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</table>
INTRODUCTION

Background and Purpose

Periodic status reports and meetings are specified in the District 7 and District 11 Scoping Study as a vehicle to update NRDC on the progress of the BMP Retrofit Pilot Program and receive input as to appropriate changes or modifications to the program. The status meetings have been scheduled on a regular basis to coincide with general project milestones and periods of significant activity. Approximate scheduled dates for the periodic status meetings are given in the Scoping Study. This report provides background documentation for the third status meeting to be held on December 8, 1998.

The scope of the status reports includes a general program-level overview of the activities that precede the status meetings. Status reports include information regarding the Pilot Program siting (Meeting No. 1), design (Meeting No. 2), construction, operation and maintenance program (Meeting No. 3), monitoring reports, program costs and correspondence with special consultants. Each of these topics will be addressed as the information becomes available over the scheduled course of the BMP Retrofit Pilot Program. The program Master Schedule is contained in the Scoping Study for each District.

The preceding Status Meeting (No. 2) was held on July 14, 1998. The issues discussed at Status Meeting No. 2 included the following:

- PS&E design packages content and status for each District
- Procurement design packages content and status for each District
- Engineer’s cost estimates for construction of the Pilot Projects
- Plaintiff review comments on designs
- Decision Point No. 1
**Decision Point No. 1 – District 11**

It was mutually agreed that the wet basin site (Project 4) would be shifted to the contingency schedule. It was further indicated by the District of their intent to discontinue Project 1, Site No. 2, Manchester East EDB.

**Decision Point No. 1 – District 7**

It was mutually agreed to shift the Trapping Catchbasin Pilot projects from PS&E to Procurement. Further, Three Multi-chambered Treatment Train (MCTT) devices were agreed to be substituted for four infiltration trench BMPs that were unsuccessfully sited.

**Report Organization and Content**

The primary activities that have occurred since Status Meeting No. 2 include the following:

- Bid of PS&E and Procurement Projects;
- Award of Contracts for PS&E and most Procurement Projects;
- Initiation of construction of PS&E and most Procurement Projects;
- Development of OMM Volumes I and II;
- Development of draft MOU’s with Vector Control Districts;
- Discussion with regulatory agencies relative to jurisdiction of Pilot Projects;
- Initiation of design of the Wet Basin at La Costa and I-5 in District 11.
This report is organized into two primary sections and Appendices. The first section discusses the construction process, including bid, award and construction activities to date. The primary focus is on issues encountered during construction and the solution to construction problems.

The second report section provides general information relative to the status of the OMM manual, the status of the MOU’s with the Vector Control Agencies in each Caltrans District, the status of discussions with the regulatory agencies and a status on the design of the wet basin in District 11.
CONSTRUCTION ACTIVITIES

District 7 BMP Pilot Projects
Construction Activities, Schedule, Issues / Solutions, Financial Review, Photographs

PS&E Pilot Projects

Location 1 (MW) I-605/SR-91 Contract No. 07-191204 Infiltration Basin

Construction Activities

Clear and grubbed site, graded site depositing mulch on surrounding slopes.

Schedule

First working day per contract is November 6, 1998. Site construction on schedule.

Issues / Solutions

Excess surface mulch. / Deposit on surrounding slopes.

Additional import required due to larger mulch quantity. / Lower access road elevation 0.94 m at NE corner, 0.63 m at NW corner, 0.35 m at SE corner and 0.12 m at SW corner to generate additional excavation.

Street light conduit in structural section. / Lower conduit.

Financial Review

<table>
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<tr>
<th>Location</th>
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<th>Estimated Contract Change Orders</th>
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<tr>
<td>I-605/SR-91</td>
<td>11-6-98</td>
<td>1-13-99</td>
<td>N/A</td>
<td>$255,646</td>
<td>$1,000 St light conduit</td>
<td>$256,646</td>
</tr>
</tbody>
</table>
Location 1 (BC) I-5/I-605 Contract No. 07-191104 Extended Detention Basin

Construction Activities

Clear and grubbed site.

Schedule

First working day per contract is November 4, 1998. Site construction on schedule.

Issues / Solutions

N/A

Financial Review

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1 I-5/I-605</td>
<td>11-4-98</td>
<td>1-6-99</td>
<td>N/A</td>
<td>$119,511</td>
<td>N/A</td>
<td>$119,511</td>
</tr>
</tbody>
</table>
Location 2 (BC) I-605/SR-91 Contract No. 07-191104 Extended Detention Basin

Construction Activities

Placed construction signs.

Schedule

First working day per contract is November 4, 1998. Site construction on schedule.

Issues / Solutions

N/A

Financial Review

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<tr>
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<td>2 I-605/SR-91</td>
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<td>N/A</td>
<td>$119,511</td>
<td>N/A</td>
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</table>

Procurement Pilot Projects

Brown and Caldwell Sites

Location 1 Alameda Maintenance Station Oil/Water Separator

Construction Activities
N/A

Schedule

First working day scheduled for December 18, 1998.

Issues / Solutions

N/A

Financial Review

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<thead>
<tr>
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<tr>
<td>1 Alameda MS</td>
<td>12-18-98</td>
<td>1-27-99</td>
<td>N/A</td>
<td>$172,049</td>
<td>N/A</td>
<td>$172,049</td>
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<tr>
<td>2 Eastern MS</td>
<td>9-25-98</td>
<td>12-8-98</td>
<td>N/A</td>
<td>$267,570</td>
<td>N/A</td>
<td>$267,570</td>
</tr>
</tbody>
</table>

Location 2 Eastern Maintenance Station Media Filter

Construction Activities

Clear and grubbed site, constructed excavation shoring with some damage to existing utilities, excavated basin, relocated utilities, formed and placed concrete in basin slab, formed and placed concrete in walls, removed forms.

Schedule

First working day September 25, 1998. Site construction on schedule.

Issues / Solutions

Damage to utilities during drilling operation. / Additional utility investigation required during design phase with a review of accurate and comprehensive as-built plans.

Scheduling of work, demo of storage bins. / Additional coordination is required during design review of staging in order to facilitate use of existing bins or constructing temporary bins during construction of relocated bins.

Financial Review

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<tr>
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<tbody>
<tr>
<td>2 Eastern MS</td>
<td>9-25-98</td>
<td>12-8-98</td>
<td>N/A</td>
<td>$267,570</td>
<td>N/A</td>
<td>$267,570</td>
</tr>
</tbody>
</table>
Location 3 Foothill Maintenance Station Media Filter

Construction Activities

Clear and grubbed site, demolished storage bins, constructed shoring, excavated and placed concrete slab.

Schedule

First working day October 1, 1998. Site construction on schedule.

Issues / Solutions

N/A

Financial Review

<table>
<thead>
<tr>
<th>Location</th>
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<tbody>
<tr>
<td>3 Foothill MS</td>
<td>10-1-98</td>
<td>1-4-99</td>
<td>N/A</td>
<td>$400,648</td>
<td>N/A</td>
<td>$400,468</td>
</tr>
</tbody>
</table>
Location 4 Termination Park and Ride Media Filter

Construction Activities

Clear and grubbed site, constructed shoring, completed excavation, placed concrete slab, formed exterior walls, installed rebar for walls.

Schedule

First working day October 1, 1998. Site construction on schedule.

Issues / Solutions

N/A

Financial Review

<table>
<thead>
<tr>
<th>Location</th>
<th>First Working Day</th>
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</tr>
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<tbody>
<tr>
<td>4 Termination Park &amp; Ride</td>
<td>10-1-98</td>
<td>12-21-98</td>
<td>N/A</td>
<td>$372,982</td>
<td>N/A</td>
<td>$372,982</td>
</tr>
</tbody>
</table>
Location 6 Via Verde Park and Ride Multi Chamber Treatment Train

Construction Activities

Notification of partial lot closure complete, H beams for excavation shoring delivered to site.

Schedule

First working day October 8, 1998. Site construction on schedule.

Issues / Solutions

Coordination of parking relocation. / Relocated electric vehicle parking.

Excessive boulders. / Core through boulders to accept shoring “H” beams on change order.

Financial Review

<table>
<thead>
<tr>
<th>Location</th>
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<th>Estimated Final Cost Including CCO and State Furnished Materials</th>
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<tbody>
<tr>
<td>Via Verde Park &amp; Ride</td>
<td>10-8-98</td>
<td>1-15-99</td>
<td>N/A</td>
<td>$309,633</td>
<td>$10,000 core boulders</td>
<td>$319,633</td>
</tr>
</tbody>
</table>
Location 8 Lakewood Park and Ride Multi Chamber Treatment Train

Construction Activities

N/A

Schedule

First working day December 4, 1998.

Issues / Solutions

N/A

Financial Review

<table>
<thead>
<tr>
<th>Location</th>
<th>First Working Day</th>
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<tbody>
<tr>
<td>8 Lakewood Park &amp; Ride</td>
<td>12-4-98</td>
<td>2-4-99</td>
<td>N/A</td>
<td>$388,038</td>
<td>N/A</td>
<td>$388,038</td>
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</table>
Montgomery Watson Sites

Location 1 Package 1 Altadena Maintenance Station Bio-Strip and Infiltration Trench

Construction Activities

Formed and placed concrete for new and relocated storage bins.

Schedule

First working day October 5, 1998. Site construction on schedule.

Issues / Solutions

City of Pasadena Water Co easement encroachment / Reconfigured BMP.

Financial Review

<table>
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<tr>
<th>Location</th>
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<tr>
<td>Package 1</td>
<td>10-5-98</td>
<td>12-18-98</td>
<td>N/A</td>
<td>$197,574</td>
<td>N/A</td>
<td>$197,574 (1292sf)</td>
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</table>

Location 6 Package 1 Foothill Maintenance Station Catch Basin Insert

Construction Activities

Staked project

Schedule

First working day October 5, 1998. Site construction on schedule.
Issues / Solutions

N/A

Financial Review

<table>
<thead>
<tr>
<th>Location</th>
<th>First Working Day</th>
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<th>Adjusted Completion Date</th>
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<th>Estimated Contract Change Orders</th>
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<tbody>
<tr>
<td>6 Package 1</td>
<td>10-5-98</td>
<td>12-18-98</td>
<td>N/A</td>
<td>$67,730</td>
<td>N/A</td>
<td>$67,730</td>
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</table>

Location 7 Package 1 Las Flores Maintenance Station Catch Basin Insert

Construction Activities

Saw cut existing asphalt, vaults and flumes installed, subgrade compacted.

Schedule

First working day October 5, 1998. Site construction on schedule.

Issues / Solutions

N/A

Financial Review

<table>
<thead>
<tr>
<th>Location</th>
<th>First Working Day</th>
<th>Scheduled Completion Date</th>
<th>Adjusted Completion Date</th>
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<th>Estimated Contract Change Orders</th>
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<tbody>
<tr>
<td>7 Package 1</td>
<td>10-5-98</td>
<td>12-18-98</td>
<td>N/A</td>
<td>$81,431</td>
<td>N/A</td>
<td>$81,431</td>
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</table>
Location 8 Package 1 Rosemead Maintenance Station Catch Basin Insert

Construction Activities

Staked project, constructed drainage system and catch basins.

Schedule

First working day October 5, 1998. Site construction on schedule.

Issues / Solutions

Existing utilities in conflict. / Reconfigured inlet.

Financial Review

<table>
<thead>
<tr>
<th>Location</th>
<th>First Working Day</th>
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<th>Estimated Contract Change Orders</th>
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<tr>
<td>8 Package 1</td>
<td>10-5-98</td>
<td>12-18-98</td>
<td>N/A</td>
<td>$60,727</td>
<td>N/A</td>
<td>$60,727</td>
</tr>
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</table>
Location 2 Package 2 I-605/SR-91 Interchange Bio Strip & Swale

Construction Activities

Staked project.

Schedule

First working day November 30, 1998.

Issues / Solutions

N/A

Financial Review

<table>
<thead>
<tr>
<th>Location</th>
<th>First Working Day</th>
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<tr>
<td>2 Package 2 I-605/SR-91</td>
<td>11/30/98</td>
<td>1-22-99</td>
<td>N/A</td>
<td>$166,715</td>
<td>N/A</td>
<td>$188,675 (7320 sf)</td>
</tr>
</tbody>
</table>

Location 3 package 2 Cerritos Maintenance Station Bio Swale

Construction Activities

Staked project.

Schedule

First working day November 30, 1998.

Issues / Solutions

N/A

Financial Review

<table>
<thead>
<tr>
<th>Location</th>
<th>First Working Day</th>
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<tr>
<td>3 Package 2 Cerritos MS</td>
<td>11-30-98</td>
<td>1-22-99</td>
<td>N/A</td>
<td>$57,727</td>
<td>N/A</td>
<td>$59,020 (431 sf)</td>
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</table>
**Location 4 package 2 I-5/I-605 Bio Swale**

*Construction Activities*

N/A

*Schedule*

First working day November 30, 1998.

*Issues / Solutions*

N/A

*Financial Review*

<table>
<thead>
<tr>
<th>Location</th>
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<tbody>
<tr>
<td>4 Package 2 I-5/I-605</td>
<td>11-30-98</td>
<td>1-22-99</td>
<td>N/A</td>
<td>$124,575</td>
<td>N/A</td>
<td>$132,324 (2583 sf)</td>
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</table>

**Location 5 package 2 I-605/Del Amo Bio Swale**

*Construction Activities*

Staked project.

*Schedule*

First working day November 30, 1998.

*Issues / Solutions*

N/A

*Financial Review*

<table>
<thead>
<tr>
<th>Location</th>
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<tbody>
<tr>
<td>5 Package 2 I-605/Del Amo</td>
<td>11-30-98</td>
<td>1-22-99</td>
<td>N/A</td>
<td>$119,895</td>
<td>N/A</td>
<td>$124,416 (1507 sf)</td>
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</tbody>
</table>
The following projects are in the bid process;

Location 1 package 3 I-210 West of Orcas Ave Trapping Catch Basin.
Location 2 package 3 I-210 East of Orcas Ave Trapping Catch Basin.
Location 3 package 3 I-210 East of Filmore Trapping Catch Basin.
Location 4 package 3 I-270 East of Van Nuys Trapping Catch Basin.
District 11 BMP Pilot Projects

Construction Activities, Schedule, Issues / Solutions, Financial Review

PS&E Pilot Projects

Location 1 I-5/SR-56 Extended Detention Basin

Construction Activities

Clear and grubbed site, constructed reinforced concrete pipe and structures, SDGE relocated utilities, imported additional material.

Schedule

First working day per contract is September 14, 1998. Project required an additional 5 days for utility relocation.

Issues / Solutions

Additional excavation and materials for spillway. Additional construction details.

Better access to site required. Extension of access road and reconfiguration of existing guard rail.

Additional fill material. Import material.

Flume clarification. Addition of one to contract.

Financial Review

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<tbody>
<tr>
<td>I-5/SR-56</td>
<td>9-14-98</td>
<td>12-23-98</td>
<td>N/A</td>
<td>$130,739</td>
<td>$10,000 Spillway excavation</td>
<td>$150,639</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$1,300 access road</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$7,100 Import borrow</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$1,500 Flume</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Total $19,900</td>
<td></td>
</tr>
</tbody>
</table>
Location 2 SR-78/I-15 Extended Detention Basin

Construction Activities

Removed manmade materials during excavation, installed reinforced concrete pipe, constructed boxes, constructed manholes and access road.

Schedule

First working day per contract is September 14, 1998. Project required an additional 5 days for removal of man made materials.

Issues / Solutions

Excavation of man made materials. / Additional borings and review of area with RE.

Flume clarification. / Addition of one to contract

Financial Review

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<tr>
<td>2 I-15/SR-78</td>
<td>9-14-98</td>
<td>12-23-98</td>
<td>N/A</td>
<td>$657,342</td>
<td>($240,500) Concrete lining deletion $600,000 Removal man made buried objects $1,500 Flume Total $361,000</td>
<td>$1,018,342</td>
</tr>
</tbody>
</table>
Location 3 I-5/La Costa Infiltration Basin

Construction Activities

Removed saturated unsuitable material, installed 600mm reinforced concrete pipe, completed basin excavation.

Schedule

First working day per contract is September 14, 1998.

Issues / Solutions

Unsuitable material within the pipe trench upper 2 meters. / Remove and import pervious materials.

Non permeable material in infiltration invert. / Remove and import pervious materials.

Financial Review

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<tbody>
<tr>
<td>3 I-5/La Costa</td>
<td>9-14-98</td>
<td>11-18-98</td>
<td>N/A</td>
<td>$208,221</td>
<td>$29,400 Removal /replacement of unsuitable material $2,000 Removal of unsuitable material $400 Flagging Total $31,800</td>
<td>$240,021</td>
</tr>
</tbody>
</table>
Procurement Pilot Projects

Location 1 Kearny Mesa Maintenance Station Media Filter (Compost)

Construction Activities

Pre cast vaults formed at supplier.

Schedule

First working day per contract is November 10, 1998. Project requires an additional 20 days for shop drawing submittal from supplier.

Issues / Solutions

Substitution of aluminum for stainless steel components for a cost reduction / Checked with design Engineer and he provided direction for substitution.

Additional 31 compost filter cartridges for a total of 78 required to meet design guidelines./ Review material suppliers calculations.

Timely shop drawings. / Earlier preparation from fabricator.

Financial Review

<table>
<thead>
<tr>
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<th>Estimated Contract Change Orders</th>
<th>Estimated Final Cost Including CCO and State Furnished Materials</th>
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<tbody>
<tr>
<td>1 Kearney Mesa MS</td>
<td>11-10-98</td>
<td>12-17-98</td>
<td>N/A</td>
<td>$298,797</td>
<td>($20,000) Substitution with aluminum $6,300 Additional canisters Total ($13,700)</td>
<td>$285,097</td>
</tr>
</tbody>
</table>
Location 2 Escondido Maintenance Station Media Filter (Sand)

Construction Activities

Excavated for vault, constructed wall forms, placed concrete for floors and walls..

Schedule

First working day per contract is November 2, 1998. Project requires an additional 10 days for site delays.

Issues / Solutions

Substitution of epoxy-coated steel for stainless steel, for cost reduction / Checked with Design Engineer and he provided direction for substitution.

CM noted the vault should have a safety rail, Engineer concurred / Provided design for the fabrication.

Financial Review

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<thead>
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<tr>
<td>2 Escondido MS</td>
<td>11-2-98</td>
<td>12-23-98</td>
<td>1-6-99</td>
<td>$490,405</td>
<td>($46,000) Substitution with epoxy coated $5,000 add guard posts Total ($41,000)</td>
<td>$449,405</td>
</tr>
</tbody>
</table>
Location 3 La Costa Park and Ride Media Filter (Sand)

Construction Activities

Clear and grubbed site, removed unforeseen structures and large rocks, formed and placed concrete. Connected to existing storm drain outfall at revised location.

Schedule

First working day per contract is September 16, 1998. Schedule delayed 10 days due to unforeseen manmade objects unsuitable material and additional reinforced concrete pipe installation.

Issues / Solutions

Storm drain line higher than anticipated. / Pot hole connections during design phase.

Buried manmade materials (concrete). / Remove at force account.

Unsuitable materials wet clay materials at vault subgrade. / Remove and replace at force account.

Had trouble with utility providing power to the site. / O&M noted site could be battery operated.

Financial Review

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<thead>
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<th>Location</th>
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<tr>
<td>3 La Costa Park &amp; Ride</td>
<td>9-16-98</td>
<td>11-2-98</td>
<td>12-17-98</td>
<td>$208,955</td>
<td>$8,000 Storm drain extension $20,000 Unsuitable materials excavation ($16,000) Delete electrical conduit Total $12,000</td>
<td>$220,955</td>
</tr>
</tbody>
</table>
Location 4 SR-78/I-5 Park and Ride Media Filter (Sand)

Construction Activities

Survey

Schedule


Issues / Solutions

Site was occupied with Caltrans contractor completing previous contract. / Coordinate with Caltrans RE at an earlier date.

Contractor could not impact parking during construction. / Coordinate at design phase with RE.

Relocation of water lines. / Coordination with RE prior to construction.

CM noted the vault should have a safety rail, Engineer concurred. / Provided design for the fabrication.

Vault reconfigured so it does not affect parking, less concrete required for a cost reduction. / Coordinate with RE prior to construction.

Financial Review

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<tr>
<td>4 SR-78/I-5 Park &amp; Ride</td>
<td>9-23-98</td>
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<td>$224,502</td>
<td>$5,000 plant establishment $4,000 Safety railing ($14,000) Revised vault location Total ($5,000)</td>
<td>$219,502</td>
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</table>
**Location 5 Melrose Ave/SR-78 Bio Swale**

*Construction Activities*

Clear and grubbed site, rough grading completed.

*Schedule*


*Issues / Solutions*

Boulders. / work around and move to different portions of site.

Original plan was for seed. / Contractor will now install flats of salt grass.

*Financial Review*

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<th>Location</th>
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<tr>
<td>5 Melrose Ave/SR-78</td>
<td>10-7-98</td>
<td>11-19-98</td>
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<td>$14,000 Sod installation</td>
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<td>($2,000) Delete seed</td>
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<td></td>
<td>$11,000 Plant establishment</td>
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</table>
Location 6 I-5 Palomar Airport Road Bio Strip

Construction Activities

This work will be constructed as a change order to an existing PSE contract with the contractor presently on site.

Schedule

Start date pending on plan approval once plan approved 20-30 working days contract.

Issues / Solutions

Original plan-removal of nine (9) trees. / Replace at 5 to 1 per CDP with Coastal Commission Concurrence.

Financial Review

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<tbody>
<tr>
<td>6 I-5 Palomar Airport Road</td>
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Location 7 Carlsbad Maintenance Station Bio Strip Infiltration Trench

Construction Activities

Clear and grubbed site, constructed asphalt paved areas for parking first, over excavation complete due to unsuitable subgrade, infiltration trench completed.

Schedule

First working day per contract is October 12, 1998. Project begins September 30, 1998 due to location 4 not available to begin construction.

Issues / Solutions

Unsuitable material removal and replacement./ Additional soils investigation.

Construction of paved areas required by Caltrans out of phase./ Coordination with RE during design.

Financial Review

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<td>Escondido MS</td>
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</table>

Caltrans BMP Pilot Program Construction Estimate of Project Completion

- Percentage Completion
- Project Completion Dates
- District 7
- BMP Site Name
- I-605/SR-91 Interchange
- I-5/I-605
- I-605/SR-91 Interchange
- Alameda MS
- Eastern Regional MS
- Foothill MS
- Termination P&R
- Via Verde P&R
- Lakewood P&R
- Altadena MS
- Foothill MS
- La Mesa MS
- Rosemead MS
- I-605/SR-91 Interchange
- Centinela MS
- I-5/I-605
- I-605/Del Amo Ave.
- I-210/West of Orcas Ave.
- I-210/East of Orcas Ave.
- I-210/East of Filmore St.
- I-210/East of Van Nuys Blvd.
- I-5/SR-56
- I-5/SR-78
- I-5/La Costa Ave.
- Kearny Mesa MS
- Escondido MS
- La Costa P&R
- SR-76/SR-5 P&R
- SR-76/Metro Dr.
- I-5/Palomar Airport Rd.
- Carlsbad MS

Caltrans BMP Pilot Studies
Quarterly Status Report No. 3
December 1998
## DISTRICT 11 SUMMARY

<table>
<thead>
<tr>
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<tbody>
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<td>9-14-98</td>
<td>11-18-98</td>
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<td>$490,405</td>
<td>($46,000) Substitution with epoxy coated</td>
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<td>$5,000 add guard posts</td>
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<td>9-16-98</td>
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<td>$208,955</td>
<td>$8,000 Storm drain extension</td>
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<td>11-16-98</td>
<td>1-13-99</td>
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## DISTRICT 7 SUMMARY

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Total $3,281,902 Total $3,328,305
OMM PLAN ACTIVITIES

Operation, Maintenance, and Monitoring (OMM) Plans are required to comply with the Scoping Studies written for each District. The function of the OMM Plans is to ensure that the BMPs are maintained to the state-of-the-art level of operation, that water quality and related data are collected to evaluate the performance of the BMPs, and to gather empirical data that will aid in the future design and deployment of similar stormwater BMPs. The OMM plans are being prepared in two volumes. Volume I is a guidance document for the preparation of Site-Specific OMM plans. Volume II is the site specific set of plans for each of the BMP sites. Volume II has the potential for use on future BMP sites as well. In addition to the production of Volumes I and II, work began on developing a database for managing the data collected during the monitoring program. An OMM Plan orientation session for the field personnel is also planned.

VOLUME I

The draft of Volume I was sent to the Plaintiffs for review on Aug 13, 1998 and comments were received October 7. The revised Volume I was sent to the Plaintiffs for a second review on October 29, 1998. All activities written to the plans which relate to vector management and control are subject to change. Caltrans is in the process of negotiating agreements with three vector control districts in District 7 and the County of San Diego in District 11. The scope of those agreements will specifically state activities to be completed and roles and responsibilities in each District. The OMM reflects the current understanding among the parties.

Status

The second draft resides with the Plaintiffs pending their final review. It is anticipated that Volume I will be reviewed simultaneously with Volume II.

Schedule

The comments should be received from the Plaintiff by December 7 1998. The schedule for development of the OMM Plans is shown in Appendix B. The schedule shows the baseline schedule along with the actual events.
VOLUME II

The Plaintiffs reviewed volume II from September 21, 1998 through October 13, 1998. Comments were received from Caltrans District 7, EPA, NRDC, and the San Diego Baykeeper. The document was modified to reflect the comments and was sent to the Plaintiff on November 20, 1998. An additional appendix (Appendix IV) was added to consolidate the guidance for Vector Management. The Vector Control Agencies provided much of the text. The California Department of Health Services will play an active role in the program as the managing agency for Vector issues. Appendix IV is still subject to change until the agreements between Caltrans, the vector agencies, and DHS are finalized and executed.

Status

The final draft of Volume II resides with the Plaintiff reviewers.

Schedule

The final draft of Volume II was sent to the Plaintiff reviewers on November 20, 1998 with comments requested by December 7. The final document is scheduled to be revised by December 14, coincident with the start of monitoring for the pilot projects. The schedule is shown in Appendix B.

TRAINING/ORIENTATION

A training and orientation session is planned. The purpose of the training is to provide a knowledge base for the field personnel to understand the intent and purpose for the Plans and ensure that all participants received the same instruction on subjective field issues. The training is to cover the BMP components and their proper functioning, maintenance of the BMP, empirical observations and data collection, observational vector monitoring and highway safety. The training was schedule for the week December 7, 1998.

DATABASE

As monitoring of the BMPs is performed a great deal of data will be generated. That data need to be organized into a database such that the data can be retrieved for analysis. Preliminary design has begun. Caltrans, RBF, Law/Crandall, and Larry Walker and Associates are participating in the development of the database. A schedule for completion of the database will be completed in early December 1998.
VECTOR AGREEMENT ACTIVITIES

It has been agreed that the Department of Health Services (DHS) will oversee the activities of all the Vector Control Districts (VCDs) and assist in maintaining a complete database of vector monitoring and (as required) abatement information.

District 7. Several meetings and iterations of the Memorandum of Understanding (MOU) between Caltrans and the VCDs have taken place since July 14th. As a result of these iterations it was determined that cockroaches and rodents are not considered to be a concern of the VCDs. There is a current understanding that the VCDs within District 7 will perform the monitoring and abatement activities for vectors for the BMP Retrofit Pilot Program. It has further been determined that given schedule constraints, an MOU is not a practical vehicle to pursue between Caltrans and the VCD’s. Consequently, the Service Agreements between the Consultants and the VCD’s will be augmented to incorporate the scope of work previously defined in the MOU. The MOU will be dropped and will not be pursued further. A meeting is scheduled for the first week of December to finalize the Service Agreements. A copy of the Service Agreement to provide vector control service associated with BMP sites in District 7 is included in Appendix D.

District 11. Several meetings and iterations of an Agreement have taken place since Status Meeting No. 2. The County of San Diego in District 11 will perform the vector monitoring and abatement activities for all San Diego BMP sites. A meeting is scheduled for the first week of December to finalize the Agreement. A copy of the Draft Agreement to provide vector control service associated with BMP sites in District 11 is included in Appendix D.

It is anticipated that the agreements in District 7 and District 11 will be executed by early next year.
DISTRICT 11 PROCUREMENT DESIGN ACTIVITIES

Project 4 - Constructed Wetland: I-5(NB)/La Costa Avenue

Project 4 was relocated to the southeastern quadrant of the I-5(NB)/La Costa Avenue interchange. The Plaintiffs accepted this site as a substitute for the previous site at I-5(SB)/Manchester following submittal and review of an updated siting study.

Design Report

The basis of design report will be submitted concurrently with the design package. The design report will address previous Plaintiff comments from the District 11 PS&E package and will generally follow the established format of the previously submitted reports.

Status

The site is currently under design. Plaintiff review of the construction drawings is scheduled for January 11, 1999.

Schedule

The project is on schedule. Construction is scheduled to begin March 26, 1999 and to be completed by June 4, 1999. This schedule will satisfy the requirements of the Consent Degree. The site schedule is presented in Appendix II.

Project 1, Site 2 - Extended Detention Basin: I-5(NB)/Manchester Avenue

Project 1 is located at the northeastern quadrant of the I-5(NB)/Manchester Avenue interchange. This site was eliminated from the District 11 PS&E plan set pending refinement of the design and additional consultation with the Plaintiffs. Caltrans is reviewing the suitability of the site to function as an extended detention basin.
Design Report

The basis of design report will be submitted concurrently with the design package. The design report will address previous Plaintiff comments from the District 11 PS&E package and will generally follow the established format of the previously submitted reports.

Status

The site is currently under preliminary design review. Pending the findings of the additional geotechnical investigations, the design phase of the project is scheduled to commence December 15, 1998. Plaintiff review of the construction drawings is scheduled for February 8, 1999.

Schedule

The project is on schedule to start design, as well as, the subsequent review by the Plaintiff. Construction is scheduled to begin April 5, 1999 and to be completed by June 14, 1999. The site schedule is presented in Appendix II.
Ms. Laurie Kermish of the Environmental Protection Agency (EPA), representatives from the U.S. Army Corps of Engineers (Corps) and the U.S. Fish and Wildlife Service (Service) met to discuss the issuance of a non-jurisdictional determination letter from EPA and the Corps relative to the Pilot Projects. The letter on August 7, 1998, will document the position of the EPA and Corps in terms of not treating the BMP sites as possible jurisdictional “waters of the U.S” should any of the sites develop wetland conditions. It is understood that if a consistent maintenance program is employed, none of the BMP sites in either District 7 and 11 would be considered jurisdictional.

Since the last status meeting, RBF has met with EPA and the Corps and have accompanied them on a field trip to sites of concern, as determined by the agencies (i.e. sites that have the potential for appropriate conditions to become established). According to the EPA (pers. comm. with Ms. Laurie Kermish), the letter has been drafted but has not yet been forwarded to Caltrans.

California Environmental Quality Act (CEQA). Categorical Exemptions were prepared, signed and filed for the construction of all BMP Sites (with the exception of the Wet Basin within District 11). A draft Categorical Exemption for the proposed Wet Basin at La Costa Avenue and Interstate 5 has been prepared.

Coastal Development Permit (CDP). Six of the BMP sites in District 11 were located within the Coastal Zone, thus requiring a Coastal Development Permit. Two of the sites at Manchester Avenue and Interstate 5 fell under the jurisdiction of the California Coastal Commission. According to the Coastal Commission, an application for a CDP will need to be submitted for Manchester East Extended Detention Basin. The four remaining sites fell under the jurisdiction of the City of Carlsbad as a result of the city having an adopted Local Coastal Plan. The City of Carlsbad determined the four BMP sites within their jurisdiction to be exempt.
from the CDP process. RBF is currently applying to the Coastal Commission for a CDP (or exemption determination) for the Wet Basin site located at La Costa Avenue. This area is within the jurisdiction of the Coastal Commission.
APPENDIX A

STATUS MEETING NO. 2 MINUTES
STORMWATER PLANNING SERVICES
CONTRACT NO. 43A0004A
Meeting Minutes

ISSUE VERSION: FINAL

MEETING NO.: 2
DATE: July 14, 1998
TIME: 12:45 pm
LOCATION: District 7

SUBJECT: Status Meeting No. 2 – BMP Retrofit Pilot Program

Prepared by: S. Taylor
Date Prepared: July 21, 1998

Attends Names / Company
Currier, Brian/Caltrans
Davidova, Yulya/Caltrans
Borroum, Steve/Caltrans
Messer, Dean/LWA
McCarthy, James/Caltrans
Failing, Doug/Caltrans
Taylor, Scott/RBF
Hill, Richard/Caltrans
Horner, Rich/NRDC
Helperin, Alex/NRDC
Beckman, David/NRDC
Johnstone, Jeremy/EPA
John, Steven/EPA
Kermish, Laurie/EPA

Attends Names / Company
Van Riper, Pete/Caltrans
Higa, Larry/Caltrans
Gordon, Richard/Caltrans
Yamaguchi, Howard/Caltrans
Whittenberg, Bill/RBF
Robison, Doug/BCC
Finn, Bob/BCC
Friedman, Gary/MWC
Barrett, Mike/RBF
May, Chris/NRDC
Tesor, Cid/Caltrans
Ramos, Sayra/Caltrans
Graff, Rick/SDBaykeeper

Copies To:
File

The following items presented summarize the substantive items discussed or issues resolved at the above meeting to the best of the writer's memory.
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<th>ITEM</th>
<th>DESCRIPTION</th>
<th>STATUS</th>
<th>OPENED</th>
<th>DUE</th>
<th>ACTION FOR:</th>
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<td>01</td>
<td>The Plaintiffs for the Consent Decree noted that the $2.5 million indicated in the Consent Decree should not be construed as a cap on the construction cost, rather the number and type of projects indicated in the Scoping Study should prevail as provided in Paragraph 6.59 of the Consent Decree. It was noted that Caltrans and the Plaintiff must continue this discussion at a yet to be scheduled District 11 Consent Decree status meeting.</td>
<td></td>
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<td>Plaintiffs/Caltrans</td>
</tr>
<tr>
<td>02</td>
<td>RBF provided a status update presentation providing a progress update the Retrofit Pilot Program relative to: 1) Design status, 2) Design and construction cost estimates, 3) Bid addenda and change orders, 4) Construction bidding and schedule, 5) OMM plan preparation, 6) biofilter seed mixture research, and 7) Project Calendar review.</td>
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<tr>
<td>03</td>
<td>The Plaintiffs requested that costs be broken down for both design and construction to segregate the monitoring components from the costs strictly with design or construction of the BMP. Furthermore, the design and construction costs should be discounted to reflect the unique nature of the pilot program, economy of scale, overtime to comply with the consent decree time table, etc.</td>
<td></td>
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<td></td>
<td>RBF</td>
</tr>
<tr>
<td>04</td>
<td>The Plaintiffs (BayKeeper) indicated that the project at the I-5/SR 78 park and ride should be constructed this year, but that it should be documented in the Annual Report that this is an example of lack of internal Caltrans coordination relative to the expansion of this Park and Ride facility and the retrofit pilot program. In addition, the Annual Report should identify Caltrans procedural modifications to avoid similar lack of coordination between expansion of facilities and the follow on retrofit program.</td>
<td></td>
<td></td>
<td></td>
<td>RBF</td>
</tr>
<tr>
<td>05</td>
<td>The Plaintiffs also noted that coordination did occur at the Palomar Airport Road Biofilter swale site, and that this appeared to be a good case where economies were gained through incorporation with an existing project. This will be documented in the project design report.</td>
<td></td>
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<td>06</td>
<td><strong>Decision Point 1C Meeting</strong></td>
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<td>07</td>
<td>District 7, Project 3: NRDC noted that all issues relative to vegetation had been resolved. Sites 3, 4, 5 and 6: Note in record of experience (design report) that there is opportunity at these sites for other BMPs, or expanded BMPs or a BMP treatment train. NRDC distributed a portion of the King County Manual relative to dissipation and spreading of flow at swale/strip outlets and inlets respectively. NRDC requested that it be noted in the design documentation that this information was considered during design. These sites were approved for construction.</td>
<td></td>
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<td>MWC</td>
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<tr>
<td>08</td>
<td>Site 7: This site is constrained by an existing sound wall. Issues similar to those noted in item 7 should be documented. Site approved for construction.</td>
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<td>MWC</td>
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<td>09</td>
<td>Sites 8-10: Sites approved. It was previously agreed not to switch the monitored and controlled sites partway through the monitoring program. Site approved for construction.</td>
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<td>10</td>
<td>Sites 11, 12: Sites approved for construction.</td>
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<td>11</td>
<td>Sites 1 and 2: (Altadena MS): It was noted that apparent design concessions were made for sampling relative to the amount of space available and the proximity to the existing storage bins. Caltrans noted</td>
<td></td>
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<td>MWC</td>
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</table>
that the current site configuration and the way the drainage is concentrated significantly constrains the site design possibilities. It was agreed to document, in the design report, the problems and constraints in moving the storage bins to another location on site, and the constraints relative to site grading to obtain more area for the biofilter strip. Sites approved for construction.

<table>
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<th>DUE</th>
<th>ACTION FOR:</th>
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<td>012</td>
<td>District 7, Project No. 4: Site 1: It was agreed to document that sheet flow at maintenance stations is a beneficial design relative to treatment through an infiltration trench/biofilter and for Delaware filters. It was also noted that future MS design should locate potential sources of stormwater contamination in central (adjacent) areas. It was also agreed that it would be documented that pumping could be avoided for many of the BMPs if construction offsite was an option. Offsite construction was precluded for the pilot program due to the time required to process encroachment permits with other agencies. Site 1 was approved for construction.</td>
<td></td>
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<td>013</td>
<td>Site 2: It was agreed to document that source controls will be used at the MS, such as covering of the material storage bins. Site approved for construction.</td>
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<td>BCC</td>
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<td>014</td>
<td>Site 3 (Termination PR): It was agreed to document that there are opportunities for other BMPs/expanded projects at this site. Site approved for construction.</td>
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<tr>
<td>015</td>
<td>Sites 4 through 8 were approved for construction.</td>
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<tr>
<td>016</td>
<td>It was agreed that the time of the next Status Meeting would remain flexible, and probably occur toward the end of September to ensure that construction of all projects was underway.</td>
<td></td>
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APPENDIX B

NRDC, EPA, SDBK COMMENTS/RESPONSES
November 16, 1998

Mr. Everett DeLano, Esq.
Law Offices of Everett L. DeLano III
197 Woodland Pkwy, Suite 104-272
San Marcos CA 92069

Subject: Response to Comments Relative to Volume II of the Operations Maintenance and Monitoring (OMM) Plan for the BMP Retrofit Pilot Program

Dear Everett:

We have received the comments on Volume II of the OMM plan made by Rich Horner and Chris May, and would like to take this opportunity to respond. As in the past, we have restated your original comment followed by our response in italic type. The original comments and responses are as follows:

OVERALL EVALUATION

This submittal is entirely unacceptable as a basis for retrofit pilot study operation, maintenance, and monitoring (OM&M). Not only is it greatly deficient as a guide for field staff, but it is also in too much disarray for us to give it a final review for content. We found ourselves attempting to make multi-way comparisons among unnecessarily repetitive documents for consistency and to judge the quality of OM&M guidance. It is beyond our understanding why a set of documents was written that presents a lot of the same material in so many places and forces a reviewer to compare between volumes (I and II), between District 7 and 11 versions of each of those volumes, between field guidance notebooks and highly repetitive appendices to those notebooks, and among versions for different BMP types. Ultimately, we decided that the documents were not in a condition yet for us to complete properly a substantive review. We insist that concise and coherent manuals, written appropriately for guiding the OM&M functions, be presented to us before we are asked to make a final call on content, which is so obscured by the present disorganization. Furthermore, revamping the documents must proceed quickly for the planned start of operations and maintenance in less than two months.

Response: The OMM Volume I is a program level document which encapsulates the consent decree and stipulation requirements, the scoping documents, and the general guidance material available.
The OMM Vol II is a field user level document which consists of field guidance manuals for each technology and comprehensive appendices for each BMP site. The OMM Volume II document was produced by the firms and field crews who are responsible for executing these programs.

To receive our approval the OM&M manuals must:

- Most importantly, present guidance for the field staff in a clear, uncluttered, stepwise, user-oriented, consistent fashion.
- Separate the guidance meant for the field staff from documentation for such purposes as justifying the guidance and forming an archival record of decisions.
- Be entirely consistent between Caltrans districts for the same BMP type and among BMP types, other than variations dictated by site-specific or BMP-specific factors.
- Reduce repetitiveness to the minimum absolutely needed operationally.
- Place the guidance in the minimum number of documents absolutely needed operationally.

Response: We will edit these volumes to better achieve the original intent. Specifically for each district we intend to:

- Organize and bind the Vol II guidance plans into one binder, all of the BMP appendices in a second binder – all in the same editorial style;
- Add a fourth appendix to include the Vector Management information. This will allow us to shorten the field guidance plans, and to eliminate a great deal of repetition;
- Edit all of these documents so that they will be consistent among BMP Types, and to be consistent across the board whenever possible; and,
- Edit these documents to eliminate repetition where possible,
- Re-examine the content and reduce this material to the extent feasible.

Within these stipulations we can suggest some possible organizations, although we can not make firm recommendations, because we do not fully understand how the OM&M functions will be organized among crews. Nevertheless, we recommend the following based on what understanding we have and some assumptions. These remedies are undoubtedly not the only ways of proceeding, and we would be glad to discuss them and other options in a conference call and settle on the optimum way of formulating the manuals.

- Make one volume exclusively field guidance and the other exclusively back-up documentation.

Response: This is inconsistent with the current structure. Volume I is a program level document, and Volume II is field user specific. Volume II is further refined into appendices and field guides.
Write the field guidance volume directly for the users. Present only the information that field staff must refer to in preparing, carrying out, and following up a field activity. Give that information in a sequential, step-wise fashion. Primarily use easy-to-access presentation devices, such as numbered lists of steps, tables, and charts, confining text only to what is absolutely needed.

Response: The field guides use a bulleted step-wise approach, and all forms to be completed on each site visit are tabbed.

Write with the philosophy that when field staff are in action, they need to know only what they must do and how to do it, and not at that moment why. Therefore, the guidance manual should not be cluttered with the “why”. The documentation volume will be available for them and others to tell that, but documentary material is only distracting when they have a set job to do.

Response: Guides will be revised.

Eliminate general introductory and transitional material that is extraneous to performing the assigned tasks. That type of material is appropriate in the documentation volume but not the field guide.

Response: Guides will be revised.

Write the field manuals with respect to the organization of tasks. Here is where we must speculate on that organization to get more detailed in our comments.

◊ We assume that operation and maintenance staff and monitoring personnel will generally be different. If so, it is best to write separate manuals.

Response: Agreed. OMM staff will be different at sites. However, each site will have a lead person who will oversee both operation and monitoring as well as maintenance that requires heavy equipment.

◊ We also assume that BMPs of a given type will be identically maintained and identically monitored, except for a few site-specific idiosyncracies. Therefore, write a single manual for the operation and maintenance and another for the monitoring of that BMP type. Present all of the activities that are common among sites just once, and insert site-specific remarks as necessary.

Response: Separate documents are needed for District 11 and District 7. However, the discrepancies between the volumes for a given BMP will be eliminated. District 7 will be consolidated to a single Volume II. The same
crews will carry out operation and monitoring, and will oversee maintenance, therefore, a separate manual for monitoring is not appropriate.

◊ If different crews will maintain and monitor a BMP type in different geographic areas (e.g., Districts 7 and 11) and if site-specific considerations are extensive, it might be appropriate to prepare separate manuals for each area. Otherwise, there should be no more than one manual per BMP type.

Response: See above.

◊ We further assume that one crew will be maintaining (and one crew will be monitoring) more than one BMP type. If that is the case, writing one manual for the several BMP types in the several locations should be considered. Present all of the activities that are common among sites and BMP types just once, and insert site-specific and BMP-specific remarks as necessary.

Response: See above.

◊ Some tasks appear to be fully identical among sites and BMP types (e.g., vector monitoring). To the extent that is true, an alternative to the arrangements described above is to write a stand-alone manual for these tasks to be given to all crews assigned the tasks and used along with the general manual(s) covering one or more BMP types.

Response: The vector monitoring portion of the Appendices will be moved to a single section similar to the health and safety and QA/QC sections.

• Write just one documentation volume recording, justifying, and elaborating on the guidance.

Response: Repetition between Volumes I and II will be eliminated per the conference call with Richard Horner on 10/23/98. Volume II will also be consolidated as noted above. Note also that the OMM documents will not be the final word. The final report for the BMP Retrofit Pilot Program can provide information that is not appropriately included in process/procedure documents.

◊ Do not repeat actual guidance material (e.g., steps to perform, diagrams, data sheets) in that volume; reference their locations in the guidance manuals as needed.

Response: Noted.

◊ This document should be regarded as the archive for relevant literature review and interpretation, reasoning for decisions made in designing the OM&M
programs, and explanations that are not essential to performing a task in the field but are useful in the overall record.

Response: Noted.

◊ The intended readers of this volume would be the plaintiffs and their representatives, who need the presentation to decide on approval; future decision makers who may be called on decide about further retrofit applications; and field personnel who can benefit in training by knowing more about the reasons for their work and may want to get more background during the course of the work.

Response: Noted

◊ Place citations and the bibliography in this volume and not in the field guidance manuals, which should give directions only.

Response: Change will be made.

As with our previous comments on Volume I, we are concerned that the disorganization of the process at this late date, with the efforts of several different entities not made coherent, signals a potential problem in the future of having inconsistent procedures and getting inconsistent results. There must be a great deal of effort to ensure that does not happen, starting now with more coherence in the OM&M plans; and we will be looking carefully to see that this effort is made. It does not appear that there was any overall editor of the Volume II manuals, and it is essential that one member of the consultant consortium, probably RBF, reconcile the individual products and, later, their implementation in the field.

The situation with the OM&M guidance is, we believe a symptom of the problem we saw from the beginning, and objected to, of forcing more into the first stages of the program than can be managed with available human resources. We were assured that using multiple consultants was the solution. Now, however, we have a product of that committee approach that was not quality controlled and is far from ready to go into use in less than two months. We expect that a very intensive effort will be made to develop usable instruments to allow the pilot projects now under construction to be properly operated, maintained, and monitored on schedule.

Response: We are committed to providing a coordinated effort in the implementation of the program. We will work with you to complete the OMM manuals on a timely basis. Further, the group training sessions that have been established for mid-November and December will provide an excellent forum for ensuring uniformity of procedures.

GENERAL COMMENTS (These comments apply to all Volume II manuals.):
1. There are an extraordinary number of inconsistencies between Districts 7 and 11 that seem to have little or nothing to do with real differences in circumstances and almost everything to do with lack of coordination. There are other inconsistencies among BMP types that are not a function of their differences and are again the result of poor coordination. Furthermore, there are some computer cut-and-paste errors, where, for example, something about a swale comes into a manual about sand filters. We have pointed out many such inconsistencies but have made no attempt to spot all of them. We make no representation that what we have mentioned as an aid to you in cleaning up the manuals is complete. As our overall evaluation specifies, full consistency, as warranted by commonality of circumstances, is an absolute essential. Removing unnecessary repetition, especially by different authors, is one step in reaching consistency.

Response: Editing will be performed specifically to eliminate coordination problems between BMPs and the Districts.

2. Monitoring guidance does not pay enough attention to making and recording observations that may give good indications of performance. We have discussed this facet of the program, which is written into the controlling stipulation for District 7 sites, many times; but we continue to see little development of the concept. Perhaps since we seem to be the main believers in it, we should develop it ourselves. However, we are not Caltrans’ appointed consultants and expect those who are to develop the instruments needed to carry out the legal agreements and present them for our concurrence.

Response: We would welcome your specific suggestions in this area. We will ensure that the observation related items specified in Attachment A are included. Additionally, many of the forms include documenting observations, actions, and factors that may affect performance. The data from the forms will be logged into the database for comparison with performance data. Beyond this, we see little to expand from the current document.

3. We have attempted to see if the monitoring program envisioned by the District 7 stipulation is fulfilled by these documents, but their confused make up and inconsistencies and the lack of development of the observational component made it very difficult. We must have the opportunity to return to this question when the program is in better order. Meanwhile, you should consult the stipulation Attachment A language carefully before redrafting.

Response: Comment noted.

4. Vector control sites should be specified (see OM&M Volume I comments). We believe the adult sampling of mosquitoes and midges to be of limited usefulness and possibly misleading as the sampling plan is structured. We further believe that monitoring control sites, some distance from BMPs but otherwise with characteristics of the surroundings similar to the BMP locations, would improve the information and the confidence to be gained from this sampling program. We want to see control-site sampling added unless you can provide convincing reasons why it should not be.
Response: Control site sampling will be according to the guidance provided the VCDs and presented in Chapter 3 of Vol I. The issue of adult sampling, and how it relates to the abatement procedures has been further clarified in Volume I, and will be revised for Volume II.

5. There is some inconsistency and insufficient consideration of what is feasible relative to standing water. While extended-detention and infiltration basins normally will drain within the specified 72 hours, it is not possible to avoid standing water for longer periods in BMPs that are designed to be wet, such as some below-ground chambers. This fact must be faced in specifying operations for these units. It is extremely doubtful that automatically removing water if it stays for longer than 72 hours is feasible in most real cases, which must be recognized in performing a pilot study that means anything. Standing water does not necessarily indicate that a vector problem will actually develop; whether or not it does is one of the questions for the study. As we have long maintained, procedures that would be artificial in a real case and direct vector control efforts must be triggered only if an actual problem exists or is imminent. The manuals must make clear exactly what is being proposed to manage water duration in each BMP type.

Response: This issue will be clarified for each BMP in the manual as appropriate. There will be no active management of water levels for the sand filters, MCTT and oil/water separator; however, the trapping catchbasins will be periodically pumped in association with the cleaning schedule given in the manual.

6. Is the number of 1 individual per sample still the anticipated criterion for mosquito abatement? As our Volume I comments stated, we must have documentation for the criterion (e.g., from legal or regulatory documents, scientific studies, etc.), which would be appropriate to put in the documentation volume.

Response: Yes, One individual per dip sample is the stated criteria for an abatement threshold. This is a criteria established by the VCDs (regulatory agencies).

7. We understand that Caltrans has a new QA/QC improvement project and a consultant arrangement to implement it. The OM&M volumes should be submitted to that consultant for review and approval.

Response: The QA/QC appendices of the plans will be submitted to LWA for review and comment prior to resubmittal to the Plaintiffs.

8. The specific comments on the manuals for each BMP type given in the following sections are preliminary and secondary to the Overall Evaluation and General Comments above. Satisfying these primary comments will render moot some of the specific comments. Also, as we noted above, the manuals are not in good enough condition to do a thorough and final review for content, and we must have that opportunity when they are satisfactorily fixed. Nevertheless, we
are forwarding the specific comments to exemplify our more general ones and to help in improving the documents.

Response: Comment noted.

EXTENDED DETENTION BASINS

General

- The stipulation specifies monitoring of drain time after each storm, dye studies of hydraulic residence time, and bed sediment analyses. It is not clear that all of these requirements are accounted for; in any event, guidance for performing them is inadequate.

Response: Drain time for each storm will be monitored and is indicated in the Manual. Per our conference call with Richard Horner on 10/23/98, dye tracing studies in extended detention basins will not be used. Soils that are removed from detention basins (for disposal) will be tested to determine the proper method of disposal, which is indicated in the Scoping Study.

Appendix A (D-7) and I-A (D-11)

Section 1.1: Paragraph 2 of the D-11 appendix contains a comment on the importance of using guidance found in the WMI-EPA O&M Guide. This comment is not found in the D-7 version. This is the first of many examples of both significant and subtle differences in wording, format, and content between D-7 and D-11 (not to mention why one appendix is labeled “A” and the other “I-A”). Why can’t these documents be made more consistent?

Response: The discrepancy will be corrected.

Figure 1.1: The D-7 version has a decision-tree, but there is no corresponding figure in the D-11 version. Is this really needed here?

Response: The figure is needed as guidance for storm response. Both D7 and D11 appendices will have the same figure.

Section 2.1:

- Add “Vegetative stabilization of eroding banks or bottom” as an O&M bullet and add litter removal to the periodic debris removal bullet.
- The final bullet in the D-11 version should specify “...monitoring equipment preventive maintenance”.
- Sediment removal should specified in accordance with the WMI O&M Guide (2-46).

Response: Text will be revised as requested.
Table 2.1:

- There are significant differences between D-7 and D-11 O&M Activities tables. For example, cleaning of sampling flumes/orifices is listed in the D-11 table but not the D-7 version and no irrigation is listed in the D-7 version (it is in the D-11 table).

Question:
- The tables list 18” depth as the criterion for sediment removal; is that a nationally recognized standard? What is the basis for the criterion? This is an example of documentation that should go in the documentation volume as outlined above.
- Maintenance of basin flow-control structures is listed as “per the manufacturer’s recommendations”. This is not specific enough and should be clarified.
- Standing water removal is specified as being required after 1 week, but the vector agencies specified a more stringent criterion (72 hours).

Response: The differences between the Districts will be rectified. There is no planned irrigation on the project. This will be changed.

There is no ‘national standard’ for sediment removal, it should be done when the volume of the detention basin is significantly impaired. This is a function of the design (freeboard provided), but a 10% volume reduction is commonly cited. Further, references indicate that about 1% of pond volume can be expected to be lost to sediment per year. Over the life of this project then, an estimated 2% volume reduction will not be significant. The text will be revised to indicate a depth and corresponding 10% volume reduction.

Text will be revised relative to maintenance of flow control structures.

The text relative to standing water will be revised to indicate periods beyond 72 hrs.

Figure 2.1: We recommend that these BMP site inspection checklists be standardized between D-7 and D-11 as much as possible. This will make data analysis and QA/QC much easier to administer and review.

Response: Checklists will be standardized to extent possible.

Section 3.0:
- Figures 3.1 and 3.2 (Monitoring Equipment Checklists) should be standardized between D-7 and D-11).

Response: Figures will be standardized to the extent possible.

Section 3.1.2:
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- D-7 Appendix A specifies that the gravid trap fan be programmed to activate at dusk, but this is not mentioned in the D-11 version (Appendix I-A). See page A-21 in D-7 and A-24 in D-11.
- Dipping protocols do not match between D-7 (A-24) and D-11 (A-27).
- “Net-Hauls” are described in D-7 but not in D-11, is there a reason for this?
- In the D-11 appendix (I-A) the lab protocol (A-27) lists as step 1 to “develop a log for recording data”. This is inappropriate as a step in a procedure and from the standpoint of good record keeping, a standard log should be in place to start with.

Response: Discrepancies between D7 and D11 will be corrected. The D11 reference to a log will be corrected.

Section 5.0: Sampling and Monitoring

Section 5.1: Again, there are significant differences between the D-7 and D-11 versions.
- The sample intake location in D-7 is specified to be 0.6 m upstream of the sample flume or 1.2 m downstream of the V/D sensors, whereas in D-11 there are only general location guidelines presented.
- The last paragraph of section 5.1.2 has differences in wording and content between the D-7 and D-11 versions.

Response: Discrepancies will be corrected.

Section 5.2:
- Field data log sheets are not consistent between D-7 and D-11.
- Figure 5.1 in D-11 Appendix I-A is labeled as “Sand Filter...” (A-56). This must be a cut-and-paste error.
- D-11 has a lengthy monitoring equipment inspection checklist and D-7 has none.

Response: Discrepancies will be corrected. Corrections will be made as noted.

Section 5.3:
- The bulleted “General Visitation Data” lists are not consistent between D-7 and D-11.
- The “Empirical Observation Data” sheets (D-7 Figure 5.2) and (D-11 Figure 5.4) appear to be consistent, but the format is quite different.

Response: Discrepancies will be corrected.

Section 5.4:
- Fecal coliform grab sampling descriptions are significantly different between D-7 and D-11. For example, the timing of grab samples is specified as “as soon after runoff is
detected” for both, but only for D-11 “as directed by storm control office” is also specified.

• The D-7 section (A-55) has a **bold** statement on holding time for FC samples (6 hours), but nothing is mentioned in the D-11 version (A-71).

Response: **Discrepancies will be corrected.**

**Section 5.5:**

• I see no “Chain of Custody” form here for D-7 like that for D-11 (although it is found in Tab 7 of the Field Guidance Manual).

Response: **Discrepancies will be corrected.**

**Section 5.7:** No sediment sampling checklist is included in this section for D-7 (see D-11 A-83 Figure 5.8).

Response: **A sediment sampling checklist will be added to D7.**

**References:** Only the D-11 manual references the WMI O&M Guide. There are other differences in reference documentation as well.

Response: **Discrepancies will be corrected.**

**O&M Volume II EDB Field Guidance Notebooks**

**Section 2.4:** The D-11 manual contains a detailed overview of potential vector concerns/issues for each EDB site. This is not a part of the D-7 field notebook, but probably should be.

Response: **This discussion will be added to the D7 Field Guide appendix. A new separate appendix will be created to separate out vector issues.**

**Table 3.1:** The D-11 manual contains Tabs 10 & 11 (Monitoring SOPs), but the D-7 version does not (although there is no information currently in these tabs in the D-11 manual as it stands). Why the difference in format, content, and wording? This will only serve to confuse field and supervisory personnel.

Response: **Tabs 10 and 11 will be deleted as they are details which are not necessary.**

**TAB 4:** In general, the inspection checklists are consistent except in the flow-measurement device area where D-11 refers to AV sensors and the D-7 does not. This may be OK if these sensors are only used in D-7, but we are not sure why that would be (and is it desirable to have different devices used?).
Response: Flow measurement may be done in many different ways, each with its own positives and negatives. To a large extent, the ‘best’ solution for a site may be determined by which type of devices the operators have the most experience with. This is the case between District 11 and District 7. Different consultants will operate the equipment, and have customized the devices based on their experience.

TAB 5:

- Form E in the D-11 manual refers to “swale” vegetation maintenance. This must be a cut-and-paste error.
- Form F in the D-11 manual is again more detailed than D-7 with respect to flow measurement and sampling equipment O&M.
- Form G (Sediment Sampling Checklist) for D-7 and D-11 are significantly different in format and content.

Response: Discrepancies will be corrected.

SAND MEDIA FILTERS

General

- The stipulation requires monitoring of overflow, clogging, and sediments. It is not clear these requirements are accounted for; in any event, guidance for performing them is inadequate.

Response: The Stipulation does not explicitly require ‘overflow’ monitoring of the filters. The filters tendency to clog will be monitored, and any filter by-pass as a result will be thoroughly documented. The Scoping Study indicates that sediments will be analyzed at the end of the 2-year test period to determine the proper disposal procedure.

Appendix C (D-7) and I-C (D-11)

General: The D-7 manual refers to sand-media filters as SMF while the D-11 manual calls them SF. This is the first of many examples of differences in wording, format, and content between D-7 and D-11. In general, these documents should be made more consistent. In general we found that the O&M activities associated with sand media were not covered in sufficient detail to enable a field crew to monitor conditions or perform required maintenance. It is recommended that Caltrans consult with the City of Austin, Texas, the City of Alexandria, Virginia, the State of Delaware, or Washington DC Council of Governments for better examples of O&M procedures for these BMPs.

Response: Discrepancies will be corrected. We have consulted with the City of Austin and the State of Delaware relative to design and operation of the filters. We will also check the other sources you have listed.
Section 1.1: The differences between type I and II SF’s with regard to vector potential are not discussed in the D-7 version as they are in the D-11 appendix.

Response: Discrepancies will be corrected.

Section 1.2: Some comment (bullet) should be added to BMP performance evaluation criteria with regard to the more qualitative benefits that we would like to have documented.

Response: The bullet will be added.

Section 1.3: Storm event criteria listed in D-7 and D-11 versions are different; is this by design? In addition, the D-11 version has a decision-tree, but there is no corresponding figure in the D-7 version.

Response: Discrepancies will be corrected.

Section 1.4: Vegetation management is not listed for the D-7 appendix as it is for D-11.

Response: Discrepancies will be corrected.

Section 2.1: Refilling of sand after periodic clean-out is specified at 12’’ (refilled to 18’’); is this a standard maintenance protocol? The WMI O&M Guide talks about removal of sediment when 25% of internal storage volume is lost and references a 2’ depth of sand as nominal.

Response: The team will review and change the text as appropriate.

Section 2.2: The inspection frequency criteria for D-7 and D-11 are not the same. Specifically, the definition of large storm is 0.5” in D-7 and 0.25” in D-11. In addition, the D-7 manual says to inspect “after every storm” (regardless of size?). This is inconsistent at best.

Response: Discrepancies will be corrected.

Section 2.3: There is no discussion of “aesthetic” maintenance in the D-7 manual as there is in the D-11 version.

Response: Discrepancies will be corrected. Also, the sand filter (as well as the OWS and MCTT) is underground. Only access plates or manholes will be visible. However, minor aesthetic maintenance may be necessary to the monitoring equipment housing.

Table 2.1: A time criterion for standing water removal should be specified based on input from vector agencies. In addition, the D-11 version contains “painting” and “road maintenance” as categories while the D-7 version does not; again, be consistent.
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Response: Discrepancies will be corrected.

Figures 2.1 and 2.2: The BMP Site Inspection and Maintenance Activity Checklists are inconsistent in both format and (more importantly) content between D-7 and D-11 versions. The D-7 format is much more logical, but the D-11 version appears to be more thorough and detailed. We recommend combining these into a standard checklist.

Response: The checklists will be combined as appropriate into a single version.

Section 3.0: Vector Control and Management
- Figures 3.1 and 3.2 (Monitoring Equipment Checklists) should be standardized between D-7 and D-11.
- Dipping protocols do not match between D-7 (3.1.3) and D-11 (3.1.3).
- “Net-Hauls” are described in D-11 but not in D-7, is there a reason for this?
- In the D-11 appendix (I-C) the lab protocol (3.1.3) lists as step 1 to “develop a log for recording data”. This is inappropriate as a step in a procedure and from the standpoint of good record keeping, a standard log should be in place to start with.
- Benthic sampling is discussed in D-11 (3.1.3) but not in D-7.

Response: Discrepancies will be corrected.

Section 5.1: Again, there are significant differences between the D-7 and D-11 versions. For example, Section 5.1.2 (flow monitoring) has significant differences in wording and content between the D-7 and D-11 versions.

Response: Discrepancies will be corrected.

Section 5.2: The D-11 version has a lengthy monitoring equipment (Figure 5.1) inspection checklist and D-7 has none.

Response: Discrepancies will be corrected.

Section 5.3:
- The bulleted “General Visitation Data” lists are not consistent between D-7 and D-11.
- The “Empirical Observation Data” sheets (D-7 Figure 5.2) and (D-11 Figure 5.4) are not consistent. The D-7 version has a section on “operational flow” that looks quite useful and should be incorporated into the D-11 version (or better yet - standardize the forms).

Response: Discrepancies will be corrected.
Section 5.4:
- Fecal Coliform grab sampling descriptions are significantly different between D-7 and D-11. For example, the timing of grab samples is specified as “as soon after runoff is detected” for both, but only for D-11 “as directed by storm control office” is also specified.
- The D-7 section (A-55) has a **bold** statement on holding time for FC samples (6 hours), but nothing is mentioned in the D-11 version (A-71).

Response: Discrepancies will be corrected.

Section 5.5:
- We see no “Chain of Custody” form here for D-7 like that for D-11.

Response: The sample form will be added.

Section 5.7: No sediment sampling checklist is included in this section for D-7 as it is for D-11 (Figure 5.8).

Response: Discrepancies will be corrected.

**O&M Volume II Sand Media Filter Field Guidance Notebooks**

Section 2.4: The D-11 manual contains an overview of potential vector concerns/issues for each BMP site. This is not a part of the D-7 field notebook, but probably should be.

Response: Discrepancies will be corrected.

Table 3.1: The D-11 manual contains Tabs 10 & 11 (Monitoring SOPs), but the D-7 version does not (although there is no information currently in these tabs in the D-11 manual as it stands; when will this be reviewed?). Why the difference in format, content, and wording? This will only serve to confuse field and supervisory personnel.

Response: Tabs 10 and 11 will be deleted as they are details which are not necessary.

**TAB 4:** Form C (BMP Site Inspection Checklist) is significantly different between D-7 and D-11 and should be reconciled into a standard, consistent form.

Response: Discrepancies will be corrected.

**TAB 5:** Forms F & G (BMP Site Inspection Checklist) are significantly different between D-7 and D-11 and should be reconciled into a standard, consistent form.
Response: Discrepancies will be corrected.

STORMFILTER® COMPOST MEDIA FILTER

General

- The stipulation requires monitoring of overflow, clogging, and sediments. It is not clear these requirements are accounted for; in any event, guidance for performing them is inadequate.

Response: The Stipulation does not explicitly require monitoring of ‘overflow’ for the compost filter. Since the filter is offline, such a situation may occur. This will be monitored closely. The Scoping Study indicates that sediments will be analyzed at the end of the 2-year test period to determine the proper disposal procedure.

Appendix I-F (D-11)

General: In general we found that the O&M activities associated with the StormFilter® compost filter media were not covered in sufficient detail to enable a field crew to monitor conditions or perform required maintenance. It is recommended that Caltrans consult with the manufacturer for better examples of O&M procedures for these BMPs. One wonders why the O&M guidelines from Stormwater Management Incorporated were not used more directly in putting together this manual. Their Section 2.4 (Maintenance Methods) contains step-by-step procedures to follow for periodic and routine maintenance activities. It must be included unless you can convince us otherwise.

Response: The specific maintenance recommendations from SMI will be included in the Appendix.

Section 1.1: It would be quite useful for field personnel to understand the operation of the BMP if you were to include a cut-away diagram of the StormFilter® device to supplement this rather brief description. A cut-away of the individual cartridges would also be quite useful in field maintenance. Good basic diagrams are available from the manufacturer. A description of the “priming system” (cartridge operation) should also be included.

Response: The requested information will be included.

Section 1.2: Some comment (bullet) should be added to BMP performance evaluation criteria with regard to the more qualitative benefits that we would like to have documented.

Response: The requested information will be included.
Section 1.3: Storm event interval criterion is listed as 48 hours here, but is listed as 72 hours in some other manuals. We believe the proper criterion to be preferably 72 hours and minimum 48 hours, which should be made consistent in all places. In addition, the D-11 version has a storm-sampling decision-tree; is this really needed here?

Response: Discrepancies will be corrected.

Section 2.1: The removal of vegetation is not included as a “bullet” but is recommended in the manufacturers Design/O&M Manual. Bullet #3 should say “...standing water...” In addition, the replacement of cartridges is called for is the media is contaminated by “high levels of pollutants”, such as after a major spill event. It is recommended that Table 1 of the BMP manufacturers O&M section be used in place of the bulleted list included here.

Response: The compost filters are no longer open bed, but rather canister type. Consequently, vegetation removal is no longer an issue or recommended maintenance practice. “Water” will be added to the sentence to make it correct. The manufacturer’s information will be included in this appendix as appropriate.

Table 2.1: Annual cartridge replacement is called for, but the manufacturer does not identify this as a requirement in their O&M guidelines. Unnecessary maintenance drives up costs and produces an unrealistic pilot test and must not be performed.

Response: StormFilter does recommend annual cartridge replacement, but says that, “Ultimately, inspection and maintenance activities should be scheduled based on the historic records and characteristics of an individual filter.” Without any such records for this study, initially, annual replacement is indicated. The text will be clarified to indicate that subsequent change-outs be made based on deteriorating performance of the filter.

The need for cartridge replacement after the first year of operation will be assessed at that time.

Section 3.0: Many of the same general vector-control comments made for the previous BMPs are applicable here, especially in comparing D-7 and D-11 manuals (see above).

Response: Comment noted.

Section 5.0: Many of the same general sampling related comments made for the previous BMPs are applicable here, especially in comparing D-7 and D-11 manuals (see above).

Response: Comment noted.
O&M Volume II  StormFilter® Compost Media Filter Field Guidance Notebook

Section 2.1: The actual BMP drawings should be included (or referenced) here.

Response: A drawing will be included.

Table 3.1: The D-11 manual contains Tabs 10 & 11 (Monitoring SOPs), but there is currently no information in these tabs; when will this be reviewed

Response: This information will be provided.

Table 4.1: See comments on Section 2.1 of D-11 Appendix I-F (above).

Response: Comment Noted.

TAB 4: Form C has checklist items for “swales”. This type of error indicates a lack of attention to detail on the part of Caltrans supervisor/reviewers and consultants. There may be other tables with this type of “cut and paste” errors.

Response: The correction will be made.

OIL-WATER SEPARATOR (OWS)

General

- The stipulation requires monitoring of overflow, grab sampling over hydrographs, and quantities of oil skimmed and adsorbed. It is not clear these requirements are accounted for; in any event, guidance for performing them is inadequate.

Response: The Stipulation requires grab sampling (not over the hydrograph) and the establishment of proper O&M schedules. The information required to develop such schedules will be collected via maintenance documentation.

Appendix F (D-7)

General: In general we found that the O&M activities associated with OWS were not covered in sufficient detail to enable a field crew to monitor conditions or perform required maintenance. It is recommended that Caltrans consult with the manufacturer for better examples of O&M procedures for these BMPs. We were not able to make contact with the manufacturer during our review, but Caltrans should have a direct point of contact.

Response: We will include manufacturer guidelines for maintenance in the manual.
Section 1.1: It would be quite useful for field personnel to understand the operation of the BMP if we were to include a cut-away diagram of the OWS device to supplement this rather brief description. We are sure that good basic diagrams are available from the manufacturer.

Response: A cut-away diagram will be included.

Section 1.2: Some comment (bullet) should be added to BMP performance evaluation criteria with regard to the more qualitative benefits that we would like to have documented.

Response: The bullet will be added.

Section 2.2: Inspection after “every” storm is called for here; the guidance should specify some specific storm criterion (e.g., > 0.10” or 0.25”).

Response: Storm guidance will be clarified.

Section 3.0: Many of the same general vector-control comments made for the previous BMPs are applicable here (see above).

Response: Comment noted.

Section 5.0: Many of the same general sampling related comments made for the previous BMPs are applicable here (see above).

Response: Comment noted.

O&M Volume II Oil-Water Separator (OWS) Field Guidance Notebook

Section 2.1: The actual BMP drawings should be included (or referenced) here.

Response: The drawings will be referenced.

TAB 4 & 5: Forms D and F have checklist items for automated sampler when there is none applicable for this BMP. This type of error indicates a lack of attention to detail on the part of Caltrans supervisor/reviewers and consultants. There may be other tables with this type of “cut and paste” errors.

Response: The error will be corrected.

MULTI-CHAMBER TREATMENT TRAIN (MCTT)

Appendix G (D-7)
Mr. E. DeLano, Esq.
Response to Comments by NRDC on OMM Vol II
November 16, 1998
Page 20

**General:** In general we found that the O&M activities associated with the MCTT were not covered in sufficient detail to enable a field crew to monitor conditions or perform required maintenance. It is recommended that Caltrans consult with Dr. Bob Pitt for more detailed O&M procedures for this BMP. It should be noted that the US EPA publication on MCTT design has little maintenance information.

*Response:* We will have Dr. Pitt review this portion of the OMM Manual.

**Section 1.1:** It would be quite useful for field personnel to understand the operation of the BMP if we were to include a cut-away diagram of the MCTT device to supplement this rather brief description.

*Response:* A diagram will be included.

**Section 1.2:** Some comment (bullet) should be added to BMP performance evaluation criteria with regard to the more qualitative benefits that we would like to have documented.

*Response:* The bullet will be added.

**Section 2.2:** The frequency of maintenance is specified for every storm > 0.5”, but other BMPs have a 0.25” criteria; why the difference?

*Response:* The discrepancy will be corrected.

**Section 3.0:** Many of the same general vector-control comments made for the previous BMPs are applicable here (see above).

*Response:* Comment noted.

**Section 5.0:** Many of the same general sampling related comments made for the previous BMPs are applicable here (see above).

*Response:* Comment noted.

**O&M Volume II  MCTT Field Guidance Notebook**

**Section 2.1:** The actual BMP drawings should be included (or referenced) here.

*Response:* The drawings will be referenced.

**Table 4.1:** The table uses “per manufacturers recommendations” when an exact schedule should be listed.
TRAPPING CATCH BASIN (TCB)

Appendix H (D-7)

General:

- In general, we found that the O&M activities associated with the TCB were not covered in sufficient detail to enable a field crew to monitor conditions or perform required maintenance. The checklists in Figures 5.6 and 5.7 are a good example of the detail (step-by-step) needed throughout this manual.
- The stipulation calls for monitoring of sediment accumulation rates and sampling of sediments for determination of particle size distribution, metals, and petroleum fractions. Camp Dresser and McKee is performing this type of monitoring now for the Solids Transport and Deposition Study, and every consideration should be given to making procedures consistent.

Response: Checklists for maintenance activities will be added. The trapping catchbasin study was set up with to be entirely consistent with the CDM procedures. We know of no inconsistencies here.

Section 1.1: It would be quite useful for field personnel to understand the operation of the BMP if we were to include a cut-away diagram of the TCB device to supplement this rather brief description.

Response: A diagram will be added.

Section 1.2: Some comment (bullet) should be added to BMP performance evaluation criteria with regard to the more qualitative benefits that we would like to have documented.

Response: A bullet will be added.

Section 2.2: The frequency of maintenance is specified for every storm > 0.5”, but other BMPs have a 0.25” criterion; why the difference?

Response: The manuals will be made to be consistent.

Figure 2.1: Why are you checking the number of TCBs during each inspection (is theft in LA that big a concern)? Also, the form provides check blocks, but asks the inspector to “circle one”.

Response: The number on inlets inspected is to be recorded to ensure that the crews don’t miss one, with four sites and multiple catchbasins per site, one could be overlooked. The form will be corrected to indicate ‘checks’.
Section 3.0: Many of the same general vector-control comments made for the previous BMPs are applicable here (see above).

Response: Comment noted.

Section 5.0: Many of the same general sampling related comments made for the previous BMPs are applicable here (see above).

Response: Comment noted.

**O&M Volume II  TCB Field Guidance Notebook**

Section 2.1: The actual BMP drawings should be included (or referenced) here.

Response: The drawings will be referenced.

TAB 4: Form C - see above comment (for Figure 2.1).

Response: Comment noted.

**CATCH BASIN (CB) INSERTS**

**Appendix I-I (D-7)**

**General:** It is not apparent that the specific maintenance recommendations of the manufacturers of the two units to be tested have been obtained and used in developing the maintenance guidelines for the CB inserts. Any such guidance must be reflected in the manual.

Response: The manufacturers were consulted and their recommendations/requirements were incorporated into inspection and maintenance forms.

Section 1.1: It would be quite useful for field personnel to understand the operation of the BMP if we were to include a cut-away diagram of the CB insert devices to supplement this rather brief description.

Response: A diagram will be added.

Section 1.2: Some comment (bullet) should be added to BMP performance evaluation criteria with regard to the more qualitative benefits that we would like to have documented.

Response: A bullet will be added.
Section 2.2: The frequency of maintenance is specified for every storm > 0.5”, but other BMPs have a 0.25” criterion; why the difference?

Response: *The discrepancy will be corrected.*

Section 3.0: Many of the same general vector-control comments made for the previous BMPs are applicable here (see above).

Response: *Comment noted.*

Section 5.0: Many of the same general sampling related comments made for the previous BMPs are applicable here (see above).

Comment noted.

O&M Volume II CB Insert Field Guidance Notebook

Section 2.1: The actual BMP drawings should be included (or referenced) here.

Response: *The drawings will be referenced.*

TAB 8: Form O2 has checklist items for a biofilter. This type of error indicates a lack of attention to detail on the part of Caltrans supervisor reviewers and consultants. There may be other tables with this type of “cut and paste” errors.

Response: *The form will be corrected.*

INfiltration BASINS

General

- On two occasions in the past year we sent you operation and maintenance guidelines for infiltration basins contained in a short course manual by R. Horner. These guidelines were drawn from the best available advice in current practice and literature and were carefully considered. We believe that their application is necessary to give these devices the best chance for success. Yet, we do not see some important guidelines from that reference present in these manuals. Unless you have some documented disagreement with them that is convincing to us, they must be included.

- The stipulation specifies monitoring of overflow and drain time during and after each storm. It is not clear these requirements are accounted for; in any event, guidance for performing them is inadequate.
Response: The guidelines from the Dr. Horner's short course will be incorporated into Volume II. Per our conference on 10/23/98, monitoring of ‘overflow’ for the infiltration basins is not required due to their offline design configuration. The manuals specify monitoring of drain time with adequate guidance.

Appendix I-B (D-7) and I-B (D-11)

Figure 1.1: The D-11 version has a decision-tree, but there is no corresponding figure in the D-7 version. Is this really needed here?

Response: The discrepancy will be corrected.

Section 2.2: The inspection frequency criteria for D-7 and D-11 are not the same. Specifically, the definition of large storm is 0.5” in D-7 and 0.25” in D-11.

Response: The discrepancy will be corrected.

Section 2.3:

- The 75% cover criterion for vegetation is inadequate. Vegetation is a key element in maintaining soil condition for good infiltration. It should cover virtually completely or be restored. This comment also applies to Section 4.1.
- The D-11 version is missing the discussion of fertilizer, irrigation, and mosquito breeding habitats present in the D-7 manual. Erosion repair is treated more thoroughly in the D-7 document. They must be made equivalent.

Response: The discrepancy will be corrected. Vegetation coverage criteria will be changed to 90%.

Section 2.5: Devise a common equipment list for the two districts.

Response: The discrepancy will be corrected.

Table 2.1: Present one maintenance schedule for infiltration basins regardless of their location, since site-specific constraints do not enter.

Response: The discrepancy will be corrected.

Figure 2.1: Present one inspection checklist with all needed detail, including decision criteria, for infiltration basins regardless of their location, since site-specific constraints do not enter.

Response: The discrepancy will be corrected.
Section 4.3: Soil compaction is a considerable danger in working on infiltration surfaces. This potential problem must be highlighted and strong guidance given to avoid it.

Response: This will be emphasized for maintenance operations.

Section 5.0:
- Groundwater monitoring via a well and no vadose zone monitoring is proposed for the D-11 basin, while the D-7 basin will have vadose zone and no groundwater monitoring. The reasons for these proposals must be made clear in the documentation volume for our evaluation. We realize that groundwater is shallower at the D-11 location compared to the D-7 site, but we are not convinced at this time that the smaller vadose zone should not be monitored there, nor that groundwater monitoring can not or should not be done at the D-7 site.
- If infiltration basin influent is not sampled, then there must be thorough baseline measurements of pre-existing constituents in soil, vadose zone, and groundwater.

Response: Vadose zone will be monitored only at infiltration trenches in D7, and ground water will be monitored only at infiltration basins in D11. Vadose zone will be monitored at D7 since there is an aquitard present below the basin at this site. The text will be checked to ensure this is clear.

Baseline measurements of soil and groundwater will be taken.

Section 5.1 and associated log sheets: The two district versions are inconsistent again and must be reconciled.

Response: The discrepancy will be corrected.

Section 5.6: Another inconsistency is the presence of a Storm Monitoring section for D-11 and not for 7.

Response: The discrepancy will be corrected.

Sections 5.6 (D-7) and 5.8 (D-11): Different protocols are given for section soil cores and must be reconciled before we can evaluate them.

Response: The discrepancy will be corrected.

Section 5.7.1 (D-7): We fail to see how guidance concerning drums and stockpiles is relevant.

Response: Guidance regarding drums and stockpiles is relevant because it describes the intermediate steps of disposing sediment.
O&M Volume II Infiltration Basin Field Guidance Notebooks

General: The two district versions perpetuate many of the inconsistencies noted for their appendices and for other BMP types. Reconciliation is necessary before we can complete our review.

Response: The discrepancy will be corrected.

INFILTRATION TRENCHES (WITH AND WITHOUT BIOFILTRATION STRIP PRE-TREATMENT)

General

- On two occasions in the past year we sent you operation and maintenance guidelines for infiltration basins contained in a short course manual by R. Horner. These guidelines were drawn from the best available advice in current practice and literature and were carefully considered. We believe that their application is necessary to give these devices the best chance for success. Yet, we do not see some important guidelines from that reference present in these manuals. Unless you have some documented disagreement with them that is convincing to us, they must be included.

- The two units in one biofiltration strip/infiltration trench treatment train are covered in a single manual, whereas the two of units in another biofiltration strip/infiltration trench treatment train are covered in separate manuals. This is an exceedingly confusing situation that must be resolved in the thorough reworking that the guidance needs. We can not see how the directions for two units that operate together can be separated and have it be convenient and make any sense to field staff.

- The stipulation specifies monitoring of overflow during each storm, of observation wells, and of bed sediments. It is not clear that all of these requirements are accounted for; in any event, guidance for performing them is inadequate.

Response: The guidance from Dr. Horner’s short course will be incorporated.

We will review the presentation of the material relative to separation of biofilters/trench treatment train.

The stipulation does not explicitly require monitoring of overflow, nor is there any requirement for the monitoring of bed sediments. However, noting the time at which overflow (bypass) for the trench occurs can be done during field observation. The observation of drain time is adequately documented in the manual.
Appendix I-D (D-7) and I-D (D-11)

General: The two district versions perpetuate many of the inconsistencies noted for other BMP types. Reconciliation is necessary before we can complete our review.

Response: The discrepancy will be corrected.

Section 5.0:
- Groundwater monitoring via a well is proposed for the D-11 basin, while the D-7 basin will have no groundwater monitoring. The reasons for these proposals must be made clear in the documentation volume for our evaluation. We realize that groundwater is shallower at the D-11 location compared to the D-7 site, but we are not convinced at this time that groundwater monitoring can not or should not be done at the D-7 site.
- If infiltration trench influent is not sampled, then there must be thorough baseline measurements of pre-existing constituents in soil, vadose zone, and groundwater.

O&M Volume II Infiltration Trenches (D-7) or Infiltration Trenches/Biofiltration Strips (D-11) Field Guidance Notebooks

General: The confusion introduced by covering similar treatment trains differently, with monitoring of one separated in two different places, makes a meaningful review impossible at this time. Furthermore, the two district versions perpetuate many of the inconsistencies noted for other BMP types. Reconciliation is necessary before we can complete our review.

Response: We are confused by your reference to ‘basins’, but assume you refer to trenches. We will document the reasons for monitoring via well or vadose zone for each volume in the Appendix. Infiltration trench influent is sampled in both Districts, since a treatment train approach is used and the effluent from the biofilters must be sampled.

BIOFILTRATION SWALES, BIOFILTRATION STRIPS (WITHOUT INFILTRATION TRENCHES)

General
- The two units in one biofiltration strip/infiltration trench treatment train are covered in a single manual, whereas the two of units in another biofiltration strip/infiltration trench treatment train are covered in separate manuals. This is an exceedingly confusing situation that must be resolved in the thorough reworking that the guidance needs. We can not see how the directions for two units that operate together can be separated and have it be convenient and make any sense to field staff.
The stipulation specifies monitoring of hydraulic residence time according to a specified schedule and of bed sediments. It is not clear that all of these requirements are accounted for; in any event, guidance for performing them is inadequate.

Appendix I-E (D-7) and I-E (D-11)

Section 1.3: The conditions for storm event monitoring are inconsistent between D-7 and D-11. In particular, the target antecedent dry period is missing in one case.

Response: The discrepancy will be corrected.

Figure 1.1: The D-11 version has a decision-tree, but there is no corresponding figure in the D-7 version. Is this really needed here?

Response: The discrepancy will be corrected.

Section 2.2: The inspection frequency criteria for D-7 and D-11 are not the same. Specifically, the definition of large storm is 0.5” in D-7 and 0.25” in D-11.

Response: The discrepancy will be corrected.

Section 4.2: There is a reference to an infiltration basin, another one of those cut-and-paste errors.

Response: The discrepancy will be corrected.

Section 5.0: Hydraulic residence time measurement is prescribed for D-7 swales but not for those in D-11. This quantity is a fundamental indicator of potential performance that is necessary to supplement the spotty information that will be supplied by conventional water quality monitoring. It must be performed at all swales.

Response: The discrepancy will be corrected.

Figure 5.7:
- The specific non-toxic, biodegradable dye to be used must be stated.
- The measurement procedure given can and should be much improved. Samples should be taken at both inlet and outlet over time. Light absorbence in these samples should be measured in a colorimeter and plotted over time. This procedure will permit determination of first appearance of the dye and its rate and pattern of attenuation, a much better picture than provided by a single reading timed by visual observation of when the dye enters and leaves the vegetation.

Response: These changes will be incorporated into the procedure.
General: The two district versions perpetuate many more of the inconsistencies noted for other BMP types. Reconciliation is necessary before we can complete our review.

Response: The discrepancy will be corrected.

O&M Volume II Biofiltration Swales and Strips (D-7) or Biofiltration Swales (D-11) Field Guidance Notebooks

General: The two district versions perpetuate many more of the inconsistencies noted for their appendices and for other BMP types. Reconciliation is necessary before we can complete our review.

Response: The discrepancy will be corrected.

QUALITY ASSURANCE/QUALITY CONTROL PLANS

General

- We received two plans, both labeled “District 11”, although one is in a District 7 binder. Is this another computer cut-and-paste error?
- The plans are consistent and are acceptable for QA/QC of water samples. However, they make no mention of other media that will be sampled, such as soil, sediments, and filter media. The plans must be completed for all media.

Response: Protocol for other media will be included.

Very Respectfully,
ROBERT BEIN, WILLIAM FROST AND ASSOCIATES

Scott Taylor, P.E.
Project Manager
October 26, 1998

Daniel A. Meer, Chief
Clean Water Act Compliance Office
Water Division
75 Hawthorne
San Francisco, CA 94105

Subject: U.S. v. California Department of Transportation, (No. 97-0037-EIG)
Retrofit Pilot Program OM&M Plan Vol. II

Dear Mr. Meer:

We have received the your comments on Volume II of the OMM plan as well as those made by Rich Horner, Chris May, and others. We would like to take this opportunity to respond to your comments. As in the past, we have restated your original comment followed by our response in italic type. The original comments and responses are as follows:

Generally, due to Program’s nature as a pilot project, the level of effort projected to be deployed in both operation and maintenance of the BMP devices and in monitoring of treatment efficiencies, etc. will be significantly greater than would be expected in routine BMP deployment. As the costs of implementing the Retrofit Pilot Program will be reported in the final Program report, and as costs will surely be an influencing factor in Caltrans’ judgement as to the appropriateness of future retrofitting activities (see Consent Decree at ?? 6.60 and 6.61), it is imperative that all costs attributable to the pilot nature of the Program be specifically and separately identified.

Response: The costs for the program will be developed exclusive of construction costs related to monitoring, monitoring costs, costs related to plaintiff reviews of designs and plans, and any other costs which are exclusively for the pilot program.

The following comments derive from a review of Appendix I-A, however their applicability may extend to other sections as well.

Response: Any comments on a particular section will be taken for action in any related sections of the document.

Section 2.3.2, ?Sediment Removal? and ?Removal of Debris and Sediment? - In both passages it is stated that sediments will be removed before they threaten EDB operation or storage volume. How are field staff to make this determination?
Response: The debris will be removed routinely. The performance of the basins will be monitored for every storm. If any decline from the design performance is observed, the reason for the decline will be noted. If accumulation of debris or sediment is determined to be the cause, immediate action will be taken to restore the basin to the design performance standards.

Figure 2.2 - Maintenance Activity Checklist -
There should be a field provided for notations concerning water level management (dewatering as appropriate).

Response: The field will be added where appropriate.

Figure 5.4 - Empirical Observations Field Date Sheet -
Under Rainfall Information, how will field staff determine Antecedent Rainfall Duration? Under Observations/Biological, will field staff really be expected to count insects and identify by type/species? Under Observations/Vegetation, how will field staff determine what is Abnormal?

Response: Rain gauges will be at all BMPs. Antecedent rainfall duration can be taken from those stations.

Samples will be collected by either Vector Control Districts or Vector specialists. Additionally, the non-vector field crews will be trained in mosquito, midge, etc. sampling and observations. All samples will be sent to laboratories (VCD, U.C. Riverside, or other qualified lab) for analysis and statistical data development.

Table 5.1 - Analytical Parameters -
Although it is not clear from the Table, pH should be measured for all samples collected, both composite and grab.

Response: The table was developed using the specifications of the Scoping Study. We will reexamine the table and make corrections as needed.

In closing, in addition to the comments set out above, EPA shares the concerns detailed by the Citizen Plaintiffs, particularly regarding the unwieldiness of the subject documents for their intended audience (Retrofit Pilot Program field staff) and the numerous inconsistencies that may lead to the gathering of less than fully utilisable data. In order to maximize the likelihood of meaningful conclusions being drawn from this very significant and expensive endeavor, EPA strongly encourages Caltrans to avail itself of the Citizen Plaintiffs recommended modifications to the overall Operation, Maintenance, and Monitoring program.
Response: We have prepared responses to all Citizen Plaintiff comments and are prepared to make all appropriate changes to ensure that the documents are consistent throughout and that the documents are field user friendly. We consider the Citizen Plaintiff comments “implied comments” by EPA. You will be copied on all responses to the Citizen Plaintiff comments. Those responses are considered part of the Caltrans response to EPA comments.

Very Respectfully,

ROBERT BEIN, WILLIAM FROST AND ASSOCIATES

William R. Whittenberg, P.E. DEE
Task Order Manager

cc: Laurie Kermish, EPA
    Stephanie Johnson, USDOJ
    Ken Moser, San Diego Baykeeper
    John Barth, San Diego Baykeeper
    David Beckman, NRDC
    Rich Horner
    Cid Tesoro, District 11
    Jeff Joseph, District 11
    Steve Borroum, Caltrans HQ
    Scott Taylor, RBF
    Marcello Peinado, District 11
November 25, 1998

Mr. Ken Moser  
Executive Director  
San Diego Baykeeper  
1450 Harbor Island Drive, Suite 250  
San Diego CA 92101

SUBJECT: Response to Comments on Draft Operation, Maintenance, and Monitoring Plan, Volume II, District 11

We have received your comments on Volume II of the OMM plan, and would like to take this opportunity to respond. As in the past, we have restated your original comment followed by our response in italic type. The original comments and responses are as follows:

General –

In our earlier August 29, 1998 review letter on the draft Volume I OMMP we indicated that because of the numerous references to the yet to be released Volume II that there may be additional comments on Volume I. After reviewing the draft Volume II with its six Field Notebook Guides and Appendices it is our conclusion that the overall approach to the preparation of an Operation, Maintenance, and Monitoring Plan very inefficient at best.

Numerous repetitions of the same material lead to confusion, inconsistencies and an unnecessary volume of information. Apparently, the splitting of OMMP preparation among consultants has compounded the problem of missing information and lack of continuity. One approach to be considered is that the Appendices is made part of the Field Guides with an elimination of much duplication with its associated confusion and inconsistencies.

We are concerned with the significant deficiencies and lack of overall quality of the OMMP. Specifically we are concerned that the majority of the Pilot Program objectives are at risk unless a timely and very concerted effort to deliver a quality product is implemented. At this time neither Volume I nor Volume II are approved.

We have presented the following specific comments on the draft Volume II and Appendices. Some of these comments also refer to the previously reviewed Volume I. Approval cannot be given piecemeal to the OMMP. Therefor, approval will not be given until a satisfactory entire OMMP is presented. That includes Volume I and II as well as
Appendices assuming that is the final format. Depending on the responses to these comments there may be additional comments or questions raised prior to giving approval.

Response: All discrepancies and inconsistencies are being addressed.

Comments, Concerns and Questions –

Volume II Field Guides –

    Extended Detention Basin:

1) Pg. iv – The index lists Table 4.1 as “Schedule of BMP Maintenance Activities at Swales/Strips”. Should be “Schedule …..Extended Detention Basins.”

Response: The index will be corrected.

2) Pg. 1 – Section 1.1 Data to be Collected – First bullet should read: “Water Quality and ….. from flow composite samples for at least four (4) storm events from each of the 1998/1999 seasons.”

Response: The text will be added, with the caveat of ‘weather permitting’ as indicated in the Scoping Study.

3) Pg. 1 – Section 1.1 Add ninth bullet – “Labor units, equipment usage and other direct expenditure costs associated with operation and maintenance of the EDB will recorded. Costs will be recorded consistent with Volume I, Section 2.7.

Response: This is not part of the information that will be collected by the field crews. Cost data will be collected, however, and reported as part of the final report discussed in Vol I, Chapter 6.

There is agreement that specific cost reporting categories must be established prior to the operation of the Pilot Program. Accordingly, Caltrans will develop a draft cost category structure for review at the proposed January 11, 1999 meeting. This meeting will serve to address all cost related issues with respect to the BMP Pilot Program.

4) Pg. 1 – Section 1.1 – After new ninth bullet add paragraph stating:
“Costs will be collected for each of the field activities listed in Section 1.2 to facilitate the mid term and final assessments of the BMPs consistent with Volume I Section 6.0. Separate collection of costs will allow separation of normal O & M costs from monitoring, sampling, etc.”

Response: The field guide is not an appropriate place for this information, as it is not something the field teams will do.

5) Pg. 2 – After Section 1.1 and before Section 1.2 insert a new Section 1.2 with heading Reports to be prepared. Include in new section reference to Volume I Midterm and Final Reports.

Response: The Field Guides are not an appropriate place for this information as the field crews will not develop these reports.

6) Pg. 3 – Fig. 1.3 Projected Schedule – Add a Task item and target date at end of first year wet season for midterm report consistent with Volume I Section 6.0.

Response: The Field Guides are not an appropriate place for this information.

7) Pg. 14 – Table 3.1 – This Table lists numerous Forms that are inconsistent with Figures contained in the Volume II Appendix I-A. For example, Form C versus Fig. 2.1 pg. A-14 (?); Form D versus Fig. 5.1 pg. A-56; Form E versus Fig. 2.2 pg. A-16; etc. Which governs? (This comment applies to all six Field Guides and their respective Appendixes.)

Response: The inconsistencies will be corrected

8) Pg. 15 Section 4.1 Facility Operations Inspections – There is unnecessary repetitious references (3 times) to “Forms C (Tab 4)” which is, in addition, inconsistent with Fig. 2.1 pg. A-15 (?) of Appendix 1A. The referenced Form H is likewise not consistent with Fig. F.4 pg. A-64 of Appendix I-A. (This comment applies to all six Field Guides)

Response: The inconsistencies will be corrected.
9) Pg. 17 Table 4-1 – Inconsistent with Appendix I-A, Table 2.1 pg. A-11.

Response: The inconsistencies will be corrected.

10) Pg. 21 – Storm Monitoring – Are these directions as to when to deploy crews being given to Caltrans? That is, Caltrans is the decision-maker here per Decision Tree and Appendix I-A pg. A-2.

Response: The directions are for the field crews, and so all parties understand when the crews will deploy.

What is the relationship to the “Storm Monitoring Office” described in Appendix I-A in Appendix I-A pg. A-67 and the weather tracking and monitoring task manager described in Volume I pg. 5-11?

Response: They are the same.

Where is the telephone communications tree as described in Volume I pg. 5-14? This tree with an associated discussion section may help clarify the various references throughout the OMMP to storm monitoring and decision making.

Response: The tree will be added, or text revised.

11) Tab 4 – Form C is inconsistent with Appendix I-A Fig.2.1 pg. A-15.

Response: The inconsistencies will be corrected.

12) Tab 4 – Form C – Why is there reference to Swale vegetation in Form C for the Extended Detention Basin?

Response: The swale reference will be replaced with ‘basin’.

13) Tab 4 – Form D is not consistent with Appendix I-A Fig. 5.1. Please explain.

Response: Form D will be reconciled with Figure 5.1.
14) Tab 4 – Form D has duplicative sections on “Sampling Locations”
   Why?

   Response: The form will be revised. This should be an influent and
   effluent sampling location checklist only.

15) Tab 5 – Form E is not consistent with Fig. 2.2 Appendix I-A pg. A-
   17&18. Please clarify which governs.

   Response: The forms will be reconciled.

16) Tab 5 – Form E has reference to Swale vegetation. Why?

   Response: The form will be corrected.

17) Tab 6 – Form H is not consistent with Appendix I – A Fig. 5.4 pg. A-
   64. Which form will be used?

   Response: The form in the appendix will be corrected.

18) Tab 7 – Exhibit 7.1B is not consistent with Appendix III Table III-2.
   Please explain why.

   Response: The table in the Appendix will be revised.

19) Tab 9 – Exhibit 9.1 has the drainage area for Site 2 as 13.52 acres.
   However, the “Volume to Sample” Table has the acreage as 13.32.
   Which is correct?

   Response: Exhibit 9.1 is correct. The Volume to Sample table will be
   corrected.

20) Appendix Tab – Correct or delete this Tab as it is erroneous list for
   District 11 and duplicative of the following Tab.

   Response: This tab may have been a problem with your copy of the
   report, as it does not show up in our copy.

21) Where are the “Standard Reporting Formats for Costs” referenced in
   Volume I Section 6.1.1 pg. 6-2? See comment items 3 and 4 above.
Response: These forms are not part of the OMM, as the costs will be collected by the Consultant’s accounting personnel.

Infiltration Basins:

22) Pg. iii – There should be Section 6.0 Storm Monitoring and reference to Tab 3 to be consistent with discussion in Appendix I-B.

Response: This discussion is not necessary for the Infiltration BMP since autosampler equipment is not used (no influent sampling).

23) Pg. 1 – Section 1.1 – Data to be Collected – Add tenth bullet with similar wording as comment item 3 above.

Response: The field crews will not compile cost data.

24) Pg. 1 – Section 1.1 – Add paragraph similar to comment item 4 above.

Response: The field crews will not compile cost data.

25) Pg. 2 – Insert new Section 1.2 on reports similar to comment item 5 above.

Response: The field crews will not compile the reports.

26) Pg. 3, Figure 1.3 – Add Midterm Report Task Item similar to comment item 6 above.

Response: The field crews will not compile the reports.

27) Pg. 5, Section 2.1 Infiltration Basins – What is the purpose of referencing the Watershed Management Institute? Should maintenance personnel also read that guidance manual or have all relevant information been incorporated in this Notebook as indicated in the introduction on page 1?

Response: It will be deleted from the Field Guide.

28) Pg. 12, Table 3.1 – Similar to comment item 6 above this table
contains numerous inconsistencies with the same labeled figures in Appendix I-B. Please correct or explain reasons for differences.

Response: We assume the comment you refer to, is #7 above. The inconsistencies will be corrected between the Field Guides and the Appendices.

29) Pg. 13, Section 4.1 Facility Operations Inspections – See comment item 8 above.

Response: The inconsistencies will be corrected.

30) Pg. 19, Section 5.1 Groundwater Sampling – Should Tab 3 be referenced here or is there to be a Storm Monitoring Section added? See comment item 22 above.

Response: Tab 3 will be referenced here.

31) Pg. 20, Sediment and Soil Sampling – There is no Figure 5.4 as referenced in first paragraph. Should the reference be Form Q (Tab 6)?

Response: Yes, the correct reference is to Form Q, rather than Figure 5.4, which is in the Appendix. This will be corrected.

32) Tab 4, Form C
   - Inconsistent with Fig. 2.1 in Appendix I-B, pg. b-13. Explain or correct.
   - Form C has reference to Swale vegetation. Please explain why or correct.

Response: The inconsistencies will be corrected.

33) Tab 4, Form D
   - Inconsistent with Appendix I-B, Pg. B-51.
   - Reference to automatic sampler on Form D. Is there one at this site?

Response: The inconsistencies will be corrected. The reference to the autosampler will be deleted.
34) Tab 5
   - Form E inconsistent with Fig. 2.2, Appendix I-B, pg. B-15.
   - Form F reference to flow measurement equipment. Is there this type of equipment here?

   **Response:** *The bubbler system is the flow meter for this BMP.*

35) Tab 7, Exhibit 7.1c – See comment item 18 above.

   **Response:** *The table in the Appendix will be revised.*

36) Appendix Tab – See comment item 20 above.

   **Response:** *The original document will be checked to ensure correct reproduction.*

**Sand Media Filter**

37) Pg. iii – Page numbering needs proof reading. For example, Section 4.4 Sediment Management and Characterization Sampling is on page 16 not 15.

   **Response:** *The page numbering will be corrected.*

38) Pg. 1, 1.0 Introduction
   - First sentence does not read coherently.

   **Response:** *The sentence will be revised.*

39) Pg. 1, Section 1.1 Data to be Collected –
   - Modify first bullet similar to comment item 2 above.
   - Add bullet similar to comment item 3 above.
   - Add paragraph similar to comment item 4 above.

   **Response:** *See responses to above comments.*

40) Pg. 2, Add new section similar to comment item 5 above.

   **Response:** *See response to Comment 5.*

41) Pg. 3, Figure 1.3 – Add Task as described under comment item 6
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above.

Response: See response to Comment 6.

42) Pg. 12, Table 3.1 – See comment item 7) above.

Response: The inconsistencies will be corrected.

43) Pg. 13 – The referenced Tab 4 Form C is not relevant to Sand Media Filters. Correct or explain.

Response: The form will be revised to reflect Sand Filter inspection elements.

44) Pg. 15 – Table 4.1
- This Table is not consistent with Appendix I-C, Table 2.1, pg. C-10. Please explain.
- Include activities from this table as inspection form items.

Response: The inconsistencies will be corrected.

45) Pg. 19, Storm Monitoring – See comment item 10 above.

Response: The tree will be added, or text revised.

46) Pg. 19, Section 5.2-
- Delete reference to Compost Filter Facility.

Response: Reference will be deleted.

47) Tab 4, Form C
- Not particularly relevant to Sand Media Filter.
- Not consistent with Appendix I-C.

Response: See response to Comment No. 43.

48) Tab 5, Form E
- Not consistent with Appendix I-C, Fig. 2.2. Explain or correct.

Response: The inconsistencies will be corrected.
49) Tab 9, Exhibit 9.1
   - Exhibit 9.1 lists runoff coefficient of 0.9 for site 9 and 10. However, “Volume to Sample” lists coefficients of 0.6 and 0.75. Please explain.
   - Check site 10 acreage between tables.

   Response: The inconsistencies will be corrected.

50) Appendix Tab – See comment item 20 above.

   Comment noted.

51) See comment item 21 above.

   Response: See response for Comment 21.

Infiltration Trench/Biofiltration Strips:

52) Pg. 1 – See comment items 3 and 4 above.

   Response: See previous response.

53) Pg. 2 – See comment item 5 above.

   Response: See previous response.

54) Pg. 3 – See comment item 6 above.

   Response: See previous response.

55) Pg. 6 – See comment item 27 above.

   Response: See previous response.

56) Pg. 9 – 2.4 Vectors
   - Paragraph 3 identifies a drainage of 1 to 10 acres while Tab 9 identifies the area as 0.66 acres.

   Response: This is generic information relative to the other BMPs listed. The text will be revised to indicate “less than one acre to 10
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acres.”

57) Pg. 12, Table 3.1  
- See comment item 7 above.

Response: The inconsistencies will be corrected. In any case, the Field Guide shall govern.

58) Pg. 19, Storm Monitoring  
- See comment item 10 above.

Response: The tree will be added, or text revised.

59) Pg. 20 –  
- Delete reference to Compost Filter Facility.

Response: The reference will be deleted.

60) Tab 5, Form E  
- Include reference to Biofiltration Strip. See figure 2.2 Appendix I-E for consistency with Form E.

Response: The requested change will be made.

61) Appendix Tab – See comment item 20 above.

Response: Comment noted.

62) See comment item 21 above.

Response: These forms are not part of the OMM, as the costs will be collected by the Consultant’s accounting personnel.

Compost Media Filter:

63) Pg. 1, Data to be collected  
- See comment items 2,3 and 4 above.

Response: See previous responses.
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64) Pg. 2 – See comment item 5 above.

Response: See previous response.

65) Pg. 3 – See comment item 6 above.

Response: See previous response.

66) Pg. 6, Table 21
- The table lists the site as #11 while Tab 1 labels the site #2.
  Correction?

Response: The site number will be revised.

67) Tab 4, Inspection Forms
- Form C not relevant to Compost media Filters. Modify form.

Response: The form will be revised.

68) Tab 9, Technical Support Information
- Exhibit 9.1 lists the site as having a drainage area of 0.75 acres.
  However, the “Volume to Sample” acreage is listed as 1.46.
  Correct or explain.

Response: The drainage area will be corrected.

Biofiltration Swales:

69) Pg. 1 – See comment items 2, 3 and 4 above.

Response: See previous response.

70) Pg. 2 – See comment item 5 above.

Response: See previous response.

71) Pg. 3 – See comment item 6 above.

Response: See previous response.
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Appendices I-A - I-F, II and III

Those comments made as part of the Field Guide reviews that reference the Appendices will not be repeated here.

72) Pg. A-1, 1.0 Introduction, second paragraph-

As mentioned above in the opening General section of this letter exception is taken to the second sentence where it states the Appendix is meant to “clarify information” and the third sentence which indicates redundancy is intended “to assist the reader”. The use of 8 manuals to cover the subjects of operations, maintenance and monitoring in their repetitive and inconsistent manner has resulted in a confusing array of disjointed information. (This comment applies to Appendix I–B – I-F.)

Response: The Appendices provide background information. This will assist the field crews in making qualitative assessments, and provide additional background on procedure. The redundancy is provided so that specific portion of the Volume II Manual (Appendix and Field Guide), may be taken from the Manual and used by the field crew to service a particular BMP. The information pertaining to each BMP is meant to 'stand alone'. However, a further effort will be made to reduce the redundancy of information, specifically in the area of Vector control, which is essentially the same information for each site.

73) Pg. A-4, 1.41 Data Requirements –

- Comment items 3 and 4 from above apply. (This comment applies to Appendix I-B – I-F.)

Response: See previous responses.

74) Appendix I-A pg. A-77 –

- The reference to Force Majeure is inappropriate and must be removed. The discussion of a possible situation that possibly may result in the invocation of the Force Majeure provisions in advance of the event happening is not acceptable. There are Consent Decree provisions for Force Majeure and procedures with associated time lines to follow when an event actually happens that Caltrans may use. However, San Diego BayKeeper will not approve this or any future version of the OMMP that includes reference to Force Majeure or in the “spirit of Force Majeure”. (This comment applies also to Appendix I-B through I-F.)
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Response: The text will be deleted.

75) Appendix III pg. III-1, 1.0 Introduction – There is no Section 6.7 of Volume I. Is Section 5.10 intended?

Response: Yes, text will be revised.

We appreciate the time you have invested in the review of these documents. We will make the revisions discussed herein and return the Manual for your review. In the meantime, if you have any questions please do not hesitate to contact me at 949 855 5771, or Mr. Marcelo Peinado at 619 688 0226.

Very Respectfully,

Bill Whittenberg, P.E., DEE
Task Order Manager

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Cc: Laurie Kermish, EPA
    Stephanie Johnson, USDOJ
    Jeremy Johnstone, EPA
    Rick Graff, San Diego Baykeeper
    John Barth, San Diego Baykeeper
    David Beckman, NRDC
    Rich Horner
    Cid Tesoro, District 11
    Jeff Joseph, District 11
    Steve Borroum, Caltrans HQ
    Scott Taylor, RBF
    Marcello Peinado, District 11
    Everett DeLano, NRDC
APPENDIX C

OMM SCHEDULE
### Operation, Maintenance, and Monitoring Plans Development Schedule

#### Districts 7 and 11

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APPENDIX D

Vector Control Service Agreements
FIRST AMENDMENT T
(County of San Die

WITNESS THAT WHEREAS:

A. Kinnetic Laboratories and the County of San Diego, Dept. of Environmental Health (COUNTY) entered into a Service Agreement (Agreement) for vector monitoring and control services at Caltrans Highway Stormwater Drainage Systems on April 28, 1999, and

B. Kinnetic Laboratories and the COUNTY desire to amend said Agreement.

NOW THEREFORE, with reference to Section 4 of this Agreement that authorizes the Director, DEH to execute amendments to this Agreement; and Section 17 of this Agreement that allows the term of this Agreement to be extended for one-year periods through June 30, 2004; it is mutually agreed by and between Kinnetic Laboratories and the COUNTY to amend as follows:

1. Kinnetic Laboratories and the COUNTY agree to extend this Agreement for the period of July 1, 2001 through June 30, 2002, and;

2. Kinnetic Laboratories agrees to pay the COUNTY a total sum not to exceed SEVENTY ONE THOUSAND, TWO HUNDRED THIRTY NINE DOLLARS ($71,239) for services performed during the period of July 1, 2001 through June 30, 2002. Compensation shall provide full cost recovery for all services performed.

It is further understood and agreed by Kinnetic Laboratories and the COUNTY that all other terms and conditions entered into under this Agreement shall remain in full force and effect.

APPROVED:

KINNETIC LABORATORIES by:

[Signature]

Authorized Signature

President

Date:

COUNTY OF SAN DIEGO by:

[Signature]

Director, Dept. of Environmental Health

Date: 6/29/01

APPROVED AS TO FORM AND LEGALITY

[Signature]
AGREEMENT WITH THE KINNETIC LABORATORIES, FOR SERVICES PROVIDED TO THE CALIFORNIA DEPARTMENT OF TRANSPORTATION REGARDING VECTOR CONTROL SERVICES ASSOCIATED WITH THE BEST MANAGEMENT PRACTICES RETROFIT PILOT PROJECT SITES

THIS AGREEMENT, made this 28TH day of April, 1999 between the County of San Diego, hereinafter called "County" and KINNETIC LABORATORIES, for services provided for and on behalf of the CALIFORNIA DEPARTMENT OF TRANSPORTATION, hereinafter called "Caltrans".

WITNESSETH:

WHEREAS, Caltrans entered into a Consent Decree to develop a Best Management Practice (BMP) Retrofit Pilot Program (hereinafter, Program) for treating highway stormwater runoff to remove constituents of concern in highway storm water from Caltrans highways and facilities within urbanized areas of Caltrans District 11, located in the County of San Diego; and

WHEREAS, Caltrans objectives are to monitor, determine and evaluate the feasibility of design, construction, operation, performance, maintenance, and safety of selected Program projects, and to allow observations pertaining to cost of retrofitting, and benefits of the various Program projects; and

WHEREAS, the Program projects include extended detention basins, infiltration basins, biofiltration strips/swales, wet basins, infiltration trenches, biofilters, and media filters, any of which may present potential vector occurrence and control issues; and

WHEREAS, the County of San Diego Department of Environmental Health (DEH) is charged with the responsibility to protect the public health, safety and welfare by controlling vectors; and

WHEREAS, a number of the Program projects have been constructed and operational since December 1998, and the remaining projects will be constructed by June 30, 1999, and will be active for a minimum of two (2) years; and

WHEREAS, it is in the public's interest to maximize governmental cooperation and efficiency, to protect the environment and the public health by enabling the Program to proceed on schedule in accordance with guidelines established in the Operation, Maintenance and Monitoring (OM&M) Plan to remove constituents of concern from storm water runoff while preventing and controlling vectors; NOW THEREFORE,
IT IS AGREED:

1. Caltrans, as the authorizing agency for the Program, maintains responsibility for the design, construction, operation, maintenance and performance of the program, and for the occurrence and abundance of any vectors emanating from the Program project sites.

2. Caltrans, through its consultants and subcontractors, operates and maintains, on a routine basis the Program project sites in accordance with the OM&M Plan guidelines.

3. The County of San Diego shall, through the DEH, perform vector surveillance and control activities in accordance with the OM&M Plan and Appendices, specifically Appendix IV, Vector Control Plan. The DEH shall provide such personnel, facilities and services necessary to perform vector surveillance and control services and activities.

4. The County authorizes the Director, DEH to execute the terms of this Agreement, and any future amendments to this Agreement, for the County, which do not materially change the Agreement. For purposes of this Agreement, a material change shall be defined as: a) any change that will no longer assure full cost recovery for services and activities provided, or b) amendments which substantially alter the intended services and activities. Material change shall require approval by the County Board of Supervisors prior to execution.

5. Kinnetic Laboratories, as subcontractor for services provided on behalf of and to Caltrans, shall pay to the County all costs based on an agreed upon Fee Schedule. Kinnetic Laboratories agrees to pay the County a total sum not to exceed $165,000 for vector surveillance and control services and activities performed during the period beginning April 28, 1999 through June 30, 2001.

6. If compensation as set forth in Item 5 of this Agreement is projected to be insufficient to pay for services and activities provided by the County, the County agrees to continue to provide the agreed to services and activities, and Kinnetic Laboratories, agrees to compensate the County for said services and activities in accordance with the terms of this Agreement until an amended Agreement is executed.

7. The DEH shall bill Kinnetic Laboratories, for services provided to and on behalf of Caltrans on a quarterly basis for all actual costs incurred by the DEH for the performance of vector surveillance and control as discussed in Item 5.

8. Kinnetic Laboratories, or its consultants and subcontractors, shall inform the DEH in writing, of any required revisions to the Program and/or OM&M Plan and/or any Project site, which may, in any manner, affect the vector breeding/attracting potential and the conduct of vector surveillance and control.
9. Kinnetic Laboratories, for its consultants and subcontractors, shall consult and coordinate with the DEH and Caltrans to receive comments and recommendations regarding the design, construction, operation and maintenance of Program project sites as they relate to vector surveillance and control.

10. Except for administrative services, all vector surveillance and control services and activities provided by the DEH at any Program project site shall be performed by employees who are fully certified by the California Department of Health Services (CDHS) in mosquito control, vertebrate vector control and terrestrial invertebrate vector control, and who shall obtain continuing education as required to maintain fully certified status.

11. Kinnetic Laboratories, for its consultants and subcontractors, shall coordinate with Caltrans to provide to the DEH access to each Program site within Caltrans District 11 to inspect for and control breeding of vectors. Access shall be limited to the hours between 6:00 AM to 6:00 PM, Monday through Friday, unless in the interest of the public health, safety and well being vector abatement is necessary during other unspecified hours.

12. Whenever the DEH finds vector breeding at any program site, the DEH shall record the type of vector, its occurrence, stages of development, an estimate of abundance, and the condition conducive to vector breeding. The DEH shall collect, identify as to species, catalogue and retain the vector specimen(s) as prima facie evidence that the site is a breeding place for vectors. Determination that a breeding place exists shall be made in accordance with the California Health and Safety Code, Section 2200, et al.

13. Whenever the DEH finds, in any Program site, mosquito breeding in any stage and in any amount, or black fly larvae in excess of 10 within a 3 square-foot area, or midge larvae in excess of 300 per square-foot of sampled substrate; or pupae of any aquatic vector in any amount; or evidence of presence of vertebrate vectors, the DEH shall control the vector breeding within 48 hours in a manner the DEH deems most appropriate. Control measures may include source reduction, biological control and/or pesticides. The DEH shall reinspect the site within 48 hours to determine effectiveness of the control effort and if additional or continued control measures are necessary.

14. The DEH shall provide monthly status reports to Kinnetic Laboratories, Caltrans or their consultants and subcontractors, and the CDHS. The reports shall be submitted by the 10th of the month following the report month and shall contain information cited in items 12 and 13 of this Agreement. In addition the reports shall contain method of control, pesticides, if applied, including applications rates, methods of application, and labor hours for each inspection and/or treatment. Kinnetic Laboratories and Caltrans, or their consultants and subcontractors shall provide to the DEH written comments, if any, on the reports within 30 days of receipt.
15. Disputes between Kinetic Laboratories and the DEH shall be expeditiously resolved. Disputes may include, but are not limited to, unresolved written non-concurrence, lack of response within agreed-upon time limits, and substantive departure from the terms of this Agreement. Disputes resolution may be initiated either by the DEH or Kinetic Laboratories. Efforts shall be made to resolve disputes first at an informal level, involving agency staff and mid-level management coordination. If Kinetic Laboratories and the DEH agree that the informal dispute resolution process has been exhausted, formal dispute resolution may be initiated. Either the DEH or Kinetic Laboratories may initiate in writing a formal dispute resolution meeting, to be held in no more than 45 days, stating the issue(s) and providing supporting background documentation. In the event that no resolution can be obtained.

16. If Caltrans, or its consultants, contractors and subcontractors, including Kinetic Laboratories, abandons a Program site, fails to comply with any provisions of this Agreement, or fails to follow the guidelines as outlined in the OM&M Plan, any vector control and abatement activity within these facilities would be subject to the vector abatement laws/regulations of the County.

17. That the term of this Agreement shall commence on April 28, 1999 and continue through June 30, 2001, and may be extended for one year intervals with the agreement of both parties, through June 30, 2004.

18. This Agreement is the entire understanding of the parties, and there are no other terms or conditions, written or oral, controlling this matter.

19. The COUNTY is an independent contractor and no agency relationship, either expressed or implied, is created by the execution of this Agreement.

20. Either the COUNTY or Kinetic Laboratories, may terminate this agreement with ninety (90) days advance written notice given by the Authorized representative or his or her designee.

21. This Agreement shall continue beyond the final date of the term as set forth, pending renewal of the Agreement, provided that either Authorized representative has notified the other Authorized representative of an intention to renew the Agreement and neither party has terminated the agreement.

COUNTY OF SAN DIEGO

By _Thomas J. Pastuszka_ Date 4.24.99

Thomas J. Pastuszka
Clerk of the Board of Supervisors

KINETIC LABORATORIES

By _Patrick Kenny, Principal_ Date April 16, 1999
SERVICE AGREEMENT
BETWEEN THE
SAN GABRIEL VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT AND
MONTGOMERY WATSON-CHAUDHARY AND ASSOCIATES, A JOINT VENTURE

This Service Agreement made and entered by and between the SAN GABRIEL
VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT ("SGVMVCD") and
MONTGOMERY WATSON-CHAUDHARY AND ASSOCIATES, A JOINT VENTURE
("CONSULTANT") on the 9th day of April, 1999.

WITNESSETH

Whereas, CALTRANS, as a result of litigation, will design, construct, operate,
maintain, and monitor a Best Management Practice (BMP) system to allow for observations
pertaining to technical feasibility, cost of retrofitting, and benefits of various BMPs for
treating runoff from Caltrans highways and facilities; and

Whereas, CALTRANS is fulfilling its legal obligations by and through the
CONSULTANT; and

Whereas, potential vector control issues are foreseen at the BMP sites in
CALTRANS’ Retrofit Pilot Program; and

Whereas, SGVMVCD contends that California Health and Safety Code Section 2200
et. seq. obligates CALTRANS to accept responsibility for abatement of vectors emanating
from its property; and

Whereas, SGVMVCD is authorized by California Health and Safety Code Section
2283.5 to collect for the cost of control of nuisances from any state or local agency and to
enter into contractual agreements to provide control of nuisances with any state or local
agency; and

Whereas, CALTRAN’s authorized CONSULTANT has requested the SGVMVCD
to provide vector control services for the BMP sites located within the boundaries of the
SGVMVCD; and

RECEIVED
MAY 21 1999
SGVMVCD

RECEIVED
MAY 12 1999
MONTGOMERY WATSON
Whereas, the CONSULTANT has two (2) BMP sites located within the boundaries of SGVMVCD located at the Foothill Maintenance Station and Rosemead Maintenance Station; and

Whereas, the CONSULTANT has requested the SGVMVCD to provide vector control at the two (2) BMP sites from April 12, 1999 through June 30, 2001; and

Whereas, CALTRANS and their consultants have prepared a Vector Control Plan, namely Appendix IV of CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles; and

Now, therefore, SGVMVCD and CONSULTANT, for and in consideration of the mutual benefits, promises and agreements set forth herein, do agree as follows:

1. The CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles, Appendix IV, Vector Control Plan is hereby incorporated as Attachment A.

2. The SGVMVCD’s responsibilities located in the Vector Control plan are limited to the following sections: 2.1.2 Mosquitoes and Midges: Laval Sampling, excluding Laboratory Processing of Samples; 2.1.3 Black Fly Larvae; 2.2 Vertebrate Vector Monitoring; 3.2 Biological Controls; 3.3 Chemical Control; 4.0 Threshold Criteria and Treatment Guidelines; 5.4.2 Vertebrates (Identification); 6.1.1 Treatment Thresholds 1) Mosquito Larvae, 5) Black fly and Midge larvae; 6.1.2 Data Collection for Mosquito and Midge Monitoring and Abatement Activities, excluding laboratory identification; 6.1.4 Follow-up Monitoring, excluding adult monitoring; 6.1.5 Abatement of Midge; 6.1.6 Black Flies; 6.2 Vertebrates; Figure 4.1 Mosquito and Midge Monitoring Equipment List, excluding white coveralls and insulated gloves, all CO₂-light traps, and all Gravid traps; Figure 4.2 Mosquito and Midge Monitoring Task Checklist, excluding CO₂-light traps, Gravid traps, Larval sampling 6) laboratory processing; Figure 4.3 Field Sheets to be retained by SGVMVCD; Figure 4.4 Operations Report to be submitted to CONSULTANT; Figure 4.6 Inspection Checklist for Vertebrate Vectors; Figure 4.7 Vertebrate Vector Control Related
Maintenance Activity Checklist; Table 4.1, excluding Sample Analysis; and Table 4.2 Implementation Parameters.

3. The SGVMVCD shall furnish all supervision, labor, materials, and equipment necessary to perform larval inspections, vertebrate surveillance, and treatment to control and abate vectors included in the Vector Control Plan emanating from the CONSULTANT’s BMP sites located at Foothill Maintenance Station and Rosemead Maintenance Station.

4. Services shall be performed at the hourly rate as specified in Exhibit B for services rendered between April 9, 1999 through June 30, 1999. Exhibit B shall be modified annually to reflect adjusted salaries, pesticide cost, and fuel cost and shall be submitted to the CONSULTANT no later than July 15th of each year of this agreement.

5. Pesticide shall be billed based on actual cost including tax not to exceed cost per quantity included in Exhibit B. Fuel cost shall be billed based on rate in Exhibit B. Mileage to and from Foothill Maintenance Station is 11.7 miles and to and from Rosemead Maintenance Station is 15.2 miles.

6. Services shall be provided until such time that the not to exceed cost of $15,000 is exhausted. At any time during the period of April 12, 1999 to June 30, 2001, either party can request that the appropriateness of the “not to exceed” figure be examined and, if necessary, re-negotiated. Reasons for re-negotiation include, but are not limited to, changes in the scope of work, unexpected increases or decreases in labor hours or abatement costs, decommissioning of BMP site, or exhaustion of the not to exceed cost.

7. All invoices and reports shall be submitted to the CONSULTANT by the 4th of the month following the reporting period to: Montgomery Watson - Chaudhary
   777 Campus Commons, Suite 250
   Sacramento, California 95825
All invoices are due and payable within 60 days of the invoice date. A late fee will be charged on past due invoices at the rate of 1.5% of the balance per month. Payment shall be made to: San Gabriel Valley Mosquito & Vector Control District 1145 N. Azusa Canyon Road West Covina, California 91790

8. The SGVMVCD shall furnish services during normal operational hours as designated by each facility.

9. If immature stages of mosquitoes, black flies, or midges are present based on the Threshold Criteria in the Vector Control plan, the vectors shall be eliminated using the appropriate control measures. If the vectors can be eliminated through physical control, the CONSULTANT shall be contacted within 24 hours to perform the physical control measure within 24 hours of being contacted. If control must be performed through biological or chemical control measures, control shall be performed immediately and the CONSULTANT shall be notified within 24 hours of the control measure taken.

10. SGVMVCD shall indemnify, defend, and hold harmless CONSULTANT and its respective officers, agents, and employees from and against any and all liability, expense (including defense costs and legal fees), and claims for damages, including but not limited to bodily injury, death, personal injury, or property damage arising from or connected with any negligent act or omission of SGVMVCD, including workers’ compensation suits, liability, or expense arising from or connected with services performed by or on behalf of SGVMVCD by any person pursuant to this Service Agreement.

11. CONSULTANT shall indemnify, defend, and hold harmless SGVMVCD and its respective officers, agents, and employees from and against any and all liability, expense (including defense costs and legal fees), and claims for damages, including but not limited to bodily injury, death, personal injury, or property damage arising from or connected with any negligent act or omission of CONSULTANT, including
workers’ compensation suits, liability, or expense arising from or connected with services performed by or on behalf of CONSULTANT by any person pursuant to this Service Agreement.

12. SGVMVCD and CONSULTANT shall each provide and maintain at its own expense during the term of this Service Agreement the following insurance coverage:

a) Comprehensive General Liability Insurance endorsed for Premises-Operation, Product/Completed Operations, Contractual, Board Form Property Damage, and Personal Injury with combined single limit of $1,000,000 per occurrence.

b) Comprehensive Automobile Liability endorsed for all owned and non-owned vehicles with a combined single limit of $300,000 per occurrence.

c) Worker’s Compensation and Employer’s Liability in an amount and form to meet all applicable requirements of the labor code of the State of California and which specifically covers all persons providing services on behalf of and all risks to such persons under this Service Agreement.

13. Any and all notices sent or required to be sent to the parties of this Service Agreement will be mailed by first class mail, postage prepaid, to the following addressed:

Mr. Gary Friedman
Montgomery Watson
750 B Street, Suite 1610
San Diego, CA 92101

Ms. P. Sue Zuhlke, District Manager
San Gabriel Valley Mosquito and Vector Control District
1145 North Azusa Canyon Road
West Covina, CA 91790
14. This Service Agreement shall not be changed or modified except by the written consent of all parties. CONSULTANT reserves the right to change any portion of the work required under this Service Agreement, or amend such other terms and conditions which may become necessary. However, any such revisions or amendments shall only become effective following the issuance of a Change Notice or Amendment to Service Agreement that is agreed to and signed by CONSULTANT and SGVMVCD and that contains cost adjustments mutually agreed to by both parties.

15. This Service Agreement is the result of negotiations between the parties hereto acting on the advice and assistance of their respective counsel. The fact that this Service Agreement was prepared as a matter of convenience by SGVMVCD shall have no impact or significance. Any uncertainty of ambiguity in this Service Agreement shall not be construed against SGVMVCD.

16. This Service Agreement is intended by the parties as their final expression with respect to the matters herein and is a complete and exclusive statement of the terms and conditions thereof.

17. The terms of this Service Agreement is from the date of execution of the Service Agreement through June 30, 2001 or until the not to exceed figure is exhausted, which ever comes first. This Service Agreement may be extended with written consent of all parties. Either CONSULTANT or SGVMVCD may cancel or terminate this Service Agreement at any time upon giving of at least thirty (30) days notice to the other party in writing.

18. The laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Service Agreement and shall also given the interpretation of this Service Agreement.
IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respected duly authorized officers as of the last day written below.

SAN GABRIEL VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

By [Signature]  
Henry Morgan, President  
Board of Trustees  

April 9, 1999  
Date

MONTGOMERY WATSON-CHAUDHARY AND ASSOCIATES, A JOINT VENTURE

By [Signature]  
Mark A. Morse  

5/15/99  
Date

By [Signature]  
J. [Signature]  

5-7-99  
Date
# Hourly Rate for Special Contract Projects

<table>
<thead>
<tr>
<th>POSITION</th>
<th>HOURLY RATE</th>
<th>PROJECT TIME</th>
<th>PROJECT RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Manager</td>
<td>$37.78</td>
<td>5%</td>
<td>$1.89</td>
</tr>
<tr>
<td>Field Supervisor</td>
<td>$24.98</td>
<td>10%</td>
<td>$2.50</td>
</tr>
<tr>
<td>Administrative Sec./Bookkeeper</td>
<td>$20.58</td>
<td>10%</td>
<td>$2.06</td>
</tr>
<tr>
<td>Vector Control Technician</td>
<td>$21.96</td>
<td>100%</td>
<td>$21.96</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$28.41</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Benefits (28.75% of Salaries) $8.17

**TOTAL SALARIES & BENEFITS** $36.57

**INDIRECT COST**
- Insurance (27.7% of Salaries) $7.87
- Miscellaneous Expense (10% of Salaries) $2.84
- Overhead (20% of Salaries) $5.68

Lease of Vehicle & Spray Equipment $10.00

**TOTAL PROJECT HOURLY RATE** $62.96

**TREATMENT COST**

<table>
<thead>
<tr>
<th>Pesticides</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golden Bear 1111 (per Gallon)</td>
<td>$4.33</td>
</tr>
<tr>
<td>Liquid <em>Bti</em> (per Ounce)</td>
<td>$0.25</td>
</tr>
<tr>
<td>Altosid Liquid Larvicide (per Ounce)</td>
<td>$1.99</td>
</tr>
<tr>
<td><em>Bti</em> Granules (per Pound)</td>
<td>$2.00</td>
</tr>
<tr>
<td><em>B. sphaericus</em> (per Pound)</td>
<td>$4.17</td>
</tr>
<tr>
<td>Altosid Pellets (per Pound)</td>
<td>$28.30</td>
</tr>
<tr>
<td>Altosid XR Briquets (Each)</td>
<td>$2.76</td>
</tr>
</tbody>
</table>

*Gambusia affinis* (per Dozen) $1.50

Fuel Cost per Mile Traveled $0.15

Billing will be based on the hourly rate times each hour or fraction of hour dedicated to work on the project plus the cost of pesticides, fish, and fuel as indicated above.

*Effective April 12, 1999 - June 30, 1999*
SERVICE AGREEMENT
BETWEEN THE SAN GABRIEL VALLEY MOSQUITO AND VECTOR
CONTROL DISTRICT AND
CAMP, DRESSER AND McKEE, INC.

This Service Agreement made and entered by and between the SAN GABRIEL
VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT ("SGVMVCD") and
CAMP DRESSER & McKEE ("CONSULTANT") on the 1ST day of December 2000.

WITNESSETH

Whereas, CALTRANS, as a result of litigation, will design, construct, operate,
maintain, and monitor a Best Management Practice (BMP) system to allow for
observations pertaining to technical feasibility, cost of retrofitting, and benefits of
various BMPs for treating runoff from Caltrans highways and facilities; and
Whereas, potential vector control issues are foreseen at the BMP sites in
CALTRANS' Retrofit Pilot Program; and
Whereas, SGVMVCD contends that California Health and Safety Code Section
2200 et. seq. obligates CALTRANS to accept responsibility for abatement of vectors
emanating from its property; and
Whereas, SGVMVCD is authorized by California Health and Safety Code
Section 2283.5 to collect for the cost of control of nuisances from any state or local
agency and to enter into contractual agreements to provide control of nuisances with
any state or local agency; and
Whereas, CALTRANS' authorized CONSULTANT has requested the
SGVMVCD to provide vector control services for the BMP sites located within the
boundaries of the SGVMVCD; and
Whereas, the CONSULTANT has one (1) BMP sites located within the
boundaries of SGVMVCD located at I-10 and Rosemead; and
Whereas, the CONSULTANT has requested the SGVMVCD to provide vector
control at the one (1) BMP site from date of execution of agreement through June 30,
2001; and
Whereas, CALTRANS and it's consultants have prepared a Vector Control
Plan, namely Appendix IV of CALTRANS BMP Retrofit Pilot Program, BMP
Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles;
and

Now, therefore, SGVMVCD and CONSULTANT, for and in consideration of
the mutual benefits, promises and agreements set forth herein, do agree as follows:
1) The CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and
Monitoring Plan, Volume II for District 7, Los Angeles, Appendix IV, Vector
Control Plan is hereby incorporated as Attachment A.
2) The SGVMVCD's responsibilities located in the Vector Control plan are limited to
the following sections: 2.1.2 Mosquitoes and Midges: Larval Sampling; 2.1.3 Black
Fly Larvae; 2.2 Vertebrate Vector Monitoring; 3.2 Biological Controls; 3.3.
Chemical Control; 4.0 Threshold Criteria and Treatment Guidelines; 5.4.2
Vertebrates (Identification); 6.1.1 Treatment Thresholds 1) Mosquito larvae, 5)
Black fly and Midge larvae; 6.1.2 Data Collection for Mosquito and Midge
Monitoring and Abatement Activities, excluding laboratory identification; 6.1.4
Follow-up Monitoring, excluding adult monitoring; 6.1.5 Abatement of Midges;
6.1.6 Black Flies; 6.2 Vertebrates; Figure 4.1 Mosquito and Midge Monitoring
Equipment List, excluding white coveralls and insulated gloves, all CO₂-light traps,
and all Gravid traps; Figure 4.2 Mosquito and Midge Monitoring Task Checklist,
excluding all CO₂-light traps, Gravid traps, Larval Sampling 6) laboratory
processing; Figure 4.3 Field sheets to be retained by SGVMVCD; Figure 4.4
Inspection Checklist for Vertebrate Vectors; Figure 4.5 Vertebrate Control Related
Maintenance Activity Checklist; Table 4.1, excluding Adult Sampling, Sample
Analysis; and Table 4.2 Implementation Parameters. The SGVMVCD's shall
submit Operations Report to be submitted to CONSULTANT monthly.
3) The SGVMVCD shall furnish all supervision, labor, materials, and equipment
necessary to perform larval inspections, vertebrate surveillance, and treatment to
control and abate mosquitoes, midges, and black flies emanating from the
CONSULTANT's BMP site located at I-10 and Rosemead.
4) Services shall be performed at the hourly rate and materials billed as specified in
Attachment B for services rendered executed upon date of this agreement through
June 30, 2001. Attachment B shall be modified annually to reflect adjusted salaries,
pesticide cost, and fuel cost and shall be submitted to the CONSULTANT no later
than July 15th of each year of this agreement.
5) Services shall be provided until such time that the not to exceed cost of $10,000.00
is exhausted. At any time during the date of execution of this agreement to June 30,
2001, either party can request that the appropriateness of the "not to exceed" figure
be examined and, if necessary, re-negotiated. Reasons for re-negotiation include,
but are not limited to, changes in the scope of work, unexpected increases or
decreases in labor hours or abatement costs, decommissioning of BMP site, or
exhaustion of the not to exceed cost.
6) All invoices and reports shall be submitted to the CONSULTANT by the 7th of the
month following the reporting period:

Thomas F. Quasebarth
Camp Dresser & McKee, Inc.
2920 Inland Empire Boulevard, Suite 108
Ontario, CA 91764-4802

All invoices are due and payable within 60 days of the invoice date. A late fee will
be charged on past due invoices at the rate of 1.5% of the balance per month.
Payment shall be made to:

San Gabriel Valley Mosquito and Vector Control District
1145 N. Azusa Canyon Road
West Covina, California 91790
7) The SGVMVCD shall furnish services during normal operational hours as
designated by each facility.

8) If immature stages of mosquitoes, black flies, or midges are present based on the
Threshold criteria in the Vector Control Plan, the vectors shall be eliminated using
the appropriate control measures. If the vectors can be eliminated through physical
control, the CONSULTANT shall be contacted within 24 hours to perform the
physical control measure within 24 hours of being contacted. If control must be
performed through biological or chemical control measures, control shall be
performed immediately and the CONSULTANT shall be notified within 24 hours of
the control measure taken.

9) SGVMVCD shall indemnify, defend, and hold harmless CONSULTANT and its
respective officers, agents, and employees from and against any and all liability,
expense (including defense costs and legal fees), and claims for damages, including
but not limited to bodily injury, death, personal injury, or property damage arising
from or connected with any negligent act or omission of SGVMVCD, including
workers’ compensation suits, liability, or expense arising from or connected with
services performed by or on behalf of SGVMVCD by any person pursuant to this
Service Agreement.

10) CONSULTANT shall indemnify, defend, and hold harmless SGVMVCD and its
respective officers, agents, and employees from and against any and all liability,
expense (including defense costs and legal fees), and claims for damages, including
but not limited to bodily injury, death, personal injury, or property damage arising
from or connected with any negligent act or omission of CONSULTANT, including
workers’ compensation suits, liability, or expense arising from or connected with
services performed by or on behalf of CONSULTANT by any person pursuant to
this Service Agreement.

11) SGVMVCD and CONSULTANT shall each provide and maintain at their own
expense during the term of this Service Agreement the following insurance
coverage:

a) Comprehensive General Liability Insurance endorsed for Premises-Operation,
Product/Completed Operations, Contractual, Board Form Property Damage,
and Personal Injury with combined single limit of $1,000,000 per occurrence.

b) Comprehensive Automobile Liability endorsed for all owned and non-owned
vehicles with a combined single limit of $300,000 per occurrence.

c) Worker’s Compensation and Employer’s Liability in an amount and form to
meet all applicable requirements of the labor code of the State of California and
which specifically covers all persons providing services on behalf of and all
risks to such persons under this Service Agreement.

12) Any and all notices sent or required to be sent to the parties of this Service
Agreement will be mailed by first class mail, postage prepaid, to the following
addresses:

Thomas F. Quasebarth
Camp Dresser & McKee, Inc.
2920 Inland Empire Boulevard, Suite 108
Ontario, CA 91764-4802
Dr. Kenn Fujioka, District Manager  
San Gabriel Valley Mosquito and Vector Control District  
1145 North Azusa Canyon Road  
West Covina, CA 91790

13) This Service Agreement shall not be changed or modified except by the written consent of all parties. CONSULTANT reserves the right to change any portion of the work required under this Service Agreement, or amend such other terms and conditions which may become necessary. However, any such revisions or amendments shall only become effective following the issuance of a Change Notice or Amendment to Service Agreement that is agreed to and signed by CONSULTANT and SGVMVCD and that contains cost adjustments mutually agreed to by both parties.

14) This Service Agreement is the result of negotiations between the parties hereto acting on the advice and assistance of their respective counsel. The fact that this Service Agreement was prepared as a matter of convenience by SGVMVCD shall have no impact or significance. Any uncertainty of ambiguity in this Service Agreement shall not be construed against SGVMVCD.

15) This Service Agreement is intended by the parties as their final expression with respect to the matters herein and is a complete and exclusive statement of the terms and conditions thereof.

16) The terms of this Service Agreement are from the date of execution of the Service Agreement through June 30, 2001 or until the not to exceed figure is exhausted, whichever comes first. This Service Agreement may be extended with written consent of all parties. Either CONSULTANT or SGVMVCD may cancel or terminate this Service Agreement at any time upon giving of at least thirty (30) days notice to the other party in writing.

17) The laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Service Agreement and shall also govern the interpretation of this Service Agreement.
IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respected duly authorized officers as of the last day written below.

SAN GABRIEL VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

By [Signature]  
Henry Morgan, President  
Board of Trustees

By [Signature]  
Morgan Foxman

CAMP DRESSER & Mckee, INC.

By [Signature]  
Jeffrey D. Endicott, P.E.  
Principal

12/21/00  
Date

12-7-00  
Date
SERVICE AGREEMENT
BETWEEN THE SAN GABRIEL VALLEY MOSQUITO AND VECTOR
CONTROL DISTRICT AND
LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

This Service Agreement made and entered by and between the SAN GABRIEL
VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT ("SGVMVCD") and
LAW ENGINEERING AND ENVIRONMENTAL SERVICES ("CONSULTANT")
on the 1ST day of August 2000.

WITNESSETH

Whereas, CALTRANS, as a result of litigation, will design, construct, operate,
maintain, and monitor a Best Management Practice (BMP) system to allow for
observations pertaining to technical feasibility, cost of retrofitting, and benefits of
various BMPs for treating runoff from Caltrans highways and facilities; and

Whereas, potential vector control issues are foreseen at the BMP sites in
CALTRANS' Retrofit Pilot Program; and

Whereas, SGVMVCD contends that California Health and Safety Code Section
2200 et. seq. obligates CALTRANS to accept responsibility for abatement of vectors
emanating from its property; and

Whereas, SGVMVCD is authorized by California Health and Safety Code
Section 2283.5 to collect for the cost of control of nuisances from any state or local
agency and to enter into contractual agreements to provide control of nuisances with
any state or local agency; and

Whereas, CALTRAN's authorized CONSULTANT has requested the
SGVMVCD to provide vector control services for the BMP sites located within the
boundaries of the SGVMVCD; and

Whereas, the CONSULTANT has six (6) BMP sites located within the
boundaries of SGVMVCD located at the Foothill Maintenance Station (Fossil Filter
DII, StreamGuard DII, and Media Filter), Rosemead Maintenance Station (Fossil Filter
DII and StreamGuard DII), and Via Verde Park and Ride (MCTT); and

Whereas, the CONSULTANT has requested the SGVMVCD to provide vector
control at the six (6) BMP sites from date of execution of agreement through June 30,
2002; and

Whereas, CALTRANS and it's consultants have prepared a Vector Control
Plan, namely Appendix IV of CALTRANS BMP Retrofit Pilot Program, BMP
Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles;
and

Now, therefore, SGVMVCD and CONSULTANT, for and in consideration of
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1) The CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and
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Monitoring; 3.2 Biological Controls; 3.3. Chemical Control; 4.0 Threshold Criteria and Treatment Guidelines; 5.4.2 Vertebtrates (Identification); 6.1.1 Treatment Thresholds 1) Mosquito larvae, 5) Black fly and Midge larvae; 6.1.2 Data Collection for Mosquito and Midge Monitoring and Abatement Activities, excluding laboratory identification; 6.1.4 Follow-up Monitoring, excluding adult monitoring; 6.1.5 Abatement of Midge; 6.1.6 Black Flies; 6.2 Vertebtrates; Figure 4.1 Mosquito and Midge Monitoring Equipment List, excluding white coveralls and insulated gloves, all CO₂-light traps, and all Gravid traps; Figure 4.2 Mosquito and Midge Monitoring Task Checklist, excluding all CO₂-light traps, Gravid traps, Larval Sampling 6) laboratory processing; Figure 4.3 Field sheets to be retained by SGVMVCD; Figure 4.4 Inspection Checklist for Vertebrate Vectors; Figure 4.5 Vertebrate Control Related Maintenance Activity Checklist; Table 4.1, excluding Adult Sampling, Sample Analysis; and Table 4.2 Implementation Parameters. The SGVMVCD's shall submit Operations Report to be submitted to CONSULTANT monthly.

3) The SGVMVCD shall furnish all supervision, labor, materials, and equipment necessary to perform larval inspections, vertebrate surveillance, and treatment to control and abate mosquitoes, midges, and black flies emanating from the CONSULTANT's BMP sites located at the Foothill Maintenance Station (Fossil Filter DII, StreamGuard DII, and Media Filter), Rosemed Maintenance Station (Fossil Filter DII and StreamGuard DII), and Via Verde Park and Ride (MCTT).

4) Services shall be performed at the hourly rate and materials billed as specified in Attachment B for services rendered executed upon date of this agreement through June 30, 2002. Attachment B shall be modified annually to reflect adjusted salaries, pesticide cost, and fuel cost and shall be submitted to the CONSULTANT no later than July 15th of each year of this agreement.

5) Services shall be provided until such time that the not to exceed cost of $22,000.00 is exhausted. At any time during the date of execution of this agreement to June 30, 2002, either party can request that the appropriateness of the “not to exceed” figure be examined and, if necessary, re-negotiated. Reasons for re-negotiation include, but are not limited to, changes in the scope of work, unexpected increases or decreases in labor hours or abatement costs, decommissioning of BMP site, or exhaustion of the not to exceed cost.

All invoices and reports shall be submitted to the CONSULTANT by the 7th of the month following the reporting period to:

Law Engineering and Environmental Services, Inc.
1105 Sanctuary Parkway, Suite 300
Alpharetta, GA 30004

All invoices are due and payable within 60 days of the invoice date. A late fee will be charged on past due invoices at the rate of 1.5% of the balance per month. Payment shall be made to:
San Gabriel Valley Mosquito and Vector Control District
1145 N. Azusa Canyon Road
West Covina, California 91790

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Threshold criteria in the Vector Control Plan, the vectors shall be eliminated using
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from or connected with any negligent act or omission of SGVMVCD, including
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b) Comprehensive Automobile Liability endorsed for all owned and non-owned
   vehicles with a combined single limit of $300,000 per occurrence.
c) Worker’s Compensation and Employer’s Liability in an amount and form to
   meet all applicable requirements of the labor code of the State of California and
   which specifically covers all persons providing services on behalf of and all
   risks to such persons under this Service Agreement.
12) Any and all notices sent or required to be sent to the parties of this Service
    Agreement will be mailed by first class mail, postage prepaid, to the following
    addresses:
Edward Othmer  
Law Engineering and Environmental Services  
9177 Sky Park Court, Suite A  
San Diego, CA 92123  

Kenn Fujioka  
San Gabriel Valley Mosquito and Vector Control District  
1145 North Azusa Canyon Road  
West Covina, CA 91790  

13) This Service Agreement shall not be changed or modified except by the written consent of all parties. CONSULTANT reserves the right to change any portion of the work required under this Service Agreement, or amend such other terms and conditions which may become necessary. However, any such revisions or amendments shall only become effective following the issuance of a Change Notice or Amendment to Service Agreement that is agreed to and signed by CONSULTANT and SGVMVCD and that contains cost adjustments mutually agreed to by both parties.

14) This Service Agreement is the result of negotiations between the parties hereto acting on the advice and assistance of their respective counsel. The fact that this Service Agreement was prepared as a matter of convenience by SGVMVCD shall have no impact or significance. Any uncertainty of ambiguity in this Service Agreement shall not be construed against SGVMVCD.

15) This Service Agreement is intended by the parties as their final expression with respect to the matters herein and is a complete and exclusive statement of the terms and conditions thereof.

16) The terms of this Service Agreement are from the date of execution of the Service Agreement through June 30, 2002 or until the not to exceed figure is exhausted, whichever comes first. This Service Agreement may be extended with written consent of all parties. Either CONSULTANT or SGVMVCD may cancel or terminate this Service Agreement at any time upon giving of at least thirty (30) days notice to the other party in writing.

17) The laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Service Agreement and shall also govern the interpretation of this Service Agreement.
IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and
through their respected duly authorized officers as of the last day written below.

SAN GABRIEL VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

By

Henry Morgan, President
Board of Trustees

Date

11/03/00

LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

By

Stephen C. Brinigar, P.E.
Assistant Vice President

Date

18 Oct '00
AMENDMENT TO SERVICE AGREEMENT

MASTER SUBCONTRACT AGREEMENT: Vector Control Service Agreement between the San Gabriel Valley Mosquito and Vector Control District and Law Engineering and Environmental Services, Inc.
CHANGE NO: 1
LAW PROJECT NO: 70311-0-0100
DATE ISSUED: August 1, 2000

THE CURRENT CONTRACT UNIT RATES WILL NOT CHANGE

DESCRIPTION OF CHANGE:
Five sites, namely:
• Foothill Maintenance Station (Fossil Filter Dll, StreamGuard Dll, and Media Filter), and
• Rosemead Maintenance Station (Fossil Filter Dll and StreamGuard Dll)

under the above named Service Agreement, will be removed from the BMP Retrofit Pilot Study, under Caltrans contract number 43A0035. Task Order 6. Therefore, vector monitoring of these five sites under this Service Agreement is not required. The number of sites under this Service Agreement will now total 1, instead of the original 6.

THE SERVICES COVERED BY THIS AMENDMENT TO SERVICE AGREEMENT WILL BE PERFORMED UNDER THE TERMS OF THAT CERTAIN MASTER SUBCONTRACT AGREEMENT REFERENCED ABOVE.

TIME EXTENSION ASSOCIATED WITH THIS AMENDMENT TO SERVICE AGREEMENT, IF ANY: Not applicable.

LAW APPROVED BY: [Signature] DATE: 8-28-01

SUBCONTRACTOR: [Signature] DATE: 9/14/01
October 16, 2001

Dr. Jack Hazelrigg, District Manager  
Greater Los Angeles County Vector Control District  
12545 Florence Avenue  
Santa Fe Springs, CA 90670

Subject: Contract 43A0035, Task Order 6  
Amendment 2 to Vector Control Service Agreement

We have been informed by Caltrans that all the sites apart from five (i.e., I-210/East of Orcas Avenue CDS, I-210/East of Filmore Street CDS, Eastern Regional Maintenance Station Media Filter, Termination Park & Ride Media Filter, and Lakewood Park & Ride MCTT) will be removed from the BMP Retrofit Pilot Study, under Caltrans Contract Number 43A0035, Task Order 6. Therefore, we only require vector monitoring and control of these five sites under this contract. Please remove the other sites from the list under our Vector Control Service Agreement. The number of sites under this Service Agreement will now total 5, instead of the original 18. Two sites, namely Paxton Park & Ride Media Filter and Metro Maintenance Station MCTT, were removed under Amendment 1. Additionally, as we discussed, the unit rates have been changed to account for all labor, travel, pesticide costs, fuel, laboratory, equipment, and other materials necessary to perform the scope of work; this unit rate is $89.00 per site per week. Services provided during the period of August 1, 2001 and June 30, 2002 shall not exceed $21,450.

Please contact me or Ed Othmer if you have any questions.

Sincerely,

LAWCRANDALL  
A Division of Law Engineering and Environmental Services, Inc.

[Signature]

Stephen C. Brinigar, P.E.  
Assistant Vice President

cc: File – Project Number 70311.0.0100

enc.
AMENDMENT TO SERVICE AGREEMENT

MASTER SUBCONTRACT AGREEMENT: Vector Control Service Agreement between the Greater Los Angeles County Vector Control District and Law Engineering and Environmental Services, Inc.
CHANGE NO: 2
LAW PROJECT NO: 70311-0-0100
DATE ISSUED: October 4, 2001

THE CURRENT CONTRACT UNIT RATES WILL BE CHANGE AS FOLLOWS:
- Hourly rates and treatment costs listed in Attachment B to the above named Service Agreement are void.
- Services will be performed on a unit rate basis per site per week. Unit rates include all labor, travel, pesticide costs, fuel, laboratory, equipment, and other materials necessary to perform the scope of work.
- The Unit Rate is $89.00 per site per week.
- Rate changes reflect the period of August 1, 2001 through June 30, 2002 (48 weeks).
- Services provided during the period of August 1, 2001 and June 30, 2002 shall not exceed the cost of $21,450.

DESCRIPTION OF CHANGE:
Eleven sites, namely:
- I-605/SR-91 Infiltration Basin, Swale, Strip and Extended Detention Basin,
- I-605 at Carson Swale,
- I-5/I-605 Swale and Extended Detention Basin,
- Alameda Maintenance Station Oil/Water Separator,
- Altadena Maintenance Station Strip and Infiltration Trench, and
- Cerritos Maintenance Station Swale,

under the above named Service Agreement, will be removed from the BMP Retrofit Pilot Study, under Caltrans contract number 43A0035, Task Order 6. Therefore, vector monitoring of these eleven sites under this Service Agreement is not required. The number of sites under this Service Agreement will now total 5, instead of the original 18. (Two sites, namely Paxton Park and Ride (Media Filter) and Metro Maintenance Station (MCTT), were removed under Amendment 1).

THE SERVICES COVERED BY THIS AMENDMENT TO SERVICE AGREEMENT WILL BE PERFORMED UNDER THE TERMS OF THAT CERTAIN MASTER SUBCONTRACT AGREEMENT REFERENCED ABOVE. THIS CONTRACT WILL TERMINATE JUNE 30, 2002, UNLESS OTHERWISE EXTENDED BY BOTH PARTIES.

TIME EXTENSION ASSOCIATED WITH THIS AMENDMENT TO SERVICE AGREEMENT, IF ANY: Not applicable.

LAW APPROVED BY: [Signature] DATE: 10.18.01

SUBCONTRACTOR: [Signature] DATE: 10.18.01
SERVICE AGREEMENT
BETWEEN THE LOS ANGELES COUNTY WEST VECTOR CONTROL
DISTRICT AND BROWN AND CALDWELL

This Service Agreement made and entered by and between the LOS ANGELES
COUNTY WEST VECTOR CONTROL DISTRICT ("LACWVCD") and BROWN
AND CALDWELL ("CONSULTANT") on the 8th day of July, 1999.

WITNESSETH

Whereas, CALTRANS, as a result of litigation, will design, construct, operate,
maintain, and monitor a Best Management Practice (BMP) system to allow for
observations pertaining to technical feasibility, cost of retrofitting, and benefits of
various BMPs for treating runoff from Caltrans highways and facilities; and
Whereas, potential vector control issues are foreseen at the BMP sites in
CALTRANS' Retrofit Pilot Program; and
Whereas, LACWVCD contends that California Health and Safety Code Section
2200 et. seq. obligates CALTRANS to accept responsibility for abatement of vectors
emanating from its property; and
Whereas, LACWVCD is authorized by California Health and Safety Code
Section 2283.5 to collect for the cost of control of nuisances from any state or local
agency and to enter into contractual agreements to provide control of nuisances with
any state or local agency; and
Whereas, CALTRAN's authorized CONSULTANT has requested the
LACWVCD to provide vector control services for the BMP sites located within the
boundaries of the LACWVCD; and
Whereas, the CONSULTANT has one (1) BMP site located within the
boundaries of LACWVCD located at the Las Flores Maintenance Station; and
Whereas, the CONSULTANT has requested the LACWVCD to provide vector
control at the one (1) BMP site from date of execution of agreement through June 30,
2001; and
Whereas, CALTRANS and its consultants have prepared a Vector Control
Plan, namely Appendix IV of CALTRANS BMP Retrofit Pilot Program, BMP
Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles;
and

Now, therefore, LACWVCD and CONSULTANT, for and in consideration of
the mutual benefits, promises and agreements set forth herein, do agree as follows:
1) The CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and
Monitoring Plan, Volume II for District 7, Los Angeles, Appendix IV, Vector
Control Plan is hereby incorporated as Attachment A.
2) The LACWVCD's responsibilities located in the Vector Control plan are limited to
the following sections: 2.1.2 Mosquitoes and Midge; Larval Sampling, 2.1.3 Black
Fly Larvae; 3.2.1 Biological Controls, Mosquitoes; 3.3.1 Chemical Control,
Mosquitoes; 3.3.2 Chemical Control, Midges; 4.1 Threshold Criteria and
Treatment Guidelines, Mosquitoes and Midges; 6.1.1 Treatment Thresholds 1)
Mosquito larvae, 5) Black fly and Midge larvae; 6.1.2 Data Collection for
Mosquito and Midge Monitoring and Abatement Activities; 6.1.1 Follow-up
Monitoring, excluding adult monitoring; 6.1.5 Abatement of Midges; 6.1.6 Black
Flies; Figure 4.1 Mosquito and Midge Monitoring Equipment List, excluding white
coveralls and insulated gloves, all CO₂-light traps, and all Gravid traps; Figure 4.2
Mosquito and Midge Monitoring Task Checklist, excluding all CO₂-light traps,
Gravid traps, Larval Sampling 6) laboratory processing; Figure 4.3 Field sheets to
be retained by LACWVCD; Figure 4.4 Operations Report to be submitted to
CONSULTANT; Table 4.1, excluding Adult Sampling, Sample Analysis,
Vertebrates, Other Vectors; and Table 4.2 Implementation Parameters.

3) The LACWVCD shall furnish all supervision, labor, materials, and equipment
necessary to perform larval inspections, and treatment to control and abate
mosquitoes, midges, and black flies emanating from the CONSULTANT’s BMP
site located Las Flores Maintenance Station.

4) Services shall be performed at the hourly rate and materials billed as specified in
Exhibit B for services rendered executed upon date of this agreement through June
30, 1999. Exhibit B shall be modified annually to reflect adjusted salaries, pesticide
cost, and fuel cost and shall be submitted to the CONSULTANT no later than July
15th of each year of this agreement.

5) Services shall be provided until such time that the not to exceed cost of $7,500.00 is
exhausted. At any time during the date of execution of this agreement to June 30,
2001, either party can request that the appropriateness of the “not to exceed” figure
be examined and, if necessary, re-negotiated. Reasons for re-negotiation include,
but are not limited to, changes in the scope of work, unexpected increases or
decreases in labor hours or abatement costs, decommissioning of BMP site, or
exhaustion of the not to exceed cost.

6) All invoices and reports shall be submitted to the CONSULTANT by the 10th of the
month following the reporting period to: Brown and Caldwell
Attention: Mark William
9040 Friars Road, Suite 220
San Diego, California 92108-1601

All invoices are due and payable within 60 days of the invoice date. A late fee will
be charged on past due invoices at the rate of 1.5% of the balance per month.
Payment shall be made to: Los Angeles County West Vector Control District
6750 Centinela Ave.
Culver City, California 90230

7) The LACWVCD shall furnish services during normal operational hours as
designated by each facility.

8) If immature stages of mosquitoes, black flies, or midges are present based on the
Threshold criteria in the Vector Control Plan, the vectors shall be eliminated using
the appropriate control measures. If the vectors can be eliminated through physical
control, the CONSULTANT shall be contacted within 24 hours to perform the
physical control measure within 24 hours being contacted. If control must be
performed through biological or chemical control measures, control shall be
performed immediately and the CONSULTANT shall be notified within 24 hours of
the control measure taken.

9) LACWVCD shall indemnify, defend, and hold harmless CONSULTANT and its
respective officers, agents, and employees from and against any and all liability,
expense (including defense costs and legal fees), and claims for damages, including
but not limited to bodily injury, death, personal injury, or property damage arising
from or connected with any negligent act or omission of LACWVCD, including
workers' compensation suits, liability, or expense arising from or connected with
services performed by or on behalf of LACWVCD by any person pursuant to this
Service Agreement.

10) CONSULTANT shall indemnify, defend, and hold harmless LACWVCD and its
respective officers, agents, and employees from and against any and all liability,
expense (including defense costs and legal fees), and claims for damages, including
but not limited to bodily injury, death, personal injury, or property damage arising
from or connected with any negligent act or omission of CONSULTANT, including
workers' compensation suits, liability, or expense arising from or connected with
services performed by or on behalf of CONSULTANT by any person pursuant to
this Service Agreement.

11) LACWVCD and CONSULTANT shall provide and maintain their own expense
during the term of this Service Agreement the following insurance coverage:
   a) Comprehensive General Liability Insurance endorsed for Premises-Operation,
      Product/Completed Operations, Contractual, Board Form Property Damage,
      and Personal Injury with combined single limit of $1,000,000 per occurrence.
   b) Comprehensive Automobile Liability endorsed for all owned and non-owned
      vehicles with a combined single limit of $300,000 per occurrence.
   c) Worker's Compensation and Employer's Liability in an amount and form to
      meet all applicable requirements of the labor code of the State of California and
      which specifically covers all persons providing services on behalf of and all
      risks to such persons under this Service Agreement.

12) Any and all notices sent or required to be sent to the parties of this Service
    Agreement will be mailed by first class mail, postage prepaid, to the following
    addresses:

    Mr. Mark Williams
    Brown and Caldwell
    9040 Friars Road, Suite 220
    San Diego, CA 92108-1601

    Mr. Robert Saviskas, Executive Director
    Los Angeles County West Vector Control District
    6750 Centinela Ave.
    Culver City, CA 90230

13) This Service Agreement shall not be changed or modified except by the written
    consent of all parties. CONSULTANT reserves the right to change any portion of
    the work required under this Service Agreement, or amend such other terms and
conditions which may become necessary. However, any such revisions or
amendments shall only become effective following the issuance of a Change Notice
or Amendment to Service Agreement that is agreed to and signed by
CONSULTANT and LACWVCD and that contains cost adjustments mutually
agreed to by both parties.
14) This Service Agreement is the result of negotiations between the parties hereto
acting on the advice and assistance of their respective counsel. The fact that this
Service Agreement was prepared as a matter of convenience by LACWVCD shall
have no impact or significance. Any uncertainty of ambiguity in this Service
Agreement shall not be construed against LACWVCD.
15) This Service Agreement is intended by the parties as their final expression with
respect to the matters herein and is a complete and exclusive statement of the terms
and conditions thereof.
16) The terms of this Service Agreement are from the date of execution of the Service
Agreement through June 30, 2001 or until the not to exceed figure is exhausted,
whichever comes first. This Service Agreement may be extended with written
consent of all parties. Either CONSULTANT or LACWVCD may cancel or
terminate this Service Agreement at any time upon giving of at least thirty (30) days
notice to the other party in writing.
17) The laws of the State of California shall govern the rights, obligations, duties, and
liabilities of the parties to this Service Agreement and shall also govern the
interpretation of this Service Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and
through their respected duly authorized officers as of the last day written below.

LOS ANGELES COUNTY WEST VECTOR CONTROL DISTRICT

By [Signature] 7-8-99
Bill DiSalvo, President
Board of Trustees

BROWN AND CALDWELL

By [Signature]  
Mark Williams

Date
# Hourly Rate for Non-Member Agencies and Special Contract Projects

<table>
<thead>
<tr>
<th>Position</th>
<th>Hourly Rate</th>
<th>Project Time</th>
<th>Project Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Management</td>
<td>$37.78</td>
<td>5%</td>
<td>$1.89</td>
</tr>
<tr>
<td>Field Supervisor</td>
<td>$24.98</td>
<td>10%</td>
<td>$2.50</td>
</tr>
<tr>
<td>Admin. Sec./Bookkeeper</td>
<td>$20.58</td>
<td>10%</td>
<td>$2.06</td>
</tr>
<tr>
<td>Technician</td>
<td>$21.44</td>
<td>100%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$27.88</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits (28.75% of Salaries)</td>
<td></td>
<td></td>
<td>$8.02</td>
</tr>
</tbody>
</table>

**Total Salaries & Benefits**

$35.90

## Indirect Cost

- Insurance (27.7% of Salaries) $7.72
- Miscellaneous Expense (10% of Salaries) $2.79
- Overhead (20% of Salaries) $5.58

**Total Project Hourly Rate**

$61.98

## Treatment Cost

- **Pesticides**
  - Golden Bear 1111 (per Gallon) $3.32
  - Liquid Bti (per Ounce) $0.24
  - Altosid Liquid Larvicide (per Ounce) $1.24
  - Bti Granules (per Pound) $1.78
  - *B. sphaericus* (per Pound) $4.17
  - Altosid Pellets (per Pound) $23.78
  - Altosid XR Briquets (Each) $2.59

- *Gamchina affinis* (per Dozen) $1.50

- Fuel Cost per Mile Traveled $0.15

Billing will be based on the hourly rate times each hour dedicated to work on the project plus cost of chemical, fish, and fuel as indicated above.
SERVICE AGREEMENT

BETWEEN THE GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT AND
CAMP, DRESSER AND McKEE, INC.

This Service Agreement made and entered by and between the GREATER LOS
ANGELES COUNTY VECTOR CONTROL DISTRICT ("GLACVCD") and CAMP
DRESSER & McKEE ("CONSULTANT") on the 1ST day of December 2000.

WITNESSETH

Whereas, CALTRANS, as a result of litigation, will design, construct, operate,
maintain, and monitor a Best Management Practice (BMP) system to allow for
observations pertaining to technical feasibility, cost of retrofitting, and benefits of
various BMPs for treating runoff from Caltrans highways and facilities; and
Whereas, potential vector control issues are foreseen at the BMP sites in
CALTRANS' Retrofit Pilot Program; and
Whereas, GLACVCD contends that California Health and Safety Code Section
2200 et. seq. obligates CALTRANS to accept responsibility for abatement of vectors
emanating from its property; and
Whereas, GLACVCD is authorized by California Health and Safety Code
Section 2283.5 to collect for the cost of control of nuisances from any state or local
agency and to enter into contractual agreements to provide control of nuisances with
any state or local agency; and
Whereas, CALTRAN's authorized CONSULTANT has requested the
GLACVCD to provide vector control services for the BMP sites located within the
boundaries of the GLACVCD; and
Whereas, the CONSULTANT has one (1) BMP sites located within the
boundaries of GLACVCD located at SR-170 and Oxnard; and
Whereas, the CONSULTANT has requested the GLACVCD to provide vector
control at the one (1) BMP site from date of execution of agreement through June 30,
2001; and
Whereas, CALTRANS and its consultants have prepared a Vector Control
Plan, namely Appendix IV of CALTRANS BMP Retrofit Pilot Program, BMP
Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles;
and

Now, therefore, GLACVCD and CONSULTANT, for and in consideration of
the mutual benefits, promises and agreements set forth herein, do agree as follows:
1) The CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and
Monitoring Plan, Volume II for District 7, Los Angeles, Appendix IV, Vector
Control Plan is hereby incorporated as Attachment A.
2) The GLACVCD's responsibilities located in the Vector Control plan are limited to
the following sections: 2.1.2 Mosquitoes and Midges: Larval Sampling; 2.1.3 Black
Fly Larvae; 2.2 Vertebrate Vector Monitoring; 3.2 Biological Controls; 3.3.
Chemical Control; 4.0 Threshold Criteria and Treatment Guidelines; 5.4.2
Vertebrates (Identification); 6.1.1 Treatment Thresholds 1) Mosquito larvae, 5)
Black fly and Midge larvae; 6.1.2 Data Collection for Mosquito and Midge
Monitoring and Abatement Activities, excluding laboratory identification; 6.1.4
Follow-up Monitoring, excluding adult monitoring; 6.1.5 Abatement of Midge;
6.1.6 Black Flies; 6.2 Vertebrates; Figure 4.1 Mosquito and Midge Monitoring
Equipment List, excluding white coveralls and insulated gloves, all CO₂-light traps,
and all Gravid traps; Figure 4.2 Mosquito and Midge Monitoring Task Checklist,
excluding all CO₂-light traps, Gravid traps, Larval Sampling 6) laboratory
processing; Figure 4.3 Field sheets to be retained by GLACVCD; Figure 4.4
Inspection Checklist for Vertebrate Vectors; Figure 4.5 Vertebrate Control Related
Maintenance Activity Checklist; Table 4.1, excluding Adult Sampling, Sample
Analysis; and Table 4.2 Implementation Parameters. The GLACVCD shall submit
Operations Report to be submitted to CONSULTANT monthly.

3) The GLACVCD shall furnish all supervision, labor, materials, and equipment
necessary to perform larval inspections, vertebrate surveillance, and treatment to
control and abate mosquitoes, midges, and black flies emanating from the
CONSULTANT's BMP site located at SR-170 and Oxnard.

4) Services shall be performed at the hourly rate and materials billed as specified in
Attachment B for services rendered executed upon date of this agreement through
June 30, 2001. Attachment B shall be modified annually to reflect adjusted salaries,
pesticide cost, and fuel cost and shall be submitted to the CONSULTANT no later
than July 15th of each year of this agreement.

5) Services shall be provided until such time that the not to exceed cost of $10,000.00
is exhausted. At any time during the date of execution of this agreement to June 30,
2001, either party can request that the appropriateness of the “not to exceed” figure
be examined and, if necessary, re-negotiated. Reasons for re-negotiation include,
but are not limited to, changes in the scope of work, unexpected increases or
decreases in labor hours or abatement costs, decommissioning of BMP site, or
exhaustion of the not to exceed cost.

6) All invoices and reports shall be submitted to the CONSULTANT by the 7th of the
month following the reporting period to:

Thomas F. Quasebarth
Camp Dresser & McKee, Inc.
2920 Inland Empire Boulevard, Suite 108
Ontario, CA 91764-4802

All invoices are due and payable within 60 days of the invoice date. A late fee will
be charged on past due invoices at the rate of 1.5% of the balance per month.
Payment shall be made to:

Greater Los Angeles Vector Control District
12545 Florence Avenue
Santa Fe Springs, California 90670
7) The GLACVCD shall furnish services during normal operational hours as
designated by each facility.
8) If immature stages of mosquitoes, black flies, or midges are present based on the
Threshold criteria in the Vector Control Plan, the vectors shall be eliminated using
the appropriate control measures. If the vectors can be eliminated through physical
control, the CONSULTANT shall be contacted within 24 hours to perform the
physical control measure within 24 hours of being contacted. If control must be
performed through biological or chemical control measures, control shall be
performed immediately and the CONSULTANT shall be notified within 24 hours of
the control measure taken.
9) GLACVCD shall indemnify, defend, and hold harmless CONSULTANT and its
respective officers, agents, and employees from and against any and all liability,
expense (including defense costs and legal fees), and claims for damages, including
but not limited to bodily injury, death, personal injury, or property damage arising
from or connected with any negligent act or omission of GLACVCD, including
workers’ compensation suits, liability, or expense arising from or connected with
services performed by or on behalf of GLACVCD by any person pursuant to this
Service Agreement.
10) CONSULTANT shall indemnify, defend, and hold harmless GLACVCD and its
respective officers, agents, and employees from and against any and all liability,
expense (including defense costs and legal fees), and claims for damages, including
but not limited to bodily injury, death, personal injury, or property damage arising
from or connected with any negligent act or omission of CONSULTANT, including
workers’ compensation suits, liability, or expense arising from or connected with
services performed by or on behalf of CONSULTANT by any person pursuant to
this Service Agreement.
11) GLACVCD and CONSULTANT shall each provide and maintain at their own
expense during the term of this Service Agreement the following insurance
coverage:
a) Comprehensive General Liability Insurance endorsed for Premises-Operation,
Product/Completed Operations, Contractual, Board Form Property Damage,
and Personal Injury with combined single limit of $1,000,000 per occurrence.
b) Comprehensive Automobile Liability endorsed for all owned and non-owned
vehicles with a combined single limit of $300,000 per occurrence.
c) Worker’s Compensation and Employer’s Liability in an amount and form to
meet all applicable requirements of the labor code of the State of California and
which specifically covers all persons providing services on behalf of and all
risks to such persons under this Service Agreement.
12) Any and all notices sent or required to be sent to the parties of this Service
Agreement will be mailed by first class mail, postage prepaid, to the following
addresses:

   Thomas F. Quasebarth
   Camp Dresser & McKee, Inc.
   2920 Inland Empire Boulevard, Suite 108
   Ontario, CA 91764-4802
Dr. Jack Hazelrigg, District Manager
Greater Los Angeles County Vector Control District
12545 Florence Avenue
Santa Fe Springs, CA 90670

13) This Service Agreement shall not be changed or modified except by the written consent of all parties. CONSULTANT reserves the right to change any portion of the work required under this Service Agreement, or amend such other terms and conditions which may become necessary. However, any such revisions or amendments shall only become effective following the issuance of a Change Notice or Amendment to Service Agreement that is agreed to and signed by CONSULTANT and GLACVCD and that contains cost adjustments mutually agreed to by both parties.

14) This Service Agreement is the result of negotiations between the parties hereto acting on the advice and assistance of their respective counsel. The fact that this Service Agreement was prepared as a matter of convenience by-GLACVCD shall have no impact or significance. Any uncertainty of ambiguity in this Service Agreement shall not be construed against GLACVCD.

15) This Service Agreement is intended by the parties as their final expression with respect to the matters herein and is a complete and exclusive statement of the terms and conditions thereof.

16) The terms of this Service Agreement are from the date of execution of the Service Agreement through June 30, 2001 or until the not to exceed figure is exhausted, whichever comes first. This Service Agreement may be extended with written consent of all parties. Either CONSULTANT or GLACVCD may cancel or terminate this Service Agreement at any time upon giving of at least thirty (30) days notice to the other party in writing.

17) The laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Service Agreement and shall also govern the interpretation of this Service Agreement.
IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respected duly authorized officers as of the last day written below.

GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT

By: Dr. Jack Hazelrigg  
District Manager  

11-8-00  
Date

CAMP DRESSER & McKEE, INC.

By: Jeffrey D. Endicott, P.E.  
Principal  

12-7-00  
Date
13) This Service Agreement shall not be changed or modified except by the written consent of all parties. CONSULTANT reserves the right to change any portion of the work required under this Service Agreement, or amend such other terms and conditions which may become necessary. However, any such revisions or amendments shall only become effective following the issuance of a Change Notice or Amendment to Service Agreement that is agreed to and signed by CONSULTANT and GLACVCD and that contains cost adjustments mutually agreed to by both parties.

14) This Service Agreement is the result of negotiations between the parties hereto acting on the advice and assistance of their respective counsel. The fact that this Service Agreement was prepared as a matter of convenience by GLACVCD shall have no impact or significance. Any uncertainty of ambiguity in this Service Agreement shall not be construed against GLACVCD.

15) This Service Agreement is intended by the parties as their final expression with respect to the matters herein and is a complete and exclusive statement of the terms and conditions thereof.

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17) The laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Service Agreement and shall also govern the interpretation of this Service Agreement.
SERVICE AGREEMENT

BETWEEN THE GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT AND BURNS & MCDONNELL ENGINEERING COMPANY, INC.

This Service Agreement made and entered by and between the GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT ("GLACVCD") and BURNS & MCDONNELL ENGINEERING COMPANY, INC. ("CONSULTANT") on the 22nd day of November 2000.

WITNESSETH

Whereas, CALTRANS, as a result of litigation, will design, construct, operate, maintain, and monitor a Best Management Practice (BMP) system to allow for observations pertaining to technical feasibility, cost of retrofitting, and benefits of various BMPs for treatment runoff from Caltrans highways and facilities; and

Whereas, potential vector control issues are foreseen at the BMP sites in CALTRANS’ Retrofit Pilot Program; and

Whereas, GLACVCD contends that California Health and Safety Code Section 2200 et.seq. obligates CALTRANS to accept responsibility for abatement of vectors emanating from its property; and

Whereas, GLACVCD is authorized by California Health and Safety Code Section 2283.5 to collect for the cost control of nuisances from any state or local agency and to enter into contractual agreements to provide control of nuisances with any state or local agency; and

Whereas, CALTRANS’ authorized CONSULTANT has requested the GLACVCD to provide vector control services for the BMP sites located within the boundaries of the GLACVCD; and

Whereas, the CONSULTANT has six (6) BMP sites located within the boundaries of GLACVCD located at; Foothill Blvd./West of Orcas Ave., Cristy St./South of I-210, Gaviota Ave./South of Magnolia Avenue, Glenada Ave./South of #2 Fwy, Leadwell St./East of I-405, and Garber St./South of I-5.
Whereas, the CONSULTANT has requested the GLACVCD to provide vector control at the six (6) BMP sites from December 15, 2000 through December 31, 2002; and

Whereas, CALTRANS and their consultants have prepared a Vector Control Plan, namely Appendix IV of CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles; and

Now, therefore, GLACVCD and CONSULTANT, for and in consideration of the mutual benefits, promises and agreements set forth herein, do agree as follows:

1. The CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles, Appendix IV, Vector Control Plan is hereby incorporated as Attachment A.

2. The GLACVCD’s responsibilities located in the Vector Control plan are limited to the following sections:

   2.1.2 Mosquitoes and Midges: Larval Sampling;
   2.1.3 Black Fly Larvae;
   2.2 Vertebrate Vector Monitoring;
   3.2 Biological Controls;
   3.3 Chemical Control;
   4.0 Threshold Criteria and Treatment Guidelines;
   5.4.2 Vertebrates (Identification);
   6.1.1 Treatment Thresholds 1) Mosquito larvae, 5) Black fly and Midge larvae;
   6.1.2 Data Collection for Mosquito and Midge Monitoring and Abatement Activities, excluding laboratory identification;
   6.1.4 Follow-up Monitoring, excluding adult monitoring;
   6.1.5 Abatement of Midges;
   6.1.6 Black Flies;
   6.2 Vertebrates;

Figure 4.1 Mosquito and Midge Monitoring Equipment List, excluding white coveralls and insulated gloves, all CO2 – light traps, and all Gravid traps;
Figure 4.2 Mosquito and Midge Monitoring Task Checklist, excluding CO2 – light traps, Gravid traps, Larval sampling 6) laboratory processing;
Figure 4.3 Field Sheets to be retained by GLACVCD;
Figure 4.4 Operations Report to be submitted to CONSULTANT;
Figure 4.6 Inspection Checklist for Vertebrate Vectors;
Figure 4.7 Vertebrate Vector Control Related Maintenance Activity Checklist;
Table 4.1, excluding Sample Analysis; and
Table 4.2 Implementation Parameters.

3. The GLACVCD shall furnish all supervision, labor, materials, and equipment necessary to perform larval inspections, vertebrate surveillance, and treatment to control and abate vectors included in the Vector Control Plan emanating from the CONSULTANT’s BMP installations located at the sites listed above.

4. Services shall be performed at the hourly rate as specified in Exhibit B for services rendered between December 15, 2000 through December 31, 2002. Exhibit B shall be modified annually to reflect adjusted salaries, pesticide cost, and fuel cost and shall be submitted to the CONSULTANT no later than July 15th of each year of this agreement.

5. Pesticide shall be billed based on actual cost including tax not to exceed cost per quantity included in Exhibit B. Fuel cost shall be billed based on rate in Exhibit B.

6. Services shall be provided until such time that the not to exceed cost of $\text{60,000.00}$ is exhausted. At any time during the period of December 15, 2000 to December 31, 2002, either party can request that the appropriateness of the “not to exceed” figure be examined and, if necessary, re-negotiated. Reasons for re-negotiation include, but are not limited to, changes in the scope of work, unexpected increases or decreases in labor hours or abatement costs, decommissioning of BMP site, or exhaustion of the not to exceed cost.

7. All invoices shall be submitted by the 4th of the month following the billing to:
BURNS & McDonnell
Attn: Amy Ellis
10625 Scripps Ranch Boulevard, Suite A
San Diego, California 92131

All reports shall be submitted to the CONSULTANT by the 10th of the month following the reporting period to:

BURNS & McDonnell
Attn: Kevin E. O’Malley
2990 East La Palma Avenue, Suite A
Anaheim, California 92806

All invoices are due and payable within 60 days of CONSULTANT receipt of the invoice, provided that invoices received on or before the 4th of the month following the billing period. A late fee will be charged on past due invoices at the rate of 1.5% of the balance per month.

Payment shall be made to: Greater Los Angeles County Vector Control District
12545 Florence Avenue
Santa Fe Springs, California 90670

8. The GLACVCD shall furnish services during normal operational hours as designated by each facility.

9. If immature stages of mosquitoes, black flies, or midges are present based on the Threshold Criteria in the Vector Control plan, the vectors shall be eliminated using the appropriate control measures. If the vectors can be eliminated through physical control, the CONSULTANT shall be contacted within 24 hours to perform the physical control measure within 24 hours of being contacted. If control must be performed through biological or chemical control measures, control shall be performed immediately and the CONSULTANT shall be notified within 24 hours of the control measure taken.

10. GLACVCD shall indemnify, defend, and hold harmless CONSULTANT and its respective officers, agents, and employees from and against any and all liability, expense (including defense costs and legal fees), and claims for damages,
including but not limited to bodily injury, death, personal injury, or property
damage arising from or connected with any negligent act or omission of
GLACVCD, including workers’ compensation suits, liability, or expense arising
from or connected with services performed by or on behalf of GLACVCD by any
person pursuant to this Service Agreement.

11. CONSULTANT shall indemnify, defend, and hold harmless GLACVCD and its
respective officers, agents, and employees from and against any and all liability,
expense (including defense costs and legal fees), and claims for damages,
including but not limited to bodily injury, death, personal injury, or property
damage arising from or connected with any negligent act or omission
CONSULTANT, including workers’ compensation suits, liability, or expense
arising from or connected with services performed by or on behalf of
CONSULTANT by any person pursuant to this Service Agreement.

12. In the event the liability, expense or claim is caused by joint negligence of
GLACVCD and CONSULTANT, each party shall share in the loss, costs,
damages and expenses (including reasonable attorney’s fees) in proportion to that
party’s negligence. The proportion of negligence shall be decided by mutual
agreement or legal process.

13. GLACVCD and CONSULTANT shall each maintain at its own expense during
the term of the Service Agreement the following insurance coverage:

1. General Liability Insurance including Premises-Operation,
   Product/Completed Operations, Contractual, Board Form Property
   Damage, and Personal Injury with combined single limit of $1,000,000
   per occurrence.

2. Comprehensive Automotive Liability endorsed for all owned and non-
   owned vehicles with a combined single limit of $300,000 per occurrence.

3. Worker’s Compensation and Employer’s Liability in an amount and form
to meet all applicable requirements of the labor code of the State of
California and which specifically covers all persons providing services on
behalf of and all risks to such persons under this Service Agreement.
14. Any and all notices sent or required to be sent to the parties of this Service Agreement will be mailed by first class mail, postage prepaid, to the following addressed:

Burns & McDonnell
10625 Scripps Ranch Boulevard, Suite A
San Diego, California 92131

Dr. Jack Hazelrigg, District Manager
Greater Los Angeles County Vector Control District
12545 Florence Avenue
Santa Fe Springs, California 90670

15. This Service Agreement shall not be changed or modified except by the written consent of all parties. CONSULTANT reserves the right to change any portion of the work required under this Service Agreement, or amend such other terms and conditions which may become necessary. However, any such revisions or amendments shall only become effective following the issuance of a Change Notice or Amendment to Service Agreement that is agreed to and signed by CONSULTANT and GLACVCD and that contains cost adjustments mutually agreed to by both parties.

16. This Service Agreement is the result of negotiations between the parties hereto acting on the advice and assistance of their respective counsel. The fact that this Service Agreement was prepared as a matter of convenience by GLACVCD shall have no impact or significance. Any uncertainty of ambiguity in this Service Agreement shall not be construed against GLACVCD.

17. This Service Agreement is intended by the parties as their final expression with respect to the matters herein and is a complete and exclusive statement of the terms and conditions thereof.

18. The terms of this Service Agreement is from the date of execution of the Service Agreement through December 31, 2002 or until the not to exceed figure is exhausted, which ever comes first. This Service Agreement may be extended
WITH written consent of all parties. Either CONSULTANT or GLACVCD may cancel or terminate this Service Agreement at any time upon giving of at least (30) days notice to the other party in writing.

19. The laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Service Agreement and shall also given the interpretation of this Service Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respected duly authorized officers as of the last day written below.

GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT

By Jack Hazelrigg, Ph.D.
District Manager

Date 11/22/2000

BURNS & McDonnell

By Jeff Thornbury
Principal

Date 11/30/00
SERVICE AGREEMENT
BETWEEN THE GREATER LOS ANGELES COUNTY VECTOR CONTROL
DISTRICT AND BROWN AND CALDWELL

This Service Agreement made and entered by and between the GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT ("GLACVCD") and BROWN AND CALDWELL ("CONSULTANT") on the 11th day of May, 1999.

WITNESSETH

Whereas, CALTRANS, as a result of litigation, will design, construct, operate, maintain, and monitor a Best Management Practice (BMP) system to allow for observations pertaining to technical feasibility, cost of retrofitting, and benefits of various BMPs for treating runoff from Caltrans highways and facilities; and

Whereas, potential vector control issues are foreseen at the BMP sites in CALTRANS' Retrofit Pilot Program; and

Whereas, GLACVCD contends that California Health and Safety Code Section 2200 et seq. obligates CALTRANS to accept responsibility for abatement of vectors emanating from its property; and

Whereas, GLACVCD is authorized by California Health and Safety Code Section 2283.5 to collect for the cost of control of nuisances from any state or local agency and to enter into contractual agreements to provide control of nuisances with any state or local agency; and

Whereas, CALTRAN's authorized CONSULTANT has requested the GLACVCD to provide vector control services for the BMP sites located within the boundaries of the GLACVCD; and

Whereas, the CONSULTANT has eight (8) BMP sites located within the boundaries of GLACVCD located at I-5/I-605, I-605/SR-91, Alameda Maintenance Station, Eastern Regional Maintenance Station, Termination Park & Ride, Paxton Park & Ride, Metro Maintenance Station, and Lakewood Park & Ride; and

Whereas, the CONSULTANT has requested the GLACVCD to provide vector control at the eight (8) BMP sites from May 17, 1999 through June 30, 2001; and

-1-
Whereas, CALTRANS and their consultants have prepared a Vector Control Plan, namely Appendix IV of CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles; and

Now, therefore, GLACVCD and CONSULTANT, for and in consideration of the mutual benefits, promises and agreements set forth herein, do agree as follows:

1. The CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles, Appendix IV, Vector Control Plan is hereby incorporated as Attachment A.

2. The GLACVCD’s responsibilities located in the Vector Control plan are limited to the following sections: 2.1.2 Mosquitoes and Midges: Larval Sampling; 2.1.3 Black Fly Larvae; 2.2 Vertebrate Vector Monitoring; 3.2 Biological Controls; 3.3 Chemical Control; 4.0 Threshold Criteria and Treatment Guidelines; 5.4.2 Vertebrates (Identification); 6.1.1 Treatment Thresholds 1) Mosquito larvae, 5) Black fly and Midge larvae; 6.1.2 Data Collection for Mosquito and Midge Monitoring and Abatement Activities, excluding laboratory identification; 6.1.4 Follow-up Monitoring, excluding adult monitoring; 6.1.5 Abatement of Midge; 6.1.6 Black Flies; 6.2 Vertebrates; Figure 4.1 Mosquito and Midge Monitoring Equipment List, excluding white coveralls and insulated gloves, all CO₂-light traps, and all Gravid traps; Figure 4.2 Mosquito and Midge Monitoring Task Checklist, excluding CO₂-light traps, Gravid traps, Larval sampling 6) laboratory processing; Figure 4.3 Field Sheets to be retained by GLACVCD; Figure 4.4 Operations Report to be submitted to CONSULTANT; Figure 4.6 Inspection Checklist for Vertebrate Vectors; Figure 4.7 Vertebrate Vector Control Related Maintenance Activity Checklist; Table 4.1, excluding Sample Analysis; and Table 4.2 Implementation Parameters.

3. The GLACVCD shall furnish all supervision, labor, materials, and equipment necessary to perform larval inspections, vertebrate surveillance, and treatment to control and abate vectors included in the Vector Control Plan emanating from the CONSULTANT’s BMP installations located at the sites listed above.
4. Services shall be performed at the hourly rate as specified in Exhibit B for services rendered between May 17, 1999 through June 30, 1999. Exhibit B shall be modified annually to reflect adjusted salaries, pesticide cost, and fuel cost and shall be submitted to the CONSULTANT no later than July 15th of each year of this agreement.

5. Pesticide shall be billed based on actual cost including tax not to exceed cost per quantity included in Exhibit B. Fuel cost shall be billed based on rate in Exhibit B.

6. Services shall be provided until such time that the not to exceed cost of $90,805 is exhausted. At any time during the period of May 17, 1999 to June 30, 2001, either party can request that the appropriateness of the “not to exceed” figure be examined and, if necessary, renegotiated. Reasons for re-negotiation include, but are not limited to, changes in the scope of work, unexpected increases or decreases in labor hours or abatement costs, decommissioning of BMP site, or exhaustion of the not to exceed cost.

7. All invoices shall be submitted by the 4th of the month following the billing period and all reports shall be submitted to the CONSULTANT by the 10th of the month following the reporting period to: BROWN AND CALDWELL
   Attention: Mark Williams
   9040 Friars Road, Suite 220
   San Diego, California 92108-1601

   All invoices are due and payable within 60 days of CONSULTANT receipt of the invoice, provided that invoices are received on or before the 4th of the month following the billing period.

   Payment shall be made to: Greater Los Angeles County Vector Control District
   12545 Florence Avenue
   Santa Fe Springs, California 90670

8. The GLACVCD shall furnish services during normal operational hours as designated by each facility.

9. If immature stages of mosquitoes, black flies, or midges are present based on the Threshold Criteria in the Vector Control plan, the vectors shall be eliminated using the appropriate control measures. If the vectors can be eliminated through physical control, the
CONSULTANT shall be contacted within 24 hours to perform the physical control measure within 24 hours of being contacted. If control must be performed through biological or chemical control measures, control shall be performed immediately and the CONSULTANT shall be notified within 24 hours of the control measure taken.

10. GLACVCD shall indemnify, defend, and hold harmless CONSULTANT and its respective officers, agents, and employees from and against any and all liability, expense (including defense costs and legal fees), and claims for damages, including but not limited to bodily injury, death, personal injury, or property damage arising from or connected with any negligent act or omission of GLACVCD, including workers' compensation suits, liability, or expense arising from or connected with services performed by or on behalf of GLACVCD by any person pursuant to this Service Agreement.

11. CONSULTANT shall indemnify, defend, and hold harmless GLACVCD and its respective officers, agents, and employees from and against any and all liability, expense (including defense costs and legal fees), and claims for damages, including but not limited to bodily injury, death, personal injury, or property damage arising from or connected with any negligent act or omission of CONSULTANT, including workers' compensation suits, liability, or expense arising from or connected with services performed by or on behalf of CONSULTANT by any person pursuant to this Service Agreement.

12. In the event the liability, expense or claim is caused by joint negligence of GLACVCD and CONSULTANT, each party shall share in the loss, costs, damages and expenses (including reasonable attorney's fees) in proportion to that party's negligence. The proportion of negligence shall be decided by mutual agreement or legal process.

13. GLACVCD and CONSULTANT shall each maintain at its own expense during the term of this Service Agreement the following insurance coverage:

1) **Comprehensive General Liability Insurance** endorsed for Premises-Operation, Product/Completed Operations, Contractual, Board Form Property Damage, and Personal Injury with combined single limit of $1,000,000 per occurrence.

2) **Comprehensive Automobile Liability** endorsed for all owned and non-owned vehicles with a combined single limit of $300,000 per occurrence.
3) **Worker's Compensation and Employer's Liability** in an amount and form to meet all applicable requirements of the labor code of the State of California and which specifically covers all persons providing services on behalf of and all risks to such persons under this Service Agreement.

14. Any and all notices sent or required to be sent to the parties of this Service Agreement will be mailed by first class mail, postage prepaid, to the following addressed:

   Mr. Mark Williams  
   Brown and Caldwell  
   9040 Friars Road, Suite 220  
   San Diego, CA 92108-1601

   Dr. Jack Hazelrigg, District Manager  
   Greater Los Angeles County Vector Control District  
   12545 Florence Avenue  
   Santa Fe Springs, CA 90670

15. This Service Agreement shall not be changed or modified except by the written consent of all parties. CONSULTANT reserves the right to change any portion of the work required under this Service Agreement, or amend such other terms and conditions which may become necessary. However, any such revisions or amendments shall only become effective following the issuance of a Change Notice or Amendment to Service Agreement that is agreed to and signed by CONSULTANT and GLACVCD and that contains cost adjustments mutually agreed to by both parties.

16. This Service Agreement is the result of negotiations between the parties hereto acting on the advice and assistance of their respective counsel. The fact that this Service Agreement was prepared as a matter of convenience by GLACVCD shall have no impact or significance. Any uncertainty of ambiguity in this Service Agreement shall not be construed against GLACVCD.
17. This Service Agreement is intended by the parties as their final expression with respect to the matters herein and is a complete and exclusive statement of the terms and conditions thereof.

18. The terms of this Service Agreement is from the date of execution of the Service Agreement through June 30, 2001 or until the not to exceed figure is exhausted, which ever comes first. This Service Agreement may be extended with written consent of all parties. Either CONSULTANT or GLACVCD may cancel or terminate this Service Agreement at any time upon giving of at least thirty (30) days notice to the other party in writing.

19. The laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Service Agreement and shall also given the interpretation of this Service Agreement.
IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respected duly authorized officers as of the last day written below.

GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT

By Dexter D. Mac Bride, President
Board of Trustees

Dexter D. Mac Bride, President

5.13.99
Date

BROWN AND CALDWELL

By George Khoury

Mark Williams

5/1/99
Date

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SERVICE AGREEMENT
BETWEEN THE GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT AND MONTGOMERY WATSON - CHAUDHARY

This Service Agreement made and entered by and between the GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT ("GLACVCD") and MONTGOMERY WATSON – CHAUDHARY ("CONSULTANT") on the _____ day of __________, 1999.

WITNESSETH

Whereas, CALTRANS, as a result of litigation, will design, construct, operate, maintain, and monitor a Best Management Practice (BMP) system to allow for observations pertaining to technical feasibility, cost of retrofitting, and benefits of various BMPs for treating runoff from Caltrans highways and facilities; and

Whereas, potential vector control issues are foreseen at the BMP sites in CALTRANS’ Retrofit Pilot Program; and

Whereas, GLACVCD contends that California Health and Safety Code Section 2200 et. seq. obligates CALTRANS to accept responsibility for abatement of vectors emanating from its property; and

Whereas, GLACVCD is authorized by California Health and Safety Code Section 2283.5 to collect for the cost of control of nuisances from any state or local agency and to enter into contractual agreements to provide control of nuisances with any state or local agency; and

Whereas, CALTRAN’s authorized CONSULTANT has requested the GLACVCD to provide vector control services for the BMP sites located within the boundaries of the GLACVCD; and

Whereas, the CONSULTANT has eight (8) BMP sites located within the boundaries of GLACVCD located at; I-210/East of Orcas Ave., I-210/East of Filmore St., I-605/SR-91
(Infiltration Basin), Altadena Maintenance Station, I-605/SR-91 (Bio Strip/Swale), Cerritos Maintenance Station, I-5/I-605, and I-605/Del Amo Ave.; and

Whereas, the CONSULTANT has requested the GLACVCD to provide vector control at the eight (8) BMP sites from May 17, 1999 through June 30, 2001; and

Whereas, CALTRANS and their consultants have prepared a Vector Control Plan, namely Appendix IV of CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles; and

Now, therefore, GLACVCD and CONSULTANT, for and in consideration of the mutual benefits, promises and agreements set forth herein, do agree as follows:

1. The CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles, Appendix IV, Vector Control Plan is hereby incorporated as Attachment A.

2. The GLACVCD's responsibilities located in the Vector Control plan are limited to the following sections: 2.1.2 Mosquitoes and Midges: Larval Sampling; 2.1.3 Black Fly Larvae; 2.2 Vertebrate Vector Monitoring; 3.2 Biological Controls; 3.3 Chemical Control; 4.0 Threshold Criteria and Treatment Guidelines; 5.4.2 Vertebrates (Identification); 6.1.1 Treatment Thresholds 1) Mosquito larvae, 5) Black fly and Midge larvae; 6.1.2 Data Collection for Mosquito and Midge Monitoring and Abatement Activities, excluding laboratory identification; 6.1.4 Follow-up Monitoring, excluding adult monitoring; 6.1.5 Abatement of Midges; 6.1.6 Black Flies; 6.2 Vertebrates; Figure 4.1 Mosquito and Midge Monitoring Equipment List, excluding white coveralls and insulated gloves, all CO₂-light traps, and all Gravid traps; Figure 4.2 Mosquito and Midge Monitoring Task Checklist, excluding CO₂-light traps, Gravid traps, Larval sampling 6) laboratory processing; Figure 4.3 Field Sheets to be retained by GLACVCD; Figure 4.4 Operations Report to be submitted to CONSULTANT; Figure 4.6 Inspection Checklist for Vertebrate Vectors; Figure 4.7 Vertebrate Vector Control Related Maintenance Activity Checklist; Table 4.1, excluding Sample Analysis; and Table 4.2 Implementation Parameters.

3. The GLACVCD shall furnish all supervision, labor, materials, and equipment necessary to
perform larval inspections, vertebrate surveillance, and treatment to control and abate vectors included in the Vector Control Plan emanating from the CONSULTANT's BMP installations located at the sites listed above.

4. Services shall be performed at the hourly rate as specified in Exhibit B for services rendered between May 17, 1999 through June 30, 1999. Exhibit B shall be modified annually to reflect adjusted salaries, pesticide cost, and fuel cost and shall be submitted to the CONSULTANT no later than July 15th of each year of this agreement.

5. Pesticide shall be billed based on actual cost including tax not to exceed cost per quantity included in Exhibit B. Fuel cost shall be billed based on rate in Exhibit B.

6. Services shall be provided until such time that the not to exceed cost of $113,507 is exhausted. At any time during the period of May 17, 1999 to June 30, 2001, either party can request that the appropriateness of the “not to exceed” figure be examined and, if necessary, re-negotiated. Reasons for re-negotiation include, but are not limited to, changes in the scope of work; unexpected increases or decreases in labor hours or abatement costs, decommissioning of BMP site, or exhaustion of the not to exceed cost.

7. All invoices shall be submitted by the 4th of the month following the billing to:

MONTGOMERY WATSON - CHAUDHARY
777 Campus Commons, Suite 250
Sacramento, California 95825

All reports shall be submitted to the CONSULTANT by the 10th of the month following the reporting period to:

MONTGOMERY WATSON
Attn: Gary Friedman
750 B Street, Suite 1610
San Diego, California 92101

All invoices are due and payable within 60 days of CONSULTANT receipt of the invoice, provided that invoices are received on or before the 4th of the month following the billing period.
negligence shall be decided by mutual agreement or legal process.

13. GLACVCD and CONSULTANT shall each maintain at its own expense during the term of this Service Agreement the following insurance coverage:

1) General Liability Insurance including Premises-Operation, Product/Completed Operations, Contractual, Board Form Property Damage, and Personal Injury with combined single limit of $1,000,000 per occurrence.

2) Comprehensive Automobile Liability endorsed for all owned and non-owned vehicles with a combined single limit of $300,000 per occurrence.

3) Worker's Compensation and Employer's Liability in an amount and form to meet all applicable requirements of the labor code of the State of California and which specifically covers all persons providing services on behalf of and all risks to such persons under this Service Agreement.

14. Any and all notices sent or required to be sent to the parties of this Service Agreement will be mailed by first class mail, postage prepaid, to the following addressed:

    Mr. Gary Friedman
    MONTGOMERY WATSON
    750 B Street, Suite 1610
    San Diego, CA 92101

    Dr. Jack Hazelrigg, District Manager
    Greater Los Angeles County Vector Control District
    12545 Florence Avenue
    Santa Fe Springs, CA 90670

15. This Service Agreement shall not be changed or modified except by the written consent of all parties. CONSULTANT reserves the right to change any portion of the work required under this Service Agreement, or amend such other terms and conditions which may become necessary. However, any such revisions or amendments shall only become effective following the issuance of a Change Notice or Amendment to Service Agreement that is agreed to and signed by CONSULTANT and GLACVCD and that contains cost adjustments mutually agreed to by both parties.

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negligence shall be decided by mutual agreement or legal process.

13. GLACVCD and CONSULTANT shall each maintain at its own expense during the term of this Service Agreement the following insurance coverage:

1) **General Liability Insurance** including Premises-Operation, Product/Completed Operations, Contractual, Board Form Property Damage, and Personal Injury with combined single limit of $1,000,000 per occurrence.

2) **Comprehensive Automobile Liability** endorsed for all owned and non-owned vehicles with a combined single limit of $300,000 per occurrence.

3) **Worker’s Compensation and Employer’s Liability** in an amount and form to meet all applicable requirements of the labor code of the State of California and which specifically covers all persons providing services on behalf of and all risks to such persons under this Service Agreement.

14. Any and all notices sent or required to be sent to the parties of this Service Agreement will be mailed by first class mail, postage prepaid, to the following addressed:

Mr. Gary Friedman
MONTGOMERY WATSON
750 B Street, Suite 1610
San Diego, CA 92101

Dr. Jack Hazelrigg, District Manager
Greater Los Angeles County Vector Control District
12545 Florence Avenue
Santa Fe Springs, CA 90670

15. This Service Agreement shall not be changed or modified except by the written consent of all parties. CONSULTANT reserves the right to change any portion of the work required under this Service Agreement, or amend such other terms and conditions which may become necessary. However, any such revisions or amendments shall only become effective following the issuance of a Change Notice or Amendment to Service Agreement that is agreed to and signed by CONSULTANT and GLACVCD and that contains cost adjustments mutually agreed to by both parties.
16. This Service Agreement is the result of negotiations between the parties hereto acting on the advice and assistance of their respective counsel. The fact that this Service Agreement was prepared as a matter of convenience by GLACVCD shall have no impact or significance. Any uncertainty of ambiguity in this Service Agreement shall not be construed against GLACVCD.

17. This Service Agreement is intended by the parties as their final expression with respect to the matters herein and is a complete and exclusive statement of the terms and conditions thereof.

18. The terms of this Service Agreement is from the date of execution of the Service Agreement through June 30, 2001 or until the not to exceed figure is exhausted, which ever comes first. This Service Agreement may be extended with written consent of all parties. Either CONSULTANT or GLACVCD may cancel or terminate this Service Agreement at any time upon giving of at least thirty (30) days notice to the other party in writing.

19. The laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Service Agreement and shall also given the interpretation of this Service Agreement.
IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respected duly authorized officers as of the last day written below.

GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT

By Dexter D. MacBride, President
Board of Trustees

Date 5-17-99

MONTGOMERY WATSON - CHAUDHARY

By MARK MOSER
Vice President

Date 5-17-99

By K.C. CHAUDHARY
President

Date 5-14-99
Whereas, CALTRANS and its consultants have prepared a Vector Control Plan, namely Appendix IV of CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles; and

Now, therefore, GLACVCD and CONSULTANT, for and in consideration of the mutual benefits, promises and agreements set forth herein, do agree as follows:

1) The CALTRANS BMP Retrofit Pilot Program, BMP Operation, Maintenance, and Monitoring Plan, Volume II for District 7, Los Angeles, Appendix IV, Vector Control Plan is hereby incorporated as Attachment A.

2) The GLACVCD’s responsibilities located in the Vector Control plan are limited to the following sections: 2.1.2 Mosquitoes and Midge: Larval Sampling; 2.1.3 Black Fly Larvae; 2.2 Vertebrate Vector Monitoring; 3.2 Biological Controls; 3.3. Chemical Control; 4.0 Threshold Criteria and Treatment Guidelines; 5.4.2 Vertebrates (Identification); 6.1.1 Treatment Thresholds 1) Mosquito larvae, 5) Black fly and Midge larvae; 6.1.2 Data Collection for Mosquito and Midge Monitoring and Abatement Activities, excluding laboratory identification; 6.1.4 Follow-up Monitoring, excluding adult monitoring; 6.1.5 Abatement of Midge; 6.1.6 Black Flies; 6.2 Vertebrates; Figure 4.1 Mosquito and Midge Monitoring Equipment List, excluding white coveralls and insulated gloves, all CO2-light traps, and all Gravid traps; Figure 4.2 Mosquito and Midge Monitoring Task Checklist, excluding all CO2-light traps, Gravid traps, Larval Sampling 6) laboratory processing; Figure 4.3 Field sheets to be retained by GLACVCD; Figure 4.4 Inspection Checklist for Vertebrate Vectors; Figure 4.5 Vertebrate Control Related Maintenance Activity Checklist; Table 4.1, excluding Sample Analysis; and Table 4.2 Implementation Parameters. The GLACVCD’s shall submit Operations Report to be submitted to CONSULTANT monthly.

3) The GLACVCD shall furnish all supervision, labor, materials, and equipment necessary to perform larval inspections, vertebrate surveillance, and treatment to control and abate mosquitoes, midges, and black flies emanating from the CONSULTANT’s BMP sites located at the the I-210 East of Orcas Ave. (CDS), I-210 East of Filmore St. (CDS), I-605/SR-91 (Infiltration Basin, Swale, Strip, and Extended Detention Basin), I-605 at Carson (Swale), I-5/I-605 (Swale and Extended Detention Basin), Paxton Park and Ride (Media Filter), Metro Maintenance Station (MCTT), Alameda Maintenance Station (Oil/Water Separator), Eastern Maintenance Station (Media Filter), Termination Park and Ride (MCTT), Lakewood Park and Ride (MCTT), Altadena Maintenance Station (Strip and Infiltration Trench), and Cerritos Maintenance Station (Swale).

Services shall be performed at the hourly rate and materials billed as specified in Attachment B for services rendered executed upon date of this agreement through June 30, 2002. Attachment B shall be modified annually to reflect adjusted salaries, pesticide cost, and fuel cost and shall be submitted to the CONSULTANT no later than July 15th of each year of this agreement.

Services shall be provided until such time that the not to exceed cost of $250,000.00 is exhausted. At any time during the date of execution of this agreement to June 30, 2002, either party can request that the appropriateness of the “not to exceed” figure be examined and, if necessary, re-negotiated. Reasons for re-negotiation include,
but are not limited to, changes in the scope of work, unexpected increases or
decreases in labor hours or abatement costs, decommissioning of BMP site, or
exhaustion of the not to exceed cost.

All invoices and reports shall be submitted to the CONSULTANT by the 7th of the
month following the reporting period to:

Law Engineering and Environmental Services, Inc.
1105 Sanctuary Parkway, Suite 300
Alpharetta, GA 30004

All invoices are due and payable within 60 days of the invoice date. A late fee will be
charged on past due invoices at the rate of 1.5% of the balance per month. Payment
shall be made to:

Greater Los Angeles County Vector Control District
12545 Florence Avenue
Santa Fe Springs, California 90670

7) The GLACVCD shall furnish services during normal operational hours as
designated by each facility.

8) If immature stages of mosquitoes, black flies, or midges are present based on the
Threshold criteria in the Vector Control Plan, the vectors shall be eliminated using
the appropriate control measures. If the vectors can be eliminated through physical
control, the CONSULTANT shall be contacted within 24 hours to perform the
physical control measure within 24 hours being contacted. If control must be
performed through biological or chemical control measures, control shall be
performed immediately and the CONSULTANT shall be notified within 24 hours of
the control measure taken.

9) GLACVCD shall indemnify, defend, and hold harmless CONSULTANT and its
respective officers, agents, and employees from and against any and all liability,
expense (including defense costs and legal fees), and claims for damages, including
but not limited to bodily injury, death, personal injury, or property damage arising
from or connected with any negligent act or omission of GLACVCD, including
workers’ compensation suits, liability, or expense arising from or connected with
services performed by or on behalf of GLACVCD by any person pursuant to this
Service Agreement.

10) CONSULTANT shall indemnify, defend, and hold harmless GLACVCD and its
respective officers, agents, and employees from and against any all liability,
expense (including defense costs and legal fees), and claims for damages, including
but not limited to bodily injury, death, personal injury, or property damage arising
from or connected with any negligent act or omission of CONSULTANT, including
workers’ compensation suits, liability, or expense arising from or connected with
services performed by or on behalf of CONSULTANT by any person pursuant to
this Service Agreement.
11) GLACVCD and CONSULTANT shall each provide and maintain at their own expense during the term of this Service Agreement the following insurance coverage:
   a) **Comprehensive General Liability Insurance** endorsed for Premises-Operation, Product/Completed Operations, Contractual, Board Form Property Damage, and Personal Injury with combined single limit of $1,000,000 per occurrence.
   b) **Comprehensive Automobile Liability** endorsed for all owned and non-owned vehicles with a combined single limit of $300,000 per occurrence.
   c) **Worker's Compensation and Employer's Liability** in an amount and form to meet all applicable requirements of the labor code of the State of California and which specifically covers all persons providing services on behalf of and all risks to such persons under this Service Agreement.

12) Any and all notices sent or required to be sent to the parties of this Service Agreement will be mailed by first class mail, postage prepaid, to the following addresses:
   Edward Othmer
   Law Engineering and Environmental Services
   9177 Sky Park Court, Suite A
   San Diego, CA 92123

   Dr. Jack Hazelrigg, District Manager
   Greater Los Angeles County Vector Control District
   12545 Florence Avenue
   Santa Fe Springs, CA 90670

This Service Agreement shall not be changed or modified except by the written consent of all parties. CONSULTANT reserves the right to change any portion of the work required under this Service Agreement, or amend such other terms and conditions which may become necessary. However, any such revisions or amendments shall only become effective following the issuance of a Change Notice or Amendment to Service Agreement that is agreed to and signed by CONSULTANT and GLACVCD and that contains

14) This Service Agreement is the result of negotiations between the parties hereto acting on the advice and assistance of their respective counsel. The fact that this Service Agreement was prepared as a matter of convenience by GLACVCD shall have no impact or significance. Any uncertainty of ambiguity in this Service Agreement shall not be construed against GLACVCD.

15) This Service Agreement is intended by the parties as their final expression with respect to the matters herein and is a complete and exclusive statement of the terms and conditions thereof.

16) The terms of this Service Agreement are from the date of execution of the Service Agreement through June 30, 2002 or until the not to exceed figure is exhausted, whichever comes first. This Service Agreement may be extended with written consent of all parties. Either CONSULTANT or GLACVCD may cancel or
terminate this Service Agreement at any time upon giving of at least thirty (30) days
notice to the other party in writing.

17) The laws of the State of California shall govern the rights, obligations, duties, and
liabilities of the parties to this Service Agreement and shall also govern the
interpretation of this Service Agreement.
IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respected duly authorized officers as of the last day written below.

GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT

By Dexter D. MacBride, President
Board of Trustees
JACK HAZELRIGG, DISTRICT MANAGER

Date 10.27.2006

LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

By Stephen C. Brinigar, P.E.
Assistant Vice President

Date 10.30.2000
SERVICE AGREEMENT
BETWEEN THE GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT AND
LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

This Service Agreement made and entered by and between the GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT ("GLACVCD") and LAW ENGINEERING AND ENVIRONMENTAL SERVICES ("CONSULTANT") on the 1ST day of August 2000.

WITNESSETH

Whereas, CALTRANS, as a result of litigation, will design, construct, operate, maintain, and monitor a Best Management Practice (BMP) system to allow for observations pertaining to technical feasibility, cost of retrofitting, and benefits of various BMPs for treating runoff from Caltrans highways and facilities; and
Whereas, potential vector control issues are foreseen at the BMP sites in CALTRANS' Retrofit Pilot Program; and
Whereas, GLACVCD contends that California Health and Safety Code Section 2200 et. seq. obligates CALTRANS to accept responsibility for abatement of vectors emanating from its property; and
Whereas, GLACVCD is authorized by California Health and Safety Code Section 2283.5 to collect for the cost of control of nuisances from any state or local agency and to enter into contractual agreements to provide control of nuisances with any state or local agency; and
Whereas, CALTRAN's authorized CONSULTANT has requested the GLACVCD to provide vector control services for the BMP sites located within the boundaries of the GLACVCD; and
Whereas, the CONSULTANT has eighteen (18) BMP sites located within the boundaries of GLACVCD located at:

• I-210 East of Orcas Ave. (CDS),
• I-210 East of Filmore St. (CDS),
• I-605/SR-91 (Infiltration Basin, Swale, Strip, and Extended Detention Basin),
• I-605 at Carson (Swale),
• I-5/I-605 (Swale and Extended Detention Basin),
• Paxton Park and Ride (Media Filter – to be constructed in 2001),
• Metro Maintenance Station (MCTT – to be constructed in 2001),
• Alameda Maintenance Station (Oil/Water Separator),
• Eastern Maintenance Station (Media Filter),
• Termination Park and Ride (MCTT),
• Lakewood Park and Ride (MCTT),
• Altadena Maintenance Station (Strip and Infiltration Trench), and
• Cerritos Maintenance Station (Swale).
Whereas, the CONSULTANT has requested the GLACVCD to provide vector control at the eighteen (18) BMP sites from date of execution of agreement through
APPENDIX E

WET BASIN SCHEDULE
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## CALTRANS BMP RETROFIT PILOT PROGRAM
### CALTRANS DISTRICT 11
#### WET BASIN IMPLEMENTATION SCHEDULE

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APPENDIX F

MANCHESTER SCHEDULE
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### CALTRANS DISTRICT 11
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December

1 PSE D11 Start Monitoring

7 OMM Empirical Observation Training-D11 Office—Richard Horner, OMM Field Personnel


### January 1999

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  - January 4
  - January 5
  - January 6
  - January 7
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  - January 22
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  - January 24
  - January 25

- **Comments**
  - Wet Basin Design
  - Report, Plans, Specs
  - out to Plaintiffs
  - Wet Basin Design
  - Comments due to Caltrans from Plaintiffs

Printed by RBF on 11/20/1998
January

4
Wet Basin Design Report, Plans, Specs out to Plaintiffs

15
Wet Basin Design Comments due to Caltrans from Plaintiffs