BMP Pilot Studies

Bi-Weekly Status

BMP Pilot Projects in Los Angeles and San Diego Counties.

January 15, 1999

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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

Site was regraded in accordance with the new design (accounting for changed earthwork quantities). Pipe and flared end sections are in place. Concrete encasement was poured for the inlet pipes under the access road, and drainage apron completed. Aggregate base was placed on the access road and perimeter road. Asphalt concrete was placed for the access road and perimeter road. Drainage system is in the process of being completed.

Schedule

First working day per contract was November 6,1998. Contract Change Order will extend completion date to end of January. Construction is 80 percent complete.

Issues / Solutions

The following change orders were approved:

- Additional traffic control as directed by the Resident Engineer at an estimated cost of $2,000.
- Lead sampling to test existing soil as directed by the Resident Engineer at an estimated cost of $1,000.
- Relocate electrical conduit out of the construction zone and maintain existing electrical systems at an estimated cost of $2,000.

- Remove buried man-made objects (concrete blocks) that were encountered during excavation at an estimated cost of $1,000.

- Revision of grading plans to reduce the import fill requirements at an estimated cost of $2,900.

In addition, the required amount of asphalt concrete exceeded the Engineer's Estimate. This will result in an increase of an estimated $17,000 for asphalt concrete at extension of bid item.

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	1-31-99	$255,646	$2,000 Traffic Control $1,000 Lead Sampling $2,000 Maintain Elec. Sys $1,000 Rem. Buried Objects $2,900 Grading Revision $17,000 Asphalt Concrete Total $25,900	$281,546

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

Construction Activities

Drainage system installation continues. Concrete has been placed for the basin liner.

Schedule

First working day per contract was November 4, 1998. Construction is 60 percent complete. Caltrans gave the Contractor verbal notice that the completion date is January 11, 1999 and liquidated damages will be assessed. The Resident Engineer's estimated date that the Contractor will be completed is January 22, 1999.

Issues / Solutions

There were time and material change orders approved to provide additional traffic control as directed by the Resident Engineer in the estimated amount of $1,500, and lead sampling to test existing soil as directed by the Resident Engineer in the estimated amount of $1,000. In addition, there was a lump sum change order approved in the estimated amount of $155 for the installation of outlets to drain standing water and comply with vector requirements.

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	1-22-99 (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

Drainage system installation continues. Concrete was placed for the junction structures, concrete cured, forms stripped and joints patched. The area for the access road is being fine graded.

Schedule

First working day per contract was November 4, 1998. Construction is 60 percent complete. Caltrans gave the Contractor verbal notice that the completion date is January 11, 1999 and liquidated damages will be assessed. The Resident Engineer's estimated date that the Contractor will be completed is January 22, 1999.

Issues / Solutions

There were time and material change orders approved to provide additional traffic control as directed by the Resident Engineer in the estimated amount of $1,500, and lead sampling to test existing soil as directed by the Resident Engineer in the estimated amount of $1,000. In addition, there was a lump sum change order approved in the estimated amount of $155 for the installation of outlets to drain standing water and comply with vector requirements.

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	1-22-99 (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

No activity this period.

Schedule

It is expected that work will commence once the pre-fabricated fiber glass tank (oil-water separator) is delivered to the site. Anticipated date of delivery – February 7. Contractor's schedule shows the start date at Alameda is dependent on substantial progress at other BMP sites. Therefore, delays at those sites have also contributed to the delay at this site. The estimated completion date is February 27, 1999.

Issues / Solutions

The oil-water separator was ordered later than originally planned in the schedule due to subcontractor difficulties in completing financial agreements with vendors.

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	2-27-99 (EST.)	$172,049	N/A	$172,049

Location 2 Eastern Maintenance Station Media Filter

Construction Activities

The catch basin was installed and backfill completed for the entire site.

Schedule

First working day September 25,1998. Construction is 95 percent complete. The estimated completion date is January 20, 1999.

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	1-20-99 (EST.)	$267,570	$16,000 Utilities	$47,670	$331,240

Location 3 Foothill Maintenance Station Media Filter

Construction Activities

The concrete structure was completed. Shoring was removed and the structure backfilled with ¾ ” rock.

Schedule

First working day October 1,1998. Construction is 85 percent complete. The estimated completion date is January 27, 1999.

Issues / Solutions

Delays at other BMP sites affected the schedule for this site.

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	1-27-99 (EST.)	$400,647	N/A	$68,955	$469,602

Location 4 Termination Park and Ride Media Filter

Construction Activities

The concrete structure was completed. Shoring removed and structure backfilled with ¾ " rock.

Schedule

First working day October 1,1998. Construction is 85 percent complete. The estimated completion date is February 3, 1999.

Issues / Solutions

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.

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	2-3-99 (EST.)	$372,982	$4,500 Utilities	$66,132	$443,614

Location 6 Via Verde Park and Ride Multi Chamber Treatment Train

Construction Activities

The slab for the main concrete structure is in place. Wall forms and rebar are being installed.

Schedule

First working day October 8,1998. Construction is 55 percent complete. The estimated completion date is March 15, 1999 and is currently under review with the Contractor.

Issues / Solutions

Subsurface rock required additional shoring time and made work during Thanksgiving week inefficient which caused an estimated delay of 3 ½ weeks. Approximately $3,400 of additional costs was incurred for coring and removal of boulders for an estimated total of $17,400.

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	3-15-99 (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

Excavation and concrete slab for main structure basin were completed. Wall forms are being installed.

Schedule

Drilling began on 12/17/98. Construction is 25 percent complete. The estimated completion date is March 29, 1999 and is currently under review with the Contractor.

Issues / Solutions

Delays at other BMP sites affected the schedule for this site.

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

Backfill of the infiltration trench was completed. Excavation of the biofiltration strip, valley gutter, spreader ditch and collector ditch was completed. Forms for spreader

and collector ditches are in place. Concrete for half of the valley gutter and topsoil for the bio. strip was placed.

Schedule

First working day October 5,1998. Construction is 75 percent complete. Contractor on schedule to meet adjusted completion date of January 31, 1999.

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	1-31-99	$197,574	N/A	$4,219	$201,793

Location 6 Package 1 Foothill Maintenance Station Catch Basin Insert

Construction Activities

Finished construction and final punch list. MW to provide as-built drawings.

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

Finished construction and final punch list. MW to provide as-built drawings.

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
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.

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

K-rail is in place. Clearing and grubbing complete. Existing AC dike was removed and the site graded. Wall forms for the bio. strip collector ditch was placed. Concrete for the collector ditch was poured. The dissipater, flume-to-swale and swale-to-flume structures were constructed.

Schedule

First working day November 30,1998. Construction is 25% complete. Construction is on schedule.

Issues / Solutions

Caltrans' fiber optic conduit was discovered 400mm below grade in the area where the bio. strip will be located. A change order is being prepared to reduce the amount of topsoil from 600mm to 200mm. An estimated $8,000 credit will result from this change. Caltrans and the project Landscape Architect approved the design change for 200mm of topsoil.

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	N/A	$166,715	($8,000) reduction in top soil.	$23,895	$182,610

Location 3 package 2 Cerritos Maintenance Station Bio Swale

Construction Activities

Existing headwall was removed and energy dissipater completed. Swale-to-flume structure was completed with flume in place. Concrete in cure. Final grading for sod is nearing completion.

Schedule

First working day November 30,1998. Construction is 75 percent complete. Construction is on schedule.

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	N/A	$57,727	N/A	$1,407	$59,134

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

Construction Activities

K-rail has been placed. Clearing and grubbing is complete, and an existing palm tree was removed.

Schedule

First working day November 30,1998. Construction is 10% complete.

Issues / Solutions

A Change Order to eliminate the construction of the maintenance pullout was approved and issued to the Contractor for an estimated credit of $35,000

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	N/A	$124,575	($35,000) Delete Maint. Pullout	$8,434	$98,009

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

Construction Activities

Placement of K-rail, and clearing and grubbing are complete. Bio. swale and drainage structures were excavated.

Schedule

First working day November 30,1998. Construction is 15 percent complete.

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
5 Package 2 I –605/ Del Amo	11-30-98	1-29-99	N/A	$119,895	N/A	$4,921	$124,816

Location 1 package 3 I-210 West of Orcas Ave Trapping Catch Basin.

Awaiting Notice-to-Proceed from Caltrans.

Location 2 package 3 I-210 East of Orcas Ave Trapping Catch Basin.

Awaiting Notice-to-Proceed from Caltrans.

Location 3 package 3 I-210 East of Filmore Trapping Catch Basin.

Awaiting Notice-to-Proceed from Caltrans.

Location 4 package 3 I-270 East of Van Nuys Trapping Catch Basin.

Awaiting Notice-to-Proceed from Caltrans.

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)**

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

Awaiting shop drawings for canal gates from contractor. Completion date to be resolved once canal gates are installed. 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

Awaiting shop drawing for canal gates from contractor. Completion date to be resolved once canal gates are installed. This does not affect site operations. All work at this site has been paid for as change order work.

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 I-15/SR-78	9-14-98	11-18-98	12-31-98	$657,342	($240,500) Concrete lining deletion $600,000 Removal man made buried objects $1,500 Flume Total $361,000	$1,018,342

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

Field test of infiltration basin was successful. Second test of infiltration appears to be unsuccessful. Water standing in basin.

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 continuation of pavement removal, completion of vault excavation and backfill, completion of easement survey, pipeline construction, completion of cartridge installation, and approval of method to connect storm drain. Paving, connection to storm drain, and continuation of backfill around vault are planned for week of January 18.

Schedule

First working day per contract was November 10,1998. Construction is 85 percent complete.

Issues / Solutions

A clarification to bidders was issued approving aluminized steel in place of stainless steel before bid opening. The bid reflected the material change; therefore, the previously noted $20,000 credit for aluminum covers and frames was deleted. The estimated cost of $6,300 is for additional canisters (filter cartridges) required for each compost filter BMP. The estimated change order cost for the removal of unforeseen bedrock and site revision was increased from $5,000 to $15,000.

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	1-20-99	$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 pipeline construction, concrete placement around vault frame, backfill and paving. Pipeline construction to continue week of January 18.

Schedule

First working day per contract was November 2,1998. Construction is 85 percent complete.

Issues / Solutions

The estimated credit of $46,000 is for the substitution of epoxy coated frames and covers for stainless steel frames and covers. After contract award, it was determined that it would be more cost effective to use the epoxy coated frames and covers. The estimated cost of $5,000 is for the addition of guard posts and wheel stops to protect the vault and storm drain adjacent to the parking lot. The estimated cost of $2,000 is for the relocation of the electrical conduit to preserve the existing lighting system.

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	1-15-99	$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 continuation of minor grading, installation of manholes, concrete ditches and fine grading. Paving and fence installation are planned for week of January 18.

Schedule

First working day per contract was September 16,1998. Construction is 95 percent complete.

Issues / Solutions

The following are the change order issues with estimated costs:

- The additional estimated cost of $20,000 is for the removal of buried man-made objects and unsuitable materials that were unknown before construction.

- The estimated cost of $8,000 is for extending the storm drain to connect to the existing system. During excavation for the existing system, it was discovered that the existing pipe was not at the expected elevation.

- The estimated credit for the deletion of the electrical system was revised from $16,000 to $15,000 to reflect estimated costs of $1,000 incurred by the Contractor. The electrical system was deleted because it was determined after contract award that availability of power from the utility provider was unlikely to occur in a timely and cost effective manner. A cost analysis revealed that power from batteries would be more cost effective; therefore, eliminating the need for the electrical system.

- Safety rails around the vault will be constructed for protection of maintenance personnel. This results in an additional estimated cost of $5,000.

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	1-15-99	$ 208,955	$20,000 Unsuitable materials excavation 8,000 Storm drain extension ($15,000) Delete electrical conduit $5,000 Safety Railing/Steps Total $18,000	$226,955

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

Construction Activities

Activity includes continuation of backfill around vault, grading and construction of minor structures. Continuation of minor grading and construction of fence, landscaping, and paving is planned for week of January 18.

Schedule

First working day was October 26, 1998. Estimated completion date is January 20, 1999. Construction is 90 percent complete.

Issues / Solutions

The following are the change order issues with estimated costs:

- The revised vault location will result in an estimated credit of $14,000 due to reduced quantities for excavation and backfill, concrete and reinforcing steel.
- The estimated cost of $5,000 is for plant establishment that was not anticipated before bid.
- Safety rails around the vault will be constructed for protection of maintenance personnel. This results in an additional estimated cost of $4,000.
- A manhole will be added for the connection to the existing system at an additional estimated cost of $2,000.

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	1-20-99	$ 224,502	($14,000) Revised vault location $5,000 plant establishment $4,000 Safety railing $2,000 Manhole Total ($3,000)	$221,502

Location 5 Melrose Ave/SR-78 Bio Swale

Construction Activities

Activities include grading, overside drains and flume installation. Completion of sod installation is planned for week of January 18.

Schedule

First working day per contract was October 21,1998. Construction is 90 percent complete.

Issues / Solutions

The following are the change order issues with estimated costs:

- The estimated $5,000 is for removal of unsuitable materials.

- To reduce construction time it was decided to grow salt grass offsite in pallets. The estimated $14,000 is for the installation of salt grass sod which is more labor intensive than seeding; however, an estimated credit of $2,000 will be provided for the deletion of the seeding.

- Additional plant establishment was required that was not anticipated at time of bid. These costs are estimated at $11,000.

- Sediment in the existing pipe that drains into the BMP will need to be removed. Estimated costs for this extra work are $2,000.

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	1-15-99	87,038	$5,000 Unsuitable material $14,000 Salt grass installation $11,000 Plant establishment $2,000 Storm Drain Sediment ($2,000) Delete Seed Total $30,000	$17,221	$134,259

Location 6 I-5 Palomar Airport Road Bio Strip

Construction Activities

Final revised plans and estimate are completed. Verbal concurrence from the Coastal Commission was received.

Schedule

Estimated timeframe that BMP would be operational is February 24 – March 12, 1999.

Issues / Solutions

Engineer's Estimate was revised to reflect addition of guard rail and ditch excavation for the concrete swale. Change order to be redrafted. A change order for plant establishment and temporary irrigation is anticipated for an estimated amount of $10,000.

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	$119,800	$10,000 Plant Estab. & Temp. Irrigation	$6,678	$136,478

Location 7 Carlsbad Maintenance Station Bio Strip Infiltration Trench

Construction Activities

Activities include pavement removal, rock slope over infiltration trench, and grading for paving. Planned activities for week of January 18 include lysimeter installation and flume installation.

Schedule

First working day per contract was October 12,1998. Project began September 30,1998. Construction is 90 percent complete.

Issues / Solutions

The following are the change order issues with estimated costs:

- The estimated cost of $15,000 is for the removal of unsuitable subgrade below the pavement.
- To reduce construction time it was decided to grow salt grass offsite in pallets. The estimated $7,000 is for the installation of salt grass sod which is more labor intensive than seeding; however, an estimated credit of $18,400 will be provided for the deletion of the bio-swale bid item.
- The additional paving is required to maintain the existing parking area in the maintenance yard. The estimated cost for this extra work is $5,000.
- Electrical conduit for the existing lighting system required relocation out of the construction zone. The estimated cost for this extra work is $2,000.
- To avoid the possibility of standing water in the infiltration trench and provide additional slope stabilization, rock was installed over the infiltration trench up to the spillway elevation. The estimated cost for this extra work is $5,000.

Financial Review

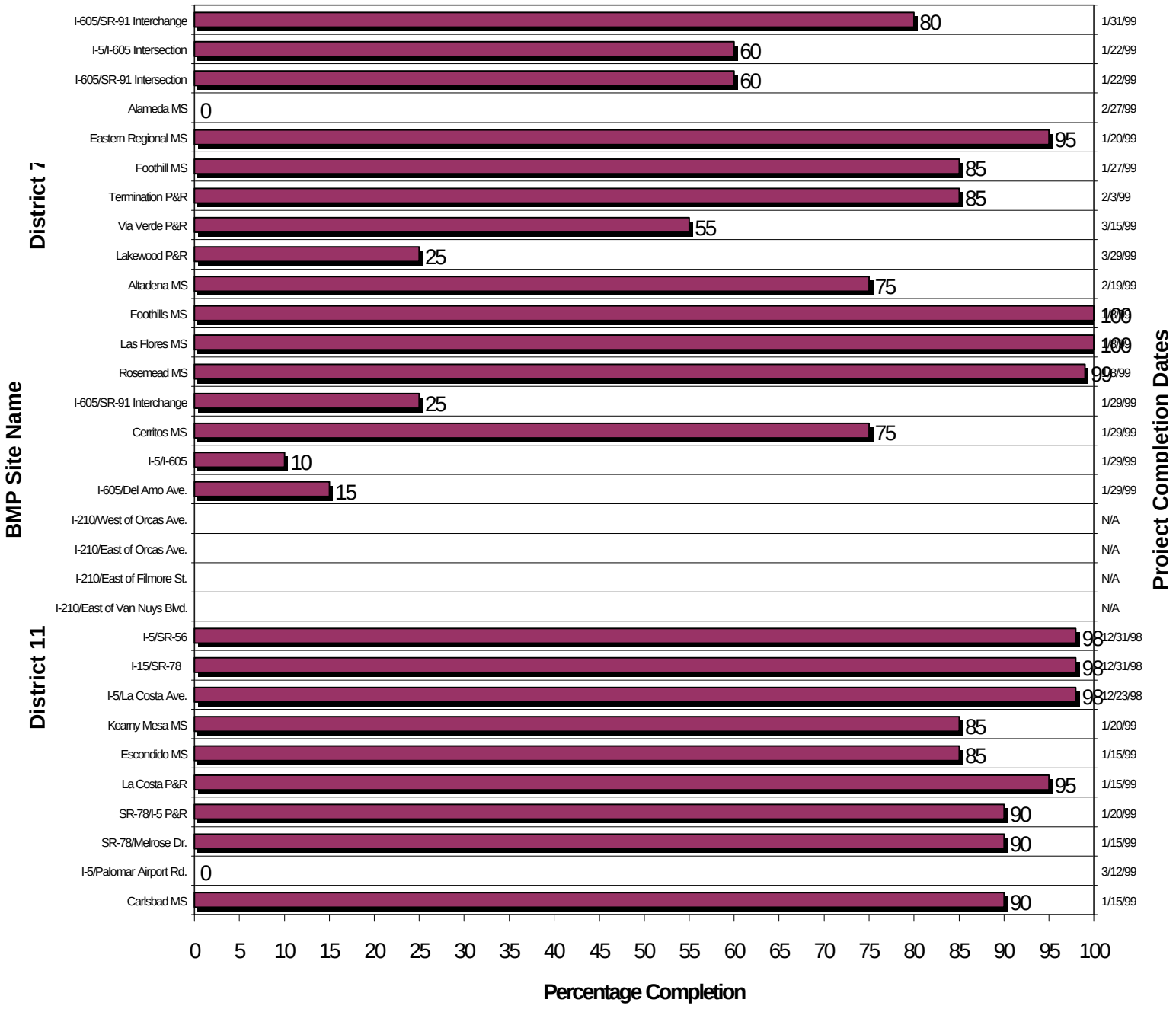
Location	First Working Day	Scheduled Completion Date	Adjusted Completion Date	Bid Amount	Estimated Contract Change Orders	State Furnished Materials (Salt Grass)	Estimated Final Cost Including CCO and State Furnished Materials
7 Carlsbad MS	10-12-98	11-19-98	1-15-99	$157,800	$15,000 Unsuitable subgrade $7,000 Install salt grass $5,000 Additional paving $2,000 Elect. Conduit $5,000 Infiltration Trench ($18,400) Delete Bioswale bid item Total $15,600	$11,246	$184,646

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				
1 I-5/I-605	PSE	EDB	BC	1/18/99	1/20/99	2/3/99	2/8/99
2 I-605/SR-91	PSE	EDB	BC	1/18/99	1/20/99	2/3/99	2/8/99
1 Alameda MS	Procurement	OWS	BC	2/27/99	3/1/99	3/12/99	3/15/99
2 Eastern MS	Procurement	MF	BC	1/20/99	1/25/99	2/5/99	2/8/99
3 Foothill MS	Procurement	MF	BC	1/27/99	2/1/99	2/12/99	2/15/99
4 Termination Park & Ride	Procurement	MF	BC	2/3/99	2/8/99	2/19/99	2/22/99
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	2/199	2/2/99	2/5/99	2/8/99
6 Package 1 Foothill	Procurement	CBI	MW/Law	1/15/99	1/18/99	1/21/99	1/22/99
7 Package 1LasFlores	Procurement	CBI	MW/Law	1/15/99	1/18/99	1/21/99	1/22/99
8 Package1 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	2/1/99	2/2/99	2/5/99	2/8/99
3 Package 2 Cerritos MS	Procurement	BioSwale	MW/Law	2/1/99	2/2/99	2/5/99	2/8/99
4 Package 2 I-5/I-605	Procurement	BioSwale	MW/Law	2/1/99	2/2/99	2/5/99	2/8/99
5 Package 2 I-605/ Del Amo	Procurement	BioSwale	MW/Law	2/1/99	2/2/99	2/5/99	2/8/99
DISTRICT 11							
1 I-5/SR-56	PSE	EDB	KLI	1/11/99	1/11/99	1/20/99	1/25/99
2 I-15/SR-78	PSE	EDB	KLI	1/11/99	1/13/99	1/22/99	1/25/99
3 I-5/La Costa	PSE	IB	KLI	1/11/99[1]	1/18/99[1]	-	-
1 Kearney Mesa MS	Procurement	MF (Comp)	KLI	1/25/99	1/25/99	2/3/99	2/3/99
2 Escondido MS	Procurement	MF	KLI	1/25/99	1/25/99	2/5/99	2/5/99
3 La Costa Park & Ride	Procurement	MF	KLI	1/25/99	1/25/99	1/29/99	1/29/99
4 SR-78/I-5 Park & Ride	Procurement	MF	KLI	1/25/99	1/25/99	2/1/99	2/1/99
5 Melrose Ave/SR-78	Procurement	Bio Swale	KLI	1/25/99	1/25/99	1/27/99	1/27/99
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	1/25/99	1/25/99	1/27/99	1/27/99

[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	$657,342	($240,500) Concrete lining deletion $600,000 Removal man made buried objects $1,500 Flume Total $361,000	N/A	$1,018,342
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	1-20-99	$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	1-15-99	$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	1-15-99	$ 208,955	$20,000 Unsuitable materials excavation $8,000 Storm drain extension ($15,000) Delete electrical conduit $5,000 Safety Railing/Steps Total $18,000	N/A	$226,955
4 SR-78/I-5 Park & Ride	9-23-98	11-16-98	1-15-99	$ 224,502	($14,000) Revised vault location $5,000 plant establishment $4,000 Safety railing $2,000 Manhole Total ($3,000)	N/A	$221,502
5 Melrose Ave/SR-78	10-7-98	11-19-98	1-15-99	87,038	$5,000 Unsuitable material $14,000 Salt grass installation $11,000 Plant establishment $2,000 Storm Drain Sediment ($2,000) Delete Seed Total $30,000	$17,221	$134,259
6 I-5 Palomar Airport Road	1-11-98 (EST.)	3-12-99 (EST.)	N/A	$119,800	$10,000 Plant Estab. & Temp. Irrigation	$6,678	$136,478
7 Carlsbad MS	10-12-98	11-19-99	1-15-99	$157,800	$15,000 Unsuitable subgrade $7,000 Install salt grass $5,000 Additional paving $2,000 Elect. Conduit $5,000 Infiltration Trench ($18,400) Delete bio swale bid item Total $15,600	$11,246	$184,646
SUBTOTAL (SITES UNDER CONSTRUCTION)				**$2,583,599**	**$455,600**	**$35,145**	**$3,084,344**
I-5/Manchester (East)					Engineer's Estimate =		$ 305,300
I-5/La Costa					Engineer's Estimate =		$ 500,000
GRAND TOTAL							**$3,889,644**

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	1-31-99	$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 Total $25,900		N/A	$281,546
1 I-5/I-605	11-4-98	1-6-99	1-22-99 (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	1-22-99 (EST.)	$ 119,511	$1,500 Traffic Control $1,000 Lead Sampling $155 Total $2,655		N/A	$122,166
1 Alameda MS	12-18-98	1-27-99	2-27-99 (EST.)	$172,049	N/A		N/A	$172,049
2 Eastern MS	9-25-98	12-8-98	1-20-99 (EST.)	$267,570	$16,000 Utilities	$47,670	N/A	$331,240
3 Foothill MS	10-1-98	1-4-99	1-27-99 (EST.)	$400,647	N/A	$68,955	N/A	$469,602
4 Termination Park & Ride	10-1-98	12-21-98	2-3-99 (EST.)	$372,982	$4,500 Utilities	$66,132	N/A	$443,614
6 Via Verde Park & Ride	10-8-98	1-15-99	3-15-99 (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	2-19-99	$197,574	N/A		$4,219	$201,793
6 Package 1 Foothill	10-5-98	12-18-98	1-8-99	$67,730	N/A		N/A	$67,730
7 Package 1LasFlores	10-5-98	12-18-98	1-8-99	$81,431	N/A		N/A	$81,431
8 Package1 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	N/A	$166,715	($8,000) Reduced topsoil		$23,895	$182,610
3 Package 2 Cerritos MS	11-30-98	1-29-99	N/A	$57,727	N/A		$1,407	$59,134
4 Package 2 I-5/I-605	11-30-98	1-29-99	N/A	$124,575	($35,000) Delete Maintenance Pullout		$8,434	$98,009
5 Package 2 I-605/ Del Amo	11-30-98	1-29-99	N/A	$119,895	N/A		$4,921	$124,816
SUBTOTAL (SITES UNDER CONSTRUCTION)				**$3,280,623**	**$26,510**	**$279,570**	**$42,876**	**$3,629,579**

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		**$4,698,778**

OMM PLAN ACTIVITIES

VOLUME I

The final version of OMM Vol I is being edited and will be shipped Friday, January 15, 1999

VOLUME II

The authors have reviewed and responded to the comments presented by NRDC on December 8. The comments are being consolidated into a recommended course of action. The proposed actions will be discussed with NRDC during the week of January 18. When consensus is developed on the proposed actions, the plans will be completed during the week of January 25. The changes will be transmitted to all OMM holders upon completion by Feb. 1, 1999.

EXECUTION OF OMM

BC and KLI continue preparation of equipment for transport to BMP sites, where final installation is anticipated from mid-January through February. Field preparation continued.

MW/LC- Installation of monitoring equipment is in progress at the three Catch Basin Insert sites. Still awaiting some equipment from American Sigma for work package 2 sites.

An estimated schedule of instrument installation and completion is provided at the end of the "Construction Activities" section of this report. Note, these estimated completion dates are dependent upon the completion of the construction of the BMP.

DATABASE

Caltrans, RBF, Law/Crandall, and Larry Walker and Associates are participating in the development of the master database. The database is intended as a depository for data collected during monitoring, sampling, and maintenance of the BMP sites. The structure of the database is currently under preparation. Design efforts continue and the coordination with Caltrans and LWA/UCD ICE on compatibility with the Statewide Database. Upon completion, a read-only version of the database and/or reports generated from the database will be posted on the

RBF website. The database will be updated on a bi-monthly basis. A continuing coordination meeting with Caltrans, RBF, MW/LawCrandall is scheduled for Jan 21. A database development schedule and an anticipated completion date will be provided next week.

Other OMM Issues

At two stormwater training seminars in the fall of 1998, it became clear that the consultants to perform the monitoring work for the BMP Retrofit Pilot Program were concerned about several issues related to the detection limits set by the Caltrans Stormwater Monitoring Protocols Guidance Manual (Larry Walker & Associates and Woodward-Clyde).

Issues of concern involved:
- confusion on reporting limit terminology
- specific detection limit levels
- laboratory methods allowed

Marty Stevenson of Kinnetic Labs wrote a memo to Armand Ruby of Larry Walker and Associates outlining their concerns. Armand Ruby issued a letter to Caltrans indicating the changes to the Guidance Manual that ought be made, in response to KLIs comments.

The proposed resolution of the issues included:
- the detection limit for zinc was raised to 5ng/L
- the detection limit for nutrients must remain the same, unless cleared with NRDC
- for TPH analytical procedures, EPA Method 8015 can be used, so TPH as gasoline can be measured
- increasing the detection limit for coliform (to be determined)
- a good faith effort must be made to use the stated detection limit for TSS.

Caltrans is currently reviewing Larry Walker's suggested modifications. Adrianne Saboya (Brown and Caldwell) has submitted comments on Larry Walker's suggested revisions. Ed Othmer (Law Crandall) should be submitting comments soon. Armand Ruby's suggested schedule was to finalize their recommendations to Caltrans by the end of January. In the meantime, Caltrans is reviewing the draft suggested revisions.

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VECTOR ACTIVITIES

Monitoring: The field activities associated with the background monitoring study have been completed. The collections of mosquitoes and midges have been analyzed and a draft of the report has been completed. A draft copy of the report will be completed pending identification of the midges, and then forwarded to the Plaintiffs – submittal tentatively scheduled for the third week of Febuary.

Service Agreements: Working with the Vector Control Districts (VCDs), Dean Messer (LWA) determined the "not-to-exceed" figures to be inserted into the Service Agreements that will be signed by the VCDs. RBF has forwarded to Law/Crandall and Brown & Caldwell the drafted Service Agreements for distribution to the VCDs. In addition, RBF forwarded to Law/Crandall, Brown & Caldwell, and the VCD representative Appendix IV, Vector Control Plan, for final review.

San DiegoVector Control: The KLI/San Deigo Agreement has been submitted to the County of San Diego. The agreement is currently under review.

DISTRICT 11 PROCUREMENT DESIGN ACTIVITIES

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

Per direction by Caltrans, the plan package for the site will be submitted to Caltrans District 11 and the Plaintiffs on January 29. A schedule is provided at the end of this report.

Monthly monitoring of groundwater level continues. A groundwater level reading will be available next week of 1/18.

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

Per direction by Caltrans, the plan package for the site will be submitted to Caltrans District 11 and the Plaintiffs on January 19. A schedule is provided at the end of this report.

Monthly monitoring of groundwater level continues. A groundwater level reading will be available next week.

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. RBF has forwarded to Caltrans for their review, resumes of the San Diego based biological firm.

Environmental Clearance

Wet Basin Site – District 11 staff is processing the Coastal Development Permit Application. The environmental process of the Wet Basin site will include involvement with the US Dept of Fish and Game and the Coastal Commission.

Manchester Site – District 11 staff is be processing the Coastal Development permit Application. The CDP is the only anticipated permit at this time.

Weather

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

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		3	0.00	18	
4	0.00	19		4	0.00	19	
5	0.00	20		5	0.00	20	
6	0.00	21		6	0.00	21	
7	0.00	22		7	0.00	22	
8	0.00	23		8	0.00	23	
9	0.00	24		9	0.00	24	
10	0.00	25		10	0.00	25	
11	0.00	26		11	0.00	26	
12	0.00	27		12	0.00	27	
13	0.00	28		13	0.00	28	
14	0.00	29		14	0.00	29	
15	0.00	30		15	0.00	30	
		31				31	

The National Weather Service long range forecasts indicate that no precipitation is expected for Los Angeles and San Diego, through Jan. 25, 1999.