



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: Rich Horner/Chris May, Jeremy Johnstone, Rick Graff,
Bob Wu, Marcelo Peinado, Steve Borroum, Brian Currier,
Cid Tesoro, Pete Van Riper, Brown and Caldwell,
Montgomery Watson, , RBF

COPIES TO: File

SUBJECT: BMP Pilot Study Status

AGENDA ITEMS

1. D7 Design Status : Metro MS, Paxton MS, CDS designs
2. D11 Design Status : Manchester EDB and La Costa Wetpond
3. Construction Status District 7
4. Construction Status District 11
5. District 7 Operation Status
6. District 11 Operation Status
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 Report

BMP Pilot Projects in Los Angeles and San Diego Counties.

March 19, 1999

Robert Bein, William Frost & Associates

CONSTRUCTION ACTIVITIES

District 7 PS&E Pilot Projects

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

Construction Activities

Contractor is in process of completing punch list items (including regrading of basin floor) and has initiated work on the pipe extension and new headwall. The regrading and tilling of the basin invert has been completed.

Schedule

First working day per contract was November 6, 1998. Construction is 98 percent complete. Anticipated completion date is March 26. The anticipated completion date has been adjusted due to the time needed to complete the pipe extension and new headwall.

Issues / Solutions

A change order has been prepared in the estimated amount of \$17,000 for the pipe extension and new headwall.

Financial Review Refer to District 7 Summary.

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

Construction Activities

Contractor continued working on the punch list and initiated removal of the temporary 'k'-rail. Site is operational.

Schedule

First working day per contract was November 4, 1998. Construction is 99 percent complete. Adjusted completion date is March 26.

Issues / Solutions

Caltrans has decided to remove the temporary 'k'- rail and install metal beam guard rail along the shoulder of the freeway. Estimated costs, \$7,000.

Financial Review

Refer to District 7 Summary.

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

Construction Activities

Contractor continued working on the punch list and initiated removal of the temporary 'k'- rail. Site is operational.

Schedule

First working day per contract was November 4, 1998. Construction is 99 percent complete. Adjusted completion date is March 26.

Issues / Solutions

Caltrans has decided to remove the temporary 'k'- rail and install metal beam guard rail along the shoulder of the freeway, place additional asphalt concrete to extend the access road, and install a grate for the sampling inlet. Estimated costs, \$9,000.

Financial Review

Refer to District 7 Summary.

District 7 Procurement Pilot Projects

Brown and Caldwell Sites

Location 1 Alameda Maintenance Station Oil/Water Separator

Construction Activities

The oil/water separator tank was installed.

Schedule

The estimated completion was adjusted to April 2. Project is currently 40% complete.

Issues / Solutions

Existing underground utilities were avoided by shifting the oil/water separator location. This does not affect the operation of the BMP.

Financial Review

Refer to District 7 Summary.

Location 2 Eastern Maintenance Station Media Filter

Construction Activities

A job walk was conducted on March 9 and punch list generated. Contractor is in process of completing punch list. Site is operational.

Schedule

First working day September 25,1998. Construction is 99 percent complete. The estimated completion date is March 26, 1999.

Issues / Solutions

None this period.

Financial Review

Refer to District 7 Summary.

Location 3 Foothill Maintenance Station Media Filter

Construction Activities

A job walk was conducted on March 9 and punch list generated. Contractor is in process of completing punch list. Site is operational.

Schedule

First working day October 1,1998. Construction is 99 percent complete. The estimated completion date is March 26, 1999.

Issues / Solutions

None this period.

Financial Review

Refer to District 7 Summary.

Location 4 Termination Park and Ride Media Filter

Construction Activities

Backfill around pre-cast vaults, permanent fence completed and electrical conduit installed from the Caltrans junction box to the monitoring equipment.

Schedule

First working day October 1,1998. Construction is 98 percent complete. The estimated completion date is March 24, 1999.

Issues / Solutions

None this period.

Financial Review

Refer to District 7 Summary.

Location 6 Via Verde Park and Ride Multi Chamber Treatment Train

Construction Activities

Precast vaults were installed. Tube settlers and sand filter installed, excavation completed around the existing catch basin outlet/pipe.

Schedule

First working day October 8,1998. 92% complete. The estimated completion date is April 2.

Issues / Solutions

None this period.

Financial Review

Refer to District 7 Summary.

Location 8 Lakewood Park and Ride Multi Chamber Treatment Train

Construction Activities

Partial backfill around main basin structure, filter basin slab completed, and concrete placed for the filter basin walls.

Schedule

Construction is 85 percent complete. The estimated completion date was adjusted to April 21.

Issues / Solutions

Caltrans has approved the proposed electrical connection to the existing Caltrans service.

Financial Review

Refer to District 7 Summary.

Montgomery Watson Sites

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

Construction Activities

Spreader ditch weir plate and spreader ditch drain were installed. Contractor has completed punch list items. Construction is complete.

Schedule

First working day October 5,1998. Construction is 100 percent complete. Adjusted completion is March 12.

Issues / Solutions

- Concern raised regarding the possible erosion of the salt grass during high flow conditions. The situation is currently being reviewed by the BMP Team.
- The salt grass will be overseeded on 3/23/99.

Financial Review

Refer to District 7 Summary.

Location 6 Package 1 Foothill Maintenance Station Drain Inlet Insert

Construction Activities

As-built drawings to be provided. Site is operational.

Schedule

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

Issues / Solutions

Anchor bolts to be installed for equipment enclosure in new concrete pad area.

Financial Review

Refer to District 7 Summary

Location 7 Package 1 Las Flores Maintenance Station Drain Inlet Insert

Construction Activities

As-built drawings to be provided. Site is operational.

Schedule

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

Issues / Solutions

None this period.

Financial Review

Refer to District 7 Summary.

Location 8 Package 1 Rosemead Maintenance Station Drain Inlet Insert

Construction Activities

Construction complete except for new G2M Inlet cover on final punch list. As-built drawings to be provided.

Schedule

First working day October 5, 1998. 99 per cent complete.

Issues/Solutions

- Anchor bolts to be installed for equipment enclosure in new concrete pad area.

- Final completion will be delayed due to fix of G2M Inlet cover. However, this does not affect site operations and monitoring.

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

Construction Activities

Construction is complete. Contractor is completing punch list items.

Schedule

First working day November 30,1998. 99% complete. Adjusted completion date is March 12.

Issues / Solutions

The salt grass will be overseeded on 3/23/99

Financial Review

Refer to District 7 Summary.

Location 3 Package 2 Cerritos Maintenance Station Bio Swale

Construction Activities

Construction is complete. Contractor is completing punch list items.

Schedule

First working day November 30,1998. 99 percent complete. Adjusted completion date is March 12.

Issues / Solutions

- The salt grass will be overseeded on 3/23/99
- Concern was raised regarding the possibility of vectors in the energy dissipator. The situation is under review by the BMP Team.

Financial Review

Refer to District 7 Summary.

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

Construction Activities

Construction is complete. Contractor is completing punch list items.

Schedule

First working day November 30,1998, 99% complete. Adjusted completion date is March 12.

Issues / Solutions

- The salt grass will be overseeded on 3/23/99.
- Concern was raised regarding the possibility of vectors in the energy dissipator. The situation is under review by the BMP Team.

Financial Review

Refer to District 7 Summary.

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

Construction Activities

Construction is complete. Contractor is completing punch list items.

Schedule

First working day November 30,1998. 99 percent complete. Adjusted completion date is March 12.

Issues / Solutions

- The salt grass will be overseeded on 3/23/99.
- Concern was raised regarding the possibility of vectors in the energy dissipator. The situation is under review by the BMP Team.

Financial Review Refer to District 7 Summary.

Package 3 Sites: The CDS design continues. The design will be done per schedule (See section on Remaining D7 Designs). A meeting with the Plaintiffs and the manufacturer may be held as early as the week of March 22.

District 11 PS&E Pilot Projects

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

Construction Activities

Contractor has been given relief of maintenance.

Schedule

First working day per contract was September 14,1998. Construction is 100 percent complete. Site is operational.

Issues / Solutions

A remaining maintenance issue, which does not affect the site operations, is the installation of the canal gate. RBF has received the canal gate shop drawings from the fabricator. The drawings were reviewed and comments were provided to the Caltrans RE on Feb 2. The fabricator received approved drawings on February 25. The quoted delivery for the gates is between April 12 and April 27.

Financial Review

Refer to District 11 Summary.

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

Construction Activities

Construction and punch list items complete except for the canal gates. Contractor has been given relief of maintenance. Site is operational.

Schedule

First working day per contract was September 14,1998. Construction is 100 percent complete.

Issues / Solutions

- A remaining maintenance issue, which does not affect the site operations, is the installation of the canal gate. RBF has received the canal gate shop drawings from the fabricator. The drawings were reviewed and comments provided to the Caltrans RE on Feb 2. The fabricator received approved drawings on February 25. The quoted delivery for the gates is between April 12 and April 27.

Financial Review

Refer to District 11 Summary.

Location 3 I-5/La Costa Infiltration Basin

Construction Activities

Construction is complete. Contractor's obligations have been met.

Schedule

First working day per contract was September 14, 1998. Construction is 100 percent complete.

Issues / Solutions

- Standing Water.
- 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 have an independent geotechnical engineer review the siting and design documentation for the site. RBF is assembling the project documentation scheduled for completion and submission to the Plaintiff on or before 31 March.

Financial Review

Refer to District 11 Summary.

District 11 Procurement Pilot Projects

Location 1 Kearny Mesa Maintenance Station Media Filter (Compost)

Construction Activities

Construction was completed February 26. Items that remain to be completed: striping, signing and barricades. Site is operational.

Schedule

First working day per contract was November 10,1998. Construction is 100 percent complete. Construction was completed February 26, 1999.

Issues / Solutions

Change order costs are being submitted and finalized, estimated costs in the amount of \$20,000 were incurred for additional bedrock excavation.

Financial Review Refer to District 11 Summary.

Location 2 Escondido Maintenance Station Media Filter (Sand)

Construction Activities

Construction complete. Items that remain to be completed: striping, signing and barricades. Site is operational.

Schedule

First working day per contract was November 2,1998. Construction is 100 percent complete. Construction was completed February 26, 1999.

Issues / Solutions

None this period.

Financial Review

Refer to District 11 Summary.

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

Construction Activities

Construction complete. Items that remain to be completed: Small addition to fence. Site is operational.

Schedule

First working day per contract was September 16,1998. Construction is 100 percent complete. Construction was completed March 1, 1999.

Issues / Solutions

Change order costs are being submitted and finalized, estimated costs for removal of unsuitable materials was increased from \$20,000 to \$35,000.

Financial Review Refer to District 11 Summary.

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

Construction Activities

Construction complete. Items that remain to be completed: Addition of locking rings to manholes (2)..

Schedule

First working day was October 26, 1998. Construction is 100 percent complete. Adjusted completion date is March 3 1999.

Issues / Solutions

None this period.

Financial Review

Refer to District 11 Summary.

Location 5 Melrose Ave/SR-78 Bio Swale

Construction Activities

Construction complete: Site is online. Sod coverage does not meet required coverage.

Schedule

First working day per contract was October 21,1998. Construction is 100 percent complete. Construction was completed on February 26, 1999.

Issues / Solutions Portion of the site will be overseeded on 3/23/99.

Financial Review

Refer to District 11 Summary.

Location 6 I-5 Palomar Airport Road Bio Strip

Construction Activities

Obtained concurrence from the Coastal Commission. Completion of final plans and estimate, and maintenance turnout. Site was surveyed and staked.

Schedule

The construction of the maintenance pullout began on January 18. Construction of the BMP is scheduled to begin week of March 24. Estimated completion date is April 30.

Issues / Solutions

Salt grass flats are planned to be installed. The Engineer's Estimate includes the costs for salt grass installation. A gate will be installed along the frontage road for safer access to the site. Salt grass delivery will lag completion of grading of site by about 1 month, depending on weather which influences salt grass germination. Salt grass has been planted during week of March 8.

Financial Review

Refer to District 11 Summary.

Location 7 Carlsbad Maintenance Station Bio Strip Infiltration Trench

Construction Activities

Construction complete. Site is operational.

Schedule

First working day per contract was October 12, 1998. Project began September 30, 1998. Construction was completed on February 26, 1999.

Issues / Solutions

Portion of site will be overseeded on 3/23/99.

Financial Review

Refer to District 11 Summary.

BMP OPERATIONS STATUS

Location	BMP Type	Monitor Consultant	Site "On-line" ²	Begin Instrument Install	Complete Instrument Install	Operational ³ (start empirical and maintain)	Ready for Water Quality Monitoring ⁴
DISTRICT 7							
I-605/SR-91	IB	MW/Law	3/26/99	2/15/99	3/26/99	3/27/99	3/27/99
I-5/I-605	EDB	BC	2/8/99	2/15/99	2/26/99	2/26/99	2/26/99
I-605/SR-91	EDB	BC	2/8/99	2/8/99	2/19/99	2/22/99	2/22/99
Alameda MS	OWS	BC	4/21/99	Fall 1999	Fall 1999	4/21/99	Fall 1999
Eastern MS	MF	BC	2/1/99	2/1/99	2/12/99	2/15/99	2/15/99
Foothill MS	MF	BC	2/22/99	2/22/99	3/5/99	3/5/99	3/5/99
Termination Park & Ride	MF	BC	3/1/99	3/1/99	Fall 1999	3/1/99	Fall 1999
Paxton Park & Ride	MF	BC	10/8/99	10/8/99	10/15/99	10/15/99	10/15/99
Via Verde Park & Ride	MCTT	BC	4/2/99	4/2/99	Fall 1999	4/2/99	Fall 1999
Metro MS	MCTT	BC	10/8/99	10/8/99	10/15/99	10/15/99	10/15/99
Lakewood Park & Ride	MCTT	BC	3/29/99	3/31/99	Fall 1999	3/31/99	Fall 1999
Altadena	Bio Strip/IT	MW/Law	2/26/99	2/18/99	Fall 1999	Summer 1999	Fall 1999
Foothill	CBI	MW/Law	1/15/99	1/18/99	1/21/99	1/22/99	1/22/99
LasFlores	CBI	MW/Law	1/15/99	1/18/99	1/21/99	1/22/99	1/22/99
Rosemead	CBI	MW/Law	1/15/99	1/18/99	1/21/99	1/22/99	1/22/99
I-605/SR-91	Bio Strip/Swale	MW/Law	2/25/99	2/25/99	Fall 1999	Summer 1999	Fall 1999
Cerritos MS	BioSwale	MW/Law	2/17/99	2/18/99	Fall 1999	Summer 1999	Fall 1999
I-5/I-605	BioSwale	MW/Law	2/17/99	2/18/99	Fall 1999	Summer 1999	Fall 1999
I-605/ Del Amo	BioSwale	MW/Law	2/23/99	2/22/99	Fall 1999	Summer 1999	Fall 1999
I-210 East of Orcas	CDS	MW/Law	9/1/99	Fall 1999	Fall 1999	Fall 1999	Fall 1999
I-210 East of Filmore	CDS	MW/Law	9/1/99	Fall 1999	Fall 1999	Fall 1999	Fall 1999
DISTRICT 11							
I-5/Manchester (East)	EDB	KLI	June 99 ¹	June 99 ¹	June 99 ¹	June 99 ¹	June 99 ¹
I-5/SR-56	EDB	KLI	1/8/99	1/11/99	1/24/99	1/24/99	1/24/99
I-15/SR-78	EDB	KLI	1/8/99	1/11/99	1/24/99	1/24/99	1/24/99
I-5/La Costa (West)	IB	KLI	1/8/99 ¹	1/11/99 ¹	1/28/1999 ¹	Suspended	Suspended
I-5/La Costa (East)	WB	KLI	June 99 ¹	June 99 ¹	June 99 ¹	June 99 ¹	June 99 ¹
Kearney Mesa MS	MF (Comp)	KLI	2/12/99	2/12/99	2/12/99	2/16/99	2/16/99
Escondido MS	MF	KLI	2/12/99	2/12/99	2/12/99	2/16/99	2/16/99
La Costa Park & Ride	MF	KLI	2/19/99	2/19/99	2/26/99	2/26/99	2/26/99
SR-78/I-5 Park & Ride	MF	KLI	2/19/99	2/19/99	3/1/99	3/1/99	3/1/99
Melrose Ave/SR-78	Bio Swale	KLI	2/19/99	2/19/99	2/26/99	June 99 ¹	June 99 ¹
I-5 Palomar Airport Road	Bio Strip	KLI	4/99 ¹	4/99 ¹	4/99 ¹	4/99 ¹	4/99 ¹
Carlsbad MS	Bio Strip/IT	KLI	2/19/99	2/19/99	2/26/99	June 99	June 99

¹ Equipment installation schedule is dependent upon construction schedule.

² Site on-line means BMP will receive stormwater runoff, not necessarily ready for monitoring or operations.

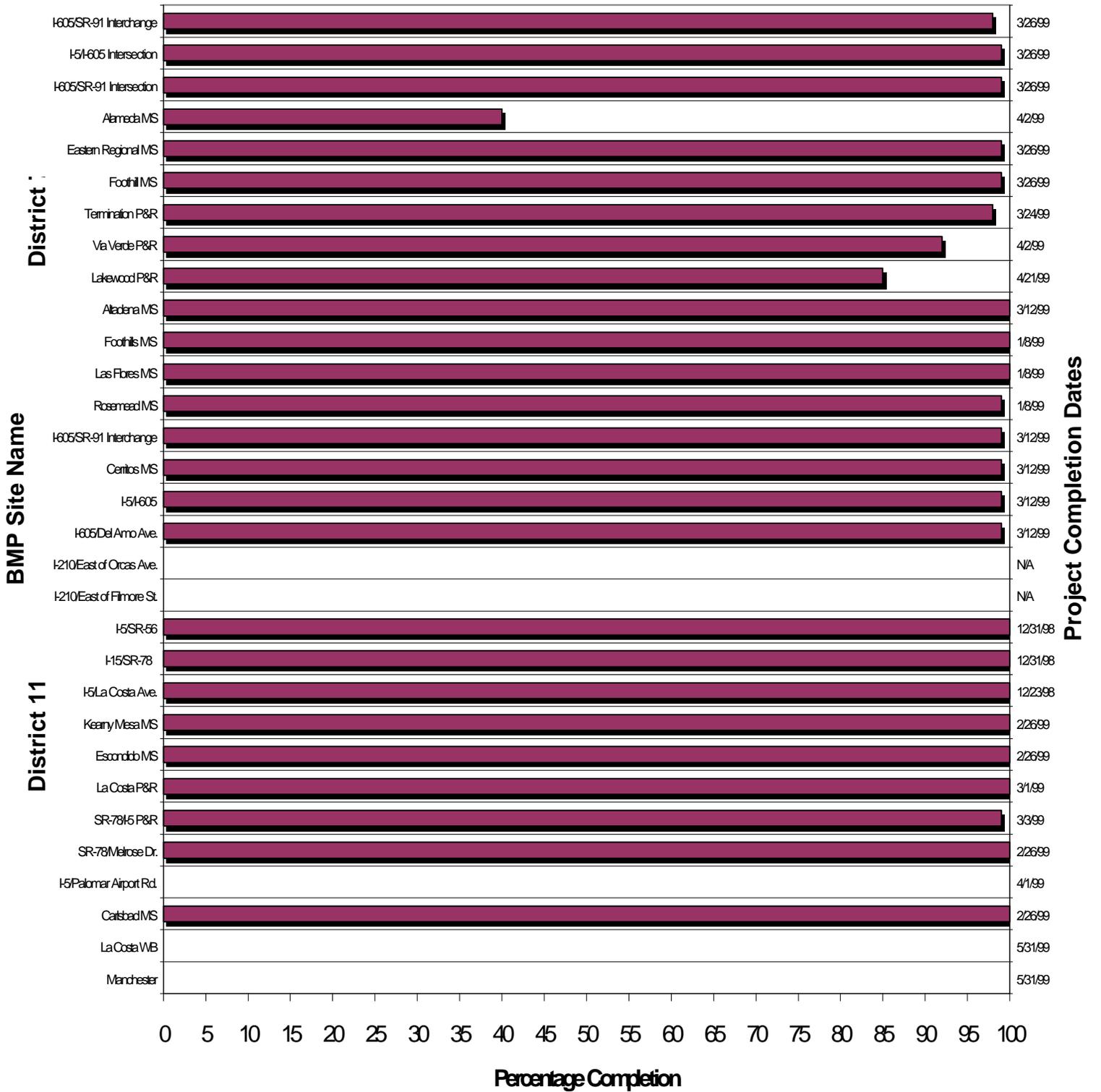
³ Site operational means BMP meets completion criteria and BMP is turned over to monitoring/maintenance teams to begin empirical observations and maintenance. Biofilters are dependent on plant establishment criteria of 90%.

⁴ Ready for water quality monitoring means BMP has a full equipment installation and the equipment is ready to draw samples.

THIS TABLE IS SUBJECT TO CHANGE BASED UPON LAST MINUTE DECISIONS BY CALTRANS (INSTRUMENTATION WILL BE COMPLETED AS SOON AS POSSIBLE).

Caltrans BMP Pilot Program Construction Estimate of Project Completion

Caltrans BMP Pilot Studies
Bi-weekly Status Report
March 19, 1999



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. & construction of BMP at forced account \$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	2-26-99	\$298,797	\$6,300 Additional canisters \$15,000 Bedrock/Site Revision \$20,000 Additional Excavation Total \$41,300	N/A	\$ 340,097
2 Escondido MS	11-2-98	12-23-98	2-26-99	\$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	3-1-99	\$ 208,955	\$35,000 Unsuitable materials excavation \$8,000 Storm drain extension (\$15,000) Delete electrical conduit \$5,500 Safety Railing/Steps Total \$33,500	N/A	\$242,455
4 SR-78/I-5 Park & Ride	9-23-98	11-16-98	3-3-99	\$ 224,502	(\$14,000) Revised vault location \$5,000 plant establishment \$4,500 Safety railing \$2,000 Manhole \$1,000 Fence \$8,300 Landscaping & Irrigation Sys. Total \$6,800	N/A	\$231,302
5 Melrose Ave/SR-78	10-7-98	11-19-98	2-26-99	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	1-18-98	4-1-99	N/A	\$114,200	\$10,000 Plant Estab. & Temp. Irrigation	\$17,951	\$142,151
7 Carlsbad MS	10-12-98	11-19-99	2-26-99	\$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	\$3,005,689
I-5/Manchester (East)						Engineer's Estimate =	\$ 350,000
I-5/La Costa						Engineer's Estimate =	\$ 735,000
GRAND TOTAL							\$4,090,689

DISTRICT 7 SUMMARY

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	3-26-99	\$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 \$17,000 Pipe Extension/Headwall Total \$17,700		N/A	\$273,346
1 I-5/I-605	11-4-98	1-6-99	3-26-99	\$119,511	\$1,500 Traffic Control \$1,000 Lead Sampling \$155 Inlet Drain Holes \$7,000 Remove Temp. Rail/Install Guard Rail Total \$9,655		N/A	\$129,166
2 I-605/SR-91	11-4-98	1-6-99	3-26-99	\$ 119,511	\$1,500 Traffic Control \$1,000 Lead Sampling \$155 Inlet Drain Holes \$9,000 Remove Temp. Rail/Install Guard Rail, Extend AC, Install Gate Total \$11,655		N/A	\$131,166
1 Alameda MS	12-18-98	1-27-99	4-2-99	\$172,049	N/A		N/A	\$172,049
2 Eastern MS	9-25-98	12-8-98	3-26-99	\$267,570	\$16,000 Utilities	\$47,670	N/A	\$331,240
3 Foothill MS	10-1-98	1-4-99	3-26-99	\$400,647	N/A	\$68,955	N/A	\$469,602
4 Termination Park & Ride	10-1-98	12-21-98	3-24-99	\$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	\$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	4-21-99	\$388,037	N/A	\$57,150	N/A	\$445,187
1 Package 1 Altadena	10-5-98	12-18-98	3-12-99	\$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	3-12-99	\$166,715	(\$8,000) Reduced topsoil (\$1,500) Cancel Light Pole Reloc. Total (\$9,500)		\$20,812	\$178,027
3 Package 2 Cerritos MS	11-30-98	1-29-99	3-12-99	\$57,727	N/A		\$1,225	\$58,952
4 Package 2 I-5/I-605	11-30-98	1-29-99	3-12-99	\$124,575	(\$35,000) Delete Maintenance Pullout		\$7,344	\$96,919
5 Package 2 I-605/ Del Amo	11-30-98	1-29-99	3-12-99	\$119,895	N/A		\$4,285	\$124,180
SUBTOTAL (SITES UNDER CONSTRUCTION)				\$3,280,623	(\$190)	\$279,570	\$37,339	\$3,630,342
I-210/East of Orcas Ave							Engineer's Estimate =	\$100,000
I-210/East of Filmore St.							Engineer's Estimate =	\$100,000

Paxton P&R		Bid Amount (see note below) =	\$349,741
Metro MS		Bid Amount (see note below) =	\$532,302
GRAND TOTAL			\$4,712,385

Note for Paxton and Metro- Both location s will go out to bid as one package.

OMM PLAN ACTIVITIES

VOLUME I

The text for the Wet Basin maintenance is currently being finalized. It should be ready for plaintiff review during the week of March 22. Development of the text for CDS systems is expected commence during the week of March 29.

VOLUME II

Work on the Manchester EDB and the La Costa Wet Basin Field Guidance Note Books and Appendices is expected to begin about March 22. Plaintiff review of the Vol II documents is anticipated to begin May 14.

Sections for Metro MS, Paxton PR, and the CDS sites will start in early May.

MAINTENANCE INDICATOR DOCUMENT

A completed draft was sent to the Plaintiffs and subsequently to the plant consultant, the OMM consultants, and to Caltrans Maintenance groups. The Plaintiff comments have been incorporated into the document.

OVERVIEW OF STORM EVENT MONITORING

As announced during the Quarterly Status Meeting on March 11, 1999, water quality sampling and analytical efforts will begin in the Fall 1999. "Debugging" and Empirical Observations, however, will continue for the remainder of the season for all sites currently on-line.

Stormwater monitoring of the BMPs are performed by MW/Law Crandall and Brown and Caldwell for sites in District 7. Monitoring of the District 11 sites are performed by KLI.

The status of installation of equipment for each site is summarized in a table on page 15 of this report.

Dates of successful stormwater sampling are summarized in the table on page 23 of this report.

District 7 – Sites Monitored by Montgomery Watson/ Law Crandall

Empirical observations were performed during the March 15 event for all the Drain Inlet Insert sites (6 separate inlets at three maintenance stations) with the exception of the inlet with StreamGuard filter at Rosemead MS where the filter was removed as directed by Caltrans.

The drain inlet inserts were determined to have problems treating water. As agreed upon by Caltrans and the Plaintiffs, MW/Law is currently researching the other types of inserts which may be used to replace the existing Stream Guard inserts.

District 7 - Sites Monitored by Brown and Caldwell

BC currently has 4 sites which are considered on-line: 5/605 EDB, 605/91 EDB, Foothill MF, and Eastern MF. Empirical observations were performed during the March 15 event for these four sites.

District 11 – Sites Monitored by KLI

Empirical observations were performed during the March 15 event at all sites currently on-line in District 11.

District 11 – Sites Under Investigation

Monitoring of the La Costa infiltration basin site is currently being conducted by RBF for water level and vector presence only.

RBF/Caltrans has prepared a letter relative to the Carlsbad Infiltration trench. This site is not performing relative per the original design criteria, with water remaining in the trench for several weeks following a storm. Consultation was made with the project geotechnical engineer, design engineer and construction manager for possible options to correct the poor infiltration performance.

Information report on the La Costa Infiltration Basin will be forwarded to the Plaintiffs and the independent geotechnical reviewer on 3/31/99.

DATES OF SUCCESSFUL SAMPLING– 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	MW/Law				
		Infiltration Tr	MW/Law				
6 Package 1 Foothill	Procurement	CBI north-Stream Guard Insert	MW/Law	Feb 9			
		CBI south-Fossil Filter Insert	MW/Law	Disqualified ⁽¹⁾ (Jan 31)	Disqualified ⁽¹⁾ (Feb 9)		
7 Package 1 LasFlores	Procurement	CBI north-StreamGuard Insert	MW/Law	Jan 31	Feb 9		
		CBI south-Fossil Filter Insert	MW/Law	Disqualified ⁽¹⁾ (Jan 25)	Disqualified ⁽¹⁾ (Jan 31)	Disqualified ⁽¹⁾ (Feb 9)	
8 Package 1 Rosemead	Procurement	CBI north-Fossil Filter Insert	MW/Law	Disqualified ⁽¹⁾ (Jan 31)	Disqualified ⁽¹⁾ (Feb 9)		
		CBI south-StreamGuard Insert	MW/Law	Jan 31	Feb 9		
2 Package 2 I-605/SR-91	Procurement	Bio Strip	MW/Law				
		Bio 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				
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	KLI				
		Infiltration Tr	KLI				

Note: (1) Catch basin insert not installed to specs.

VECTOR ACTIVITIES

Monitoring:

Adult trapping was carried out on alternate weeks in District 7 and District 11. Very low levels of adult activity were observed; most traps did not collect mosquitoes.

Vector Activity:

Vector activity has been noted at four BMP sites on three occasions in District 7. Greater Los Angeles County Vector Control was notified of these activities. Vector activity was noted at District 7 EDB at I-5/I-605 on Feb 22. Samples of the egg rafts were returned to UC Riverside and the larvae were reared for identification. Larvae was identified as *Culex quinquefasciatus*. The Vector Control District has been notified. Vector activity was also found at I-5/I605 south EDB and the Cerritos MS biofiltration swale on Feb 23. A sample of egg rafts were obtained at Cerritos MS biofiltration swale. Mosquito larvae were collected from the Cerritos MS site and at the I-605/SR91 Bioswale site in District 7 on March 11. Larvae were identified as *Culex quinquefasciatus*, *Culex tarsalis* and *Culiseta incidens*. These species potentially carry diseases.

Department of Health Services Agreement:

The MOU/Contract between DHS and Caltrans has been signed. DHS is interviewing a biologist on March 28-29.

Service Agreements D7:

The Vector Control Districts have relented on their demands for cross-indemnification from Caltrans. The agreements (including revisions made by the VCD) have been forwarded to the consultants for their review.

Service Agreement D11:

The county council deferred voting on the contract due to last-minute minor revisions. The latest version of the contract will be sent to Caltrans week of March 22. The next council meeting is scheduled for April 13.

DISTRICT 7 PROCUREMENT DESIGN ACTIVITIES

The District and the plaintiffs have reached a tentative agreement on the Statement of Understanding. The design for the CDS units and at Metro MS and Paxton PR are proceeding based on the agreement.

The stormtreat system has been found unfeasible for the locations under consideration (Termination/Paxton PR) due to its limited flow capacity, 1-2 gpm, and other limitations. The District has determined that it is not viable to implement the device as a pilot. A paragraph on this issue has been prepared and will be forwarded to the District under separate cover.

Paxton PR: The design package is being reorganized for Caltrans review.

Metro MS: Redesign is underway per meeting 3/12/99. It was agreed that the MCTT will be relocated. The preliminary design/construction schedule for Paxton and Metro MS is as follows:

Design/Construction Schedule for Metro and Paxton		
	Schedule	Actual
100 % draft design complete Submit for caltrans review Submit to Plaintiffs for confirmation	16 Apr	
Receive Caltrans comments	30 Apr	
Complete design drawings and specs Submit to Contractors for bidding Submit for encroachment permits	07 May	
Receive bids	07 May	
Award contract	04 June	
Substantial completion of construction Begin monitoring equipment installation	08 Oct	
Sites fully operational	15 Oct	

CDS: The District has resumed the design for Continuous Deflection Separation Units (CDSs) at Site 1, located at I-210 East of Orcas Avenue and Site 2, located at I-210 East of Filmore Street. Estimated schedule for construction is to begin 1st week of July and complete 1st week of Sept. A meeting will be scheduled with the Plaintiffs during the week of March 22 to review the design. The manufacturer (design engineer) has been involved with the design. The preliminary schedule is as follows:

Design/Construction Schedule for CDSs		
	Schedule	Actual
Caltrans/Plaintiffs to meet/review designs as early as week of March 22 nd	22 Mar	
MW to submit revised plans and specs. to Caltrans/Plaintiffs	09-Apr	
Plaintiffs to submit comments to Caltrans	19-Apr	
Caltrans to present comments to MW	20-Apr	
MW to submit final PSE to Caltrans/Plaintiffs	26-Apr	
MW to submit Encroachment Permit applications	26-Apr	
MW to submit Design Report to Caltrans/Plaintiffs	26-Apr	
Send out RFP	30-Apr	
Receive Bids	28-May	
Submit Recommendations to Caltrans	04-Jun	
Receive Notice-to-Proceed from Caltrans	11-Jun	
Begin Construction	06-Jul	
End Construction	01-Sep	

DISTRICT 11 PS&E DESIGN

Project 4 – Wetpond: I-5 (N/B)/La Costa Avenue

The Plaintiffs have completed review of the design plans, and response to comments have been provided. The design report and the plans and specifications have been completed, reviewed on 2/25/99 and forwarded to Caltrans Headquarters Office of Engineering for processing. The project is currently out to bid.

Environmental clearances have been obtained and a Categorical Exemption has been received. The wetpond will be constructed during the spring season.

Schedule of the project are as follows: Advertise on March 10, Award on March 24, and construction to begin on the March 29. Construction is scheduled for a 45-day period. Depending on weather, anticipated completion of construction will be end of May or early June 1999.

Monthly monitoring of groundwater level continues. A groundwater level reading is summarized in a table at the end of the section.

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

The Plaintiffs have completed review of the design plans, and response to comments have been provided. The project will be conducted as a change order to the existing PS&E contract with Excel Constructors. The design report and the plans and specifications were completed and a CCO will be processed for execution.

Environmental clearances have been obtained.

Construction is scheduled to begin March 29.

Monthly monitoring of groundwater level continues. A groundwater level reading is summarized in a table below.

Groundwater Level Monitoring – Elevation (ft)		
Date	La Costa – WB	Manchester –
12/15/98	13.80	13.00
1/20/99	13.75	13.12
2/26/99	14.00	12.58
3/17/99	13.96	12.48
Basin Invert	9.84	14.58

ENVIRONMENTAL ISSUES

RBF continues to coordinate with a Dudek & Associates, a San Diego based biologist to perform a Biological Monitoring Assessment/Survey of the BMP sites. Dudek will be monitoring the sites and documenting their effect on wildlife communities. Dudek & Associates is currently in the processing of setting an appointment to meet with the USFW Service.

WEATHER

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

March 1999

Los Angeles – Civic Center				San Diego			
Day	Precip. (Inches)	Day	Precip. (Inches)	Day	Precip. (Inches)	Day	Precip. (Inches)
1	0.0	16	0.0	1	0.0	16	0.02
2	0.0	17	0.0	2	0.0	17	
3	0.0	18		3	0.0	18	
4	0.0	19		4	0.07	19	
5	0.0	20		5	0.0	20	
6	0.0	21		6	0.0	21	
7	0.0	22		7	0.11	22	
8	0.0	23		8	0.0	23	
9	0.10	24		9	0.0	24	
10	0.0	25		10	0.0	25	
11	T	26		11	NA	26	
12	0.0	27		12	0.0	27	
13	0.0	28		13	0.0	28	
14	0.0	29		14	0.0	29	
15	T	30		15	0.16	30	
		31				31	

The data presented here is as an indicator only. Consequently, the actual rainfall at the BMP sites will vary from the indicator site. The data presented above for Los Angeles is as of 4:00 p.m. is for the preceding 24 hours. For San Diego, its as of 5:00 p.m. is for the preceding 24 hours.