Municipal NPDES Permit (i.e., Provision C.3).

Background:

To comply with our Municipal NPDES Stormwater Permit, Contra Costa municipalities must require applicants for development projects subject to Provision C.3 to “***design and implement stormwater treatment measures, to reduce the discharge of stormwater pollutants to the maximum extent practicable.***”

In December 2004, the Management Committee determined the seven (7) infiltration practices contained in Appendix “C” of the Stormwater C.3 Guidebook met the maximum extent practicable” (MEP) standard.

Policy of the Use of Hydrodynamic Separators

In November 2005, the C.3 Work Groups recommended, and the Management Committee approved, a “Policy on the Use of Hydrodynamic Separators” (see attached). This policy established that: 1) hydrodynamic separators were substantially less effective in removing stormwater pollutants of concern¹ than any of the seven (7) infiltration practices; and, 2) hydrodynamic separators, when used

¹ See Provision C.3, Finding #7 for further details

as a sole method of stormwater treatment, did not meet the Maximum MEP requirement for stormwater treatment effectiveness in compliance Provision C.3. Hydrodynamic separators, however, “can be used to remove trash and coarse sediment from stormwater upstream of detention basins or other treatment facilities designed to remove pollutants to the maximum extent practicable”. Hence, hydrodynamic separators may be appropriate when used as part of a treatment train.

If using a hydrodynamic separator as part of a treatment train, then project proponents and municipalities should carefully consider the ongoing operation and maintenance issues and costs associated with below-ground, enclosed facilities. Maintenance will include periodic removal of pollutants (e.g., coarse sediment, trash, floatables, etc...) using a vector truck, and cleaning and replacement of any screens, absorbent pillows, or filter media, which may necessitate special precautions for enclosed space entry. Municipalities will also need to determine how access and verification inspections will be conducted. It will also be necessary to coordinate operation and maintenance inspections with the Contra Costa County Mosquito & Vector Control District. Hydrodynamic separators are designed to store and hold pollutants in a sump or chamber until removal. Extensive research conducted by Caltrans found that these types of facilities can provide suitable habitat for vector production.

Policy on the Selection of Stormwater Treatment Facilities

Earlier this year, the C.3 Implementation Work Group reviewed requests from representatives of two proprietary flow-through treatment systems for clarification on the application of the MEP standard in Contra Costa. This review resulted in the C.3 Implementation Workgroup’s development, and the Management Committee’s adoption in March 2007, of a policy on the “Selection of Stormwater Treatment Facilities for Maximum Extent Practicable Treatment Effectiveness in Compliance with NPDES Provision C.3.” (see attachments). This policy provides direction for selecting treatment options where preferred options may not be feasible.

The policy reiterates that the seven infiltration practices contained in Appendix “C” of the Stormwater C.3 Guidebook meets the maximum extent practicable” (MEP) standard for stormwater treatment effectiveness. Though this policy states “lack of space, in itself, is not a suitable justification for using less than effective treatment” it does acknowledge two specific situations where it may be warranted to consider other treatment options. One situation is when an applicant is required to install treatment controls (i.e., retrofit) into an existing developed area not proposed to be redeveloped (i.e., the “50% rule” for redevelopment projects). The other situation involves sites smaller than an acre, which are approved for “zero lot line” development, such as you might see along a typical downtown “Main Street” or in a pedestrian-oriented “smart growth” type of urban design.

The selection policy outlines five (5) types of facilities to be evaluated in priority order (as outlined below) when special challenges, such as the two mentioned above, are presented:

- First Priority Choice: Swales, planter boxes, or bioretention areas fed by gravity.
- Second Priority Choice: Capture of the design flow in a vault or sump and pumping to swales, planter boxes, or bioretention areas.
- Third Priority Choice: A subsurface sand or media filter with a maximum design surface loading rate of 5 inches per hour and a minimum media depth of 18 inches. The sand surface must be made accessible for periodic inspection and maintenance (for example, via a removable grating)
- Fourth Priority Choice: A higher-rate surface biofilter, such as a tree-pit-style unit. The grading and drainage design should minimize the area draining to each unit and maximize the number of discrete drainage areas and units.
- Fifth Priority Choice: A higher-rate vault-based unit.

The policy reiterates that operation and maintenance of vaults and other facilities designed to hold water longer than 72 hours should be coordinated with the Contra Costa County Mosquito and Vector Control District.

Proprietary Stormwater Quality Management Products and Services

Program staff is aware municipal staff continue to receive calls, inquiries, and offers to meet with representatives of various stormwater quality products and services. Because our understanding and experience in implementing stormwater quality management controls generally lags the ever-increasing and more stringent stormwater regulations, there are tremendous opportunities for innovation in the emerging field of stormwater quality management. This lack of understanding and experience in implementing stormwater management technologies, coupled with rapidly evolving and expanding stormwater quality businesses and industry, puts significant pressure on municipal stormwater practitioners to make judgments and decisions based on limited or unsubstantiated, and often biased, information. Municipalities are in the unenviable position of having to require and approve relatively new and/or experimental water quality technologies.

Under the direction and approval of the C.3 Work Groups, and the Management Committee, the Program's C.3 consultant has assisted municipalities in applying the best professional judgment using our current level of knowledge and limited experience to comply with the Provision C.3 requirements. The Program's adopted Stormwater C.3 Guidebook, and interim policies and updates, are intended to provide a consistent, countywide framework for navigating these

sometimes confusing and competing interests. As our understanding and experience grows, the Program's Stormwater C.3 Guidebook will necessarily need to be updated and revised from time to time. Given the overall objective of municipalities and the Program to establish and implement consistent goals and policies countywide, each municipality must ultimately exercise its own discretion on how best to apply the adopted guidance and policies on any given development proposal.

However, should new information, issues or concerns arise, Program staff requests municipal representatives review and discuss these matters in the C.3 Work Groups and Management Committee. This is how the Program and municipalities can best ensure the guidance and policies it develops, adopts and implements are relevant, defensible, and consistently applied. Failure to implement consistent guidance and policies countywide can: (1) lead to and/or exacerbate confusion in the development community; (2) invite the "me too" argument for relaxed standards and increase the potential for non-compliance with permit requirements; (3) result in unintended costs and difficulties associated with the life-long operation and maintenance requirements for approved, but less than effective, facilities; and, (4) create an un-level playing field.

Fiscal Impact:

None.

Attachment(s):

1. November 2005 "Policy on the Use of Hydrodynamic Separators to Achieve Compliance with NPDES Provision C.3"
2. March 2007 Policy on the "Selection of Stormwater Treatment Facilities for Maximum Extent Practicable Treatment Effectiveness in Compliance with NPDES Provision C.3"

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Donald P. Freitas
Program Manager

Policy on the Use of Hydrodynamic Separators to Achieve Compliance with NPDES Provision C.3

Hydrodynamic separators, when used as a sole method of stormwater treatment, do not meet the "maximum extent practicable" requirement for stormwater treatment effectiveness with regard to compliance with NPDES Provision C.3 in Contra Costa.

The following types of facilities, if sized and designed as described in the *Stormwater C.3 Guidebook*, can meet the "maximum extent practicable" standard for stormwater treatment effectiveness:

- Swales, planter boxes, bioretention areas, and other facilities using filtration through soil or sand (sized according to the flow-based criterion).
- Dry wells, infiltration trenches, infiltration basins, and other facilities using infiltration to native soils (sized according to the volume-based criterion).
- Extended detention basins, constructed wetlands or other facilities using settling (sized according to the volume-based criterion, with a detention time of 48 hours).

Hydrodynamic separators, including vortex separators and continuous deflection separators ("CDS units"), are substantially less effective than any of the above-listed facilities for removing stormwater pollutants of concern. This difference in effectiveness can be inferred by comparing design criteria and mode of operation and by analyzing the relative capability of each type of facility to remove small particles. The difference in effectiveness can also be validated by reviewing available results of laboratory and field tests.

Experience to date has shown swales, planter boxes, bioretention areas, or other effective treatment facilities can be successfully applied to Contra Costa development sites. Lack of space, in itself, is not a suitable justification for using a less effective treatment device since uses of the site and the site design can be altered as needed to accommodate a swale, planter box, bioretention area, or other effective BMP. In most cases, effective BMPs can be fit into required landscaping setbacks, easements, or other unbuildable areas.

Hydrodynamic separators can be used to remove trash and coarse sediment from stormwater upstream of detention basins or other treatment facilities designed to remove pollutants of concern to the maximum extent practicable.

Installations of hydrodynamic separators are subject to the Provision C.3.e requirements for operation and maintenance verification. Planned inspection and maintenance of hydrodynamic separators must be documented in a Stormwater Treatment Facilities Operation and Maintenance Plan prepared in accordance with Appendix F of the *Stormwater C.3 Guidebook*. Each installation should be coordinated with the Contra Costa Mosquito and Vector Control District prior to final design.

(11/16/2005)

255 Glacier Drive, Martinez, CA 94553-4897 • Tel: (925) 313-2360 Fax (925) 313-2301 • E-mail: ccleanwater@pw.co.contra-costa.ca.us

Program Participants: Antioch, Brentwood, Clayton, Concord, Danville, El Cerrito, Hercules, Lafayette, Martinez, Moraga, Oakley, Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon Walnut Creek, Contra Costa County and Contra Costa County Flood Control & Water Conservation District



TECHNICAL MEMORANDUM

To: **C.3 Planning /Permitting Work Group and C.3 Technical Work Group**
From: Dan Cloak
Subject: **Use of Hydrodynamic Separators to Achieve C.3 Compliance**
Date: 3 November 2005

Introduction

Provision C.3 (Water Board, 2003) of the stormwater NPDES permit requires Contra Costa municipalities to make stormwater treatment measures, source control measures, and site design measures a condition of approval for new development and significant redevelopment projects so that pollutant discharges are decreased to the maximum extent practicable.

Some applicants for planning and zoning approvals have proposed installing hydrodynamic separators including continuous deflective separators, or "CDS units," to achieve compliance with the treatment requirements. In addition, manufacturers' representatives of these devices have communicated with municipal staff and have stated the devices meet the "maximum extent practicable" criterion.

The C.3 Planning/Permitting Work Group and C.3 Technical Work Group requested technical review and preparation of draft guidance on the use of hydrodynamic separators to comply with Provision C.3. The guidance will be incorporated into the next edition of the Contra Costa *Stormwater C.3 Guidebook*.

Hydrodynamic Separators

USEPA (1999a) describes hydrodynamic separators as "flow-through structures with a settling or separation unit to remove sediments." The separators depend on the energy from flowing water; no outside power source is needed. They can be located beneath parking lots or streets.

USEPA (1999a) identifies and describes the following specific brands of hydrodynamic separator:

- Continuous Deflective Separator (CDS units)
- Downstream Defender™
- Stormceptor®
- Vortechs™

Additional brands of hydrodynamic separator are identified in Caltrans (2004a).

CDS units use a fine screen to separate solids from water. Flow is directed tangentially to the screen to prevent blocking or clogging. Settleable solids accumulate in a containment sump. Floating material circulates at the water surface until the water level drops (Wong, 1997).

Vortechs separators use swirling motion inside a chamber, and a baffled outlet, to encourage settling of solids (Vortechincs, 2004). Other brands have similar features and mode of operation, although designs differ.

Pollutants of Concern and Particle Sizes

Provision C.3 specifies neither the pollutants to be removed nor the effectiveness of treatment. Provision C.3.d does provide criteria for sizing treatment facilities.

Finding 7 of the Water Board's February 19, 2003 Order adding Provision C.3 (Water Board, 2003) provides examples of the types of pollutants the Board intends treatment facilities to capture:

...PAHs which are products of internal combustion engine operation and other sources; heavy metals, such as copper from brake pad wear and zinc from tire wear; dioxins as products of combustion; mercury resulting from atmospheric deposition; and natural-occurring minerals from local geology.

Finding 7 states further:

All of these pollutants, and others, may be deposited on paved surfaces and roof-tops as fine airborne particles, thus yielding stormwater runoff pollution that is unrelated to the particular activity or use associated with a given new or redevelopment project. However, Dischargers can implement treatment control measures, or require developers to implement treatment control measures, to reduce entry of these pollutants into stormwater and their discharge to receiving waters.

The Water Board is also preparing TMDLs for mercury and PCBs and a water quality attainment strategy (WQAS) for copper and nickel.

Airborne particles derive from chemical conversion of gases in the atmosphere and from windblown dust. The latter particles are larger, with a peak in the size distribution (by mass) at around 10 μm diameter. The size distribution falls off to near zero at around 100 μm (DEFRA, 2001).

USEPA (1999b) has developed a generalized particle size distribution to be used in modeling air deposition from industrial sources. In the distribution, eighty-seven percent of total mass is associated with particles smaller than 15 μm .

As small airborne particles gather on impervious surfaces and are subsequently transported in runoff, they tend to agglomerate to form larger particles or may also become attached to larger particles eroded by the flow of water. Therefore, pollutants derived from very small particles in air deposition may be associated with somewhat larger particles in runoff entering a treatment device.

In sediment suspended in urban runoff, the distribution of particle sizes is variable. It has been noted that sampling equipment may fail to capture larger particle sizes, creating an inherent bias in the particle size distribution (KLI, 2002).

Studies by USEPA (summarized in Rinker Materials, 2004) show 80-90% of total suspended sediment mass is in particles smaller than 100 μm . Some data from other sources show larger particle sizes predominating.

The difference in results may be in part due to different characteristics of the tributary area sampled. Runoff from highways or open spaces seems more likely to include larger particles, which may be derived from automobiles, decomposing pavement, and run-on from unpaved areas, when compared to particles in runoff from rooftops, parking lots, and low-volume streets, which mostly originate from air deposition.

Site design guidance in the *Contra Costa Stormwater C.3 Guidebook* (CCCWP, 2005) emphasizes techniques to separate landscaped and pervious areas by creating “self-retaining areas.” This would tend to reduce the likelihood of finding substantial amounts of larger-sized particles in the runoff from impervious areas that reaches treatment facilities.

In sum, Provision C.3 aims to control the transport of toxic pollutants associated with very fine particles deposited by air deposition and windblown dust on paved areas and rooftops. This can be accomplished by facilities capable of removing particles in a range from sub-micron to 100 μm (Rinker Materials, 2004). Urbonas (2003) suggests that an effective BMP should be capable of removing particles smaller than 60 μm .

Relative Treatment Effectiveness

Provision C.3.d specifies alternative ways to determine the runoff flow or volume that facilities must be designed to treat without bypassing or overflowing. To comply with Provision C.3, this runoff flow or volume must be treated to remove pollutants to the “maximum extent practicable,” which is the standard for control of runoff pollutants established by the Clean Water Act.

In this context, “maximum extent practicable” means less-effective treatment may not be substituted when it is practicable to provide more-effective treatment.

Independent assessments of the performance of stormwater treatment devices either evaluate the application of engineering principles used in the design of the device (rational evaluation) or evaluate samples of device effluent, sometimes with comparison to influent samples (empirical evaluation).

Rational Evaluation

Salvia (2000) categorized treatment devices as gravity separators or filters and evaluated manufacturers’ claims by comparing the design of the proprietary devices with generally accepted engineering design procedures and criteria for the treatment of stormwater or wastewater.

In water and wastewater treatment engineering, settling columns are typically used to determine the design settling rate for waters to be treated. Studies cited by Schueler (1987) using settling columns indicate that 60-70% of sediments in urban runoff settle out within 6 hours, and the remaining sediment may take as much as two days to settle. The California Stormwater BMP Handbooks (CASQA, 2003) recommend a 48-hour detention time for stormwater treatment detention basins.

Using the CASQA methodology, a 48-hour settling time, and typical Contra Costa rainfall patterns, a settling basin suitable for treating runoff from a completely impervious area would require a basin volume of approximately 3000 cubic feet per acre (CCCWP, 2005).

By comparison, the manufacturers of hydrodynamic separators propose their devices can effectively treat runoff within a substantially smaller volume. The flow patterns and settling dynamics of hydrodynamic separators are poorly understood. It is not established that hydrodynamic separators can remove very small particles in a shorter detention time than is required for quiescent settling basins. Public environmental agencies are evaluating these claims empirically.

Swales, planter boxes and bioretention areas use filtration through a bed of granular media—the *Stormwater C.3 Guidebook* specifies a sandy loam—to remove particles from stormwater. In deep-bed filtration, water transports particles via settling, diffusion, and hydrodynamics into the interstices of between media granules. The particle then attaches to the medium by electrostatic interactions, chemical bridging, or adsorption (Weber, 1972). The effectiveness of removal is governed by the surface application rate and the size of the media. The *Guidebook* (CCCWP, 2005) specifies a sandy loam with an infiltration rate of five inches per hour and a depth of 18 inches, allowing at least two to three hours for removal to occur.

In a sand filter, particles accumulate in deeper layers of the filtration media, increasing head loss and eventually causing breakthrough and loss of filter effectiveness if the filter is not periodically backwashed (Weber, 1972). In a biologically active soil filter, the action of bacteria, insects, and earthworms are believed to promote agglomeration of soil particles with the soil media, maintaining the porosity of the media and, over time, increasing, maintaining or restoring the soil's ability to absorb additional pollutant particles. Because of the multiple mechanisms at work, and the absorptive capacity of the soil, it is expected that effluent from a soil filter will contain very low levels of particulates.

Neither filtration nor settling will remove all dissolved pollutants consistently and effectively. Biological filters may remove some dissolved pollutants through ion exchange and absorption. On the other hand, some dissolved constituents, such as nitrogen and phosphorous, may be released from the soil filtration medium. Effluent concentrations may sometimes exceed influent concentrations, particularly in the startup phase of operation.

Empirical Evaluations

In the last few years, public agencies have begun to independently evaluate performance claims.

Empirical evaluations of treatment BMP effectiveness are hampered by the following:

- *Different target constituents.* Total suspended solids (TSS) is typically used as a stand-in for pollutants of concern because data are available and because the concentration of some pollutants tends to be roughly proportional to TSS. However, measurement of TSS is subject to anomalies and also may not be proportional to concentrations of some pollutants of concern.

- *No standard for how to measure performance.* Percent removal of load or concentration, calculated from measurements of influent and effluent, is the most typical measure. However, using this measure, higher influent concentrations tend to produce higher percent removals. Effluent concentration alone has been proposed as a better indicator of performance (Urbonas, 2003).
- *Differing qualities and characteristics of influent.* Urban runoff influent varies with location, from one event to the next, and during events. Treatment results obtained under different conditions may not be fairly comparable.
- *Different flow rates.* Stormwater flows are highly variable. Published test results may reflect high pollutant removals achieved at very low flow rates.

Manufacturers of hydrodynamic separators have varying claims regarding the effectiveness of treatment. The manufacturers of CDS units claim only "...an ability to capture and retain solids *larger than* 100 μm ..." (Francis, 2005, emphasis added). Hydro International claims their Downstream Defender can achieve 80% removal of a 50 μm mean particle size sand at specified rates of flow (Washington Department of Ecology, 2005). The Vortechs system, at specified rates of flow, claims a 64% removal of coarse silt particles, ranging from 38 μm to 75 μm , in laboratory studies (New Jersey Department of Environmental Protection, 2005). In each case, public agencies have requested additional information and tests to determine whether claimed removal rates reflect the distribution of particle sizes actually typical of stormwater or to verify the flow rates used are reasonable.

Reports of the effectiveness of biofilters include data from "wet" swales and filter strips, where the primary modes of treatment are settling and contact with vegetation, rather than filtration through soil. Data from the National Stormwater BMP Database presented by Urbonas (2003) show typical effluent concentrations near 10 mg/L, well below that produced by hydrodynamic devices.

Bioretention facilities using soil filtration to treat stormwater are believed to be considerably more effective than "wet" swales and are capable of producing effluent nearly free of lead, with removal rates of 98-99% (Hsieh and Davis, 2003; Center for Watershed Protection, 2000). It is likely similar results can be achieved for other heavy metals and for hydrophobic organic pollutants such as PCBs.

Technical Feasibility and Operability

The Caltrans (2004b) BMP Retrofit Pilot Study provides the most current, comprehensive, and regionally applicable information based on actual construction and operation of a variety of treatment BMPs.

CDS units were the only hydrodynamic separators tested by Caltrans. They were highly successful at removing gross pollutants but no significant reduction in suspended solids was observed. Because they are efficient at capturing vegetation, excessive maintenance frequency may be required to avoid clogging of units installed where there is substantial leaf fall. Mosquito breeding was repeatedly observed at the two CDS installations monitored by Caltrans, as it was for the multi-chambered treatment train (MCTT) and wet pond installations. To implement the

southern California trash TMDL, Caltrans is developing non-proprietary designs for devices that remove gross pollutants (Caltrans, 2004c).

Agency personnel have expressed concern that hydrodynamic separators, because they are in underground vaults identified only by manhole covers, could become “out of sight, out of mind,” and not be adequately maintained. Given the relatively small number of installations, this concern can only be evaluated by anecdotal experience.

Urbanas (2003) recalls inspecting a number of underground oil and grease traps in Denver. Despite being subject to maintenance agreements, nearly all the traps had not been maintained for years. Some had manhole covers overlain with asphalt paving.

Costs

In their compilation of fact sheets attached to the *Storm Water Treatment BMP Technology Report*, Caltrans (2004b) rates all hydrodynamic separators as having low costs and low effectiveness compared to a detention basin. Luksic (2002) cites the initial cost of the smallest concrete CDS unit, capable of serving a 25-acre catchment, as \$13,200, with a cost for each clean-out service of \$300 to \$400.

By comparison, a detention basin serving 25 acres of impervious area should have a volume of 1.75 acre-feet (CCCWP, 2005). Using the formula in CASQA (2003), the construction, design, and permitting cost a basin can be estimated at \$63,700. CASQA (2003) estimates the cost of maintaining a detention basin at \$3,100 per year, mostly for mowing and other vegetation management.

CASQA (2003) cites construction costs for bioretention areas at \$3 to \$4 per square foot. Using the sizing criteria in CCCWP (2005), adequate treatment of runoff from 25 acres of impervious area would require 1 acre of bioretention area; therefore construction costs would be roughly \$150,000. However, the landscape amenity provided by a bioretention area should also be considered when comparing costs. Costs of maintenance may be the same as landscape covering the same area.

Summary and Conclusions

The following types of facilities, if sized and designed as described in the *Stormwater C.3 Guidebook* (CCCWP, 2005), can meet the “maximum extent practicable” standard for stormwater treatment effectiveness:

- Swales, planter boxes, bioretention areas, and other facilities using filtration through soil or sand (sized according to the flow-based criterion).
- Dry wells, infiltration trenches, infiltration basins, and other facilities using infiltration to native soils (sized according to the volume-based criterion).
- Extended detention basins, constructed wetlands or other facilities using settling (sized according to the volume-based criterion, with a detention time of 48 hours).

Hydrodynamic separators, including vortex separators and continuous deflection separators (“CDS units”), are substantially less effective than any of the above-listed facilities for removing stormwater pollutants of

concern. This difference in effectiveness can be inferred by comparing design criteria and mode of operation and analyzing the relative capability of each type of facility to remove small particles. The difference in effectiveness can also be validated by reviewing available results of laboratory and field tests.

Experience to date has shown swales, planter boxes, bioretention areas, or other effective treatment facilities can be successfully applied to Contra Costa development sites. Lack of space, in itself, is not a suitable justification for using a less effective treatment device since uses of the site and the site design can be altered as needed to accommodate a swale, planter box, bioretention area, or other effective BMP. In most cases, effective BMPs can be fit into required landscaping setbacks, easements, or other unbuildable areas.

Operation and maintenance of hydrodynamic separators is more costly and more prone to problems than maintenance of swales, planter boxes, bioretention areas, detention basins, infiltration trenches, and other effective treatment facilities. Separators require frequent maintenance, are prone to clogging, and are more likely to promote mosquito breeding than any other treatment device except (possibly) constructed wetlands.

Hydrodynamic separators have lower initial cost; however, higher maintenance costs over the life of the project substantially reduce and may eventually overcome this initial cost advantage.

Costs of effective treatment facilities may be higher than for hydrodynamic separators, but are not likely to be so high as to threaten the economic feasibility of a development project.

Because practicable alternatives are capable of providing more effective treatment of stormwater pollutants of concern, hydrodynamic separators do not meet the "maximum extent practicable" requirement for stormwater treatment effectiveness as that requirement applies to compliance with Provision C.3 in Contra Costa.

Hydrodynamic separators can be used to remove gross pollutants (trash and coarse sediment) from stormwater upstream of detention basins or other treatment facilities designed to remove pollutants of concern to the maximum extent practicable. Installations of hydrodynamic separators are subject to the Provision C.3.e requirements for operation and maintenance verification. Each installation should be coordinated with the Contra Costa Mosquito and Vector Control District prior to final design.

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Donald P. Freitas
Program Manager

Selection of Stormwater Treatment Facilities For Maximum Extent Practicable Treatment Effectiveness in Compliance with NPDES Provision C.3

The following types of facilities, if sized and designed as described in the *Stormwater C.3 Guidebook*, can meet the "maximum extent practicable" (MEP) standard for stormwater treatment effectiveness:

- Swales, planter boxes, bioretention areas, and other facilities using filtration through soil or sand (sized according to the flow-based criterion).
- Dry wells, infiltration trenches, infiltration basins, and other facilities using infiltration to native soils (sized according to the volume-based criterion).
- Extended detention basins, constructed wetlands or other facilities using settling (sized according to the volume-based criterion, with a detention time of 48 hours).

Lack of space, in itself, is not a suitable justification for using a less-effective treatment, because the uses of the site and the site design can be altered as needed to accommodate swales, planter boxes, or bioretention areas. In most cases, these effective facilities can be fit into required landscaping setbacks, easements, or other unbuildable areas.

Where possible, drainage to inlets, and drainage away from overflows and underdrains, should be by gravity. Where site topography makes it infeasible to accommodate gravity-fed facilities in the project design, the design flow may be captured in a vault or sump and pumped via force main to an effective facility.

The following situations sometimes present special challenges:

- Portions of sites which are not being developed or redeveloped, but which must be retrofit to meet treatment requirements in accordance with Provision C.3.c.i.3, which states: "Where a Significant Redevelopment project results in an increase of, or replacement of, more than fifty percent of the impervious surface of a previously existing development, and the existing development was not subject to stormwater treatment measures, the entire project must be included in the treatment measure design."
- Sites smaller than one acre approved for "zero-lot-line" development or redevelopment as part of a municipality's stated objective to preserve or enhance a pedestrian-oriented "smart-growth" type of urban design. Municipalities are encouraged to identify areas where this objective applies, based on General Plans or zoning.

255 Glacier Drive, Martinez, CA 94553-4897 • Tel: (925) 313-2360 Fax (925) 313-2301 • E-mail: ccleanwater@pw.co.contra-costa.ca.us

Program Participants: Antioch, Brentwood, Clayton, Concord, Danville, El Cerrito, Hercules, Lafayette, Martinez, Moraga, Oakley, Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon
Walnut Creek, Contra Costa County and Contra Costa County Flood Control & Water Conservation District

In these special situations, the following types of facilities should each be evaluated in priority order (depending on the specific characteristics of the site and as determined by the municipal stormwater coordinator) until a feasible design is found. Additional guidance on facility selection and design is contained in the attached memo.

1. Swales, planter boxes, or bioretention areas fed by gravity.
2. Capture of the design flow in a vault or sump and pumping to swales, planter boxes, or bioretention areas.
3. A subsurface sand or media filter with a maximum design surface loading rate of 5 inches per hour and a minimum media depth of 18 inches. The sand surface must be made accessible for periodic inspection and maintenance (for example, via a removable grating).
4. A higher-rate surface biofilter, such as a tree-pit-style unit. The grading and drainage design should minimize the area draining to each unit and maximize the number of discrete drainage areas and units.
5. A higher-rate vault-based filtration unit.

Installations of all treatment facilities are subject to the Provision C.3.e requirements for operation and maintenance verification. Planned inspection and maintenance of facilities must be documented in a Stormwater Treatment Facilities Operation and Maintenance Plan prepared in accordance with Appendix F of the *Stormwater C.3 Guidebook*. Installations of vaults and other facilities which could hold water longer than 72 hours should be coordinated with the Contra Costa Mosquito and Vector Control District prior to final design.

Projects subject to flow-control (hydrograph modification management) requirements must also meet the standard in Appendix D of the *Stormwater C.3 Guidebook*. For most sites, treatment and flow control requirements can both be met most cost-effectively by using swales, planter boxes, or bioretention areas (or in highly permeable soils, dry wells, infiltration trenches, or infiltration basins) sized using the Program's Integrated Management Practice Sizing Calculator.

(03/21/2007)

TECHNICAL MEMORANDUM

To: **Contra Costa Clean Water Program
C.3 Implementation Work Group**

From: Dan Cloak

Subject: **Criteria for Selecting Stormwater Treatment Facilities**

Date: 14 March 2007

Introduction

The *Stormwater C.3 Guidebook*, Third Edition, lists a variety of facilities that can achieve "maximum extent practicable" treatment effectiveness:

- Swales, planter boxes, bioretention areas, and other facilities using filtration through soil or sand (sized according to the flow-based criterion).
- Dry wells, infiltration trenches, infiltration basins, and other facilities using infiltration to native soils (sized according to the volume-based criterion).
- Extended detention basins, constructed wetlands or other facilities using settling (sized according to the volume-based criterion, with a detention time of 48 hours).

The *Guidebook* provides critical design criteria for each of these types of facilities.

However, on some development sites and proposed projects it may be impracticable to use these preferred facilities and criteria.

This memorandum supports development of:

- Criteria for determining when it is impracticable to use the preferred types of facilities on a particular site.
- A procedure for selecting the appropriate "maximum extent practicable" type of treatment facility in these cases.

Regulatory Background

Provision C.3.c states:

Dischargers shall require Group 1 Projects to implement appropriate source control and site design measures and to design and implement stormwater treatment measures, to reduce the discharge of stormwater pollutants to the *maximum extent practicable* [emphasis added].

The Program's November 2005 *Policy on the Use of Hydrodynamic Separators* states:

...“maximum extent practicable” means less-effective treatment may not be substituted when it is practicable to provide more effective treatment.

Last year the State Water Resources Control Board convened an expert Stormwater Panel on Numeric Limits (2006) to consider whether it was feasible to establish enforceable numeric effluent limits for stormwater discharges. The panel found:

It is not feasible at this time to set enforceable numeric effluent criteria for municipal BMPs and in particular urban discharges. However, it is possible to select and design them much more rigorously with respect to the physical, chemical and/or biological processes that take place within them, providing more confidence that the estimated mean concentrations of constituents in the effluents will be close to the design target.

In other words, to achieve “maximum extent practicable” it makes sense to specify criteria for facility design rather than for effluent quality or percent pollutant removal. The *Guidebook* approach is consistent with this finding.

Hydraulic Sizing Criteria

Provision C.3.d does specify hydraulic design criteria. Detention basins and other facilities which remove pollutants by settling must have a minimum volume. Flow-through facilities, including all types of filters, must treat the flow of runoff produced by a specified rainfall intensity.

The *Stormwater C.3 Guidebook* specifies 0.2 inches/hour as the design rainfall intensity for designing flow-based treatment facilities, including media filters (such as sand filters) and biofilters (such as swales, planter boxes, and bioretention areas) in Contra Costa.

The flow into a treatment facility can be calculated using the rational method:

$$Q = C * i * A_{\text{tributary}}$$

where

Q = design flow

C = runoff factor (conservatively set to 1.0 for impervious areas)

i = specified rainfall intensity (0.2 inches per hour)

A_{tributary} = tributary area draining to the facility.

Chapter 5 and Appendix C of the *Stormwater C.3 Guidebook* specify an 18-inch deep layer of sandy loam with a minimum sustained permeability of 5 inches per hour for stormwater planters, bioretention areas, and “dry” swales. *Guidebook* Chapter 5 states the loading rate of 5 inches per hour should also be applied to sand filters and other facilities which use media filtration.

The flow through the facility can be calculated by multiplying this rate times the surface area of the facility.

Using the continuity equation:

$$Q_{in} = Q_{out}$$

$$C * i * A_{tributary} = I * A_{facility}$$

which, upon rearrangement, yields a sizing factor $A_{facility}/A_{tributary}$ of 0.2 inches per hour/5 inches per hour or 0.04 (dimensionless).

These *Guidebook* criteria yield facility volumes comparable to what would result from using the design criteria in Claytor and Scheuler (1996), which are the basis for design standards used by stormwater programs in various states and cities throughout the U.S. The key Claytor and Scheuler (1996) design criterion is that the volume of pore spaces within the filter, plus the storage volume above the filter bed, plus the volume in a pretreatment settling basin (if used) should be at least 0.75 * [Water Quality Volume (WQV)].¹

The *Guidebook* sizing criteria address the following issues which are critical to sustained facility performance and achievement of “maximum extent practicable” pollutant removal:

- The capacity of the filter media to absorb and retain pollutants.
- Facilitation of biological processes within the filter, which provide multiple pathways for pollutant retention and processing.
- The filter’s ability to delay “breakthrough,” which may occur when pollutants migrate through the depth of the filter and are released into the filtrate.
- The capacity of the filter to absorb “shock” loadings of pollutants without deterioration of effluent quality.
- Continued effectiveness under adverse conditions such as unexpectedly high loadings and/or delayed maintenance.
- Visibility of the treatment facility and ease of inspection.
- Required maintenance frequency and cost of maintenance.
- Future availability and cost of materials needed to maintain the filter’s effectiveness.

¹ This criterion is incorporated into the Maryland Department of the Environment’s (MDE’s) *Stormwater Design Manual*. In the June 9, 2006 letter conditionally approving the use of the Filterra® system as a stand-alone BMP, MDE stated: “The storm event monitoring data and pollutant removal efficiency analyses support the high k factor that allows Filterra® units to be considerably smaller than typical filtering practices sized according to Design Manual specifications. However, MDE feels it imperative to hold fast to the remaining Design Manual sizing criteria of pretreating 25% of the water quality volume (WQV) and holding 75% of the WQV in the entire system.”

Characterizing Sites Where Preferred Facilities May be Impracticable

Swales, bioretention areas, and planter boxes are the preferred treatment facilities and can be equipped with underdrains in sites with low-permeability soils. By carefully considering drainage and stormwater treatment *before* sketching a site plan or subdivision of lots, land development engineers have successfully incorporated swales, planter boxes, and bioretention areas—sized using the 0.04 factor—into many types of developments in Contra Costa. Project examples include high-density residential development on steep, clayey hillsides, mixed-use residential/retail developments, multifamily residential developments, and sites smaller than one acre.

Based on their professional experience and judgment, participants in the C.3 Implementation Work Group have noted the following circumstances where incorporation of swales, planter boxes, or bioretention areas into a site plan is sometimes (but not always) particularly difficult.

- Sites where zoning specifies the location of site landscaping (for example, along the street frontage), and the site topography is such that the locations to be landscaped are at a higher elevation than the areas to be paved.
- Retrofit of existing paved areas which are drained by conventional catch basins and underground pipes and are not being substantially re-graded or repaved. These retrofits may be required under the following language from Provision C.3.c: “Where a Significant Redevelopment project results in an increase of, or replacement of, more than fifty percent of the impervious surface of a previously existing development, and the existing development was not subject to stormwater treatment measures, the entire project must be included in the treatment measure design.”
- Lots, including small lots in older urban areas which are being redeveloped, where the approved mode of development is to extend structures to the lot line in all directions (“zero-lot-line” development).

There may be other circumstances where the use of swales, planter boxes, and bioretention areas is infeasible. Municipal stormwater coordinators are encouraged, when these rare and unusual circumstances arise, to consult with each other through the Program’s committee’s and work groups, and with Program staff, to determine if a design solution incorporating swales, planter boxes, or bioretention areas has been found for a comparable circumstance in another municipality.

Next Best Practicable Alternatives

On sites where swales, planter boxes, and bioretention areas are not feasible, the most effective practicable alternative should be selected.

Selection should seek to achieve, as much as possible given site constraints, the same advantages provided by swales, planter boxes and bioretention areas. It is recommended that options be evaluated in the

following sequence, depending on the specific characteristics of the site and as determined by the municipal stormwater coordinator:

1. *Swales, planter boxes, and bioretention areas fed by gravity.*
2. *Capture of the design flow in a vault or sump and pumping via force main to swales, planter boxes, or bioretention areas.* This alternative can be used where site topography makes it infeasible to drain by gravity to paved areas to swales, planter boxes, and bioretention areas. The advantages of the LID IMPs are preserved, but the additional maintenance requirements of a vault and pump are added. For treatment-only IMPs, the vault can be fairly small (and should be smaller than the reservoir on the surface of the receiving IMP). The design pumping rate should be greater than the flow produced by 0.2 inches per hour rainfall. Care should be taken to ensure the vault minimizes standing water and is readily accessible for inspection and maintenance. This option requires availability of electrical power (typically only 110V/120V is needed) to the sump location. When evaluating the feasibility of this option, consider the availability and reliability of electrical power as well as practicability of maintenance for the vault and pump.
3. *Subsurface sand or media filter* with a maximum design surface loading rate of 5 inches per hour and a minimum media depth of 18 inches. This provides detention volume and capacity for pollutant removal similar to that of the preferred swales, bioretention areas, and planter boxes. However, there will be less biological activity to assist with pollutant removal and to keep the media surface open and permeable. The sand surface must be made accessible for frequent inspection and maintenance (for example, via a removable grating).
4. *A higher-rate surface biofilter*, such as a Filterra® tree-pit-style unit. The grading and drainage design should minimize the area draining to each unit and maximize the number of discrete drainage areas and units. These facilities have good removal rates for pollutants, and are easy to maintain, but provide little detention, have less overall capacity for absorbing pollutants, and consequently have less capacity to absorb shock loadings or to perform under adverse conditions.
5. *A higher-rate vault-based filtration unit*, of either non-proprietary or proprietary design. The *California Stormwater BMP Handbook for New Development and Redevelopment* Fact Sheet TC-40 includes example non-proprietary designs. For proprietary designs, an additional factor of safety (for example, 2) may be applied to the manufacturer's sizing recommendations to increase the likelihood adequate performance will be maintained over time.

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CONTRA COSTA
CLEAN WATER
PROGRAM

Date: August 15, 2007

To: Management Committee

From: Kristen Hardeman, Program Secretary
Contra Costa Clean Water Program

Subject: Staff Report E – California Stormwater Quality Association (CASQA)
Website “Members Only” Section Login Passwords

Recommendation:

Receive information and provide Program staff with the name of the person at your agency who will be the contact for the California Stormwater Quality Association (CASQA) website “members only” section.

Background:

The Contra Costa Clean Water Program (Program) is a member of CASQA. CASQA keeps its members up-to-date on the latest information impacting stormwater programs in California through e-mail updates, presentations, web postings and committee activities.

CASQA's website contains a “members only” section intended to provide services not available to non-members online. This includes the ability to submit reviews of pending stormwater quality policies, permits and regulations, and notices regarding non-CASQA events and meetings. The members only section is a “work in progress,” so members are encouraged to provide CASQA with feedback and suggestions.

Access to the member section of CASQA's website requires a login and password. Under the Program's current membership with CASQA, one (1) representative from each co-permittee may be listed as a contact and provided with access to the “members only” section. At the Management Committee meeting, Program staff will provide details how assigned member contacts access the members only section of CASQA's website.

Fiscal Impact:

None.

Attachment(s):

1. Print out of CASQA Website Home Page and Members Only Section Page

KH/DPF:kh

G:\NPDES\Management Committee\Packet\07 08\Aug 07\Staff Rpt E Aug 07.doc



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CASQA: Members Only...

CASQA membership is open to holders of NPDES stormwater permits; MS4 permittees; construction permittees; industrial permittees; and federal, state

and institutional entities. Affiliate Memberships are also available for other stormwater professionals, businesses, trade associations, non-profit groups, etc. that want to participate, but do not hold NPDES stormwater permits. Permit holders are voting members of the organization, and may vote for Board of Directors members, while Affiliate Members and federal, state and institutional entities that do not hold NPDES permits are non-voting members.

CASQA keeps its members up-to-date on the latest information affecting stormwater programs in California through e-mail updates, presentations, web postings, and committee activities. Stormwater permits, programs, and legal challenges make it a rapidly changing field where current information is a must. CASQA holds full day meetings throughout the State at least once every quarter with typical attendance close to a hundred people. The meetings include expert presentations from across the state and nation.

In order to add value to CASQA members, this section is designed to provide them with services that non-members don't receive online. This includes the ability to submit reviews of pending stormwater quality policies, permits and regulations, and notices of special, non-CASQA meetings and events. This section is a "work-in-progress," so if you have any ideas, please share them with us!

If you are interested in becoming a member, please click [here](#) (PDF).



Become a CASQA Member to access the latest stormwater industry information and become a part of our process.

California Stormwater Quality Association
P.O. Box 2105
Menlo Park, CA 94026-2105

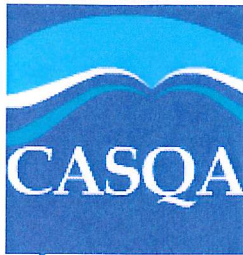
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A Force for Stormwater Quality...

Stormwater pollution affects us in ways that most people don't even realize.

Trash on the beaches, growing algae plumes in lakes and bays,

bacteria in our ocean, rivers and streams... Anything that can be washed into our waterways from the earth's surface when it rains - including oil and fluids from cars, fertilizer and pesticides from lawns and farms, or cigarette butts tossed to the ground - contributes to stormwater pollution.

The Good News? There are many agencies and organizations working hard to make things better, and the California Stormwater Quality Association (CASQA) is one of them.

Through the development of stormwater management policies and regulations, CASQA is taking positive steps that will lead to cleaner streams, rivers, bays, beaches and ocean waters for everyone to enjoy throughout California. As a 501 (c)(3) nonprofit, public benefit corporation, our membership is comprised mostly of government agencies, businesses, organizations and individuals responsible for or interested in stormwater management programs. Read more about what we do, how we do it, and how you could be involved [here](#).

Please take a look around our web site where you will find

Member to access the latest stormwater industry information and become a part of our process.

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out more about us and how we're working to improve stormwater quality!

Mail-in registration form now available for CASQA 2007

Conference (posted 6/26/07)

For attendees for which the online registration (VISA, MasterCard, or e-check) is not workable or preferred, click [here](#) to download a mail-in registration form for the CASQA 2007 conference (September 10-12, Costa Mesa). Conference details, including a detailed Program Agenda are available on the stormwater conference website: Stormwaterconference.com

Online Conference and Hotel registration is available for

CASQA's 2007 Conference (updated 6/13/07)

Conference Theme: *Stormwater Management – Tools for Success: Research, Policy, Planning, Implementation, and Assessment.*

Click [here](#) to view the agendas for the three Pre-Conference Workshops on Monday, September 10. Click [here](#) to view the full Conference program.

On-line registration

On-line registration is available through CASQA's [Conference registration website](#) for **CASQA's 2007 Conference** at the Hilton Hotel in Costa Mesa (Orange County), CA on September 10, 11, and 12, 2007. You may register online by credit card (VISA or Master Card) or e-check.

Hotel Reservation Information

A limited block of rooms is being held at the Hilton Orange County/Costa Mesa for the CASQA 2007 Conference. The special conference

rate of \$169 is available until August 20, 2007 or until the group block has been sold out, whichever comes first. **All rooms will be on a first-come first-served basis.** Therefore, it is recommended you get your reservation in early to avoid missing out on the special price. A small number of rooms are available for eligible State, Federal, municipal and other government employees and must be booked directly with the hotel. To make your reservations, please contact the Hilton at (800) Hiltons or call the [Hilton Orange County/Costa Mesa](#) directly at 714-540-7000. Or you can [book on-line](#). Reference the California Stormwater Quality Association when making your hotel reservations before August 20, 2007. After August 20, 2007 room availability and group rate is not available.

[Exhibitor space and sponsorships for the CASQA 2007 conference are available](#) (posted 5/31/07)

Click [here](#) for the brochure. The CASQA 2007 Conference offers a full program of training workshops, presentations and exhibits for holders of municipal, industrial and construction NPDES stormwater permits. Attendees will gain a better understanding of stormwater technologies, regulations, programs, and community impacts. The conference is being held on September 10 - 12, 2007 at the Hilton Hotel, 3050 Bristol St., Costa Mesa, CA 92626.

By exhibiting at the CASQA conference, you will be afforded an opportunity to directly interact with federal, state and local agencies, educational institutions, stormwater managers, consultants, engineers, contractors, and designers, all of whom

have a direct interest in stormwater quality related issues and technologies. In addition, by sponsoring a portion of the conference, you will have an opportunity to highlight your organization/company and advertise your expertise. Given the response at the inaugural 2005 and 2006 CASQA conferences, early registration and sponsorships are strongly encouraged. **Exhibit spaces and sponsorships may now be purchased and reserved through CASQA's Conference website.** You will be able to view sponsorships and exhibit spaces remaining for purchase and link to a layout that shows the location of each individual exhibit space within the exhibit hall.

Latest CASQA [Legislation Index](#) and [Summary](#) (posted 5/31/07)



State cuts allowable mercury in Bay

• **Water board votes 5-0 to approve cleanup measure that will affect sewer plants, mine in hills near San Jose**

By Denis Cuff
CONTRA COSTA TIMES
 Contra Costa Times

Article Launched:07/18/2007 03:05:28 AM PDT

SACRAMENTO -- A state water board on Tuesday adopted stricter mercury limits for San Francisco Bay in a move aimed at protecting people who eat fish from the Bay and wild birds that breed around its shoreline.

Using a relatively new tool that focuses on all causes of a pollutant in an environment rather than one source a time, the state board enacted a daily maximum load of mercury for the entire Bay stretching from Carquinez Strait to the Golden Gate.

The board also enacted a standard limiting the mercury allowed in Bay fish tissue and in the eggs of nesting birds.

"This is a good day for the health of the Bay," said Sejal Choksi, director of programs for the San Francisco Baykeeper, an environmental group. "This provides a long-term framework for reducing the serious problem we have with mercury in San Francisco Bay."

Heavy mercury loads in the Bay -- much of it from mines dug long ago -- have resulted in health warnings for humans to limit consumption of Bay fish. Mercury can cause birth defects in people, and it can retard development of birds.

The 5-0 adoption by the State Water Resources Control Board culminated 10 years of debate and planning over how to tackle the problem.

The Oakland-based San Francisco Regional Water Quality Control Board adopted mercury standards in 2005, but the state board in Sacramento rejected them, saying they were too weak.

The regional panel went back to the drawing board and came up with a stricter new plan that won acceptance by the Sacramento-based board as a model for tackling pollution problems.

John Muller, chairman of the Oakland-based regional board, said Tuesday that he was glad to get the mercury standards in place so his agency can "get on with the business of the cleanup of mercury in our regional water basin."

Mercury has many diverse sources, and once it gets in water and sediment, it can take decades to wash out of the Bay and into the sea.

Pollution washed out of old mines dating to the Gold Rush era is thought to be the biggest source of mercury in the Bay, scientists say.

To attack that problem, the regional board is planning measures to clean up or prevent movement of mercury-laden sediment that flows from an old mine in the hills above San Jose into the Guadalupe River.

Mercury-laden sediment also has been cleaned up in Castro Cove off the industrialized Richmond shoreline, engineers say

The new plan calls for all Bay Area sewer plants to cut mercury in their treated effluent by at least 20 percent in 10 years. Some plants also will be required to make another 10 percent cut during the 10 years after that.

"This is a big task," said Michele Pla, executive director of a coalition of public sewer plant operators called the Bay Area Clean Water Agencies.

She said the sewer operators plan to step up efforts to persuade consumers and businesses not to use products with mercury, or to dispose of them so they stay out of the Bay.

The sewer agencies may do more to get dentists not to flush fillings with mercury down the drain, where they can migrate

to the Bay.

The sewer plant operators also may push for reduced use of electrical switches and fluorescent lights that have mercury.

"We're talking about moving away from a society that uses mercury in its products," Pla said.

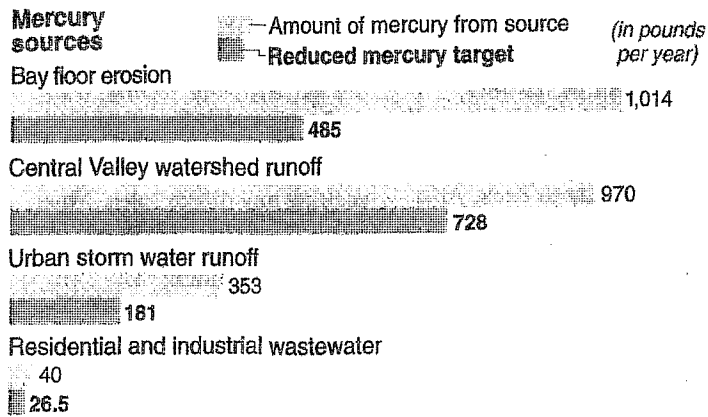
The regional water board also has ordered the five East Bay oil refineries to conduct studies to identify what happens to the mercury that enters the plants in crude oil.

Pollution engineers suspect that some of the mercury may leave plant smokestacks as air pollution, settle back to earth and wash into the Bay.

Reach Denis Cuff at 925-943-8267 or dcuff@cctimes.com.

Mercury reduction targets

A plan to reduce the amount of mercury in the Bay was adopted Tuesday. The plan is meant to produce healthier fish to eat in about 120 years. Here are some of the sources of mercury in the Bay, and how much each source would be reduced under the plan:



Source: San Francisco Bay Regional Water Quality Control Board

TIMES

Opposition to Building-Permit Changes Mounts

By Max Follmer
Daily Journal Staff Writer

LOS ANGELES — A broad coalition that includes builders, school boards and Hollywood studios is warning that proposed changes to a required state construction permit would cause sharp increases in building costs and derail hundreds of projects from Eureka to San Diego.

However, environmentalists have backed the revisions to the permit, which regulates storm-water runoff from construction sites, arguing they would improve water quality and protect California's rivers, streams and coastline.

Although few outside of the building industry have heard of the permit, known as the General

Permit for Storm Water Discharges Associated with Construction Activity, virtually no building project in the state can move forward without one.

Environmental Law Columns,
Pages 4-5

The federal Clean Water Act of 1972 made it illegal to discharge pollutants into American bodies of water. Because construction sites contain a number of potentially polluting chemicals and building materials that could be washed into nearby waters by rain storms, builders must obtain a permit to certify they have taken appropriate steps to prevent chemical-laden storm-water runoff from leaving the site.

The permit's rules are revisited

every five years, and earlier this summer, letters criticizing a proposed overhaul poured into the offices of the state Water Board.

"We are concerned that the [new rules] will result in significant and unwarranted delays in the construction of private and public projects throughout the Los Angeles area, including the many major infrastructure improvements planned and needed for the region, without any commensurate benefit to water quality," said David W. Fleming, chairman of the Los Angeles Area Chamber of Commerce, in a letter to the Water Board.

Opponents object to the Water Board's plan to require — for the first time — enforceable numeric limits on pH, or the degree of acid-

See Page 5 — OPPOSITION

Opposition to Building-Permit Changes Mounts

Continued from page 1

ity or alkalinity in runoff. The move would require construction sites to treat runoff at the site and remove enough pollutants to meet the new standards.

They also object to new requirements aimed at preventing hydro-modification, or the altering of the makeup of bodies of water.

The costs associated with such mandates, critics argue, would cause the price of building projects to skyrocket.

"As a major consumer of construction service, [CalTrans] is concerned about increased costs and potential delays to construction that may result from the adoption of this preliminary draft permit," said G. Scott McGowen, CalTrans' chief environmental engineer, in a letter to the board.

Officials at the Los Angeles County Office of Education said that the cost of implementing the new permit rules for future school construction would be \$100,000 to \$500,000 per school.

Others expressing concern range from NBC Universal, which has announced plans to build a massive transit-oriented development in Universal City, to the Coachella Valley Water District, to the Port of Oakland.

The proposed changes represent a 180-degree shift for the Water Board, which had allowed builders to use so-called "best management practices" that emphasized carrying out a project in such a way that runoff would not leave the site.

"I think the reason we have seen the reversal is that the environmental groups have not at all let up on the drumbeat to include numeric limits," said Mary Lynn Coffee, a partner at Nossaman Guthner Knox & Elliott in Orange County who specializes in water issues.

Environmental groups have long fought to include numeric limits for

pollutants in the storm-water permit. Such groups consider "best management practices" to be an inadequate method of controlling pollutants.

When the current permit was released in 1999, several environmental groups sued the state Water Board after it determined that numeric limits at construction sites were not feasible.

After six years of legal wrangling, a Sacramento County Superior Court judge in 2005 upheld the Water Board's decision not to include numeric limits. *San Francisco Baykeeper v. California State Water Resources Board*, 99CS-01929 (Sacramento Super. Ct. 2005).

Linda Sheehan, executive director of the California Coastkeeper Alliance, said industry complaints about the cost and infeasibility of such limits are nothing new.

"This is something that generally comes up," Sheehan said. "They have complained that it is going to cost money, that it is going to be impossible to do, and we have found over and over again that this is not going to be the case."

She pointed out that a blue-ribbon task force convened by the Water Board in 2006 found that numeric effluent limits for storm-water runoff were feasible, though opponents of the new rules have questioned the validity of that conclusion.

Sheehan said she hoped the new permit, which she said her group "generally supported," would not renew years of acrimonious litigation between environmental groups and builders.

"Litigation will just slow things down," she said. "With more straightforward rules and more public input, we can have cleaner water."

The state Water Board is reviewing the public comments submitted in June. Any modifications to the proposal are expected to be announced before the end of the year.

'With more straightforward rules and more public input, we can have cleaner water.'

Linda Sheehan,
California Coastkeeper
Alliance executive director

