



Robert Bein, William Frost & Associates
PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS

***BI-WEEKLY CONFERENCE CALL
AGENDA***

DATE: March 23, 1999, Tuesday
TIME: 10:00 am – 12 noon
PLACE: RBF, Irvine or via phone (916-657-4102)
ATTENDEES: Bob Wu, Marcelo Peinado, Steve Borroum, Rich Horner/Chris May, Jeremy Johnstone, Rick Graff, RBF
COPIES TO: File
SUBJECT: BMP Pilot Study Status

AGENDA ITEMS

1. Construction Status District 11
2. Construction Status District 7
3. BMP Monitoring/Empirical Observation March 15 event
4. Drain Inlet Inserts
5. Update on Metro and Paxton, Designs and CDS designs
6. Update on Manchester EDB and La Costa Design/Construction
7. Update on La Costa Infiltration Basin / Carlsbad Infiltration Trench

NEXT BI-WEEKLY PROPOSED FOR APRIL 7 AT 10 AM



BMP Pilot Studies

Bi-Weekly Status

BMP Pilot Projects in Los Angeles and San Diego Counties.

February 12, 1999

Robert Bein, William Frost & Associates

CONSTRUCTION ACTIVITIES

District 7 BMP Pilot Projects

Construction Activities, Schedule, Issues / Solutions, Financial Review

(For Estimated Dates on Instrumentation/Monitoring refer to table on page 22)

PS&E Pilot Projects

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

Construction Activities

Concrete was placed for the concrete apron, monitoring pads and headwall. Site was hydro-seeded and BMP seed placed. A pre-final inspection was conducted on February 11. A punch list is being drafted.

Schedule

First working day per contract was November 6, 1998. Construction is 98 percent complete. Anticipated completion date is February 19.

Issues / Solutions

- The existing cloverleaf outlet pipe appears to be clogged, and therefore the improvements are not operating as designed (runoff is backing up along the earth swale and concrete swale). The proposed fix involves a new concrete headwall and a pipe extension. A change order is being prepared for this additional work. Costs to be determined.
- There was some concern regarding the slope of the concrete swale as being too flat. Issue currently under review.
- Seeding with three species - no additional cost resulted from modifying to three species.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Estimated Final Cost Including CCO and State Furnished Materials
1 I-605/SR-91	11-6-98	1-13-99	2-19-99	\$255,646	\$2,000 Traffic Control \$1,000 Lead Sampling \$2,000 Maintain Elec. Sys \$1,000 Rem. Buried Objects \$2,900 Grading Revision (\$25,200) Grading Revision \$17,000 Asphalt Concrete Total \$700	\$256,346

Location 1 (BC) I-5/I-605 Contract No. 07-191104 Extended Detention Basin

Construction Activities

Continuation of punch list by Contractor. Contractor anticipates he will complete the punch list by February 12. Site was operational on January 22.

Schedule

First working day per contract was November 4, 1998. Construction is 99 percent complete. Caltrans gave the Contractor verbal notice that the completion date is January 11, 1999 and liquidated damages will be assessed.

Issues / Solutions None this period.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Final Cost Including CCO and State Furnished Materials
1 I-5/I-605	11-4-98	1-6-99	2-12-99 (EST.)	\$119,511	\$1,500 Traffic Control \$1,000 Lead Sampling \$155 Inlet Drain Holes Total \$2,655	\$122,166

Location 2 (BC) I-605/SR-91 Contract No. 07-191104 Extended Detention Basin

Construction Activities

Continuation of punch list by Contractor. Contractor anticipates he will complete the punch list by February 12. Site was operational on January 22.

Schedule

First working day per contract was November 4, 1998. Construction is 99 percent complete. Caltrans gave the Contractor verbal notice that the completion date is January 11, 1999 and liquidated damages will be assessed.

Issues / Solutions

None this period.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Final Cost Including CCO and State Furnished Materials
2 I-605/SR-91	11-4-98	1-6-99	2-12-99 (EST.)	\$ 119,511	\$1,500 Traffic Control \$1,000 Lead Sampling \$155 Inlet Drain Holes Total \$2,655	\$122,166

Procurement Pilot Projects

Brown and Caldwell Sites

Location 1 Alameda Maintenance Station Oil/Water Separator

Construction Activities

A job walk was conducted on February 4. Bob Wu, Tyrone Taylor and Kuen Tsay (Caltrans), Rex Rasmussen (RBF), Marc Damikolas (Brown & Caldwell) and subcontractors were in attendance. The site was surveyed and staked on February 11.

Schedule

The oil/water separator is scheduled to arrive on site the week of February 15 instead of February 7. The estimated completion was adjusted to April 2.

Issues / Solutions

- The pre-fabricated tank for the oil-water separator was rotated 90 degrees to avoid a bridge footing.
- The oil-water separator was ordered later than originally planned in the schedule due to subcontractor difficulties in completing financial agreements with vendors. Brown and Caldwell is working with their subcontractors to mitigate schedule impacts.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Estimated Final Cost Including CCO and State Furnished Materials
1 Alameda MS	12-18-98	1-27-99	4-2-99 (EST.)	\$172,049	N/A	\$172,049

Location 2 Eastern Maintenance Station Media Filter

Construction Activities

Final patch of asphalt was completed. Permanent fence was installed around the vault. The equipment is functioning. A preliminary punch list was generated.

Schedule

First working day September 25,1998. Construction is 99 percent complete. The estimated completion date is February 12, 1999. Site is operational.

Issues / Solutions

Utility (sewer, gas, electric) conflicts have resulted in repairs and replacement. This has caused an estimated delay of 3 ½ weeks and resulted in estimated costs of \$16,000.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Anticipated Additional Shoring Cost (under negotiation)	Estimated Final Cost Including CCO and State Furnished Materials
2 Eastern MS	9-25-98	12-8-98	2-12-99 (EST.)	\$267,570	\$16,000 Utilities	\$47,670	\$331,240

Location 3 Foothill Maintenance Station Media Filter

Construction Activities

The media filter was installed. Pumps and sampling pads were installed. Electrical work was completed and accepted.

Schedule

First working day October 1,1998. Construction is 92 percent complete. The estimated completion date is February 25, 1999.

Issues / Solutions

Delays at other BMP sites affected the schedule for this site along with recent rain delays.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Anticipated Additional Shoring Cost (under negotiation)	Estimated Final Cost Including CCO and State Furnished Materials
3 Foothill MS	10-1-98	1-4-99	2-25-99 (EST.)	\$400,647	N/A	\$68,955	\$469,602

Location 4 Termination Park and Ride Media Filter

Construction Activities

The existing electrical and irrigation systems were restored. Aggregate base was prepared for asphalt paving. Stainless steel straps for sump standpipe are being installed.

Schedule

First working day October 1,1998. Construction is 92 percent complete. The estimated completion date is March 11, 1999.

Issues / Solutions

- Brown & Caldwell is working with Edison on a solution to bring power to the filter per original design. Caltrans Maintenance Supervisor rejected the current plan for supplying power. The electrical plan will be modified.

- Utility (electric, irrigation) conflicts have resulted in repairs and replacement. This has caused an estimated delay of 3 ½ weeks and resulted in estimated costs of \$4,500. Recent rain delays along with problems running electrical wire through conduit have also contributed to the delay.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Anticipated Additional Shoring Cost (under negotiation)	Estimated Final Cost Including CCO and State Furnished Materials
4 Termination Park & Ride	10-1-98	12-21-98	3-11-99 (EST.)	\$372,982	\$4,500 Utilities	\$66,132	\$443,614

Location 6 Via Verde Park and Ride Multi Chamber Treatment Train

Construction Activities

Backfill of structure was completed. Excavation completed and work has begun on the edge forms and rebar for the slab of the secondary basin.

Schedule

First working day October 8, 1998. Construction is 75 percent complete. The estimated completion date is April 2.

Issues / Solutions

Subsurface rock required additional shoring time and made work during Thanksgiving week inefficient which caused an estimated delay of 3 ½ weeks. Rain has also contributed 3 days to the delay.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Anticipated Additional Shoring Cost (under neg.)	Estimated Final Cost Including CCO and State Furnished Materials
6 Via Verde Park & Ride	10-8-98	1-15-99	4-2-99 (EST.)	\$309,633	\$17,400 core boulders \$400 Utilities Total \$17,800	\$39,663	\$367,096

Location 8 Lakewood Park and Ride Multi Chamber Treatment Train

Construction Activities

Wall forms completed, and concrete placed in the forms. Seven day concrete cure period started.

Schedule

Drilling began on 12/17/98. Construction is 65 percent complete. Rain has hampered construction activities. The estimated completion date is March 29.

Issues / Solutions

- Brown & Caldwell is working with Edison on a solution to bring power to the BMP.
- Delays at other BMP sites affected the schedule for this site along with a total of 5 days lost due to rain.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Anticipated Additional Shoring Cost	Estimated Final Cost Including CCO and State Furnished Materials
8 Lakewood Park & Ride	12-4-98	2-4-99	3-29-99 (EST.)	\$388,037	N/A	\$57,150	\$445,187

Montgomery Watson Sites

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

Construction Activities

All concrete work is complete. Overflow drain pipe is complete. Security fence is under construction. Site is scheduled for salt grass flats installation week of Feb 15.

Schedule

First working day October 5, 1998. Construction is 90 percent complete. Contractor is behind schedule and will not meet the completion date of January 31, 1999. Adjusted completion is February 17.

Issues / Solutions

Site construction is behind schedule due to relocation of infiltration trench to avoid existing utilities and the Contractor scheduling crews and equipment for other BMP sites.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	State Furnished Material (Salt Grass)	Estimated Final Cost Including CCO and State Furnished Materials
1 Package 1 Altadena	10-5-98	12-18-99	2-17-99	\$197,574	N/A	\$3,673	\$201,247

Location 6 Package 1 Foothill Maintenance Station Catch Basin Insert

Construction Activities

MW to provide as-built drawings. The equipment concrete pad was extended to fully support the equipment enclosure.

Schedule

First working day October 5, 1998. Construction was 100 percent complete on January 8, 1999.

Issues / Solutions

None this period.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Estimated Final Cost Including CCO and State Furnished Materials
6 Package 1 Foothill	10-5-98	12-18-98	1-8-99	\$67,730	N/A	\$67,730

Location 7 Package 1 Las Flores Maintenance Station Catch Basin Insert

Construction Activities

MW to provide as-built drawings. The equipment concrete pad was extended to fully support the equipment enclosure.

Schedule

First working day October 5,1998. Construction was 100 percent complete on January 8, 1999.

Issues / Solutions

A meeting was held with the Maintenance Station Superintendent to the review the construction. The Superintendent requested that the equipment pad be relocated away from the window. The request is under review by MW and Caltrans.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Estimated Final Cost Including CCO and State Furnished Materials
7 Package 1 Las Flores	10-5-98	12-18-98	1-8-99	\$81,431	N/A	\$81,431

Location 8 Package 1 Rosemead Maintenance Station Catch Basin Insert

Construction Activities

Construction complete except for new G2M Inlet cover on final punch list. MW to provide as-built drawings. The equipment concrete pad was extended to fully support the equipment enclosure. A meeting was held with the Maintenance Station Superintendent to review the construction. The Superintendent has no outstanding issues other than the G2M inlet cover.

Schedule

First working day October 5,1998. Construction is 99 percent complete.

Issues / Solutions

Final completion will be delayed due to fix of G2M Inlet cover. It will take from 4 to 6 weeks to fabricate new cover. However, this does not affect site operations and monitoring.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Estimated Final Cost Including CCO and State Furnished Materials
8 Package 1 Rosemead	10-5-98	12-18-98	1-8-99	\$59,390	N/A	\$59,390

Location 2 Package 2 I-605/SR-91 Interchange Bio Strip & Swale

Construction Activities

Flume structures and equipment pads were complete for the bio strip. Transition and flume-to-swale structures and equipment pads are complete for the biofiltration swale. Access road is ready for asphalt concrete. Biofiltration swale is being prepared for salt grass flats.

Schedule

First working day November 30, 1998. Construction is 75% complete. Construction is behind schedule. Adjusted completion date is February 22.

Issues / Solutions

- Activities at the bio strip were delayed additionally due to review of light pole relocation issue.
- Caltrans determined that the existing light pole should not be moved or shielded with metal beam guard rail. The construction is proceeding as designed, without the relocation of the light pole. Estimated credit: (\$1,500).
- A communications wire was damaged during excavation of the drain pipe at the bio strip. The Caltrans electrical inspector determined the wire was abandoned.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	State Furnished Material (Salt Grass)	Estimated Final Cost Including CCO and State Furnished Materials
2 Package 2 I-605/SR-91	11-30-98	1-29-99	2/22/99	\$166,715	(\$8,000) reduction in top soil. (\$1,500) Deletion of light pole relocation Total (\$9,500)	\$20,812	\$178,027

Location 3 package 2 Cerritos Maintenance Station Bio Swale

Construction Activities

Equipment pads were completed. Site is scheduled for salt grass flats installation for week of Feb 15.

Schedule

First working day November 30,1998. Construction is 90 percent complete. Construction activities were hampered by the rain. Adjusted completion date is February 15.

Issues / Solutions

None this period.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	State Furnished Materials (Salt Grass)	Estimated Final Cost Including CCO and State Furnished Materials
3 Package 2 Cerritos MS	11-30-98	1-29-99	2-15-99	\$57,727	N/A	\$1,225	\$58,952

Location 4 package 2 I-5/I-605 Bio Swale

Construction Activities

All concrete structures are completed. Site is scheduled for salt grass flats installation week of Feb 15.

Schedule

First working day November 30,1998. Construction is 85% complete. Construction activities were hampered by the rain. Construction behind schedule. Adjusted completion date is February 17.

Issues / Solutions

None this period.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	State Furnished Material (Salt Grass)	Estimated Final Cost Including CCO and State Furnished Materials
4 Package 2 I-5/I-605	11-30-98	1-29-99	2-17-99	\$124,575	(\$35,000) Delete Maint. Pullout	\$7,344	\$96,919

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

Construction Activities

Forms are being placed for the concrete structures. Vehicle turnout is ready for asphalt concrete.

Schedule

First working day November 30,1998. Construction is 50 percent complete. Construction activities were hampered by the rain. Adjusted completion date is February 22.

Issues / Solutions

None this period.

Financial Review

Location	First	Scheduled	Adjusted	Bid	Estimated	State Furnished	Estimated
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	Working Day	Completion Date	Completion Date	Amount	Contract Change Orders	Materials (Salt Grass)	Final Cost Including CCO and State Furnished Materials
5 Package 2 I-605/Del Amo	11-30-98	1-29-99	2-22-99	\$119,895	N/A	\$4,285	\$124,180

Package 3 sites:

Work Package 3 now contains 2 sites. Site 1 is located at I-210 East of Orcas Avenue and Site 2 is located at I-210 East of Filmore Street. Continuous Deflection Separation Units (CDSs) will replace Trapping Catch Basins. Currently waiting for the adoption of the Statement of Understanding between Caltrans and the Plaintiffs. However, design of the CDSs is proceeding for the CDS sites at I-210 East of Orcas Avenue and I-210 East of Filmore. The preliminary schedule is as follows:

Package 3 sites Schedule	
MW to submit draft estimate to Caltrans	Feb 18
Caltrans to present comments to MW	Feb 19
MW to submit revised PSE to Caltrans/Plaintiffs	Feb 26
MW to submit draft Design Report to Caltrans/Plaintiffs	Feb 26
Plaintiffs to submit comments to Caltrans	Mar 8
Caltrans to present comments to MW	Mar 9
MW to submit final PSE to Caltrans/Plaintiffs	Mar 15
Send out RFP	Mar 19
Receive Bids	April 19
Submit Recommendations to Caltrans	April 23
Receive Notice-to-Proceed from Caltrans	April 30
Begin Construction	May 24
End Construction	July 31

San Diego County BMP Pilot Projects

Construction Activities, Schedule, Issues / Solutions, Financial Review

(For Estimated Dates on Instrumentation/Monitoring refer to table on page 22)

A walk-thru of all the constructed BMPs have been scheduled for the week of Feb 24.

PS&E Pilot Projects

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

Construction Activities

Site clean-up, and installation of flumes by KLI.

Schedule

First working day per contract was September 14,1998. Construction is 98 percent complete.

Issues / Solutions

RBF has received the canal gate shop drawings from the fabricator. The drawings are currently under review and comments will be provided to the Caltrans RE on Feb 2. This does not affect site operations.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Estimated Final Cost Including CCO and State Furnished Materials
1 I-5/SR-56	9-14-98	11-18-98	12-31-98	\$130,739	\$10,000 Spillway excavation \$7,100 Import borrow \$1,300 access road \$1,500 Flume Total \$19,900	\$150,639

Location 2 SR-78/I-15 Extended Detention Basin

Construction Activities

Site clean-up and installation of flumes by KLI.

Schedule

First working day per contract was September 14, 1998. Construction is 98 percent complete.

Issues / Solutions

- RBF has received the canal gate shop drawings from the fabricator. The drawings are currently under review and comments will be provided to the Caltrans RE on Feb 2. This does not affect site operations. All work at this site has been paid for as change order work.

Financial Review

Due to the extent of the man made buried objects at this location, many items of work were revised. To reduce costs, the bid amount was reduced to five items of work (i.e.: Water Pollution Control, Erosion Control, Class 2 Aggregate Base, Asphalt Concrete, and Miscellaneous Iron & Steel), and the remaining work was done by contract change order.

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Estimated Final Cost Including CCO and State Furnished Materials
2 I-15/SR-78	9-14-98	11-18-98	12-31-98	\$80,000	(\$240,500) Concrete lining deletion \$1,014,000 Removal man made buried objects \$1,500 Flume Total \$775,000	\$855,000

Location 3 I-5/La Costa Infiltration Basin

Construction Activities

Site clean-up.

Schedule

First working day per contract was September 14,1998. Construction is 98 percent complete.

Issues / Solutions

- Caltrans met with San Diego County Vector Control District personnel on February 11. The Vector Control District plans to issue a letter stating their concerns of standing water and presence of vectors.

Caltrans intends to perform a study of the basin to evaluate why the basin is not functioning per design. RBF is assembling the project documentation scheduled for completion mid March. The geotechnical engineer will review the documentation supplied by RBF. Woodward Clyde will perform a forensic study scheduled for completion in May.

A field report from the January 25-26 storm indicates the possible presence of vectors. The County has been notified to investigate and verify. Caltrans reviewing status of this basin for the remainder of the project in light of this development.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Estimated Final Cost Including CCO and State Furnished Materials
3 I-5/La Costa	9-14-98	11-18-98	N/A	\$ 208,221	\$29,400 Removal of unsuitable material \$2,000 Removal of unsuitable material \$400 Flagging Total \$31,800	\$240,021

Procurement Pilot Projects

Location 1 Kearny Mesa Maintenance Station Media Filter (Compost)

Construction Activities

Activities include paving. Site is operational

Schedule

First working day per contract was November 10,1998. Construction is 99 percent complete. Adjusted completion date is February 19, 1999.

Issues / Solutions

Rain has affected construction activities more than was originally anticipated, and pushed the completion date to February 19.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Estimated Final Cost Including CCO and State Furnished Materials
1 Kearney Mesa MS	11-10-98	12-17-98	2-19-99	\$298,797	\$15,000 Bedrock/Site Revision \$6,300 Additional canisters Total \$21,300	\$320,097

Location 2 Escondido Maintenance Station Media Filter (Sand)

Construction Activities

Activities include guard posts and paving. Site is operational.

Schedule

First working day per contract was November 2, 1998. Construction is 99 percent complete. Adjusted completion date is February 19, 1999.

Issues / Solutions

Rain has affected construction activities more than was originally anticipated, and pushed the completion date to February 19.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Estimated Final Cost Including CCO and State Furnished Materials
2 Escondido MS	11-2-98	12-23-98	2-19-99	\$490,405	(\$46,000) Substitution with epoxy coated \$5,000 add guard posts \$2,000 Elect Conduit Total (\$39,000)	\$451,405

Location 3 La Costa Park and Ride Media Filter (Sand)

Construction Activities

Activities include fence, cable railing and paving. Site is operational.

Schedule

First working day per contract was September 16,1998. Construction is 99 percent complete. Adjusted completion date is February 19, 1999.

Issues / Solutions

- Rain has affected construction activities more than was originally anticipated, and pushed the completion date to February 19.
- Additional costs in the estimated amount of \$500 were incurred for the safety railing/steps.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Estimated Final Cost Including CCO and State Furnished Materials
3 La Costa Park & Ride	9-16-98	11-2-98	2-19-99	\$ 208,955	\$20,000 Unsuitable materials excavation 8,000 Storm drain extension (\$15,000) Delete electrical conduit \$5,500 Safety Railing/Steps Total \$18,500	\$227,455

Location 4 SR-78/I-5 Park and Ride Media Filter (Sand)

Construction Activities

Activity include fence installation and paving.

Schedule

First working day was October 26, 1998. Construction is 97 percent complete. Adjusted completion date is February 19, 1999.

Issues / Solutions

- Rain has affected construction activities more than was originally anticipated, and pushed the completion date to February 19.
- Additional costs in the estimated amount of \$500 were incurred for the safety railing/steps.
- Additional fence was required in the estimated amount of \$1,000.

- Additional landscaping and irrigation system are required that was not shown on the plans. Estimated costs: \$8,200.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Estimated Final Cost Including CCO and State Furnished Materials
4 SR-78/I-5 Park & Ride	9-23-98	11-16-98	2-19-99	\$ 224,502	(\$14,000) Revised vault location \$5,000 plant establishment \$4,500 Safety railing \$2,000 Manhole \$1,000 Fence \$8,200 Landscaping & Irrig. Sys. Total \$6,700	\$231,202

Location 5 Melrose Ave/SR-78 Bio Swale

Construction Activities

Activities include continuation of overside drains.

Schedule

First working day per contract was October 21,1998. Construction is 97 percent complete. Adjusted completion date is February 19, 1999.

Issues / Solutions

- Rain has affected construction activities more than originally anticipated and pushed the completion date to February 19.
- There were additional costs for modifications to the flume transition in the estimated amount of \$1,500.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	State Furnished Materials (Salt Grass)	Estimated Final Cost Including CCO and State Furnished Materials
5 Melrose Ave/SR-78	10-7-98	11-19-98	2-19-99	87,038	\$5,000 Unsuitable material \$19,000 Salt grass installation \$11,000 Plant establishment	\$30,889	\$156,427

					\$4,500 Storm Drain Sediment (\$2,500) Delete Seed \$1,500 Flume Modifications Total \$38,5000		
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Location 6 I-5 Palomar Airport Road Bio Strip

Construction Activities

Maintenance turnout was graded and paved.

Schedule

The site broke ground on January 18. Estimated timeframe that BMP would be operational is March 12 - 20, 1999.

Issues / Solutions

Sod for salt grass is planned to be installed. The Engineer’s Estimate includes the costs for sod installation. A gate will be installed along the frontage road for safer access to the site. Sod delivery will lag completion of grading of site by about 1 – 2 months, depending on weather which influences sod germination. Nursery reports sod will be planted next week due to relatively warm weather.

Financial Review

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Engineer’s Estimate	Estimated Contract Change Orders	State Furnished Material (Salt Grass)	Estimated Final Cost Including CCO and State Furnished Materials
6 I-5 Palomar Airport Road	N/A	N/A	N/A	\$114,200	\$10,000 Plant Estab. & Temp. Irrigation	\$17,951	\$142,151

Location 7 Carlsbad Maintenance Station Bio Strip Infiltration Trench

Construction Activities

Activities include paving and placement of asphalt concrete dike.

Schedule

First working day per contract was October 12,1998. Project began September 30,1998. Construction is 97 percent complete. Adjusted completion date is February 19, 1999.

Issues / Solutions

- There were additional costs for modifications to the flume transition in the estimated amount of \$1,500.
- Rain has affected construction activities, particularly sod installation, more than originally anticipated and pushed the completion date to February 19.

Financial Review

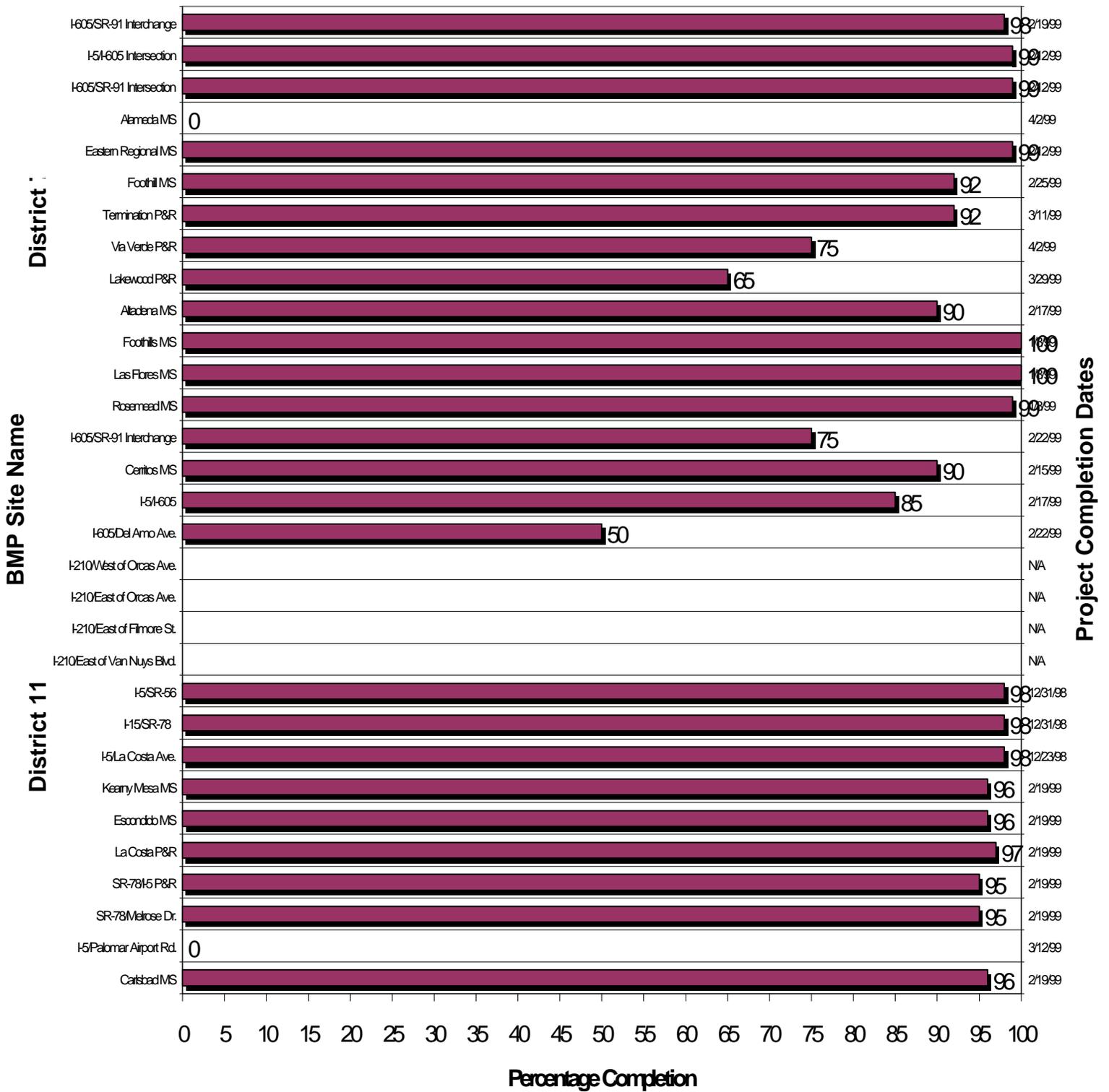
Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	State Furnished Materials (Salt Grass)	Estimated Final Cost Including CCO and State Furnished Materials
7 Carlsbad MS	10-12-98	11-19-98	2-19-99	\$157,800	\$20,000 Unsuitable subgrade \$8,000 Install salt grass \$5,000 Additional paving \$2,000 Elect. Conduit \$5,000 Infiltration Trench (\$18,400) Delete Bioswale bid item \$5,500 Plant Establishment \$1,500 Flume Modifications Total \$28,600	\$9,792	\$196,192

ESTIMATED DATES ON INSTRUMENTATION/MONITORING

Location	Project Type	BMP Type	Monitor Consultant	Site Operational	Begin Instrument Install	Complete Instrument Install	Begin Monitoring/Maintenance
DISTRICT 7							
1 I-605/SR-91	PSE	IB	MW/Law	2/18/99	2/15/99	2/16/99	2/19/99
1 I-5/I-605	PSE	EDB	BC	2/8/99	2/15/99	2/26/99	2/26/99
2 I-605/SR-91	PSE	EDB	BC	2/8/99	2/8/99	2/19/99	2/22/99
1 Alameda MS	Procurement	OWS	BC	2/27/99	3/1/99	3/12/99	3/15/99
2 Eastern MS	Procurement	MF	BC	2/1/99	2/1/99	2/12/99	2/15/99
3 Foothill MS	Procurement	MF	BC	2/22/99	2/22/99	3/5/99	3/8/99
4 Termination Park & Ride	Procurement	MF	BC	3/1/99	3/1/99	3/12/99	3/15/99
6 Via Verde Park & Ride	Procurement	MCTT	BC	3/15/99	3/17/99	3/31/99	4/1/99
8 Lakewood Park & Ride	Procurement	MCTT	BC	3/29/99	3/31/99	4/14/99	4/15/99
1 Package 1 Altadena	Procurement	Bio Strip/IT	MW/Law	2/16/99	2/16/99	2/16/99	2/17/99
6 Package 1 Foothill	Procurement	CBI	MW/Law	1/15/99	1/18/99	1/21/99	1/22/99
7 Package 1 LasFlores	Procurement	CBI	MW/Law	1/15/99	1/18/99	1/21/99	1/22/99
8 Package 1 Rosemead	Procurement	CBI	MW/Law	1/15/99	1/18/99	1/21/99	1/22/99
2 Package 2 I-605/SR-91	Procurement	Bio Strip/Swale	MW/Law	2/12/99	2/17/99	2/17/99	2/23/99
3 Package 2 Cerritos MS	Procurement	BioSwale	MW/Law	2/17/99	2/17/99	2/17/99	2/18/99
4 Package 2 I-5/I-605	Procurement	BioSwale	MW/Law	2/17/99	2/17/99	2/18/99	2/18/99
5 Package 2 I-605/ Del Amo	Procurement	BioSwale	MW/Law	2/22/99	2/18/99	2/18/99	2/22/99
DISTRICT 11							
1 I-5/SR-56	PSE	EDB	KLI	1/8/99	1/11/99	1/24/99	1/24/99
2 I-15/SR-78	PSE	EDB	KLI	1/8/99	1/11/99	1/24/99	1/24/99
3 I-5/La Costa	PSE	IB	KLI	1/8/99 ¹	1/11/99 ¹	1/28/1999 ¹	1/24/99 ¹
1 Kearney Mesa MS	Procurement	MF (Comp)	KLI	2/12/99	2/12/99	2/12/99	2/16/99
2 Escondido MS	Procurement	MF	KLI	2/12/99	2/12/99	2/12/99	2/16/99
3 La Costa Park & Ride	Procurement	MF	KLI	2/19/99	2/19/99	2/26/99	2/26/99
4 SR-78/I-5 Park & Ride	Procurement	MF	KLI	2/19/99	2/19/99	2/26/99	2/26/99
5 Melrose Ave/SR-78	Procurement	Bio Swale	KLI	2/19/99	2/19/99	2/26/99	2/26/99
6 I-5 Palomar Airport Road	Procurement	Bio Strip	KLI	3/99 ¹	3/99 ¹	3/99 ¹	3/99 ¹
7 Carlsbad MS	Procurement	Bio Strip/IT	KLI	2/19/99	2/19/99	2/26/99	2/26/99

¹ Equipment installation schedule is dependent upon resolution of outstanding issues and construction schedule.

Caltrans BMP Pilot Program Construction Estimate of Project Completion



DISTRICT 11 SUMMARY

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	State Furnished Material (Salt Grass)	Est. Final Cost Including CCO and State Furnished Materials
1 I-5/SR-56	9-14-98	11-18-98	12-31-98	\$130,739	\$10,000 Spillway excavation \$7,100 Import borrow \$1,300 Access road \$1,500 Flume Total \$19,900	N/A	\$150,639
2 I-15/SR-78	9-14-98	11-18-98	12-31-98	\$80,000	(\$240,500) Concrete lining deletion \$1,014,000 Remove man made buried obj. \$600,000 Removal man made buried objects \$1,500 Flume Total \$775,000	N/A	\$,855,000
3 I-5/La Costa	9-14-98	11-18-98	N/A	\$ 208,221	\$29,400 Removal of unsuitable material \$2,000 Removal of unsuitable material \$400 Flagging Total \$31,800	N/A	\$240,021
1 Kearney Mesa MS	11-10-98	12-17-98	2-19-99	\$298,797	\$6,300 Additional canisters \$15,000 Bedrock/Site Revision Total \$21,300	N/A	\$ 320,097
2 Escondido MS	11-2-98	12-23-98	2-19-99	\$490,405	(\$46,000) Substitution with epoxy coated \$5,000 add guard posts \$2,000 Elect Conduit Total (\$39,000)	N/A	\$451,405
3 La Costa Park & Ride	9-16-98	11-2-98	2-19-99	\$ 208,955	\$20,000 Unsuitable materials excavation \$8,000 Storm drain extension (\$15,000) Delete electrical conduit \$5,500 Safety Railing/Steps Total \$18,500	N/A	\$227,455
4 SR-78/I-5 Park & Ride	9-23-98	11-16-98	2-19-99	\$ 224,502	(\$14,000) Revised vault location \$5,000 plant establishment \$4,500 Safety railing \$2,000 Manhole \$1,000 Fence \$8,200 Landscaping & Irrigation Sys. Total \$6,700	N/A	\$231,202
5 Melrose Ave/SR-78	10-7-98	11-19-98	2-12-99	87,038	\$5,000 Unsuitable material \$19,000 Salt grass installation \$11,000 Plant establishment \$4,500 Storm Drain Sediment (\$2,500) Delete Seed \$1,500 Flume Modifications Total \$38,500	\$30,889	\$156,427
6 I-5 Palomar Airport Road	1-11-98 (EST.)	3-12-99 (EST.)	N/A	\$114,200	\$10,000 Plant Estab. & Temp. Irrigation	\$17,951	\$142,151
7 Carlsbad MS	10-12-98	11-19-99	2-19-99	\$157,800	\$20,000 Unsuitable subgrade \$8,000 Install salt grass \$5,000 Additional paving \$2,000 Elect. Conduit \$5,000 Infiltration Trench (\$18,400) Delete bio swale bid item \$5,500 Plant Establishment \$1,500 Flume Modifications Total \$28,600	\$9,792	\$196,192

SUBTOTAL (SITES UNDER CONSTRUCTION)	\$2,000,657	\$911,300	\$58,632	\$2,970,589
I-5/Manchester (East)	Engineer's Estimate =			\$ 305,300
I-5/La Costa	Engineer's Estimate =			\$ 500,000
GRAND TOTAL				\$3,775,889

DISTRICT 7 SUMMARY (ESTIMATED COMPLETION DATES ARE UNDER REVIEW BY CALTRANS)

Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	Anticipated Additional Shoring Cost (Under Neg.)	State Furnished Materials (Salt grass)	Estimated Final Cost Including CCO and State Furnished Materials
1 I-605/SR-91	11-6-98	1-13-99	2-19-99	\$255,646	\$17,000 Asphalt Concrete \$2,000 Traffic Control \$1,000 Lead Sampling \$2,000 Maintain Elec. Sys \$1,000 Rem. Buried Objects \$2,900 Grading Revision (\$25,200) Grading Revision Total \$700		N/A	\$256,346
1 I-5/I-605	11-4-98	1-6-99	2-12-99 (EST.)	\$119,511	\$1,500 Traffic Control \$1,000 Lead Sampling \$155 Inlet Drain Holes Total \$2,655		N/A	\$122,166
2 I-605/SR-91	11-4-98	1-6-99	2-12-99 (EST.)	\$ 119,511	\$1,500 Traffic Control \$1,000 Lead Sampling \$155 Inlet Drain Holes Total \$2,655		N/A	\$122,166
1 Alameda MS	12-18-98	1-27-99	4-2-99 (EST.)	\$172,049	N/A		N/A	\$172,049
2 Eastern MS	9-25-98	12-8-98	2-12-99 (EST.)	\$267,570	\$16,000 Utilities	\$47,670	N/A	\$331,240
3 Foothill MS	10-1-98	1-4-99	2-25-99 (EST.)	\$400,647	N/A	\$68,955	N/A	\$469,602
4 Termination Park & Ride	10-1-98	12-21-98	3-11-99 (EST.)	\$372,982	\$4,500 Utilities	\$66,132	N/A	\$443,614
6 Via Verde Park & Ride	10-8-98	1-15-99	4-2-99 (EST.)	\$309,633	\$17,400 Boulder coring \$400 Utilities Total \$17,800	\$39,663	N/A	\$367,096
8 Lakewood Park & Ride	12-4-98	2-4-99	3-29-99 (EST.)	\$388,037	N/A	\$57,150	N/A	\$445,187
1 Package 1 Altadena	10-5-98	12-18-98	2-17-99	\$197,574	N/A		\$3,673	\$201,247
6 Package 1 Foothill	10-5-98	12-18-98	1-8-99	\$67,730	N/A		N/A	\$67,730
7 Package 1 LasFlores	10-5-98	12-18-98	1-8-99	\$81,431	N/A		N/A	\$81,431
8 Package 1 Rosemead	10-5-98	12-18-98	1-8-99	\$59,390	N/A		N/A	\$59,390
2 Package 2 I-605/SR-91	11-30-98	1-29-99	2-22-99	\$166,715	(\$8,000) Reduced topsoil (\$1,500) Cancel Light Pole Reloc. (\$9,500)		\$20,812	\$178,027
3 Package 2 Cerritos MS	11-30-98	1-29-99	2-15-99	\$57,727	N/A		\$1,225	\$58,952
4 Package 2 I-5/I-605	11-30-98	1-29-99	2-17-99	\$124,575	(\$35,000) Delete Maintenance Pullout		\$7,344	\$96,919
5 Package 2 I-605/ Del Amo	11-30-98	1-29-99	2-22-99	\$119,895	N/A		\$4,285	\$124,180
SUBTOTAL (SITES UNDER CONSTRUCTION)				\$3,280,623	(\$190)	\$279,570	\$37,339	\$3,597,342
I-210/West of Orcas Ave.							Bid Amount =	\$198,066

I-210/East of Orcas Ave.	Bid Amount =	\$236,688
I-210/East of Filmore St.	Bid Amount =	\$300,575
I-210/East of Van Nuys Blvd.	Bid Amount =	\$333,870
GRAND TOTAL		\$4,666,541

OMM PLAN ACTIVITIES

VOLUME I

The final version of OMM Vol I has been submitted on January 15, 1999. The supplemental section for the Wet Basin is approximately 90 percent complete

VOLUME II

The final version of OMM Volume II was submitted to the Plaintiffs on Feb 1, 1999. The final version of the Volume II was distributed to all plan holders. The Field Guidance Note Books and Appendices are expected to begin for the Manchester EDB and the La Costa Wet Basin are expected to start about March 22.

EXECUTION OF OMM

Dates of stormwater sampling events are summarized in the table, below.

DATES OF SAMPLING EVENTS - 1999

Location	Project Type	BMP Type	Monitor Consultant	Event 1	Event 2	Event 3	Event 4
DISTRICT 7							
1 I-605/SR-91	PSE	IB	MW/Law				
1 I-5/I-605	PSE	EDB	BC				
2 I-605/SR-91	PSE	EDB	BC				
1 Alameda MS	Procurement	OWS	BC				
2 Eastern MS	Procurement	MF	BC				
3 Foothill MS	Procurement	MF	BC				
4 Termination Park & Ride	Procurement	MF	BC				
6 Via Verde Park & Ride	Procurement	MCTT	BC				
8 Lakewood Park & Ride	Procurement	MCTT	BC				
1 Package 1 Altadena	Procurement	Bio Strip/IT	MW/Law				
6 Package 1 Foothill	Procurement	CBI north-Stream Guard Insert	MW/Law				
		CBI south-Fossil Filter Insert	MW/Law	Jan 25			
7 Package 1 LasFlores	Procurement	CBI north-StreamGuard Insert	MW/Law	Jan 31			
		CBI south-Fossil Filter Insert	MW/Law	Jan 25	Jan 31		
8 Package 1 Rosemead	Procurement	CBI north-Fossil Filter Insert	MW/Law	Jan 31			
		CBI south-StreamGuard Insert	MW/Law	Jan 31			
2 Package 2 I-605/SR-91	Procurement	Bio Strip/Swale	MW/Law				
3 Package 2 Cerritos MS	Procurement	BioSwale	MW/Law				
4 Package 2 I-5/I-605	Procurement	BioSwale	MW/Law				
5 Package 2 I-605/ Del Amo	Procurement	BioSwale	MW/Law				
DISTRICT 11							
1 I-5/SR-56	PSE	EDB	KLI	Jan 25 to 26	Feb 5		
2 I-15/SR-78	PSE	EDB	KLI	Jan 25 to 26	Feb 5		
3 I-5/La Costa	PSE	IB	KLI	Jan 25 to 26	Feb 5		
1 Kearney Mesa MS	Procurement	MF (Comp)	KLI				
2 Escondido MS	Procurement	MF	KLI				
3 La Costa Park & Ride	Procurement	MF	KLI				
4 SR-78/I-5 Park & Ride	Procurement	MF	KLI				
5 Melrose Ave/SR-78	Procurement	Bio Swale	KLI				
6 I-5 Palomar Airport Road	Procurement	Bio Strip	KLI				
7 Carlsbad MS	Procurement	Bio Strip/IT	KLI				

DATABASE

UC Davis is currently developing a general strategy for the statewide database. That strategy would become the foundation for strategies for local databases. A meeting with UCD, Caltrans, RBF, LawCrandall and Montgomery Watson has been scheduled for Feb. 17 to discuss the structure of the database.

Other OMM Issues

None during this reporting period.

VECTOR ACTIVITIES

Monitoring: Adult mosquito sampling has been conducted from 2/10 to 2/13 at the BMP sites (except site5). During an unscheduled visit to the sites within the southern portion of the D7, vector activity was noted at site 9 (EDB at I-5/I-605). Mosquito egg rafts (approx. one dozen) were found associated with the outflow from the standpipe. A sample of the rafts was taken to UCR to identify the species. Dean Messer has been notified. Brown and Caldwell has also been notified.

The collections of mosquitoes and midges have been analyzed and a draft of the report has been completed. The midge species identifications have been received. A draft of the background monitoring report is currently under revision. Upon completion of the draft report, a copy of the report will be forwarded to the Plaintiffs – submittal tentatively scheduled for the third week of February.

Service Agreements: Working with the Vector Control Districts (VCDs), the service agreements should be signed this month.

San Diego Vector Control: The KLI/San Diego Contract has been submitted to the County of San Diego. The draft form has been reviewed by the County's attorneys and forwarded to the County Board of Supervisors (scheduled vote on March 16). A copy of the draft has been submitted to Rick Graff.

Dean Messer, Marcelo Peinado, Pat Kinney, and Bill Whittenberg toured the D11 sites with the County Vector control personnel (Mike Devine and Keith McBarron). The County did not see any extraordinary opportunities for

mosquito breeding. In fact, in those locations where there was standing water, it was anticipated that the next storm would flush out any mosquitoes or pre-mosquitoes. However, there were some areas where they recommended preventive action. The primary location was around the rip-rap at the entrances to the BMPs. They recommended either a residual treatment technique or filling the spaces between the rip-rap.

Additionally, the team met with the County at their offices. Essentially, every potential issue was worked through. The County will review/revise the scope of work to better reflect their their standard practices in San Diego. Mike Devine indicated that the Board of Supervisors have the Service Agreement as a Consent Agenda item for their March 16 meeting. Mike indicated that the County could start service the day the Board accepts the agreement.

DISTRICT 7 PROCUREMENT DESIGN ACTIVITIES

Termination PR and Paxton PR: Caltrans has initiated a siting review at Termination MS and Paxton PR to investigate the feasibility of the installation of Stormtreat units at either of these locations. The feasibility review has been completed on 2/8/99.

Metro MS: The MCTT at this site is in the influence area for a bridge column footing, and may require extensive shoring to construct the unit. The feasibility of placing the required pump at the inlet of the MCTT unit, rather than the outlet of the unit, has been reviewed by Dr. Bob Pitt. Dr. Pitt indicated that there is no problem with the relocation of the pump. Brown and Caldwell is redesigning the MCTT at this location to move the pump to the inlet of the unit. The plaintiffs have accepted the placement of the pumps to the inlet of the MCTT. We are currently working on the reconfiguration of the MCTT with the relocation of the pump to the inlet. The reconfiguration of the pump of the inlet to the MCTT and the reconfiguration of the unit are currently being considered in an attempt to stay outside of the influence area of the bridge column footings. The possibility of construction of a shallower box is being considered to avoid the footings.

DISTRICT 11 PROCUREMENT/PS&E DESIGN ACTIVITIES

Project 4 – Constructed Wetland: I-5 (N/B)/La Costa Avenue (Procurement)

Electronic submittal of specifications were sent to the District on February 8, and electronic submittal of the plans were sent to the District on February 11. Received Plaintiff comments on February 11. RBF is preparing responses and will forward to the District by February 16. District comments on the plans are anticipated February 16.

A schedule is provided separately.

Caltrans is working with U. S. Fish & Wildlife Service to determine if a Section 7 Consultation is required, and with the Regional Water Quality Control Board for a 401 Permit. The District 11 archaeologist was requested to research the existence of an archaeological site.

It's anticipated that approximately fourteen mature trees will be removed during construction. These trees will be replaced at the 5:1 ratio, and the new trees planted.

Monthly monitoring of groundwater level continues. A groundwater level reading is summarized in a table below. Groundwater level measurement is scheduled for February 17.

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

Electronic submittal of plans and specifications were sent to the District on February 3. Received Plaintiff comments on February 4 and responded to comments via a conference call with Marcelo Peinado and Plaintiffs on February 9. Final response to comments were then forwarded to the District for review and approval. RBF intends to review and finalize plans the week of February 16.

Caltrans intends to execute a change order with the Contractor on the existing PS&E sites. Construction is estimated to start in late March.

A schedule is provided separately.

Monthly monitoring of groundwater level continues. A groundwater level reading is summarized below. Groundwater level measurement is scheduled for February 17.

Groundwater Level Monitoring – Elevation (ft)		
Date	La Costa – WB site	Manchester – EDB site
12/15/98	13.80	13.00
1/20/99	13.75	13.12
Basin Invert	9.84	14.58

ENVIRONMENTAL AND JURISDICTIONAL ACTIVITIES

Regulatory Issues

RBF continues to coordinate with a Dudek & Associates, a San Diego based biologist to establish a scope of work to perform a Biological Monitoring Assessment/Survey of the BMP sites during the extent of the study. Dudek will be monitoring the sites and documenting their effect on wildlife communities. The draft Scope of Work was received week of Feb 8. The Scope of Work is currently under review by Caltrans HQ (Richard Hill). We anticipate submittal of the Scope week of Feb 25.

Weather

Precipitation data for Los Angeles and San Diego for the month of January and February was obtained from NOAA (see Table, below).

January 1999

Los Angeles – Civic Center				San Diego			
Day	Precip. (Inches)	Day	Precip. (Inches)	Day	Precip. (Inches)	Day	Precip. (Inches)
1	0.00	16	0.0	1	0.00	16	0.0
2	0.00	17	0.0	2	0.00	17	0.0
3	0.00	18	0.0	3	0.00	18	0.0
4	0.00	19	0.12	4	0.00	19	0.12
5	0.00	20	0.0	5	0.00	20	0.08
6	0.00	21	0.0	6	0.00	21	0.0
7	0.00	22	0.0	7	0.00	22	0.0
8	0.00	23	0.0	8	0.00	23	0.0
9	0.00	24	0.37	9	0.00	24	0.70
10	0.00	25	0.42	10	0.00	25	0.23
11	0.00	26	0.30	11	0.00	26	0.31
12	0.00	27	0.0	12	0.00	27	N/A
13	0.00	28	0.0	13	0.00	28	N/A
14	0.00	29	NA	14	0.00	29	0.0
15	0.00	30	0.0	15	0.00	30	0.0
		31	0.56			31	0.06

February 1999

Los Angeles – Civic Center				San Diego			
Day	Precip. (Inches)	Day	Precip. (Inches)	Day	Precip. (Inches)	Day	Precip. (Inches)
1	0.0	16		1	0.0	16	
2	0.0	17		2	0.0	17	
3	0.0	18		3	0.0	18	
4	0.0	19		4	0.34	19	
5	0.17	20		5	0.22	20	
6	0.0	21		6	T	21	
7	0.0	22		7	0.0	22	
8	0.0	23		8	0.02	23	
9	0.27	24		9	0.0	24	
10	0.12	25		10	0.09	25	
11	0.0	26		11	0.0	26	
12	0.0	27		12	0.0	27	
13		28		13		28	
14		29		14			
15		30		15			
		31					

The data presented above for Los Angeles as of 4:00 p.m. is for the preceding 24 hours. The data presented above for San Diego as of 5:00 p.m. is for the preceding 24 hours.

The National Weather Service 6-10 day forecast of February 12 indicates that normal precipitation and lower than normal temperatures are expected for Los Angeles and San Diego, through Feb 22, 1999.