07-LA-10, PM 5.57/14.78
07-LA-90, PM 1.22/2.59
07-LA-101, PM 6.94/7.83
07-LA-405, PM 23.81/29.24
Storm Water Mitigation Program – 20.XX.201.335
EA 23870K
September 2008

PROJECT SCOPE SUMMARY REPORT (STORM WATER MITIGATION) to Request Programming in the 2010 SHOPP and Provide Project Approval

Location 1: Along Interstate 10 from I-405 to SR-110

Location 2: Along State Route 90 from 0.3 Mile East of SR-1 to I-405

Location 3: Along State Route 110 from I-10 to US-101

Location 4: Along United States Route 101 from Gower St to Cahuenga Blvd

Location 5: Along Interstate 405 from La Cienega Blvd to I-10

I have reviewed the right of way information contained in this Project Scope Summary Report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate:

ANDREW P. NIERENBERG
DISTRICT RIGHT OF WAY MANAGER

APPROVAL RECOMMENDED:

OJAS SHETH
PROJECT MANAGER

CONCURRED BY:

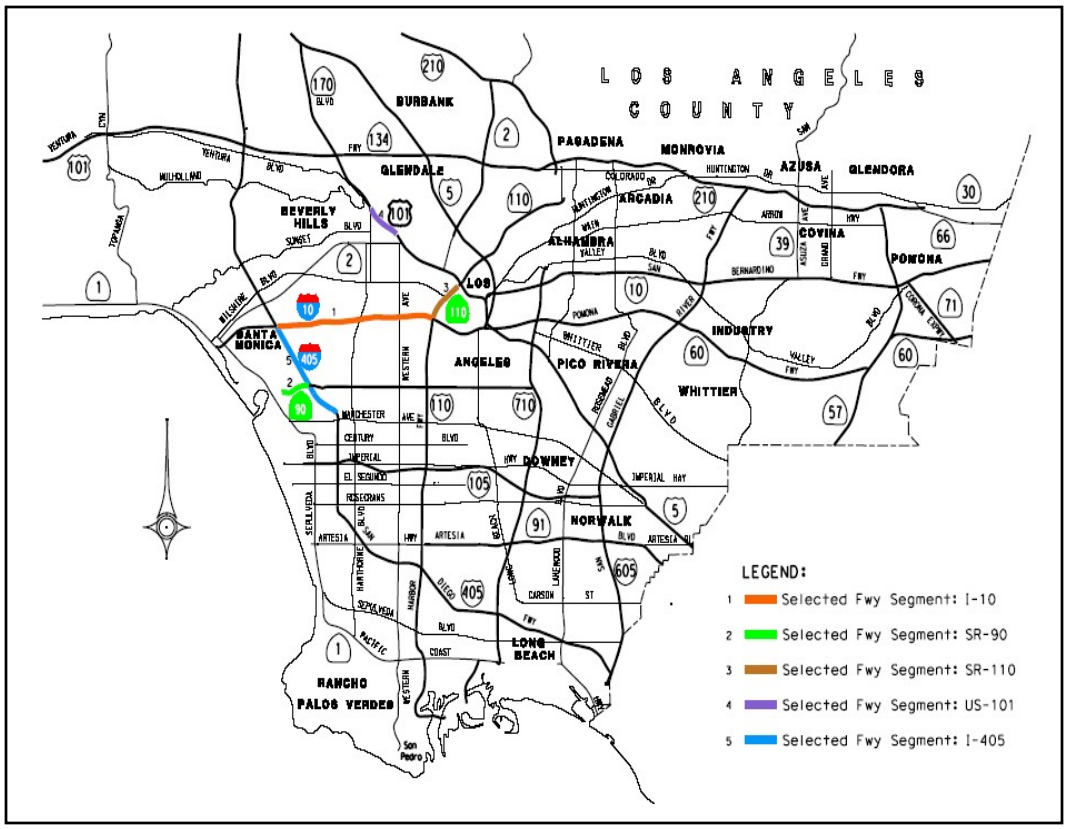
JAMES McCARTHY
DEPUTY DISTRICT DIRECTOR, DIVISION OF PLANNING, PUBLIC TRANSPORTATION & LOCAL ASSISTANCE

WILLIAM H. REAGAN
DEPUTY DISTRICT DIRECTOR, DIVISION OF DESIGN

APPROVED:

DOUGLAS R. FAILING
DISTRICT DIRECTOR

10/15/08
DATE



Location 1: Along Interstate 10 from I-405 to SR-110

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Location 5: Along Interstate 405 from La Cienega Blvd to I-10

07-LA-10, PM 5.57/14.78
07-LA-90, PM 1.22/2.59
07-LA-110, PM 21.49/23.59
07-LA-101, PM 6.94/7.83
07-LA-405, PM 23.81/29.24

This Project Scope Summary Report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

KENNETH KIN-SANG YIP
REGISTERED CIVIL ENGINEER

9/25/2008
DATE

TABLE OF CONTENTS

1. INTRODUCTION AND BACKGROUND

Introduction:
This Project Scope Summary Report (PSSR) proposes the design and construction of Gross Solid Removal Devices (GSRDs), natural trash-capturing devices (e.g., Bio-swales/strips) and other Treatment Best Management Practices (BMPs) including media filters and infiltration basins at various storm drain outfall/discharge points before storm water leaves Caltrans right-of-way.

There are a total of 109 outfall locations within this project's limits, 97 outfall locations lie within the Ballona Creek and eight (8) locations lie within the Los Angeles River Watersheds. It has been determined that a portion of SR-90 is in the Marina del Rey Harbor Watershed, approximately from Lincoln Blvd (PM 0.92) to Culver Blvd (PM 1.77); Four (4) outfall locations are within these limits. The exact Watershed boundary and its impact on the existing outfall locations and other outfall locations would need further investigation in the PS&E stage.

This project seeks to attain water quality standards for trash in the Ballona Creek and Los Angeles River watersheds, and their tributaries in the County of Los Angeles as required by the Los Angeles Regional Water Quality Control Board (LARWQCB). Based on the Trash Total Maximum Daily Loads (TMDL) adopted in 2001, the LARWQCB requires a ten-year implementation program for the Ballona Creek and Los Angeles River Watersheds, to reduce trash discharge by 10% each year until zero discharge is achieved.

This PSSR also seeks to address other TMDL requirements at Ballona Creek, Los Angeles River, and Marina del Rey Harbor Watersheds for metals, bacteria, nitrogen compounds, toxics, and other general pollutants found in Caltrans stormwater runoff.

Caltrans has initiated projects to implement the aforementioned implementation program in ten phases, and this proposed project is Phase VII (7^{th} year) of the implementation plan for District 7.

The construction cost for this project is estimated at $59.3 million in 2008 dollars including potential hazardous waste mitigation and disposal, construction site management, storm water pollution and other essential costs as summarized in Section 9. A detailed cost breakdown is provided in Attachment D2.

This project will be submitted for programming into the 2010 State Highway Operation Protection Program (SHOPP) - Storm Water Mitigation Program. The escalated construction cost (at 5% per year) in the proposed program year of 2011/2012 will be $68.7 million and the escalated right-of-way cost in the proposed certification year of 2009 will be $5.0 million (per Right of Way Data Sheet, See Attachment G).

Project Limits	07-LA-10, PM 5.57/14.78 07-LA-90, PM 1.22/2.59 07-LA-110, PM 21.49/23.59 07-LA-101, PM 6.94/7.83 07-LA-405, PM 23.81/29.24
Construction Cost:	$59.3 million (2008 dollars)
Right-of-Way Cost:	$4.6 million (2008 dollars)
Capital Cost:	$63.9 million (2008 dollars)
Funding Source:	SHOPP – Storm Water Mitigation
Number of Alternatives:	One
Recommended Alternative (for programming and scheduling):	One
Type of Facility (conventional, expressway, freeway):	Treatment BMPs to be built on freeway slopes within and outside Caltrans Right-of-Way.
Number of Structures:	None
Anticipated Environmental Determination / Document:	CE Certification (Date: May 6, 2008)
Legal Description:	N/A

Background:
Section 305(b) of the Federal Clean Water Act (CWA) mandates biennial assessments of the nation's water resources; these water quality assessments are used to identify and list impaired waters. The resulting list is referred to as the 303(d) list. The CWA also requires the State to establish a priority ranking for impaired waters and to develop and implement TMDLs, which specify the maximum amount of a pollutant that a water body can receive and still meet water quality standards; they also allocate pollutant loadings to point and non-point sources. The United States Environmental Protection Agency (USEPA) has oversight authority for the 303(d) program. The USEPA approves the State's 303(d) lists and each specific TMDL.

There are eight established TMDLs within the project limits. The TMDLs for the Los Angeles River, the Ballona Creek and the Marina del Rey Harbor are:

1. Los Angeles River Trash TMDL
2. Los Angeles River Nitrogen Compounds and Related Effects TMDL
3. Los Angeles River and Tributaries Metals TMDL
4. Ballona Creek Trash TMDL
5. Ballona Creek Metals TMDL and the Ballona Creek Estuary Toxic Pollutants TMDL
6. Total Maximum Daily Loads for Bacterial Indicator Densities in Ballona Creek, Ballona Estuary, and Sepulveda Channel
7. Marina del Rey Harbor Mother's Beach and Back Basins Bacteria TMDL
8. Marina del Rey Harbor Toxic Pollutants TMDL

In 1996 and 1998, the LARWQCB identified the Los Angeles River and Ballona Creek Watersheds as being impaired due to trash, and the respective Trash TMDL for each watershed became effective on August of 2002. These Trash TMDLs specify a two-year optional baseline monitoring, followed by a ten-year implementation program that requires reduction of trash discharges in storm water runoff by 10% each year until the zero trash discharges into the watershed are achieved.

Upon a detailed field review and analysis of the 109 outfall locations within the project limits, 76 outfall locations (65 outfall locations being within existing right-of-way and 11 outfall locations with right-of-way and/or easement needs) were found suitable for the installation of Treatment BMPs. See table 1.1 below:

Table - 1.1: Recommended Treatment BMPs

Type of Treatment BMP	I-10	SR-90	SR-110	US-101	I-405	Total[1]
GSRDs	10	3	4	3	16	36
Media Filter	7	2	5	0	0	14
Biostrip/Bioswale	0	1	2	1	0	4
Infiltration Basin	3	4	1	0	0	8
Total	20	10	12	4	16	62

Note:
1. The total number of recommended treatment BMPs differs from the total number of treated outfall locations because some outfall locations within project limits are combined.

It is anticipated that construction of Treatment BMPs at certain outfall/discharge point locations could have impacts on existing traffic, adjacent railroads, underground utilities, and environmental issues. Full-scale investigations to determine such impacts at all locations would not be possible at this time due to time constraints. Selected outfall locations include more than the required 10% of the total watershed drainage area, anticipating that some of the recommended locations could be deleted due to unforeseen issues.

2. RECOMMENDATION

It is recommended that this project report be approved and that the project proceed to the design phase, so that Caltrans can comply with the various TMDL requirements.

3. PURPOSE AND NEED STATEMENT

Purpose:
To comply with the various TMDL requirements, this project proposes to construct gross Solid Removal Devices, Media Filters and/or Infiltration Devices such as Infiltration Basins and Bioswales or Biostrips. A list of pollutants that can be treated by the proposed Treatment BMPs is summarized in Table 3.1.

Table 3.1: Applicable Treatment BMPs and Targeted Pollutants of Concern[1]

Pollutants	Treatment BMPs			
	Gross Solids Removal Devices (GSRD)	Biofiltration Systems	Media Filters	Infiltration Devices
Total Suspended Solids		✓	✓	✓
Nutrients			✓[2]	✓
Pesticides				✓
Particulate Metals		✓	✓	✓
Dissolved Metals		✓	✓	✓
Pathogens				✓
Litter	✓	✓	✓	✓
Biochemical Oxygen Demand				✓
Total Dissolved Solids				✓

Notes:
1. Reference - Table 2.2 of Caltrans Storm Water Quality Handbook, Project Planning and Design Guide, May 2007.
2. Phosphorus and Nitrogen for the Austin Sand Filter; Phosphorus only for the Delaware Sand Filter.

Need:
Trash TMDL requirements for the Ballona Creek and the Los Angeles River Watersheds as well as other TMDL requirements outlined in Table 3.2 must be complied with.

Table 3.2

Other Targeted TMDLs	Effective Dates
Los Angeles River Nitrogen Compounds and Related Effects TMDL	March 23, 2004
Los Angeles River and Tributaries Metals TMDL	January 11, 2006
Ballona Creek Metals TMDL and the Ballona Creek Estuary Toxic Pollutants TMDL	January 11, 2006
TMDL for Bacterial Indicator Densities in Ballona Creek, Ballona Estuary, and Sepulveda Channel.	April 27, 2007
Marina del Rey Harbor Mother's Beach and Back Basins Bacteria TMDL	March 18, 2004
Marina del Rey Harbor Toxic Pollutants TMDL	March 22, 2006

4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA

4A. ROADWAY GEOMETRIC INFORMATION

	Facility (1)	Minimum	Through Traffic Lanes (2)			Paved Shoulder Width (3)		Median (4)	Shoulder is a Bicycle Lane (Y/N) (5)	Other Bicycle Lane Width (6)	Bicycle Route (7)	Facilities Adjacent to the Roadbed (8)
	Location	Curve Radius	No. of Lanes	Lane Width	Type (Flex, Rigid,	Left	Right	Width	Width	Width	(Y/N)	(Code/Width)
Existing	*											
Proposed	**											
	Min. 3R											

Not Applicable

Column "Other Bicycle Lane Width": Width of a bicycle lane that is outside the shoulder and is part of the traveled way.
Code for Column "Facilities Adjacent to the Roadbed":
B: Bicycle Path
P: Pedestrian Walkway
B/P: Shared Bicycle and Pedestrian Path
L: Landscaped area between the curb and sidewalk

* *Enter EXISTING Post Mile limits (Expand as needed, for varied geometrics.)*
** *Enter PROPOSED Post Mile (Expand as needed, for varied geometrics.)*

4B. CONDITION OF EXISTING FACILITY

Facility Type and Location(s) (Station, post mile or other reference point)	**Meets ADA Standards ?** (Yes or No for each listed location)	**If Facility does not meet ADA Standards, what feature(s) are not ADA compliant?** (List features per location)	**Status of Each Noncompliant Location** [Use the following statements, as appropriate: • Will be corrected as part of this project; • Will not be corrected because it is technically infeasible to correct; • This work is outside the scope of this project. This facility and its location have been so documented in the Project History File and this information was submitted to the District ADA Coordinator on (Date) for inclusion in the Department's Transition Plan.]
Sidewalks: (List locations as appropriate)			
Curb Ramps: (List locations as appropriate)			
Crosswalks: (List locations as appropriate)			
Driveways: (List locations as appropriate)			
Shared bicycle/ pedestrian path: (List locations as appropriate)			
Others: (List locations as appropriate)			

Not Applicable

(1) Bicycle Path Data

Deficiency	Location (Station, post mile limits or other reference points)
Not Applicable	

Structures Information

Structures	Width Between Curbs			Replace Bridge Railings	Vertical Clearance			Work Identified in STRAIN	Replace Bridge Approach Rail	Replace Bridge Approach Slab	
Name/No.	Exist	3R Std	Prop	(Y or N)	Exist	3R Std	Prop	(Y or N)	(Y or N)	(Y/N)	#
				Not Applicable							

Remarks:

4D. Vehicle Traffic Data

Present Year ADT (See Table 4.1)

Construction Year ADT N/A 10-Year ADT N/A

DHV N/A 20-Year ADT N/A

D N/A % Trucks N/A

*T.I. (10-Year) N/A ESAL (10-Year) N/A

*T.I. (20-Year) N/A ESAL (20-Year) N/A

* Must correlate with T.I. in Materials Report

Safety Field-Review N/A (Date) Latest 3-Year Accident Data: N/A (average vs. actual rates)

Location(s) of Accident Concentration: N/A

Corrective Strategy: N/A

Table 4.1
Present Traffic Data

Route	Post Mile		Interchange		2006 AADT				
	From	To	From	To	Max.	PM	Min.	PM	Avg.
I-10	R5.57	14.78	I-405	SR-110	328,000	13.80	256,000	6.40	292,000
SR-90	R1.22	2.59	0.3 mi E/O SR-1	I-405	71,000	1.72	30,000	2.65	50,500
SR-110	21.49	23.59	I-10	US-101	293,000	22.12	274,000	23.04	283,500
US-101	6.94	7.83	Gower St	Cahuenga Blvd	288,000	7.84	219,000	6.91	253,500
I-405	23.81	29.24	La Cienega Blvd	I-10	283,000	24.27	278,000	25.95	280,500

5. CORRIDOR AND SYSTEM COORDINATION

The table below lists the status of current projects within this project's limits:

EA	Route	Post Mile	Project Scope	PAED	RTL	CCA
2266A4	10 90	9.02/13.82 1.84/2.70	TMDL Project	06/29/01	12/01/05	07/09
2267A4	10 110	5.59/8.80 21.65/23.61	TMDL Project	06/29/01	06/12/07	05/10
231314	101 405	7.21 25.46/29.41	TMDL Project	09/13/01	01/26/06	07/09
2411U1	110	21.2/22.8	Ramp Modification/Construct Auxiliary Lane Project	03/30/05	02/09	08/11
241301	405	24.4/25.8	Add Auxiliary Lane Project	04/29/05	08/09	10/11
202301	405	24.3/24.3	Bridge Widening Project	12/17/04	09/10	02/11

The table below summarizes the various configurations identified in the Transportation Concept Reports (TCR) for each of the routes within the project limits:

Route	Segment	Limits	Existing Facility	Alternative Concept #1	Alternative Concept #2	Ultimate Alternative
I-10	2	I-405 TO I-110	4MF	5MF + 1HOV	6MF + 1HOV	NONE
SR-90	2	PM R1.03 TO PM 2.65	3MF	3MF	3MF	NONE
SR-110	7	PM 21.44 TO PM 23.73	3MF/4MF	3MF/5MF	3MF/5MF	NONE
US-101	5	SR-2 TO SR-170	4MF	4MF +1HOV	4MF + 2HOV	4MF
I-405	6	I-105 TO SR-90	4MF	5MF + 1HOV	5MF + 2HOV	6MF + 2HOV
	7	SR-90 TO I-10	5MF	6MF + 1HOV	6MF + 2HOV	6MF + 2HOV

MF: MIX FLOW LANE
HOV: HIGH OCCUPANCY VEHICLE LANE

6. ALTERNATIVES

There is one build alternative proposed for this PSSR which is presented in section 6A below:

6A. Proposal:

To comply with the various TMDL requirements, this project proposes the construction of infiltration basins as the preferred alternative, as these devices effectively remove the most pollutants. Media filters are the next preferred alternative when infiltration basins are not feasible due to space considerations and/or geotechnical study findings. Biofiltration systems are considered when there is not sufficient space available for the above Treatment BMPs. GSRDs are being considered as a last resource.

In order to make each individual device more cost-effective and to increase the treated area, where feasible, it is proposed to modify the existing drainage systems, to combine the flow from several adjacent outfalls and direct it to a device for treatment.

Attachment B and C1 identify the outfall locations and summarize the types of Treatment BMPs recommending for this project.

6B. Design Exceptions:

None.

6C. Environmental Compliance:

No environmental issues have been identified in this project, which was determined to be categorically exempt under Class 2 of State CEQA guidelines and categorically excluded (CE) under NEPA guidelines (see Attachment F1). The CE certification occurred on May 6, 2008.

Impacts to migratory birds may be anticipated if this project goes into construction during the bird-nesting season. A migratory bird Standard Special Provisions, SSP (see Attachment F1) with a sum of $10,000 along with an amount of $750,000 to account for tree removal/replacement have been included in the total project costs as indicated in Section 9 and Attachment D2.

6D. Hazardous Waste Disposal Site Required? If Yes, Where Are Sites?

This project involves excavation for the construction of GSRDs, Media Filters, Infiltration Basins, and/or Bio-Strips/Swales. According to the Preliminary Hazardous Waste Assessment by the District's Hazardous Waste Unit, aerially deposited lead (ADL) contamination exists at some locations where Treatment BMPs will be installed. Further ADL site investigations will need to be conducted at the PS&E phase. It is recommended that all excavated soils from these sites be disposed and hauled to a designated Class I waste facility. A Lump Sum of $828,000 to initiate a site investigation and for potential handling and disposal of lead contaminated soils and other hazardous materials as well as a lead compliance

plan have been included in the total project costs as indicated in Section 9 and Attachment F2.

6E. Other Agencies Involved (Permits/Approvals From Fish & Game, Corps Of Engineers, Coastal Commission, Etc.):

The LARWQCB will enforce and monitor the implementation of the various TMDLs. Some outfalls located along I-10, SR-90 and I-405 might be within the jurisdiction of the Coastal Commission; therefore, permits may be required by Army Corp of Engineer, Fish and Game and LARWQCB.

6F. Materials And Or Disposal Site Needs And Availability?

The cost for possible handling of lead contaminated soils has been included in the cost for Hazardous Waste Mitigation in Attachment D2.

6G. Highway Planting And Irrigation:

Vegetation will be cleared during construction when Treatment BMP devices are constructed in existing landscaped areas, since these devices have small footprints, the impact to the existing planting will be kept to a minimum. All disturbed areas including existing irrigation lines will be restored after construction; $210,000 has been set aside to account for these items.

6H. Roadside Design And Management:

Since the work for constructing Treatment BMP devices occurs mostly off the traveled way, it is anticipated that the need for lane closures, detours and traffic control would be minimal.

6I. Stormwater Compliance:

A Long Form Storm Water Data Report was prepared in accordance with the Storm Water Quality Handbook-PPDG, June 2007 and was approved on September 26, 2008, by the District NPDES, TMDL and other appropriate Coordinators. (See Attachment I).

6J. Right-of-Way:

It is estimated that Right-of-Way Acquisition and Easement will be required for this project at a total cost of $4.6 million (2008 dollars) and the escalated right-of-way cost in the proposed certification year of 2009 will be $5.0 million. (See Attachment G).

6K. Railroad Involvement:

None, with the exception of outfall location #10-0721, which it is near an abandoned Union Pacific Railroad track (currently LA Metro Expo Line); a permanent easement maintenance access may be required. The railroad agency will be consulted in the next phase to finalize any required agreements and rights.

6L. Salvaging And Recycling Of Hardware And Other Non-Renewable Resources:

Not applicable for this project.

6M. Prolonged Temporary Ramp Closures:

None.

6N. Recycled Materials:

No materials will be recycled for this project.

6O. Local And Regional Input:

None.

6P. What Are The Consequences Of Not Doing This Entire Project?

Not implementing this project would be considered non-compliant by the LARWQCB. The cost and resources needed for implementation would likely be significantly higher in the future under an accelerated schedule in order to comply with storm water guidelines if the "no build" alternative were to be selected.

7. TRANSPORTATION MANAGEMENT

7A. Transportation Management Plan (TMP):

A TMP Data Sheet and Cost Estimate were approved on March 10, 2008 (see Attachment H). Funds for Construction Zone Enhanced Enforcement Program (COZEEP) were included in this TMP. The need for lane closures, detours, and traffic control should be minimal, since most of the work areas will be off the traveled way.

7B. Vehicle Detection Systems:

None

8. ENVIRONMENTAL DETERMINATION/DOCUMENT

This project was determined to be categorically exempt under Class 2 of State CEQA guidelines and categorically excluded under NEPA guidelines (see Attachment F1).

Date Approved: May 6, 2008

9. FUNDING/SCHEDULING

This project will be submitted for programming into the 2010 Highway Operation Protection Program (SHOPP) and will be funded from the Storm Water Mitigation program 20.XX.201.335. The escalated construction cost (at 5% per year) in the proposed program year of 2011/2012 will be $59.3 million and the escalated right of way cost in the proposed certification year of 2009 will be $5.0 million.

9A. Cost Estimate:

(Also see Attachment D2 for additional details):

STRAIN and other Structural Work (by Structure)	Yes/No	Cost
(A) Replace	No	$ 0
(B) Rehab	No	$ 0
(C) Scour Correction	No	$ 0
(D) Painting	No	$ 0
(E) Widening	No	$ 0
(F) Rail Replacement (without widening)	No	$ 0
(G) Strengthen	No	$ 0
(H) Seismic Retrofit	No	$ 0
(I) Vertical Clearance Adjustment	No	$ 0
STRUCTURE COSTS SUBTOTAL:		$ 0
District Work	Yes/No	Cost
(A) Traffic Items	Yes	$ 2,150,000
(B) Structural Section (i.e.: access roads and pullout areas)	Yes	$ 1,245,000
(C) Retaining Walls	Yes	$ 1,350,000
(D) Metal Beam Guardrails, K-rails, Chain Link Fences & Gates*	Yes	$ 490,000
(E) Drainage Facilities GSRDs: 8 Linear and 28 Inclined Types (total of 36)	Yes	$ 7,200,000
3 Infiltration Devices ($150,000/ea)/5 Media Filters (total of 8)	Yes	$ 3,505,500
Media Filters (total of 14)	Yes	$ 8,555,400
Bioswale (total of 1) and Biostrips (total of 3)	Yes	$ 200,000
Drainage Modifications	Yes	$ 3,720,000
(F) Noise Barrier Modifications	Yes	$ 39,000
(G) Utility Relocation	No	$ 0
(H) Railroad Agreements	No	$ 0
(I) Right-of-Way (preliminary estimated figure not a part of Costs Subtotal 1, below)*	Yes	$ 4,543,100
(J) Environmental Mitigation	Yes	$ 760,000
(K) Hazardous Waste Mitigation*	Yes	$ 827,700
(L) COZEEP	Yes	$ 52,000
(M) Storm Water Pollution Prevention Plan Preparation (SWPPP), Water Pollution Control Plan (WPCP), Construction Site Management and Water Sampling and Analysis	Yes	$ 1,055,000
(N) Design Pollution Prevention (DPP): highway planting and irrigation	Yes	$ 210,000
(O) Earthwork*	Yes	$ 5,739,700
(P) Clearing and Grubbing	Yes	$ 262,500
(Q) RE Office Space	Yes	$ 504,000
(R) Time Related Overhead (TRO)*	Yes	$ 3,975,800
COSTS SUBTOTAL - 1:		$ 41,841,600
MINOR ITEMS (5%)		$ 2,092,080
COSTS SUBTOTAL - 2:		$ 43,933,680

ROADWAY MOBILIZATION (10%)		$ 4,393,368
MISCELLANEOUS (5%)		$ 2,196,684
20% CONTINGENCY		$ 8,786,736
TOTAL CONSTRUCTION COST*:		$ 59,310,500
TOTAL RIGHT OF WAY ITEMS*:		$ 4,543,100
TOTAL PROJECT CAPITAL OUTLAY COSTS:		$ 63,853,600
USE TOTAL (2008 DOLLARS):		**$ 63,900,000**

Note: ***** Cost figures were rounded to the nearest hundred.

9B. Project Support:

	PROJECT SUPPORT COMPONENTS								
	PA&ED		Design		Right of way		Construction		Total
	0 Phase		1 Phase		2 Phase		3 Phase		
	Dist	DES	Dist	DES	Dist	DES	Dist	DES	
Estimated PY's									0
Estimated PS $'s									0
Estimated PYE $'s ($1000's)	2,112		7,392		1,056		10,560		21,120
Total $'s	2,112		7,392		1,056		10,560		21,120

9C. Project Schedule:

Milestones	Delivery Date
Project PS&E	08/11/09
Right of Way Certification	12/31/09
Ready to List (RTL)	01/15/10
Approve Contract	02/16/10
Construction Start	02/17/10
End Project	09/17/12

10. FEDERAL COORDINATION

No federal-aid funding is anticipated and no FHWA action is required for this project.

11. SCOPING TEAM FIELD REVIEW ATTENDANCE ROSTER:

11A. Project Field Reviewed By:

D7 Office of Project & Special Studies Ken Yip, Judith Mendoza — Date 06/01/2007, 02/29/2008

HQ Maintenance Not Applicable — Date _____

D7 Maintenance David Morris, Levin Katanian & Glen Mellinger — Date 01/15/2008

11B. Project Reviewed By:

D7 201.335 Program Advisor Robert Wu — Date: August 18, 2008

D7 Right-of -Way Dan Murdoch — Date: August 18, 2008

D7 Quality Review Quality Review Meeting — Date: August 18, 2008

HQ HA42 Program Advisor Not Applicable — Date: August 18, 2008

Office of Maintenance Support Richard Gordon — Date: August 18, 2008

District Storm Water Mitigation Program Advisor Jai Paul Thakur — Date: August 18, 2008

FHWA Not Applicable — Date _____

Project Personnel:

OPSS Project Manager Rafael Molina — Date: June 2007 - Sept 2008

OPSS Project Engineer Ken Yip — Date: June 2007 - Sept 2008

OPSS Project Assistant Judith Mendoza — Date: June 2007 - Sept 2008

12. ATTACHMENTS

A. Project Location Map

B. Outfall Location Plans:

B1: Outfall Location Plan - I-10
B2: Outfall Location Plan - I-10 & SR-90
B3: Outfall Location Plan - SR-110 & US-101
B4: Outfall Location Plan - I-405

C. Outfall Data Lists

C1: Preliminary Treatment BMP Recommendations
C2: Corridors Outfall Database

D. Project Schedule and Project Cost Estimate

D1: Project Schedule (Workplan)
D2: Project Cost Estimate

E. Schematic Diagrams & Photos of Treatment BMPs

F. Environmental Clearances

F1: Categorical Exemption/Exclusion Form
F2: Hazardous Waste Initial Site Assessment
F3: Natural Environment Study

G. Right-of-Way Data Sheet

H. TMP Data Sheet

I. Storm Water Compliance

J. Performance Indicators

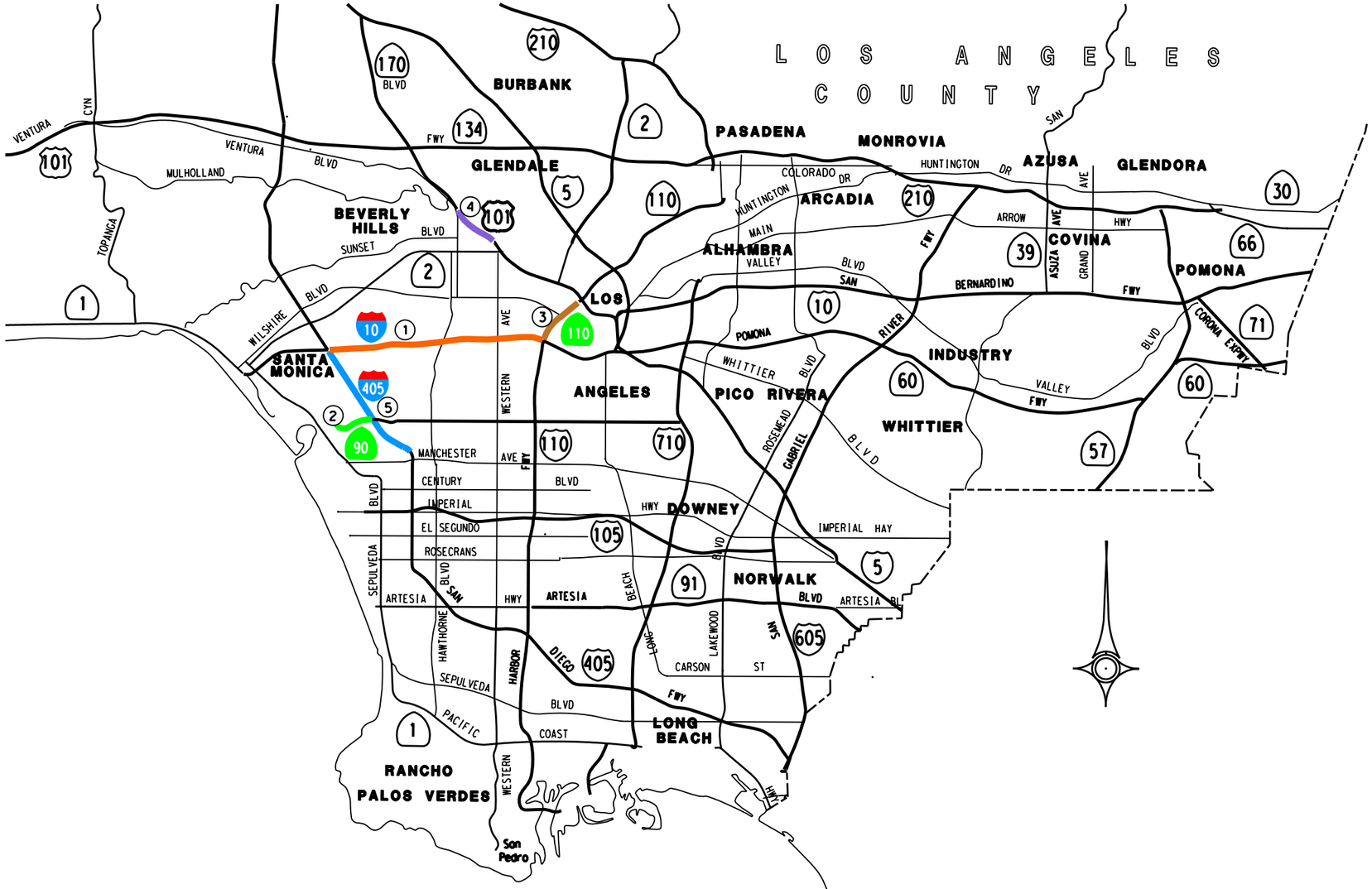
Attachment A – Project Location Map

INDEX OF SHEETS

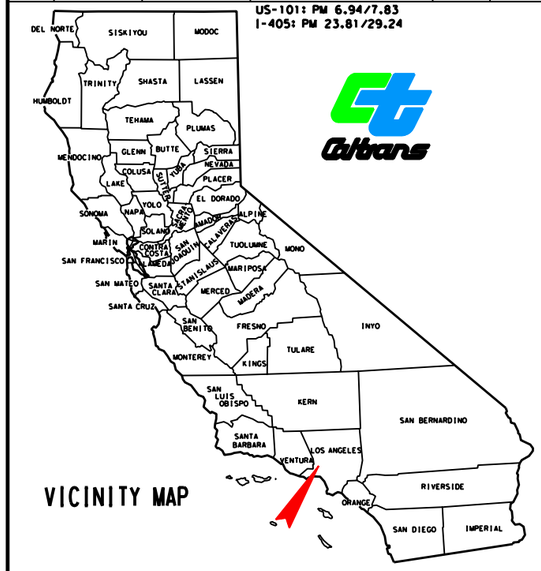
STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT LOCATION MAP



DIST	COUNTY	LOCATION CODE	POST MILE TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA		I-10: PM 5.57/14.78 SR-90: PM 1.22/2.59 SR-110: PM 21.49/23.59 US-101: PM 6.94/7.83 I-405: PM 23.81/29.24	1	1



VICINITY MAP

To get to the Caltrans web site, go to: http://www.dot.ca.gov

LEGEND:

1. Selected Fwy Segment: I-10
2. Selected Fwy Segment: SR-90
3. Selected Fwy Segment: SR-110
4. Selected Fwy Segment: US-101
5. Selected Fwy Segment: I-405

NOT TO SCALE

Contract No.

PROJECT ENGINEER DATE | PROJECT MANAGER DATE | REQUEST

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => &USER
DGN FILE => &REQUEST

CU 07186 | EA 23870K ATTACHMENT A

LAST REVISION 02-8-08 | DATE PLOTTED => &DATE &TIME

VicinityMap.dgn 10/17/2008 1:23:27 PM

Attachment B – Outfall Location Plans:

B1: Outfall Location Plan - I-10
B2: Outfall Location Plan - I-10 & SR-90
B3: Outfall Location Plan - SR-110 & US-101
B4: Outfall Location Plan - I-405

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	I-10	5.57/14.78	1 of 4	4

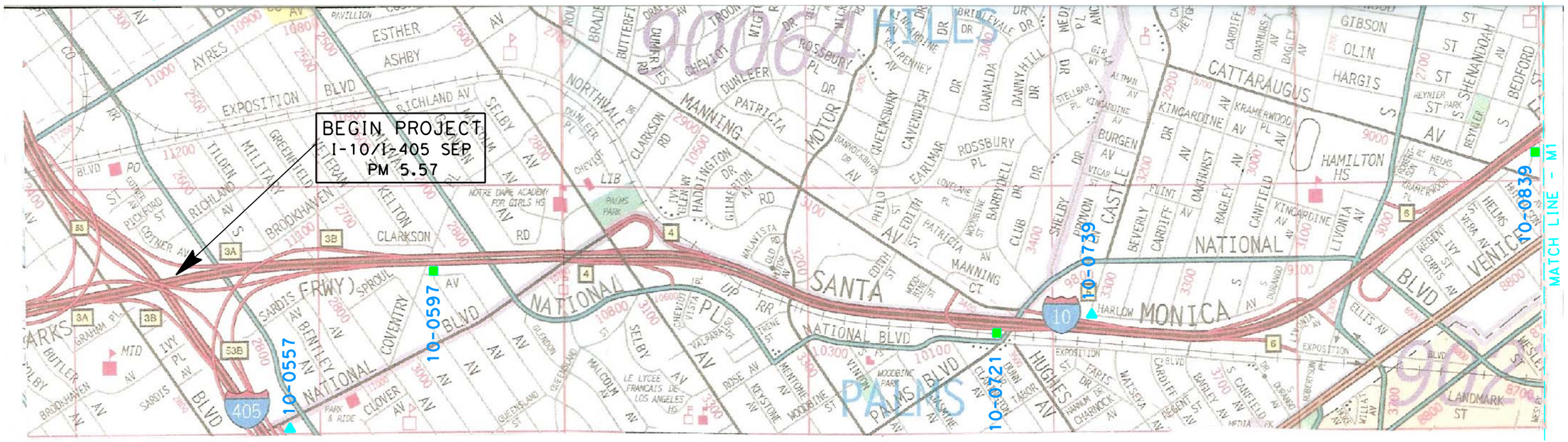
LEGEND:

OUTFALL LOCATIONS RECOMMENDED FOR:

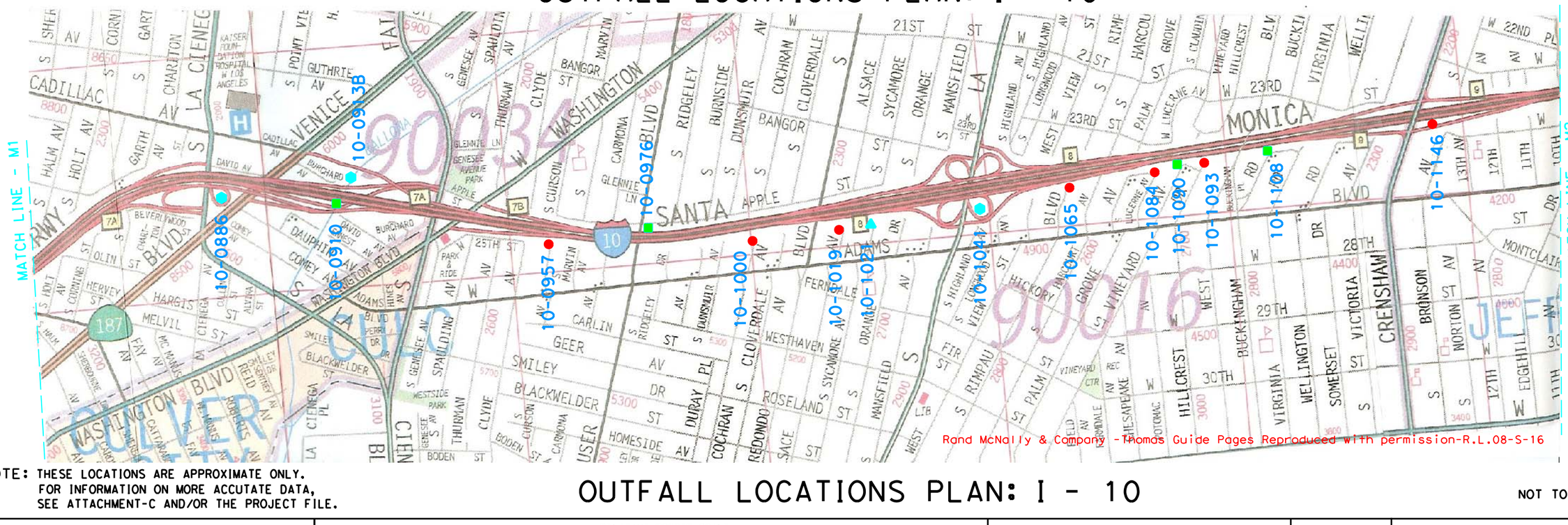
- GSRD
- BIO-SWALE/BIO-STRIP
- MEDIA FILTER
- INFILTRATION BASIN

OUTFALL LOCATIONS WITH NO TREATMENT BMPS RECOMMENDED

xx-xxxx OUTFALL ID. NO.



OUTFALL LOCATIONS PLAN: I - 10



NOTE: THESE LOCATIONS ARE APPROXIMATE ONLY.
FOR INFORMATION ON MORE ACCUTATE DATA,
SEE ATTACHMENT-C AND/OR THE PROJECT FILE.

OUTFALL LOCATIONS PLAN: I - 10

NOT TO SCALE

DATE	REVISED BY	DATE REVISED
	Kenneth Yip	

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER: Kenneth Yip

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION => DATE PLOTTED => 06-01-08
TIME PLOTTED => 8TIME

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $USER
DGN FILE => $REQUEST

CU 07186 | EA 23870K | ATTACHMENT B-1

Outfall location.dgn 5/29/2008 2:39:15 PM

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	I-10	5.57/14.78	2 of 4	4
	LA	SR-90	1.22/2.59		

LEGEND:

OUTFALL LOCATIONS RECOMMENDED FOR:

- GSRD
- BIO-SWALE/BIO-STRIP
- MEDIA FILTER
- INFILTRATION BASIN

- OUTFALL LOCATIONS WITH NO TREATMENT BMPS RECOMMENDED
- xx-xxxx OUTFALL ID. NO.

OUTFALL LOCATIONS PLAN: I - 10

MATCH LINE - M2

END PROJECT
I-10/SR-110 SEP
PM 14.78

10-1304 10-1358A 10-1391 10-1397 10-1403 10-1415 10-1420 10-1433 10-1452 10-1454 10-1478

OUTFALL LOCATIONS PLAN: SR - 90

BEGIN PROJECT
0.3 mi E/O SR-1
PM 1.22

90-0122 90-0156 90-0169 90-0174 90-0176 90-0177 90-0195 90-0115A 90-0115B 90-0132 90-0168 90-0170B 90-0170C 90-0170D 90-0219 90-0226 90-0232 90-0236 90-0243 90-0246 90-0259

END PROJECT
SR-90/I-405
PM 2.59

NOTE: THESE LOCATIONS ARE APPROXIMATE ONLY.
FOR INFORMATION ON MORE ACCUTATE DATA,
SEE ATTACHMENT-C AND/OR THE PROJECT FILE.

NOT TO SCALE

DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
Kenneth Yip

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION => $DATE
DATE PLOTTED => $DATE
TIME PLOTTED => $TIME
06-01-08

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $USER
DGN FILE => $REQUEST

CU 07186 EA 23870K ATTACHMENT B-2

Outfall location.dgn 5/29/2008 4:17:31 PM

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	SR-110	21.49/23.59	3 of 4	4
	LA	US-101	6.94/7.83		

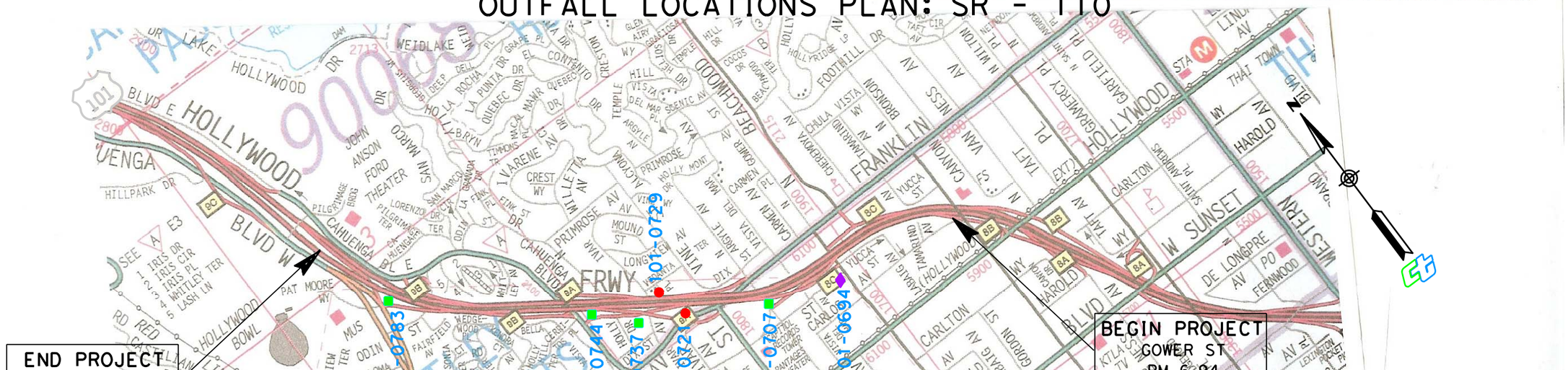
LEGEND:

OUTFALL LOCATIONS RECOMMENDED FOR:

- GSRD
- BIO-SWALE/BIO-STRIP
- MEDIA FILTER
- INFILTRATION BASIN

- OUTFALL LOCATIONS WITH NO TREATMENT BMPS RECOMMENDED
- xx-xxxx OUTFALL ID. NO.

OUTFALL LOCATIONS PLAN: SR - 110



OUTFALL LOCATIONS PLAN: US - 101

NOTE: THESE LOCATIONS ARE APPROXIMATE ONLY.
FOR INFORMATION ON MORE ACCUTATE DATA,
SEE ATTACHMENT-C AND/OR THE PROJECT FILE.

NOT TO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT ENGINEER: Kenneth Yip
CALCULATED/DESIGNED BY
CHECKED BY
DRAWN BY: Kenneth Yip
DATE
REVISED BY
DATE REVISED
#REQUEST
LAST REVISION DATE PLOTTED => $DATE
TIME PLOTTED => $TIME
06-01-08

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80
USERNAME => $USER
DGN FILE => $REQUEST
CU 07186
EA 23870K
ATTACHMENT B-3

Outfall location.dgn 5/30/2008 9:46:40 AM

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	I-405	23.81/29.24	4 of 4	4

LEGEND:

OUTFALL LOCATIONS RECOMMENDED FOR:

- GSRD
- BIO-SWALE/BIO-STRIP
- MEDIA FILTER
- INFILTRATION BASIN

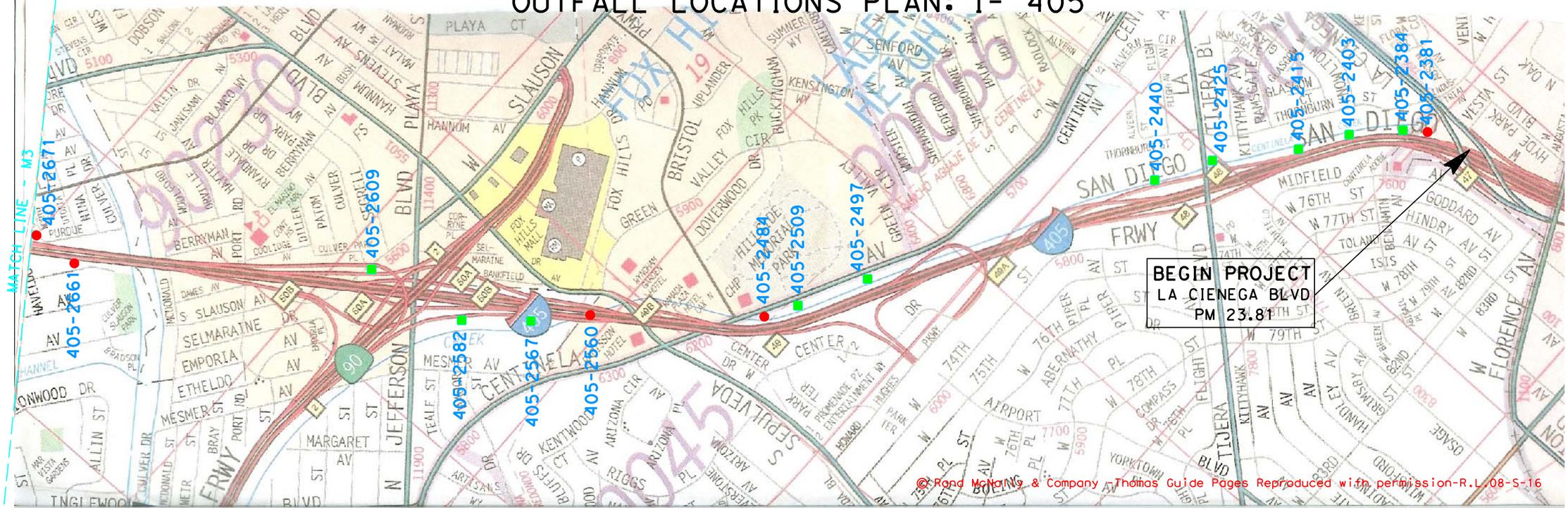
OUTFALL LOCATIONS WITH NO TREATMENT BMPS RECOMMENDED

xx-xxxx OUTFALL ID. NO.

END PROJECT
I-10/I-405 sep
PM 29.24

405-2924 405-2904 405-2888 405-2860 405-2826 405-2797 405-2810 405-2781 405-2748 405-2712 405-2698 405-2723

MATCH LINE - M3



NOTE: THESE LOCATIONS ARE APPROXIMATE ONLY.
FOR INFORMATION ON MORE ACCUTATE DATA,
SEE ATTACHMENT-C AND/OR THE PROJECT FILE.

OUTFALL LOCATIONS PLAN: I- 405

NOT TO SCALE

DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER: Kenneth Yip

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => $DATE
TIME PLOTTED => $TIME
06-01-08

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $USER
DGN FILE => $REQUEST

CU 07186 | EA 23870K | ATTACHMENT B-4

Outfall location.dgn 5/29/2008 4:19:07 PM

Attachment C – Outfall Data Lists

C1: Preliminary Treatment BMP Recommendations
C2: Corridors Outfall Database

C1: Preliminary Treatment BMP Recommendations

Project: Trash TMDL Implemenntation Project - Phase VII

Location: Route 10 PM R5.6/14.8
Route 90 PM 1.2/2.6
Route 101 PM 6.9/7.8
Route 110 PM 21.5/23.6
Route 405 PM 23.8/29.2
Los Angeles River Watershed, Ballona Creek Watershed, and Marina del Rey Harbor Watershed in the County of Los Angeles

Prepared By: Office of Project and Special Studies - Ken Yip and Judith Mendoza

	FWY ID		PRELIMINARY TREATMENT BMP RECOMMENDATIONS (Per Field and As-built Review)						
OUTFALL NO.	OUTFALL ID.	PM	80% - 100 % WQV (3,476 - 4,345 ft^3) ft3	Drainage Area acres	Drainage Area HA	Recommended	Type	Screened Out	Comments (See Notes)
Route - 10									
1	10-0557	5.57	0	0.30	0.12	✓	Media Filter (Austin)		15, 18, MG and fence
2	10-0597	5.97	0	0.45	0.18	✓	GSRD (Inclined)		15, MG and fence
3	10-0721	7.21	0	1.27	0.52	✓	GSRD (Inclined)		5, 7, 8, 14, MG, 36", 18
4	10-0739	7.39	0	12.55	5.08	✓	Two Media Filters (Austin)		21, Implement two Media Filters
5	10-0839	8.39	0	1.69	0.68	✓	GSRD (Inclined)		MG
6	10-0886	8.86	0	0.93	0.38	✓	Infiltration Basin		15
7	10-0910	9.10	0	0.39	0.16	✓	GSRD (Inclined)		15, 17, 19, MP
8	10-0913B	9.13	0	4.60	1.86	✓	Infiltration Basin		
9	10-0957	9.57	0	1.93	0.78			✓	1
10	10-0976	9.76	0	0.86	0.35	✓	GSRD (Inclined)		15, MG
11	10-1000	10.00	0	1.72	0.70			✓	1
12	10-1019	10.19	0	0.58	0.23			✓	1, 15
13	10-1021	10.21	0	0.65	0.26	✓	Media Filter (Austin)		15, 17, MG
14	10-1041	10.41	0	6.28	2.54	✓	Infiltration Basin		
15	10-1065	10.65	0	1.51	0.61			✓	1, 14
16	10-1084	10.84	0	1.94	0.79			✓	city water only
17	10-1090	10.90	0	1.69	0.68	✓	GSRD (Inclined)		11, MG, 36", angled conn, 18
18	10-1093	10.93	0	1.46	0.59			✓	3, 11, 14, 16
19	10-1108	11.08	0	17.69	7.16	✓	Two GSRDs (Inclined)		21, Implement two GSRDs (Inclined)
20	10-1146	11.46	0	62.12	25.14			✓	21
21	10-1304	13.04	0	1.99	0.81	✓	GSRD (Linear)		4, 8, MP, 16, 17, 18, MG, fence, MBGR
22	10-1358A	13.58	0	1.19	0.48	✓	Media Filter (Austin)		15, MG
23	10-1391	13.91	0	0.74	0.30			✓	4, 8, 15, city water only
24	10-1397	13.97	0	1.29	0.52			✓	14, MG, city water only
25	10-1401	14.01	0	4.15	1.68			✓	1, city water only
26	10-1415	14.15	0	1.91	0.77			✓	city water only
27	10-1420	14.20	0	1.87	0.76			✓	2, city water only
28	10-1433	14.33	0	3.64	1.47	✓	Media Filter (Austin)		MG, 18
29	10-1452	14.52	0	8.88	3.59	✓	GSRD (Inclined)		MG and fence
30	10-1454	14.54	0	0.56	0.23			✓	5, 15, city water only
31	10-1478	14.78	0	2.46	1.00	✓	Media Filter (Austin)		MG, 18
Route - 90									
32	90-0115A	1.15	0	13.22	5.35	✓	Infiltration Basin		in front of SW
33	90-0115B	1.15	0	3.00	1.21			✓	9
34	90-0122	1.22	0	12.15	4.92	✓	Infiltration Basin		
35	90-0132	1.32	0	0.85	0.35			✓	9
36	90-0156	1.56	0	25.10	10.16	✓	Infiltration Basin		
37	90-0168	1.68	0	0.59	0.24	✓	GSRD (Inclined)		15, MG and fence
38	90-0169	1.69	0	0.53	0.22			✓	5
39	90-0170B	1.70	0	1.76	0.71	✓	Biostrip		
40	90-0170C	1.70	0	2.99	1.21	✓	GSRD (Linear)		MG and fence
41	90-0170D	1.70	0	2.29	0.93			✓	5, no room for BMP
42	90-0174	1.74	0	1.17	0.47			✓	9
43	90-0176	1.76	0	4.63	1.87			✓	9

44	90-0177	1.77	0	1.41	0.57	✓	**GSRD (Inclined)**		14, MG, fence
45	90-0195	1.95	0	3.88	1.57			✓	9
46	90-0219	2.19	0	1.43	0.58				14, MG (combine with 90-0226 and 90-0232), access thru LACFC rd, 18, 20
47	90-0226	2.26	0	0.96	0.39	✓	**Media Filter (Austin)**		Combine with 90-0219 and 90-0232, access thru LACFC rd, 18, 20
48	90-0232	2.32	0	1.11	0.45				Combine with 90-0226 and 90-0219, 18, 20
49	90-0236	2.36	0	2.65	1.07				11, MG (combine 90-0236, 90-0243 and 90-0246), access thru LACFC rd, 45" dia pipe, 17, 18, treat at 90-
50	90-0243	2.43	0	0.74	0.30	✓	**Media Filter (Austin)**		
51	90-0246	2.46	0	3.41	1.38				
52	90-0259	2.59	0	4.72	1.91	✓	**Infiltration Basin**		
Route - 101									
53	101-0694	6.94	0	2.96	1.20	✓	**Biostrip**		
54	101-0707	7.07	0	2.75	1.11	✓	**GSRD (Inclined)**		MP, MG and fence
55	101-0721	7.21	0	1.44	0.58			✓	14, BMP in place
56	101-0729	7.29	0	1.52	0.62			✓	2, 5, 14, city water only
57	101-0737	7.37	0	2.07	0.84	✓	**GSRD (Inclined)**		Combine with 101-0744
58	101-0744	7.44	0	6.15	2.49				MG, fence, combine with 101-0737
59	101-0783	7.83	0	2.03	0.82	✓	**GSRD (Inclined)**		MP, 17, MG, fence
Route - 110									
60	110-2149	21.49	0	0.21	0.08	✓	**Bioswale**		15, MG and fence
61	110-2151	21.51	0	2.34	0.95	✓	**Media Filter (Austin)**		built between S110-W10 Conn and 14th St, MG and fence, combine with 110-2164
62	110-2164	21.64	0	0.44	0.18				15, built between S110-W10 Conn and Oak St, MG and fence, combine with 110-2151
63	110-2200	22.00	0	0.50	0.20	✓	**GSRD (Inclined)**		relocate inlet, 15, 20, MG and fence, build on the rt side of NB onrmp from 11th St
64	110-2202	22.02	0	0.25	0.10	✓	**GSRD (Inclined)**		15, MG and fence, build to the lt side of SB offrmp to Blaine St.
65	110-2226	22.26	0	1.18	0.48	✓	**Media Filter (Austin)**		15, MG and fence, 20, combine 110-2226 and 110-2227B and treat at 110-2226, MBGR
66	110-2227B	22.27	0	0.63	0.25				
67	110-2227A	22.27	0	0.27	0.11	✓	**Media Filter (Austin)**		15, combine 110-2227A, 110-2229 and place at NB 110-11th St onramp on the lt side, MG and fence
68	110-2229	22.29	0	1.57	0.64				14
69	110-2231	22.31	0	0.92	0.37	✓	**GSRD (Inclined)**		15, 20
70	110-2241	22.41	0	0.77	0.31			✓	9, 15
71	110-2265	22.65	0	0.34	0.14			✓	9, 15
72	110-2274B	22.74	0	0.27	0.11			✓	9, 15
73	110-2274A	22.74	0	6.08	2.46	✓	**GSRD (Inclined)**		Combine 110-2274A and 110-2283 and treat at 110-2274A, MG and fence, MP, 17, MBGR, 20
74	110-2283	22.83	0	0.63	0.26				16
75	110-2299	22.99	0	0.45	0.18	✓	**Media Filter (Austin)**		Combine with 110-2299, 110-2302 and 110-2308 and treat underneath N/o 4th St OC structure, MG and fence
76	110-2302	23.02	0	0.38	0.16				
77	110-2308	23.08	0	2.41	0.98				
78	110-2320	23.20	0	0.09	0.04	✓	**Biostrip**		8, 15, 17
79	110-2322	23.22	0	1.56	0.63				14, 17
80	110-2337	23.37	0	0.91	0.37	✓	**Media Filter (Austin)**		16, combine 110-2337 and 110-2344 and treat at 110-2344, MG
81	110-2344	23.44	0	3.83	1.55				16, 18, combine 110-2337 and 110-2344 and treat at 110-2344, MG, 20
82	110-2359	23.59	0	6.15	2.49	✓	**Infiltration Basin**		11
Route - 405									
83	405-2381	23.81	0	37.87	15.32			✓	Actual drainage area exceeds max design area
84	405-2384	23.84	0	3.01	1.22	✓	**GSRD (Linear)**		MP, 16, 17, MBGR
85	405-2403	24.03	0	1.61	0.65	✓	**GSRD (Inclined)**		3, 8, Combine 405-2403, 405-2415 and treat at 405-2415, MP and create a SW access, MG and fence.
86	405-2415	24.15	0	2.51	1.02				
87	405-2425	24.25	0	3.09	1.25	✓	**GSRD (Linear)**		MP, at fwy side, MG and fence, 17, MBGR
88	405-2440	24.40	0	5.64	2.28	✓	**GSRD (Inclined)**		create SW access, fence, MG, staircase for access
89	405-2484	24.84	0	4.41	1.78			✓	8

90	405-2497	24.97	0	1.99	0.81	✓	**GSRD (Inclined)**		MP, 17, MG, fence, MBGR
91	405-2509	25.09	0	4.11	1.66	✓	**GSRD (Inclined)**		MP, 17, MG, fence, MBGR
92	405-2560	25.60	0	3.38	1.37			✓	2, no room for BMP
93	405-2567	25.67	0	2.28	0.92	✓	**GSRD (Inclined)**		MG, access thru Centinela Creek Channel Service Rd, combine 405-2567 and 405-2582 and treat at 405
94	405-2582	25.82	0	2.29	0.93				
95	405-2609	26.09	0	2.78	1.12	✓	**GSRD (Inclined)**		between NW90/405 N and NE90/405 N, 20, MG and fence
96	405-2661	26.61	0	1.81	0.73			✓	no room for BMP
97	405-2671	26.71	0	1.86	0.75			✓	city water only
98	405-2698	26.98	0	4.96	2.01	✓	**GSRD (Linear)**		MG and fence
99	405-2712	27.12	0	4.22	1.71			✓	no room for BMP
100	405-2723	27.23	0	4.43	1.79	✓	**GSRD (Inclined)**		MG, fence, 15
101	405-2748	27.48	0	2.07	0.84			✓	no room for BMP
102	405-2781	27.81	0	6.22	2.52	✓	**GSRD (Linear)**		K-rail at gore at 3 sides at NB side of fwy, MG and fence
103	405-2797	27.97	0	0.45	0.18	✓	**GSRD (Linear)**		15, MG and fence
104	405-2810	28.10	0	2.43	0.98	✓	**GSRD (Linear)**		MG and fence
105	405-2826	28.26	0	2.12	0.86	✓	**GSRD (Inclined)**		16, 17, MG and fence, MP
106	405-2860	28.60	0	5.69	2.30	✓	**GSRD (Inclined)**		4, drainage adjust, 18, MG and fence
107	405-2888	28.88	0	9.37	3.79			✓	no room for BMP
108	405-2904	29.04	0	3.76	1.52	✓	**GSRD (Inclined)**		18, MG and fence
109	405-2924	29.24	0	0.91	0.37			✓	15, no room for BMP

	I-10	**SR-90**	**SR-110**	**US-101**	**I-405**	**Total**
GSRD (Linear)	1	1	0	0	6	8
GSRD (Inclined)	9	2	4	3	10	28
Media Filter (Austin)	7	2	5	0	0	14
Media Filter (Delaware)	0	0	0	0	0	0
Bioswale	0	0	1	0	0	1
Biostrip	0	1	1	1	0	3
Infiltration Basin	3	4	1	0	0	8
Detention Basin	0	0	0	0	0	0
Total Recommended BMPs	20	10	12	4	16	62 [1]

Project Outfalls Considered: 109

Total Recommended BMPs: 62
Total Outfalls treated: 75
Total Outfalls not treated: 34
([1] The number of recommended BMPs differs from the number of outfalls treated because some outfalls have been combined.)

Notes:

Post Mile, PM is approximated.

MP: Proposed maintenance pullout area, total of 10.

MG: Proposed maintenance gate, total of 46. Fences: 37 locations.

Staircase for access: 5 locations; MBGR: 15 locations, and Permanent k-rail: 1 location.

☐ 1. Proposed BMP does not work with culvert, ditch, open channel, overside drain, non-circular outlet, pump station, inlet.

☐ 2. Proposed BMP footprint falls within travel way of connector, ramp, local street, shoulder.

☐ 3. Proposed BMP footprint falls within area of soundwall, retaining wall, utilities.

☐ 4. Proposed BMP footprint extends beyond Caltrans right of way.

☐ 5. Proposed BMP locates outside Caltrans right of way.

☐ 6. Existing outfall device is not in Ballona Creek Watershed.

☐ 7. Proposed BMP is too close to bridge column/ wing wall / abutment.

☐ 8. Proposed BMP has no maintenance access.

☐ 9. Existing freeway facility oblitarates OUTFALL.

☐10. Listed outfall facility does not exist, or has been removed.

☐11. Outfall diameter exceeds or is under BMP device inflow pipe size limit.

☐12. Proposed BMP location has steep slope.

☐13. Existing drainage pipe is too deep for installation of BMP.

☐14. Available Water Quality Volume (WQV) is 80% - 100% of the required WQV: 3,461 - 4,345 ft^3

☐15. Available Water Quality Volume (WQV) is less than 80% of the required WQV: 3,461 ft^3

☐16. Freeway is in cut

☐17. Retaining Wall is required (9 locations in total).

☐18. Right of Way, R/W and/or Easement is required (Need: 11 locations for R/W and/or Easement).

☐19. Maintenance Access Roads (MR): 1 location.

☐20. Relocate inlet or drainage modification: 14 locations.

☐21. Actual Drainage Area exceeds the standard capacity of a Media Filter or GSRD.

C2: Corridors Outfall Database

Ballona Creek and Los Angeles River Watershed
I-10, SR-90, US-101, I-110, I-405

OUTFALL ID	HWY NO	DIRECTION	CROSS ST	CITY NAME	OF TYPE	OF SIZE	COMMENTS	SMTYPE	RWBODY	DRAIN AREA	HYDRO AREA
I-10											
10-0557	10	EB	National Blvd E/o San Di	Los Angeles	CMP	18		Concrete - 100%	Ballona Creek	0.30	405.13
10-0597	10	EB	Kelton Ave	Los Angeles	N/A	N/A		Concrete - 100%	Ballona Creek	0.45	405.13
10-0721	10	EB	National/exposition	Los Angeles	RCP	36 AND 18		Concrete - 100%	Ballona Creek	1.27	405.13
10-0739	10	WB	Castle Heights	Los Angeles	RCP	30 AND 66	BOTH RCPs DRAIN TO CB.	Concrete - 100%	Ballona Creek	12.55	405.13
10-0839	10	EB	Halm	Los Angeles	SW CULVE	48X6	18" RCP DRAINS TO CONCRETE V-DITCH, THEN SW CULVERT.	Concrete - 100%	Ballona Creek	1.69	405.13
10-0886	10	EB	La Cienega & Venice	Los Angeles	N/A	N/A		Concrete - 100%	Ballona Creek	0.93	405.15
10-0910	10	EB	Access From Burchard	Culver City	B DRAIN	24X12	CMP DRAINS TO CHANNEL, THEN DOWN BOX TO BALLONA CREEK.	Concrete - 100%	Ballona Creek	0.39	405.15
10-0913B	10	WB	Access From Burchard	Culver City	RCP	36	THERE ARE TWO 0913 OUTFALLS: THIS ONE IS NOW 0913B. DRAINS DIRECTLY TO CHANNEL.	Concrete - 100%	Ballona Creek	4.60	405.15
10-0957	10	EB	Curson Ave	Los Angeles	SW CULVE	SIX 42X6	5'X2.5' DRB DRAIN TO SW CULVERTS.	Concrete - 100%	Ballona Creek	1.93	405.15
10-0976	10	WB	Hauser Blvd	Los Angeles	MH	N/A		Concrete -100%	Ballona Creek	0.86	405.15
10-1000	10	EB	Cochran	Los Angeles	SW CULVE	SEVEN 42	8'X2.5' DRB DRAIN IN CONCRETE CULVERT TO SW CULVERTS.	Concrete - 100%	Ballona Creek	1.72	405.15
10-1019	10	EB	Alsace Ave	Los Angeles	SW CULVE	EIGHT 42X	6'X2.5' DRB DRAINS TO THE SW CULVERTS.	Concrete - 100%	Ballona Creek	0.58	405.15
10-1021	10	EB	Between Alsace Ave And Sycamore Ave	Los Angeles	RCP	24	DRAINS TO BRUSH, THEN DRAINS OFF OF CT PROPERTY ONTO NONPAVED STREET.	Concrete - 100%	Ballona Creek	0.65	405.15
10-1041	10	EB	Adams Blvd & La Brea	Los Angeles	RCP	42	DISCHARGES TO CB WITH MANHOLE "STATE OF CALIFORNIA".	Concrete - 100%	Ballona Creek	6.28	405.15
10-1065	10	EB	S Rimpau Blvd	Los Angeles	SW CULVE	TWELVE 4	7'X2.5' DRB DRAINS TO SW CULVERTS.	Concrete -100%	Ballona Creek	1.51	405.15
10-1084	10	EB	Lucerne	Los Angeles	SW CULVE	179X6	24" RCP TO CULVERT TO SURFACE STREET.	Concrete - 100%	Ballona Creek	1.94	405.15
10-1090	10	EB	Vineyard Ave	Los Angeles	RCP	36	36" RCP TO CB.	Concrete - 100%	Ballona Creek	1.69	405.15
10-1093	10	EB	Hillcrest Dr	Los Angeles	RCP	42	42" RCP TO CB, MH READS "STATE OF CALIFORNIA".	Concrete - 100%	Ballona Creek	1.46	405.15
10-1108	10	EB	Buckingham	Los Angeles	RCP	63	ACCESS FROM FREEWAY. INLET AT LOW POINT, SMALL HILLSIDE DRAINS.	Concrete - 100%	Ballona Creek	17.69	405.15
10-1146	10	EB	Bronson Ave	Los Angeles	MH	N/A	MH ON FREEWAY.	Concrete - 100%	Ballona Creek	62.12	405.15
10-1304	10	EB	La Salle	Los Angeles	RCP	30	OUTFALL ACESSED FROM 22ND.	Concrete - 100%	Ballona Creek	1.99	405.15
10-1358A	10	EB	E/o Budlong	Los Angeles	CB	N/A	1358, 1373, 1376 DISCHARGE UNDERGROUND TO 1358A.	Concrete - 100%	Ballona Creek	1.19	405.15
10-1391	10	EB	Menlo Av	Los Angeles	CMP	18		Concrete - 100%	Ballona Creek	0.74	405.15
10-1397	10	EB	Ellendale	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	1.29	405.15
10-1401	10	EB	Orchard Av	Los Angeles	RCP	45	LOTS OF TRASH IN C.B.	Concrete - 100%	Ballona Creek	4.15	405.15
10-1415	10	EB	Magnolia	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	1.91	405.15
10-1420	10	EB	Arapahoe	Los Angeles	RCP	24	24" RCP TO CB. MH SAYS "CITY OF LA".	Concrete - 100%	Ballona Creek	1.87	405.15
10-1433	10	EB	S Union	Los Angeles	N/A	N/A		Concrete - 100%	Ballona Creek	3.64	405.15
10-1452	10	EB	Washington Blvd	Los Angeles	RCP	30		Concrete - 100%	Ballona Creek	8.88	405.15
10-1454	10	WB	Toberman St	Los Angeles	RCP	15		Concrete - 100%	Ballona Creek	0.56	405.15
10-1478	10	EB	Eb 10 To 110 Nb Connec	Los Angeles	RCP	18		Concrete - 100%	Ballona Creek	2.46	405.15
SR-90											
90-0115A	90	WB	Ballona Creek	Los Angeles	RCP	48		Concrete - 90%, A	Ballona Creek	13.22	405.13

OUTFALL ID	HWY NO	DIRECTION	CROSS ST	CITY NAME	OF TYPE	OF SIZE	COMMENTS	SMTYPE	RWBODY	DRAIN AREA	HYDRO AREA
90-0115B	90	EB	150'+- E/o Ballona Creek	Los Angeles	CMP	18		Natural Vegetatio	Ballona Creek	3.00	405.13
90-0122	90	EB	Mindanao	Los Angeles	TCB	48X24		Asphalt-80%, Nat	Ballona Creek	12.15	405.13
90-0132	90	EB	400'+- E/o Ballona Creek	Los Angeles	CMP	18		Natural Vegetatio	Ballona Creek	0.85	405.12
90-0156	90	EB	250+- W/o Culver Blvd	Los Angeles	RCB	144X84		Asphalt-50%, Nat	Ballona Creek	25.10	405.13
90-0168	90	EB	Centinela Ave	Los Angeles	CMP	18		Natural Vegetatio	Ballona Creek	0.59	405.12
90-0169	90	WB	Alla Rd	Los Angeles	RCP	18		Asphalt - 100%	Ballona Creek	0.53	405.13
90-0170B	90	WB	Centinela Ave	Los Angeles	RCP	27		Asphalt - 50%, Na	Ballona Creek	1.76	405.13
90-0170C	90	WB	Centinela Ave	Los Angeles	RCP	18	FINAL INLET TAKEN AS OUTFALL LOCATION	Asphalt - 60%, Na	Ballona Creek	2.99	405.13
90-0170D	90	EB	Centinela Ave	Los Angeles	RCP	18		Asphalt - 70%, Co	Ballona Creek	2.29	405.12
90-0174	90	WB	Culver Blvd	Los Angeles	RCP	18		Asphalt - 100%	Ballona Creek	1.17	405.13
90-0176	90	EB	@ Culver Blvd	Los Angeles	RCP	33		Asphalt-70%, Nat	Ballona Creek	4.63	405.13
90-0177	90	EB	Culver Boulevard	Los Angeles	RCP	18		Natural Vegetatio	Ballona Creek	1.41	405.13
90-0195	90	EB	@ Ballona Creek	Los Angeles	TCB	60X48		Natural Vegetatio	Ballona Creek	3.88	405.13
90-0219	90	EB	100'+- E/o Inglewood	Los Angeles	RCP	18		Concrete - 100%	Ballona Creek	1.43	405.13
90-0226	90	EB	Margaret Av	Los Angeles	RCP	18		Concrete - 100%	Ballona Creek	0.96	405.12
90-0232	90	EB	Margaret Av	Los Angeles	RCP	18		Concrete - 100%	Ballona Creek	1.11	405.12
90-0236	90	EB	E Of Margaret Av	Los Angeles	RCB	18		Concrete - 100%	Ballona Creek	2.65	405.12
90-0243	90	WB	Mesmer Av	Culver City	RCP	24		Concrete - 60%, A	Ballona Creek	0.74	405.12
90-0246	90	WB	Etheldo Ave	Culver City	RCP	30		Concrete - 50%, A	Ballona Creek	3.41	405.12
90-0259	90	WB	405 Sb Connector To 90	Culver City	CMP	18		Concrete - 100%	Ballona Creek	4.72	405.12
90-0270	90	WB	90 Wb Connector To 405	Los Angeles	CMP	12		Concrete - 100%	Ballona Creek	4.12	405.12
							US-101				
101-0694	101	EB	Gower St/yucca St	Los Angeles	RCP	15		Concrete - 90% Ir	Ballona Creek	2.96	405.14
101-0707	101	EB	Argyle Ave	Los Angeles	RCP	15		Concrete - 100%	Ballona Creek	2.75	405.14
101-0721	101	EB	Vine St/franklin Ave	Los Angeles	RCP	15		Concrete - 100%	Ballona Creek	1.44	405.14
101-0729	101	WB	Vedanta Place	Los Angeles	N/A	15		Concrete - 100%	Ballona Creek	1.52	405.14
101-0737	101	EB	Holly Drive	Los Angeles	MH	15		Concrete - 100%	Ballona Creek	2.07	405.14
101-0744	101	EB	Southbound Onramp @ (	Hollywood Hi	RCP	15	MANHOLE (STATE OF CALIFORNIA)	Concrete - 100%	Ballona Creek	6.15	405.14
101-0783	101	SB	Cahuenga Blvd/pat Moor	Hollywood Hi	RCP	15	MANHOLE (D)	Concrete - 100%	Ballona Creek	2.03	405.14
							SR-110				
110-2149	110	SB	Venice Blvd	Los Angeles	RCP	12	FINAL INLET TAKEN AS OUTFALL LOCATION	Concrete - 100%	Ballona Creek	0.21	405.15
110-2151	110	NB	Wb Connector, Venice Bl	Los Angeles	RCP	66		Concrete - 100%	Ballona Creek	2.34	405.15
110-2164	110	NB	Nb Connector	Los Angeles	RCP	33	FINAL INLET TAKEN AS OUTFALL LOCATION	Concrete - 100%	Ballona Creek	0.44	405.15
110-2200	110	NB	Eleventh St	Los Angeles	RCP	12	INLET TAKEN AS OUTFALL LOCATION	Asphalt - 100%	Ballona Creek	0.50	405.15
110-2202	110	SB	Connecticut St	Los Angeles	RCP	21	FINAL INLET TAKEN AS OUTFALL LOCATION	Asphalt - 70%, Na	Ballona Creek	0.25	405.15
110-2226	110	SB	N Of 9th St	Los Angeles	RCP	15	FINAL INLET TAKEN AS OUTFALL LOCATION	Asphalt - 50%, Na	Ballona Creek	1.18	405.15
110-2227A	110	SB	Bixel St	Los Angeles	RCP	15	FINAL INLET TAKEN AS OUTFALL LOCATION	Asphalt - 80%, Na	Ballona Creek	0.27	405.15
110-2227B	110	SB	S Of 8th St	Los Angeles	RCP	15	FINAL INLET TAKEN AS OUTFALL LOCATION	Asphalt - 80%, Na	Ballona Creek	0.63	405.15
110-2229	110	NB	9th St Nb On Ramp	Los Angeles	RCP	15	FINAL INLET TAKEN AS OUTFALL LOCATION	Concrete - 100%	Ballona Creek	1.57	405.15
110-2231	110	NB	9th St	Los Angeles	RCP	15		Asphalt - 100%	Ballona Creek	0.92	405.15
110-2241	110	NB	9th St	Los Angeles	N/A	N/A		Concrete - 100%	Ballona Creek	0.77	405.15
110-2265	110	NB	Wilshire Blvd	Los Angeles	RCP	18	FINAL INLET TAKEN AS OUTFALL LOCATION	Concrete - 100%	Ballona Creek	0.34	405.15
110-2274A	110	NB	N Of Sixth St Ramp	Los Angeles	RCP	21		Concrete - 80%, A	Ballona Creek	6.08	405.15
110-2274B	110	SB	Wilshire Blvd	Los Angeles	RCP	15		Asphalt - 100%	Ballona Creek	0.27	405.15
110-2283	110	SB	6th St	Los Angeles	RCP	15	FINAL OUTFALL 110-2274A	Asphalt - 90%, Na	Ballona Creek	0.63	405.15
110-2299	110	NB	4th St Nb Off Ramp	Los Angeles	RCP	15	FINAL INLET TAKEN AS OUTFALL LOCATION	Asphalt - 90%, Na	L. A. River	0.45	405.15
110-2302	110	NB	Third St Nb Off Ramp	Los Angeles	RCP	33	FINAL OUTFALL 110-2301	Asphalt - 80%, Na	L. A. River	0.38	405.15

OUTFALL ID	HWY NO	DIRECTION	CROSS ST	CITY NAME	OF TYPE	OF SIZE	COMMENTS	SMTYPE	RWBODY	DRAIN AREA	HYDRO AREA
110-2308	110	NB	S/o Third St	Los Angeles	RCP	21	FINAL INLET TAKEN AS OUTFALL LOCATION, FINAL OUTFALL 110-2301	Concrete - 60%, A	L. A. River	2.41	405.15
110-2320	110	NB	N Of Third St	Los Angeles	RCP	15	FINAL INLET TAKEN AS OUTFALL LOCATION	Concrete-90%, Na	L. A. River	0.09	405.15
110-2322	110	NB	Second St	Los Angeles	RCP	15		Concrete - 100%	L. A. River	1.56	405.15
110-2337	110	NB	Diamond Street	Los Angeles	RCP	24		Concrete - 100%	L. A. River	0.91	405.15
110-2344	110	NB	N Of Diamond St	Los Angeles	RCP	18		Concrete - 100%	L. A. River	3.83	405.15
110-2359	110	NB	Temple Street	Los Angeles	RCP	78	FINAL INLET TAKEN AS OUTFALL LOCATION	Concrete - 70%, N	L. A. River	6.15	405.15
I-405											
405-2381	405	NB	Vesta St	Inglewood	RCP	66		Concrete - 100%	Ballona Creek	37.87	405.12
405-2384	405	NB	Hyde Park Blvd	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	3.01	405.12
405-2403	405	NB	Glasgow Ave	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	1.61	405.12
405-2415	405	NB	La Tijera Blve	Los Angeles	RCP	18		Concrete - 100%	Ballona Creek	2.51	405.12
405-2425	405	NB	La Tijera Blve	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	3.09	405.12
405-2440	405	NB	Tijera Blvd	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	5.64	405.12
405-2484	405	NB	Green Valley	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	4.41	405.12
405-2497	405	NB	Hillside Memorial Park	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	1.99	405.12
405-2509	405	NB	Hillside Memorial Park	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	4.11	405.12
405-2546	405	NB	Sepulveda	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	1.62	405.12
405-2560	405	SB	Sepulveda Blvd	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	3.38	405.12
405-2567	405	SB	Sepulveda Blvd	Los Angeles	RCP	36		Concrete - 100%	Ballona Creek	2.28	405.12
405-2573	405	SB	Corryn Pl	Los Angeles	RCP	24	FINAL INLET TAKEN, OUTFALL IN TUNNEL	Concrete - 100%	Ballona Creek	0.92	405.12
405-2582	405	SB	Corryn Pl	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	2.29	405.12
405-2609	405	SB	Corryn Pl	Los Angeles	CMP	18		Concrete - 100%	Ballona Creek	2.78	405.12
405-2630	405	NB	Port Road	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	8.07	405.13
405-2647	405	NB	Mcdonald Street	Los Angeles	RCP	24	FINAL INLET TAKEN AS OUTFALL	Concrete - 100%	Ballona Creek	1.04	405.13
405-2661	405	NB	Mcdoanld St	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	1.81	405.13
405-2671	405	NB	Youngworth St	Los Angeles	RCP	144X42		Concrete - 100%	Ballona Creek	1.86	405.13
405-2698	405	NB	Braddock Drive	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	4.96	405.13
405-2712	405	NB	Huntley	Los Angeles	RCP	18	MANHOLE TAKEN AS FINAL OUTFALL	Concrete - 100%	Ballona Creek	4.22	405.13
405-2723	405	SB	Sawtell	Culver City	RCP	18		Concrete - 100%	Ballona Creek	4.43	405.13
405-2748	405	NB	Washington Blvd	Culver City	RCP	18	OUTFALL TAKEN AT 7' SIDEWALD UNDERDRAIN	Concrete - 100%	Ballona Creek	2.07	405.13
405-2781	405	NB	Mattson Ave	Culver City	RCP	24	SIDEWALK INLET TAKEN AS OUTFALL	Concrete - 100%	Ballona Creek	6.22	405.13
405-2797	405	NB	Venice Blvd	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	0.45	405.13
405-2810	405	NB	Regent St	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	2.43	405.13
405-2826	405	NB	Charnock Rd	Los Angeles	RCP	24	NO MANHOLE ON GLOBE/CHARNOCK. FINAL INLET IN MIDDLE OF FREEWAY TAKEN AS OUTFALL	Irrigated Vegetatio	Ballona Creek	2.12	405.13
405-2860	405	SB	Ocean Park Ave	Los Angeles	RCP	N/A		Irrigated Vegetatio	Ballona Creek	5.69	405.13
405-2888	405	SB	Queensland Street	Los Angeles	RCP	24	NO OUTFALL STRUCTURE LOCATED, THRICK BRUSH. FINAL INLET TAKEN AS OUTFALL	Concrete - 100%	Ballona Creek	9.37	405.13
405-2904	405	SB	National	Los Angeles	RCP	24		Concrete - 100%	Ballona Creek	3.76	405.13
405-2924	405	SB	National	Los Angeles	RCP	24	FINAL INLET TAKEN AS OUTFALL	Concrete - 100%	Ballona Creek	0.91	405.13

Attachment D – Project Schedule and Project Cost Estimate

D1: Project Schedule (Workplan)

D2: Project Cost Estimate

D1: Project Schedule (Workplan)

WBS Code	Activity Description	% Comp	Orig Dur	Rem Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
0.100	PERF PROJ MGMT	0	1,026*	1,026*	09/09/08	09/17/12	02/10/09	09/17/12	0
0.100.05	PROJ MGMT - PID CMPNT	0	1*	1*	09/09/08	09/09/08	02/10/09	02/10/09	107
0.100.10	PROJ MGMT - PA&ED CMPNT	0	70*	70*	09/10/08	12/17/08	05/01/09	04/30/09	92
0.100.15	PROJ MGMT - PS&E CMPNT	0	275*	275*	12/18/08	01/18/10	12/19/08	01/18/10	0
0.100.20	PROJ MGMT - CONST CMPNT	0	660*	660*	02/17/10	09/17/12	02/17/10	09/17/12	0
0.100.25	PROJ MGMT - R/W CMPNT	0	296*	296*	12/18/08	02/17/10	12/19/08	09/17/12	659
1.150	DEVELOP PID	0	1	1	09/09/08	09/09/08	02/10/09	02/10/09	107
2.160	PERF PREL ENGRG STUDIES &	0	96*	96*	09/10/08	01/26/09	05/01/09	06/26/09	107
2.160.05	UPDD PROJ INFO	0	41	41	09/10/08	11/05/08	05/01/09	06/26/09	162
2.160.10	ENGRG STUDIES	0	81	81	09/10/08	01/05/09	03/05/09	06/26/09	122
2.160.15	DRAFT PR	0	46	46	11/20/08	01/26/09	04/24/09	06/26/09	107
2.160.20	ENGRG & LAND NET SRVYS	0	75	75	09/10/08	12/24/08	03/13/09	06/26/09	128
2.160.30	ESR	0	1	1	09/10/08	09/10/08	06/26/09	06/26/09	202
2.160.40	NEPA DLGN	0	1	1	09/10/08	09/10/08	06/26/09	06/26/09	202
2.165	PERF ENV STUDIES & PREP	0	81*	81*	09/10/08	01/05/09	05/25/12	09/17/12	944
2.165.05	ENV SCPG OF ALTS IFS IN PID	0	21	21	09/10/08	10/08/08	05/25/12	06/22/12	944
2.165.10	GENL ENV STUDIES	0	21	21	09/10/08	10/08/08	05/25/12	06/22/12	944
2.165.15	BIOL STUDIES	0	21	21	09/10/08	10/08/08	05/25/12	06/22/12	944
2.165.20	CLTRL RSRC STUDIES	0	21	21	09/10/08	10/08/08	05/25/12	06/22/12	944
2.165.25	DED	0	80	80	09/11/08	01/05/09	05/28/12	09/17/12	944
2.165.30	NEPA DLGN	0	1	1	09/10/08	09/10/08	09/17/12	09/17/12	1,024
2.175	CIRC DED & SLT PRFD PROJ	0	46*	46*	09/09/08	11/12/08	09/18/08	11/13/08	1
2.175.05	DED CIRCN	0	34	34	09/09/08	10/24/08	09/18/08	11/04/08	7
2.175.10	PUB HRG	0	40	40	09/09/08	11/03/08	09/10/08	11/04/08	1
2.175.15	PUB CMNT RESPS & CRNC	0	14	14	09/09/08	09/26/08	10/16/08	11/04/08	27
2.175.20	PROJ PRFD ALT	0	6	6	11/04/08	11/12/08	11/05/08	11/13/08	1
2.180	PREP & APV PR & FED	0	25*	25*	11/13/08	12/17/08	11/14/08	12/18/08	1
2.180.05	FPR	0	10	10	11/13/08	11/26/08	11/14/08	11/27/08	1
2.180.10	FED	0	10	10	11/13/08	11/26/08	11/14/08	11/27/08	1
2.180.15	CMPLTD ENV DOC	0	15	15	11/27/08	12/17/08	11/28/08	12/18/08	1
3.185	BASE MAPS & PLAN SHEETS	0	72*	72*	12/18/08	04/02/09	12/19/08	04/03/09	1
3.185.05	UPDD PROJ INFO	0	5	5	12/18/08	12/24/08	12/19/08	12/26/08	1
3.185.10	SRVYS & PHTGR MPG FOR	0	60	60	12/18/08	03/16/09	01/08/09	04/03/09	13
3.185.15	PREL DSN	0	50	50	12/26/08	03/09/09	01/22/09	04/03/09	18
3.185.20	ENGRG RPTS	0	15	15	03/12/09	04/02/09	03/13/09	04/03/09	1
3.185.25	R/W RQMTS DTRMTN	0	20	20	03/05/09	04/02/09	03/06/09	04/03/09	1
3.185.30	STRUC SITE PLANS	0	1	1	11/27/08	11/27/08	04/06/09	04/06/09	88
4.195	R/W PROP MGMT & EXCS	0	1	1	04/06/09	04/06/09	09/17/12	09/17/12	881
4.200	UTIL RELOCN	0	1	1	04/06/09	04/06/09	09/17/12	09/17/12	881
2.205	OBN PMTS AGRES & RAS	0	1	1	01/27/09	01/27/09	06/29/09	06/29/09	107
4.220	PERF R/W ENGRG	0	1	1	04/03/09	04/03/09	04/06/09	04/06/09	1
4.225	OBN R/W INTST FOR PROJ R/W	0	190	190	04/06/09	12/30/09	04/07/09	12/31/09	1
3.230	PREP DRAFT PS&E	0	40	40	04/03/09	05/28/09	05/05/09	06/29/09	22
3.235	MIT ENV IMPTS & CLEAN UP	0	1	1	04/03/09	04/03/09	08/11/09	08/11/09	91
3.240	DRAFT STRUCS PS&E	0	1	1	04/03/09	04/03/09	06/29/09	06/29/09	61
4.245	POST R/W CERTN WRK	0	1	1	12/31/09	12/31/09	09/17/12	09/17/12	691
3.250	PREP FNL STRUCS PS&E	0	1	1	04/06/09	04/06/09	08/11/09	08/11/09	90
3.255	CIRC RVW & PREP FNL DIST	0	30	30	05/29/09	07/10/09	06/30/09	08/11/09	22
3.260	CONTR BID DOCS RTL	0	110	110	07/13/09	12/14/09	08/12/09	01/15/10	22
3.265	AWDD & APVD CONST CONTR	0	1	1	01/18/10	01/18/10	01/18/10	01/18/10	0
5.270	CONST ENGRG & GENL CONTR	0	600*	600*	02/17/10	06/22/12	02/17/10	06/22/12	0
5.270.10	CONST STAKING PCKG & CTRL	0	584	584	02/17/10	05/31/12	02/17/10	05/31/12	0

WBS Code	Activity Description	% Comp	Orig Dur	Rem Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
5.270.15	CONST STAKES	0	564	564	03/17/10	05/31/12	03/17/10	05/31/12	0
5.270.20	CONST ENGRG WRK	0	584	584	02/17/10	05/31/12	02/17/10	05/31/12	0
5.270.25	CONST CONTR ADMIN WRK	0	584	584	02/17/10	05/31/12	02/17/10	05/31/12	0
5.270.30	CONTR ITEM WRK INSPN	0	584	584	02/17/10	05/31/12	02/17/10	05/31/12	0
5.270.35	CONST MTL S&T	0	584	584	02/17/10	05/31/12	02/17/10	05/31/12	0
5.270.40	SAFETY & MTCE RVWS	0	10	10	06/01/12	06/14/12	06/01/12	06/14/12	0
5.270.45	RLF FROM MTCE PROCESS	0	1	1	06/15/12	06/15/12	06/15/12	06/15/12	0
5.270.55	FNL INSPN & ACPTC RCMDN	0	5	5	06/18/12	06/22/12	06/18/12	06/22/12	0
5.270.60	PLANT ESTABLISHMENT	0	200	200	09/12/11	06/22/12	09/12/11	06/22/12	0
5.270.65	TMP IMPLN DURING CONST	0	584	584	02/17/10	05/31/12	02/17/10	05/31/12	0
5.270.70	UPDD ECR	0	600	600	02/17/10	06/22/12	02/17/10	06/22/12	0
5.270.75	RSRC AGENCY PMT RNWL &	0	600	600	02/17/10	06/22/12	02/17/10	06/22/12	0
5.270.80	L-TRM ENV MITIGN/MNTG	0	20	20	02/17/10	03/16/10	05/28/12	06/22/12	580
5.275	CE & GCA OF STRUCS WRK	0	600	600	09/09/08	01/17/11	05/13/10	09/17/12	426
5.285	CCO ADMIN	0	660*	660*	02/17/10	09/17/12	02/17/10	09/17/12	0
5.290	RESOLVE CONTRACT CLAIMS	0	660*	660*	02/17/10	09/17/12	02/17/10	09/17/12	0
5.295	ACPT CONTR PREP FE & FR	0	60	60	06/25/12	09/17/12	06/25/12	09/17/12	0
4.300	PERF FNL R/W ENGRG ACTS	0	1	1	02/17/10	02/17/10	09/17/12	09/17/12	659
M000	ID NEED	0	0	0		09/08/08		02/09/09	107
M010	APPROVE PID	0	0	0		09/09/08		02/10/09	107
M015	PROG PROJ	0	0	0		09/09/08		02/10/09	107
M020	BEGIN ENVIRO	0	0	0		09/09/08		05/24/12	944
M040	BEGIN PROJ	0	0	0		09/09/08		02/10/09	107
M060	CIRC DPR & DED	0	0	0		09/09/08		09/17/12	1,025
M100	APPROVE DPR	0	0	0		01/26/09		09/17/12	929
M160	APPROVE FED	0	0	0		11/12/08		11/13/08	1
M200	PA&ED	0	0	0		12/17/08		12/18/08	1
M221	BRIDGE SITE DATA ACCEPTED	0	0	0		11/27/08		04/06/09	88
M222	BEGIN BRIDGE	0	0	0		11/27/08		04/06/09	88
M224	R/W MAPS	0	0	0		04/02/09		04/03/09	1
M225	REGULAR R/W	0	0	0		04/03/09		04/06/09	1
M275	GENERAL PLANS	0	0	0		09/08/08		06/26/09	204
M300	CIRC PLANS IN DIST	0	0	0		05/28/09		06/29/09	22
M318	DESIGN SAFETY REVIEW	0	0	0		05/28/09		06/29/09	22
M328	CONTRUCTABILITY REVIEW	0	0	0		05/28/09		06/29/09	22
M377	PS&E TO DOE	0	0	0		05/28/09		06/29/09	22
M378	DRAFT STRUC PS&E	0	0	0		04/03/09		06/29/09	61
M380	PROJ PS&E	0	0	0		07/10/09		08/11/09	22
M410	R/W CERT	0	0	0		12/30/09		12/31/09	1
M460	RTL	0	0	0		01/15/10*		01/15/10*	0
M480	HQ ADVERT	0	0	0		01/15/10		01/15/10	0
M495	AWARD	0	0	0		02/01/10		02/01/10	0
M500	APPROVE CONTRACT	0	0	0		02/16/10		02/16/10	0
M588	FINAL SAFETY REVIEW	0	0	0		09/08/08		06/22/12	966
M600	CONTRACT ACCEPT	0	0	0		06/22/12		06/22/12	0
M700	FINAL REPORT	0	0	0		09/17/12		09/17/12	0
M800	END PROJ	0	0	0		09/17/12		09/17/12	0

Attachment D1

D2: Project Cost Estimate

PROJECT SCOPE SUMMARY REPORT
COST ESTIMATE

Date October 2008
Dist-Co-Rte 07-LA-10, 90, 110, 101 and 405
PM R5.57/14.78, 1.22/2.59, 6.94/7.83, 21.49/23.59 and 23.81/29.24
EA 23870K
Prgm. Code 20.XX.201.335

Limits: Along I-10 from I-405 to SR-110; along SR-90 from 0.3 mi. E/o SR-1 to I-405, along SR-110 from I-10 to US-101, along US-101 from Cahuenga Blvd. to Gower St. and along I-405 from I-10 to Cienega Blvd.

Proposed Improvement (Scope): Implementation of Treatment BMPs (Phase 7)

Alternatives: -------

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	$ 59,310,555
TOTAL STRUCTURE ITEMS	$
SUBTOTAL CONSTRUCTION COSTS	$ 59,310,555
TOTAL RIGHT OF WAY ITEMS	$ 4,543,053
TOTAL PROJECT CAPITAL OUTLAY COSTS	$ 63,853,608
USE	$ **63.9 Million**

Reviewed by District Program Manager Robert Wu Date 10/08/08

Approved by Project Manager Ojas Sheth Date 10/08/08

Phone No. (213)897-8595

Attachment D2

PROJECT SCOPE SUMMARY REPORT

Date October 2008
Dist-Co-Rte 07-LA-10, 90, 101, 110 and 405
PM R5.57/14.78, 1.22/2.59, 6.94/7.83, 21.49/23.59 and 23.81/29.24
EA 23870K
Prgm. Code 20.XX.201.335

I. ROADWAY ITEMS

Section 1 Earthwork	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation	1,245,480	FT^3	$3.20	$3,985,536	
Structure Backfill	763,320	FT^3	$2.10	$1,602,972	
Sand Backfill	75,600	FT^3	$2.00	$151,200	
Remove PCC - Mainline					
Remove AC - Shoulder					
Clearing & Grubbing	1	LS	$262,500.00	$262,500	
Develop Water Supply					
				Subtotal Earthwork	$6,002,208

Section 2 Structural Section					
Pavement					
Asphalt Concrete (6 in. for one access rd)	450	TONN	$100.00	$45,000	
Lean Concrete Base					
Cement-Treated Base					
Aggregate Base					
Treated Permeable Base					
Aggregate Subbase					
Pavement Reinforcing Fabric					
Edge Drains					
Maintenance Access (10 pullout areas)	60,000	FT^3	$20.00	$1,200,000	
Staircase for Access (5 units)				See Minor Items	
				Total Structural Items	$1,245,000

Section 3 Drainage					
Infiltration Devices or Media Filter-Alternative (Devices only)	5	EA	$611,100.00	$3,055,500	
Infiltration Devices (Devices only)	3	EA	$150,000.00	$450,000	
Media Filters (Devices only)	14	EA	$611,100.00	$8,555,400	
Gross Solid Removal Devices (GSRDs):					
Linear (8) and Inclined (28) (Devices 0nly)	36	EA	$200,000.00	$7,200,000	
Bioswales and Biostrips	4	EA	$50,000.00	$200,000	
Drainage Modification	62	EA	$60,000.00	$3,720,000	
				Total Drainage	$23,180,900

Attachment D2

PROJECT SCOPE SUMMARY REPORT

Date October 2008
Dist-Co-Rte 07-LA-10, 90, 101, 110 and 405
PM R5.57/14.78, 1.22/2.59, 6.94/7.83, 21.49/23.59 and 23.81/29.24
EA 23870K
Prgm. Code 20.XX.201.335

Section 4 Speciality Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Retaining Walls	54,000	FT^3	$25.00	$1,350,000	
Noise Barriers Modification	1,560	FT^2	$25.00	$39,000	
Guardrails (MBGR)	3,150	FT	$57.15	$180,023	
Dikes	1	LS	$150,000.00	$150,000	
Railing Type K	750	FT	$50.00	$37,500	
Erosion Control					
Slope Protection					
Design Pollution Prevention Plan including Planting, Plant Establishment Work and Irrigation	1	LS	$210,000.00	$210,000	
Hazardous Waste Mitigation work, Lead Compliance Plan and Site Investigation	1	LS	$827,740.00	$827,740	
Environmental Mitigation including Tree Removal/Replacement and Migratory Bird Impact Mitigation	1	LS	$760,000.00	$760,000	
Chain Link Fence and Gates	1	LS	$122,500.00	$122,500	
Water Pollution Control: Construction Site Management, WPCP/SWPPP Preparation and Storm Water Sampling and Analysis	1	LS	$1,055,000.00	$1,055,000	
Resident Engineer Office Space	1	LS	$504,000.00	$504,000	
TRO (10% of Sections 1 - 6 excl. TRO)				$3,975,791	
			Total Specialty Items		$9,211,553

Section 5 Traffic Items					
ITS (Relocate communication conduits)	1	LS	$1,500,000.00	$1,500,000	
Traffic Delineation Items					
Traffic Signals					
Overhead Sign (Retro-Reflective)					
Ground Mounted Signs					
Traffic Control Systems	1	LS	$300,000.00	$300,000	
Transportation Management Plan					
COZEEP	1	LS	$52,000.00	$52,000	
Maintain Exist. Traffic Mngt Syst. Elements	1	LS	$100,000.00	$100,000	
Maintain Existing Electrical System	1	LS	$100,000.00	$100,000	
Temporary Railing Type K	5,000	FT	$30.00	$150,000	
			Total Traffic Items		$2,202,000

SUBTOTAL SECTIONS 1-5 $41,841,661

Attachment D2

PROJECT SCOPE SUMMARY REPORT

Date October 2008
Dist-Co-Rte 07-LA-10, 90, 101, 110 and 405
PM R5.57/14.78, 1.22/2.59, 6.94/7.83, 21.49/23.59 and 23.81/29.24
EA 23870K
Prgm. Code 20.XX.201.335

			Item Cost	Section Cost
Section 6 Minor Items	$41,841,661 (Subtotal Sections 1-5)			
	X	5.00% (5% - 10%)	$2,092,083	
			Total Minor Items	$2,092,083
Section 7 Roadway Mobilization	$43,933,745 (Subtotal Sections 1-6)			
	X	10.00% 10%	$4,393,374	
			Total Roadway Mobilization	$4,393,374
Section 8 Roadway Additions Miscellaneous	$43,933,745 (Subtotal Sections 1-6)			
	X	5.00% (5% - 10%)	$2,196,687	
Contingencies	$43,933,745 (Subtotal Sections 1-6)			
	X	20.00% (25%-30%)	$8,786,749	
			Total Roadway Additions	$10,983,436
			TOTAL ROADWAY ITEMS (Total of sections 1-8)	$59,310,555

Estimate Prepared By Judith Mendoza (Print Name) Phone # (213)897-5985 Date 10/08/08

Estimate Checked By Kenneth Yip (Print Name) Phone # (213)897-0076 Date 10/08/08

Attachment D2

PROJECT SCOPE SUMMARY REPORT

Date October 2008
Dist-Co-Rte 07-LA-10, 90, 101, 110 and 405
PM R5.57/14.78, 1.22/2.59, 6.94/7.83, 21.49/23.59 and 23.81/29.24
EA 23870K
Prgm. Code 20.XX.201.335

II. STRUCTURAL ITEMS

Bridge Structural Items

	STRUCTURE No. 1	No. 2	No. 3	No. 4
Bridge Name				
Structure Type				
Width (out to out) - (m)				
Span Lengths (m)				
Total Area (m2)				
Footing Type (Pile/Spread)				
Cost Per square meter (include 10% mobilization and 20% contingency)				
Wall Length on Bridge				
Unit price of wall ($/m)				
Cost of the Wall				
Total Cost for Structure				

SUBTOTAL STRUCTURES ITEMS _____

Approach and Departure Slabs	Quntity	Unit	Unit Price	Item Cost
Approach/Departure Slabs (include 10% Mobilization and 20% contingency).				

SUBTOTAL STRUCTURES ITEMS _____

Railroad Related Costs				

SUBTOTAL RAILROAD ITEMS _____

TOTAL STRUCTURES ITEMS _____

COMMENTS

USE _____

Estimate Prepared By Judith Mendoza (Print Name) Phone # (213) 897-5985 Date 10/08/08

(If appropriate, attach additional pages and backup)

Attachment D2

PROJECT SCOPE SUMMARY REPORT

Date October 2008
Dist-Co-Rte 07-LA-10, 90, 101, 110 and 405
PM R5.57/14.78, 1.22/2.59, 6.94/7.83, 21.49/23.59 and 23.81/29.24
EA 23870K
Prgm. Code 20.XX.201.335

III. RIGHT OF WAY

	CURRENT VALUE	ESCALATED VALUE
A. R/W Acquisition (including contingency G.w-condem.-adm.s'tl.) Permits	$4,353,441	$4,760,311
B. Clearance	$75,000	$82,009
C. RAP (cont. rate)	$75,000	$82,009
D. Escrow Costs (cont. rate)	$27,612	$30,193
E. Utility Relocation Costs (State Share)	None	None
F. Estimate of Reimbursed Appraisal Fee	$12,000	$12,000
TOTAL RIGHT OF WAY ITEMS	$4,543,053	$4,966,522

Anticipated Date of Right of Way Certification (Date to which Values are Escalated) 12/30/2009

F. Construction Contract Work

The Right-of-Way Request No. is 1525:
The above Right of Way cost reflects a preliminary estimate for sites requiring right of way and easement takes to implement proposed treatment bmps, and provides appropriate maintenance access for these facilities. Such proposed treatment BMPs are Media Filters and GSRDs (Linear Radial or Inclined Screen Systems).

Right of Way Branch Cost Estimate for Work*
*This dollar amount is to be included in the Roadway and/or Structures Items of Work, as appropriate. Do not include in Right of Way Items.

COMMENTS:

Estimate Prepared By Victor Lee (Print Name) Phone # (213) 897-3711 Date 10/08/08

(If appropriate, attach additional pages and backup)

Attachment D2

Attachment E – Schematic Diagrams & Photos of Treatment BMPs

Biofiltration Swale

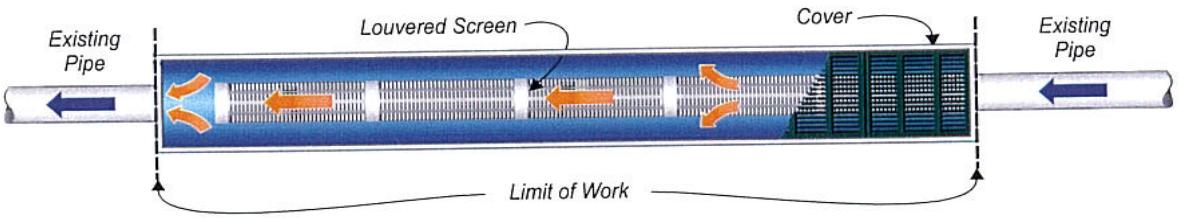
I-5/Palomar Airport Road
(San Diego)

Biofiltration Strip

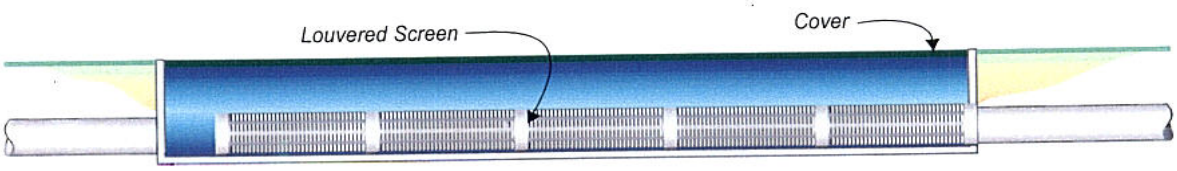
I-605/SR-91
(Los Angeles)

Biofiltration Strip / Biofiltration Swale

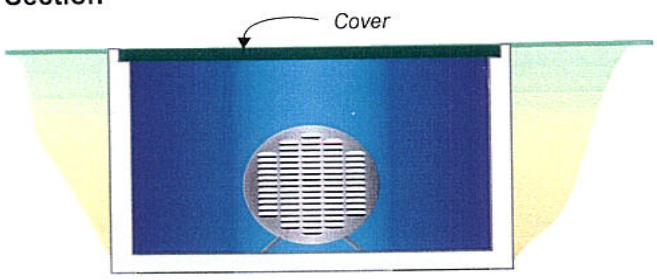
Plan View



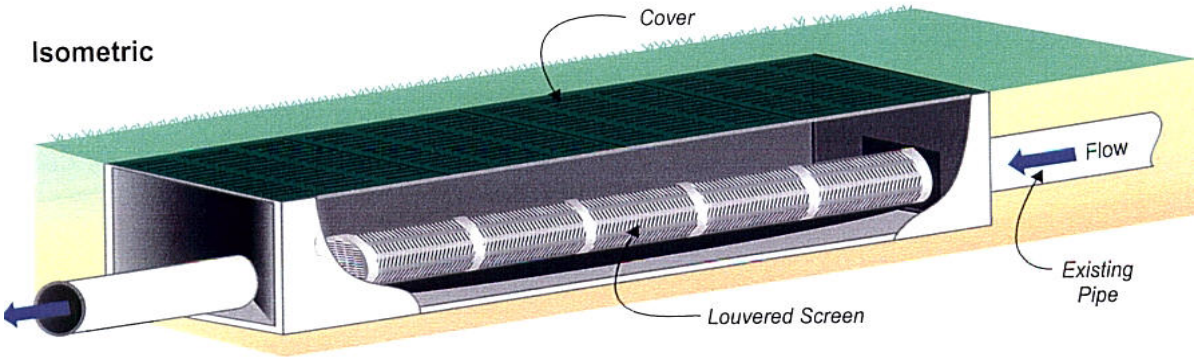
Profile



Section



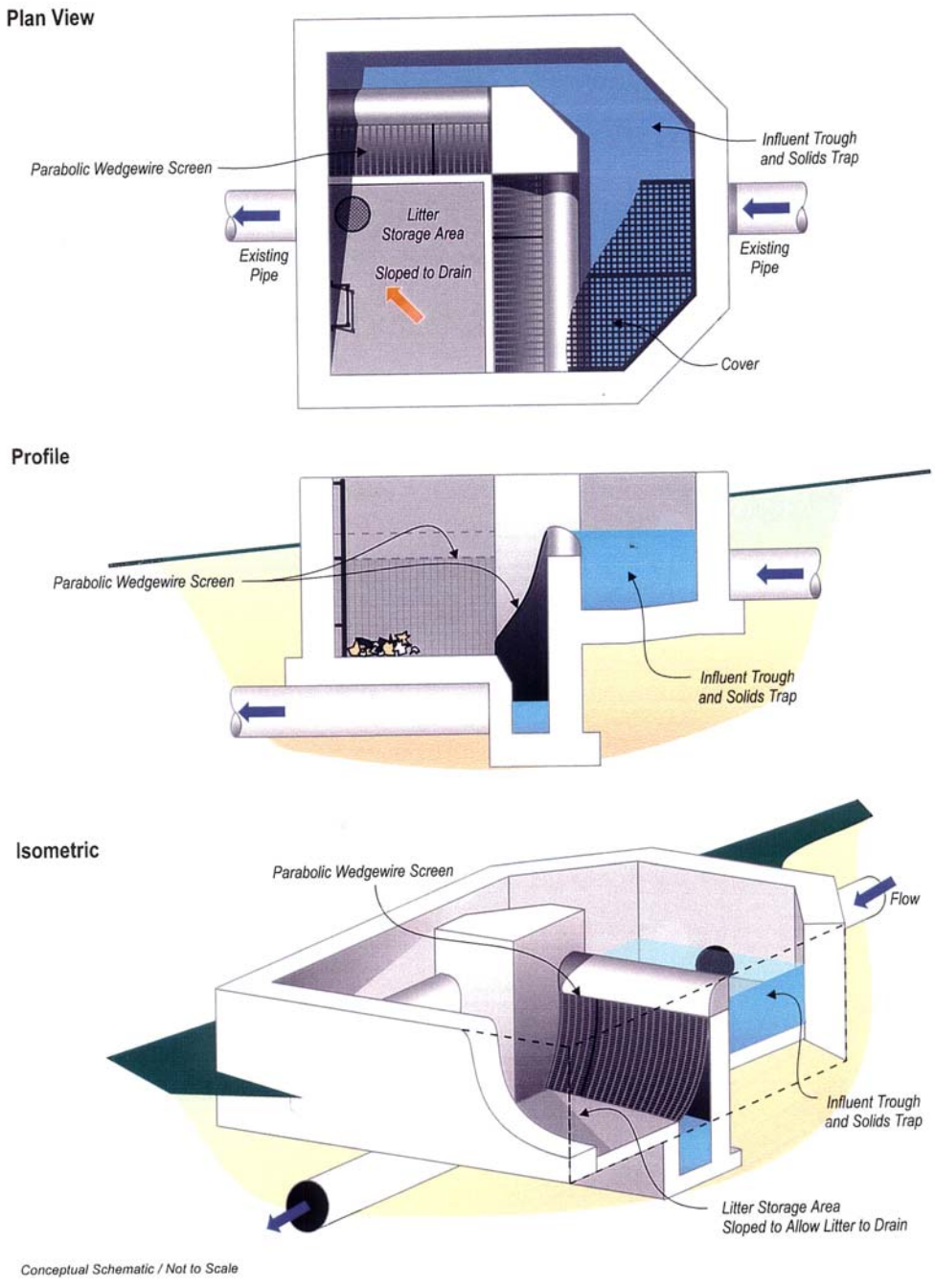
Isometric



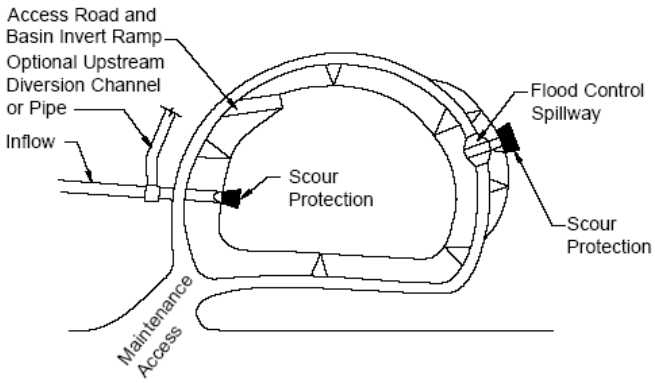
al Schematic / Not to Scale

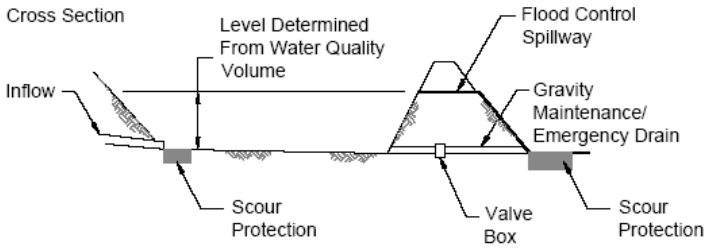
Conceptual Schematic / Not to Scale

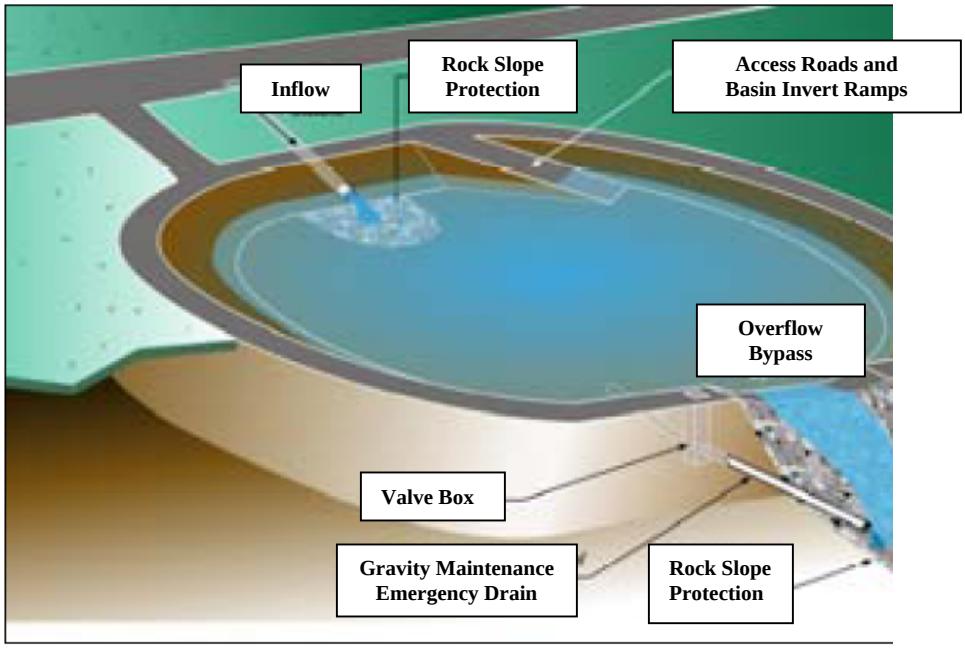
Gross Solid Removal Device (GSRD) – Linear Radial Device



Gross Solid Removal Device (GSRD) – Inclined Screen Type

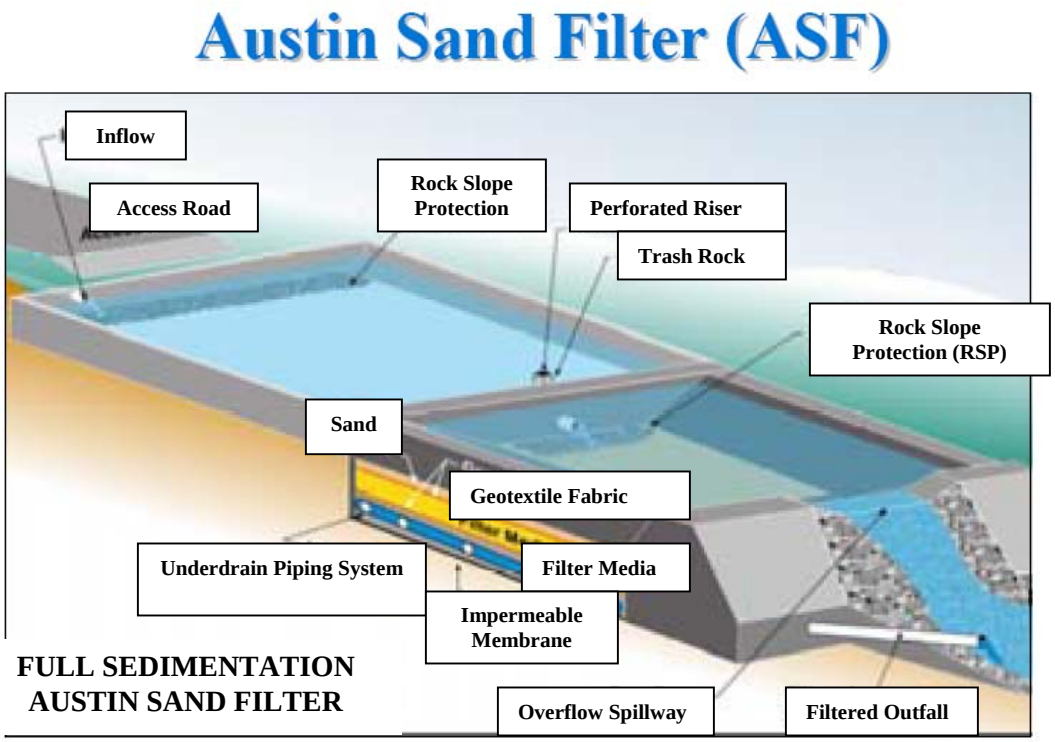






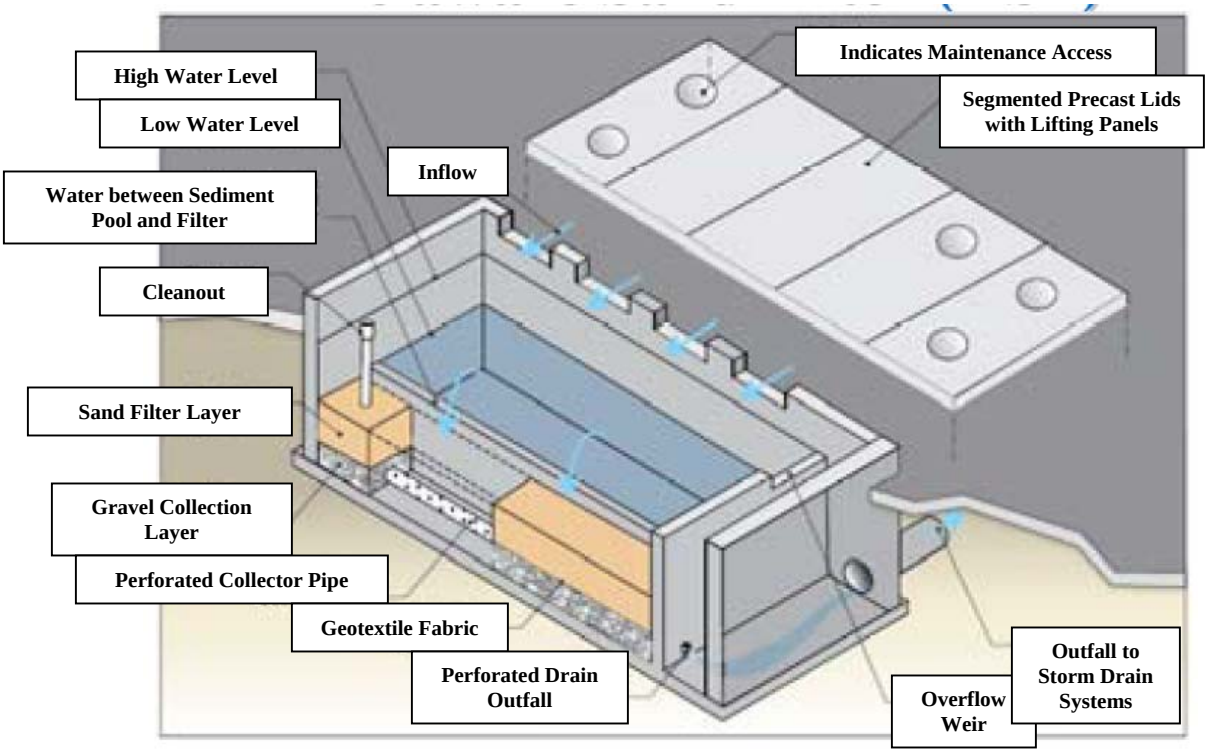
Infiltration Basin

District 11: I-5/SR-78 Austin Sand Filter



Media Filter – Austin Sand Type

Escondido MS Delaware Sand Filter



Media Filter – Delaware Type

Attachment F – Environmental Clearances

F1: Categorical Exemption/Exclusion Form
F2: Hazardous Waste Initial Site Assessment
F3: Natural Environment Study

F1: Categorical Exemption/Exclusion Form

CATEGORICAL EXEMPTION/ CATEGORICAL EXCLUSION DETERMINATION FORM

07-LA-Various	Various	23870K	200804009
Dist.-Co.-Rte. (or Local Agency)	P.M/P.M.	E.A. (State project)	Federal-Aid Project No. (Local project)/ Proj. No.

PROJECT DESCRIPTION:

(Briefly describe project, purpose, location, limits, right-of-way requirements, and activities involved.)

This project proposes to install 75 Total Maximum Daily Trash Load (TMDL) Devices along five routes within Ballona Creek Watershed, LA River Watershed and Marina Del Ray Harbor Watershed of Los Angeles County. In addition to the TMDL Devices, the project also proposes to install nine maintenance pullouts, seven maintenance access roads, 48 maintenance gates, and fencing at 34 locations. Five locations will have new metalbeam guardrail (MBGR) installed, two locations with have staircases installed, and once location with have a k-rail installed. Work will take place within the highly disturbed Caltrans right-of-way. A migratory bird SSP is requested for this project. With concurrence with the referenced requirements, it is anticipated that this project will not have any impacts on the Environment. Permits are required. Should the scope of work change, please contact the District of Environmental Planning for a new Environmental Document.

CEQA COMPLIANCE *(for State Projects only)*

Based on an examination of this proposal, supporting information, and the following statements (See 14 CCR 15300 et seq.):

- If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.
- There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.
- There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.
- This project does not damage a scenic resource within an officially designated state scenic highway.
- This project is not located on a site included on any list compiled pursuant to Govt. Code § 65962.5 ("Cortese List").
- This project does not cause a substantial adverse change in the significance of a historical resource.

CALTRANS CEQA DETERMINATION

☐ **Exempt by Statute.** (PRC 21080[b]; 14 CCR 15260 et seq.)

Based on an examination of this proposal, supporting information, and the above statements, the project is:

☒ **Categorically Exempt. Class** 2 . (PRC 21084; 14 CCR 15300 et seq.)

☐ **Categorically Exempt. General Rule exemption.** [This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (CCR 15061[b][3])

DAWN KUKLA — Print Name: Environmental Branch Chief

Signature — 9/23/08 — Date

Joel Shafer — Print Name: Project Manager/DLA Engineer

Signature — 9/23/08 — Date

NEPA COMPLIANCE

In accordance with 23 CFR 771.117, and based on an examination of this proposal and supporting information, the State has determined that this project:

- does not individually or cumulatively have a significant impact on the environment as defined by NEPA and is excluded from the requirements to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS), and
- has considered unusual circumstances pursuant to 23 CFR 771.117(b) (http://www.fhwa.dot.gov/hep/23cfr771.htm - sec.771.117).

In non-attainment or maintenance areas for Federal air quality standards, the project is either exempt from all conformity requirements, or conformity analysis has been completed pursuant to 42 USC 7506(c) and 40 CFR 93.

CALTRANS NEPA DETERMINATION

☒ **Section 6004:** The State has been assigned, and hereby certifies that it has carried out, the responsibility to make this determination pursuant to Chapter 3 of Title 23, United States Code, Section 326 and a Memorandum of Understanding (MOU) dated June 7, 2007, executed between the FHWA and the State. The State has determined that the project is a Categorical Exclusion under:

- 23 CFR 771.117(c): activity (c)(___)
- 23 CFR 771.117(d): activity (d)(___)
- Activity 1 listed in the MOU between FHWA and the State

☐ **Section 6005:** Based on an examination of this proposal and supporting information, the State has determined that the project is a CE under Section 6005 of 23 U.S.C. 327.

DAWN KUKLA — Print Name: Environmental Branch Chief

Signature — 9/23/08 — Date

Joel Shafer — Print Name: Project Manager/DLA Engineer

Signature — 9/23/08 — Date

Briefly list environmental commitments on continuation sheet. Reference additional information, as appropriate (e.g., air quality studies, documentation of conformity exemption, FHWA conformity determination if Section 6005 project; §106 commitments; §4(f); §7 results; Wetlands Finding; Floodplain Finding; additional studies; and design conditions). **Revised September 15, 2008**

LK

Attachment F1

F2: Hazardous Waste Initial Site Assessment

M e m o r a n d u m

Flex your power!
Be energy efficient!

To: Rafael Molina, STE
Office of Project and Special Studies

Attn: Ken Yip
Project Engineer

Date: March 27, 2008

File: 07-LA-10 PM 5.57/14.78
07-LA-90 PM 1.22/2.59
07-LA-101PM 6.94/7.83
07-LA-110 PM 21.49/23.59
07-LA-405 PM 23.81/29.24

EA: 07-333-23870K

From: **DEPARTMENT OF TRANSPORTATION**
OEECS- HAZARDOUS WASTE BRANCH, SOUTH REGION, MS-16

Subject: *Preliminary Hazardous Waste Assessment for Project Scoping Summary Report (PSSR)*

The Office of Environmental Engineering and Corridor Studies (OEECS) – Hazardous Waste South Branch received your memorandum dated January 24, 2008 requesting a preliminary hazardous waste assessment and cost estimate review for the proposed Trash Total Maximum Daily Load (TMDL) Project, State Highway Operation Protection Program (SHOPP). Additionally, we received your memorandum dated February 14, 2008 requesting review and/or approval of the 1st Draft Project Scope Summary Report (PSSR) dated February 14, 2008.

The purpose of this project is primarily to attain water quality standards for trash in the Ballona Creek Watershed and Los Angeles River Watershed and its tributaries in a progressive manner. Additionally, it seeks to address the other TMDL requirements such as metals and bacteria for the Ballona Creek Watershed and Los Angeles River Watershed by implementing the proposed treatment BMPs. The scope of work includes the design and construction of treatment BMPs at certain outfall/discharge point locations. The approved devices that will be constructed include four types of treatment BMPs: 1) Gross Solid Removal Devices (GSRDs), 2) Media Filters, 3) Infiltration Basins, and 4) Biostrips/Bioswales. The scope of work will be for construction of the treatment BMPs, along routes I-10, SR-90, US-101, SR-110 and I-405 for the 2010/2011 Phase VII SHOPP cycle.

The specific scope of work includes the design and construction of trash capture and TMDL devices at or adjacent to outfalls or discharge points before storm water leaves CalTrans right-of-way. It is anticipated some locations may be problematic, which would preclude the construction of all treatment BMPs due to unforeseen issues. The following types and number of treatment BMPs are being proposed:

Recommended Treatment Best Management Plans (BMPs)

Type of Treatment BMP	I-10	SR-90	SR-110	US-101	I-405	Total
GSRDs	10	3	6	3	16	38
Media Filter	5	2	4	0	0	11
Infiltration Basin	3	4	1	0	0	8
Biostrip	0	1	1	1	0	3
Total	18	10	12	4	16	60

These devices are to be constructed at locations in the existing CalTrans right-of-way or at locations with right-of-way and/or easement needs. The construction of many of these devices will likely generate excess soil, which may require the management and handling as hazardous waste.

OEECS has reviewed Databases from the State Water Resources Control Board (GeoTracker), the Department of Toxic Substances Control (EnviroStor), and the Integrated Waste Management Board (SWIS) to determine if areas proposed for treatment BMPs were impacted by hazardous waste at existing right-of-way or at locations with right-of-way from nearby sources. We identified the potential hazardous waste concerns based on OEECS' review of the memorandum (1/24/08), 1st Draft PSSR (2/14/08), field review photos from your staff, review of the aforementioned databases, research of previous environmental site assessment reports, and discussions with your staff:

Aerially Deposited Lead (ADL) contaminated soils:

The construction of all proposed trash/treatment devices involves the disturbance of soil potentially contaminated with ADL because of the historical use of leaded gasoline. Particulate emissions in engine exhaust contained lead from leaded gasoline, which was deposited adjacent to roadways and/or runoff to road embankments and along right-of-way or easement areas. Since excess soil will be generated, an ADL site investigation is needed during the PS&E phase to evaluate the degree of soil contamination for reuse on the project site by invoking the California Department of Toxic Substances Control (DTSC) Lead Variance or off-site disposal as hazardous waste. For the purpose of project planning, it is recommended that any excess soil generated be classified as hazardous waste regulated by the State of California (non-RCRA), "Roadway Excavation- Type Z-2" and shall be excavated, contained, and transported in accordance with State regulations.

The unit cost for ADL soil disposal including the preparation of a project specific Lead Compliance Plan (LCP) can be found at http://t8web/design/contractcost/.

Railroad Right-of-Way:

The construction of GSRD #10-0721 along I-10 at the National Boulevard Underpass (UP) involves the disturbance of soil potentially impacted from Railroad activity. Soil contamination near or within a railroad track right-of-way cannot be ruled-out because of historical contamination associated with various concentrations of metals, petroleum

hydrocarbons, polycyclic aromatic hydrocarbons, volatile organic compounds (VOC), and semi-volatile organic compounds (SVOC).

Historical Environmental Sampling:

The construction of the some of the treatment BMPs will occur near some locations previously sampled with existing environmental site information. The following relevant reports were referenced for this hazardous waste assessment review:

- *Site Investigation Report, Northbound and Southbound Route 101 Between Vermont Avenue and Route 405 EA #120721, Prepared for Department of Transportation, District 7, Los Angeles, California, by Geocon, March 1996.*

- *Supplementary Site Assessment (SSA), Excess Land near Culver Boulevard and Alla Road, Los Angeles, California, prepared for California Department of Transportation District 7, by Geocon, December 1999.* The SSA identified several potential environmental considerations regarding impacts to shallow soils near Alla Road. These concerns were associated with the former Pacific Electric Railway and proximity to the former adjacent Teledyne Microelectronics Division facility. Therefore, soil sampling for treatment BMPs near the SR-90 and Alla road intersection should be performed for metals, petroleum hydrocarbons, volatile organic compounds, and semi-volatile organic compounds.

- *Report of Phase I Environmental Assessment, Playa Vista Stip, prepared For Maguire Thomas Partners by Law/Crandall, February 23, 1996.* This assessment did not identify any areas of potential concern and no further assessment was recommended at the time.

- *Report of Lead Assessment, Playa Vista-Stip Improvements prepared For Maguire Thomas Partners by Law/Crandall, January 19, 1996.* This report indicated that the upper six inches to at least 18 inches of soil of the Sample Area#3 (Culver Boulevard) was considered to be hazardous material with regards to lead (Pb) impact. This report also recommended that soils excavated or disturbed during construction should be handled and disposed according to the DTSC lead variance guidelines issued to CalTrans, the soil may be re-used as fill if placed at a minimum five (5) feet above the maximum water table and covered with at least one (1) foot of non-hazardous soil cover.

Please note this preliminary hazardous waste assessment does not constitute a hazardous waste clearance for the PS&E project, and is only a preliminary hazardous waste assessment based on the preliminary information provided during the preparation of the PSSR. As the project proceeds into the PS&E stages, a project-specific site investigation shall be required to determine the extent of contamination within the project area(s).

Capital Outlay Support (COS) Costs for Site Investigation:

Based on OEECS' preliminary assessment above, we estimate that 400-450 hrs are needed to initiate a site investigation and to provide a soil handling recommendation for the PS&E stages. The site investigation task order cost ranges between $125,000 and $180,000 based on the

number of locations proposed in the PSSR. It is important that the Project Manager shall allocate the appropriate estimated COS support cost under *Cost Center 07-333* in order to complete the site investigation in a timely manner.

Upon completion of the final draft PSSR, please circulate the document to our office for review and concurrence.

If you have any question, I can be reached at (213) 897-3646, or contact Frank Gonzales of my staff at (213) 897-0936.

Steve Chan

Steve Chan, P.E., STE
District Hazardous Waste Branch, South Region
Office of Environmental Engineering and Corridor Studies

cc: File
Ojas Sheth- Division of Project Management
Ayubur Rahman- OEECS, North Region

F3: Natural Environment Study

TMDL Implementation Project (Phase VII) **NES (MI)**

Natural Environment Study

(Minimal Impacts)

Los Angeles County

I-10 PM R 5.57/14.78

SR-90 PM 1.22/2.59

US-101 PM 6.94/7.83

I-110 PM 21.49/23.59

I-405 PM 23.81/29.24

23870K

April 2008

Prepared By: _____ Date: 4/30/08

Linna Wei, District Biologist
(213) 897-0840
Division of Environmental Planning
District 7 Los Angeles and Ventura Counties

Approved By: _____ Date: 4/30/08

Paul Caron, Branch Chief, Senior Biologist
(213) 897-0686
Division of Environmental Planning
District 7 Los Angeles and Ventura Counties

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Paul Caron, Division of Environmental Planning, 100 South Main Street; (213) 897-0610 Voice, or use the California Relay Service TTY number, (213) 897-6610.

1. Introduction

The proposed project is a result of the California Regional Water Quality Control Board (CRWQCB) regulations to attain water quality standards for trash and metals. This project is defined as Trash Total Maximum Daily Loads (TMDL), Phase VII.

The TMDL Project –Phase VII along routes I-10, SR-90, US-101, I-110 and I-405 within the above limits for the upcoming SHOPP cycle.

The work includes planning, design, construction and maintenance of different proposed Treatment Best Management Practices (BMPs) such as Infiltration Basins, Media Filters, Gross Solid Removal Devices (GSRDs): Inclined or Linear; and Biofiltration Swales and Strips at or adjacent to storm water drain outfalls or discharge points within or outside Caltrans' Right of Way as needed. Most of the construction access will be through frontage roads and city streets.

2. Study Methods

The findings of this study are based on a review of aerial photographs, U.S.G.S topographical maps (Beverly Hills quadrant, Hollywood quadrant, Venice quadrant, Pasadena quadrant, Thousand Oaks quardrant and Ingelwood quardrant), a search of the California Natural Diversity Database (CNDDB) and a field survey conducted on January 3rd, 2008.

3. Environmental Setting

3.1. Description of the Existing Biological and Physical Conditions

A biological survey was conducted within the project area to determine if any substantial biolgocal resources would be impacted. The environmental setting is urbanized and disturbed with little or no native biological resources within the project limits or directly adjacent to the project limits. Many of the project sites have mature tree species which may provide habitat for nesting birds. Undergrowth is primarily ruderal and onramental.

The table below lists specific locations for proposed activities on each route:

Interstate 10:

Outfall ID.	10-0557	10-0597	10-0721	10-0739	10-0839	10-0886	10-0910	10-0913B	10-0976

Postmile	5.57	5.97	7.21	7.39	8.39	8.86	9.10	9.13	9.76

10-1021	10-1041	10-1090	10-1108	10-1146	10-1304	10-1358A	10-1433	10-1452	10-1478
10.21	10.41	10.90	11.08	11.46	13.04	13.58	14.33	14.52	14.78

State Route 90:

Outfall ID.	90-0115A	90-0122	90-0156	90-0168	90-0170B	90-0170C	90-0177	90-0219	90-0226
Postmile	1.15	1.22	1.56	1.68	1.70	1.70	1.77	2.19	2.26

90-0232	90-0236	90-0243	90-0246	90-0259
2.32	2.36	2.43	2.46	2.59

Interstate Route 101:

Outfall ID.	101-0694	101-0707	101-0744	101-0783
Postmile	6.94	7.07	7.44	7.83

Interstate Route 110:

Outfall ID.	110-2149	110-2151	110-2164	110-2200	110-2202	110-2226	110-2227B	110-2227A	110-2229

Postmile	21.49	21.51	21.64	22.00	22.02	22.26	22.27	22.27	22.29

110-2231	110-2274A	110-2283	110-2299	110-2302	110-2308	110-2320	110-2322	110-2337	110-2344	110-2359
22.31	22.74	22.83	22.99	23.02	23.08	23.20	23.22	23.37	23.44	23.59

Interstate Route 405:

Outfall ID.	405-2381	405-2384	405-2403	405-2415	405-2425	405-2440	405-2497	405-2509	405-2567
Postmile	23.81	23.84	24.03	24.15	24.25	24.40	24.97	25.09	25.67

405-2582	405-2609	405-2698	405-2723	405-2781	405-2797	405-2810	405-2826	405-2860	405-2904
25.82	26.09	26.98	27.23	27.81	27.97	28.10	28.26	28.60	29.04

3.2. Regional Species and Habitats of Concern

No species listed in the CNDDB Database are expected to occur within the project area, or immediately adjacent to the project area. No sensitive, threatened or endangered wildlife species occur or are anticipated to occur along the project area.

3.3. Vegetation

The project sites vary from storm water outfalls with little or no vegetation to storm water outfalls with overgrown ornamentals and trees. The majority of the tree species are Pines, Eucalyptus, and Bottlebrush (*Callistemon viminalis*). When undergrowth is present, it is primarily ruderal and ornamental, mostly comprised of Iceplant and Ivy.

3.4. Animals

There were no wildlife species observed during the field survey. Wildlife species in this area would typically include species adapted to urban environments.

4. Project Impacts

The proposed project is expected to have no adverse biological impacts to the natural environment, due to the fact that the project area is already disturbed. No removal of existing vegetation is proposed in the project scope thus impacts to the native landscape vegetations are not expected.

5. Avoidance Measures

The following measures are recommended to avoid or minimize impacts anticipated by this project:

Resource	Avoidance/Minimization Measure
Water Quality	All applicable water quality Best Management Practices (BMP's) should be implemented to prevent sediment or cement runoff from entering any gutter or storm drain during construction of this project.
Biological Surveys	Biological surveys of the project area shall be performed in locations having increased biological sensitivity as determined by the District Biologist. Clearing and grubbing of the project area will be conducted during the non-breeding season for bird species, after September 1st and prior to March 1st. Biological surveys shall be conducted at most two weeks prior to the clearing and grubbing of vegetation.

If this project scope should change, this Division will be notified to determine whether current environmental documentation is adequate. This Division will be provided with the Project Specifications & Expenditures Review Package for review and comments.

6. Permits Required

Permits from the resource agencies are not expected to be required for the proposed project since impacts to drainages are not anticipated. Should the project scope change to include the adjacent

storm drain, this project will require a re-evaluation to determine the need for regulatory agency permits.

Attachment G – Right-of-Way Data Sheet

TO **Rafael Molina**
ATTN **Kenneth Yip**
PHONE **70076**
SENIOR R/W P&M
ROUTE I-10, I-405,SR-90,and I-110
PM_KM varies
EA 23870K
ALT None

R/W DATA SHEET

Date of Data Sheet 10/9/2008
WBS
REVISED
UPDATED
PROJ._DESC R/W and easement for access at outfalls locations

ID NO
1525

This cost estimate is pursuant to the following statements which are based on information provided by Rafael Molina.

This cost estimate is valid for the above scoping report only. This is an estimate only and not an appraisal. It may be based on worse case scenarios. The estimate is subject to change and revision.

The mapping did not provide sufficient nor adequate detail to determine the limits of thr Right of Way required and effects on the improvements.

The transportation facilities have not been sufficiently designed for our estimator to determine the damages to any of the remainder parcels affected by the project.

Residential displacement is involved and the Environmental Department needs to be advised by your department.

Utility facilities or Utility Right of Way are not affected.

Railroad facilities or R.R. Right of Way are affected.

Right of Way work will be performed by Caltrans staff.

Major items of Construction Contract Work are anticipated

Material borrow and/or disposal sites are required.

It is not known at this time whether there are potential relinquishments and/or abandonments.

Hazardous waste parcels are not evident

Time constraints precluded a detailed cost estimate.

The time schedule provided by the requesting party allowed for a field inspection.

RW COST ESTIMATE

	CURRENT VALUE	ESCALATED VALUE
R/ w acq.(incl.contingency G.w-condem.-adm.s'tl.)Permits	$4,353,441	$4,760,311
Clearance	$75,000	$82,009
RAP (cont rate.)	$75,000	$82,009
Escrow costs (cont rate.)	$27,612	$30,193
Utility relocation costs	NONE	NONE
Estimate of Reimbursed Appraisal Fee	$12,000	$12,000
Total estimated cost	$4,543,053	$4,966,523

ESCALATION RATE RW .07
ESCALATION RATE Utilities .10
CERT.DATE 12/30/09

ROUTE I-10, I-405,SR-90,and I-110
PM_KM varies
EA 23870K
ALT None

PARCEL COUNT

PARCEL TYPES	DUAL APPR.
A	
B	
C	8	3
D	
F	
W	

RIGHTS NEEDED	
FEE	4
EASE	8
TCE	7

TAKES	
FULL	
PART	9
TOTAL	9

DISPLACEMENT OF UNITS	
SFR	
MULTI	
BUS	25

PARCELS WITH RAP: 1

POTENTIAL CLEARANCE PARCELS: 1

POTENTIAL CONDEMNATION PARCELS: 1

POTENTIAL EXCESS PARCELS: not known at this time.

ESTIMATE OF PY'S

APPRAISALS

	PY	HOURS
A		
B		
C	0.5048	893.6
D		
F		
W		
Dual		

ACQUISITIONS

	PY	HOURS
A		
B		
C	0.5024	893.6
D		
F		

UTILITIES

	PY	HOURS
PY U4 1		
PY U4 2		
PY U4 3		
PY U4 4		
PY U5 7		
PY U5 8		
PY U5 9	0.0273	48.3

RAILROAD

	PY	HOURS
C & M	0.314	55.6
SC	0.314	55.6
LIC/RE	0.0122	21.3

CONDEMNATION

PY	HOURS
0.0672	118.9

CLEARANCE

PY	HOURS
0.005	8.9

RELOCATION

PY	HOURS
0.1105	195.6

PERMITS

PY	HOURS
0.01656	29.34

UTILITY INFORMATION

Are Utilities affected: no

	Quantities	Estimated Costs	Escalated Cos
NONE			

Are utility easements required: ____ No. of easements: ____ Are Utility agreements required: no

Types of Util. Facilities & agrmts. required Description: ____

TOTAL CURRENT COST: NONE

CONST. COMPLETION DATE: 9/30/2012

UTILITY ESCALATION RATE: 10%

ESCALATED VALUE TO UTILITY CONSTRUCTION COMPLETION DATE: NONE

RR INFORMATION

Are RR affected yes

Describe affected RR

WHEN BRANCH LINES OR SPURS ARE AFFECTED ,WOULD ACQUISITION AND OR PAYMENT OF DAMAGES TO BUSINESSES AND OR INDUSTRIES SERVED BY THE RAILROAD FACILITY BE MORE COST EFFECTIVE THAN SERVICE CONTRACTS ,OR GRADE SEPARATIONS REQUIRING CONSTRUCTION AND MAINTENANCE AGREEMENTS INVOLVED? ?

Explain Branch lines

DISCUSS TYPES OF AGREEMENTS AND RIGHTS REQUIRED FROM THE RAILROADS. ARE GRADE XING REQUIRING SERVICE CONTRACTS ,OR GRADE SEPARATIONS REQUIRING CONSTRUCTION AND MAINTENANCE AGREEMENTS INVOLVED.

ESTIMATED COST TO THE STATE FOR ALL R.R. INVOLVEMENTS. ?

		DATE
Right of Way Estimate prepared by	**Victor Lee**	**10/6/08**
Railroad Estimate prepared by	**Bob Thorpe**	**9/11/08**
Utilities Estimate prepared by	**Mark Lyles**	**10/2/08**

I have personally reviewed this R/W Data Sheet and all supporting information I certify that the probable highest and best use estimated values and assumptions are reasonable and proper subject to the limiting conditions set forth and I find this Data Sheet complete and current.

This Data Sheet is not to be signed by Chief unless accompanied by final scoping report(PR,PSR,PSSR) for review and/or signature.

CHIEF D. Stallcup 10-8-08

Attachment H – TMP Data Sheet

TRANSPORTATION MANAGEMENT PLAN DATA SHEET
(Preliminary TMP Elements and Costs)

Co/Rte/PM LA-10,90,101,110 and 405-PM Various EA 23870K Alternative No. ____

Project Limit In Los Angeles County at various locations.

Project Description Constructing various drainage facilities.

1) Public Information

- ☐ a. Brochures and Mailers $
- ☒ b. Press Release
- ☐ c. Paid Advertising $
- ☐ d. Public Information Center/Kiosk $
- ☐ e. Public Meeting/Speakers Bureau
- ☐ f. Telephone Hotline
- ☒ g. Internet
- ☐ h. Others _____ $

2) Motorists Information Strategies

- ☐ a. Changeable Message Signs (Fixed) $
- ☐ b. Changeable Message Signs (Portable) $
- ☐ c. Ground Mounted Signs $
- ☐ d. Highway Advisory Radio $
- ☐ e. Caltrans Highway Information Network (CHIN)
- ☐ f. Others _____ $

3) Incident Management

- ☒ a. Construction Zone Enhanced Enforcement Program (COZEEP) $52,000.00
- ☐ b. Freeway Service Patrol $
- ☐ c. Traffic Management Team
- ☐ d. Helicopter Surveillance $
- ☐ e. Traffic Surveillance Stations (Loop Detector and CCTV) $
- ☐ f. Others _____ $

4) Construction Strategies

- [x] a. Lane Closure Chart
- [ ] b. Reversible Lanes
- [ ] c. Total Freeway Mainline Closure
- [ ] d. Extended Weekend Closure
- [ ] e. Contra Flow
- [ ] f. Truck Traffic Restrictions $ _____
- [ ] g. Reduced Speed Zone $ _____
- [ ] h. Connector and Ramp Closures
- [ ] i. Incentive and Disincentive $ _____
- [ ] j. Moveable Barrier $ _____
- [ ] k. Others _____ $ _____

5) Demand Management

- [ ] a. HOV Lanes/Ramps (New or Convert) $ _____
- [ ] b. Park and Ride Lots $ _____
- [ ] c. Rideshare Incentives $ _____
- [ ] d. Variable Work Hours
- [ ] e. Telecommute
- [ ] f. Ramp Metering (Temporary Installation) $ _____
- [ ] g. Ramp Metering (Modify Existing) $ _____
- [ ] h. Others _____ $ _____

6) Alternative Route Strategies

- [ ] a. Add Capacity to Freeway Connector/Ramps $ _____
- [ ] b. Street Improvement (widening, traffic signal... etc) $ _____
- [ ] c. Traffic Control Officers $ _____
- [ ] d. Parking Restrictions
- [ ] e. Others _____ $ _____

7) Other Strategies

- [ ] a. Application of New Technology $ _____
- [ ] e. Others _____ $ _____

TOTAL ESTIMATED COST OF TMP ELEMENTS = $52,000.00

Project Notes:

1. Public Affairs Compaign cost estimate of $0.00 was provided by Judy Gish, Public Information Officer, Caltrans Office of Public Affairs and Media Relations, on 03/03/08.
2. COZEEP cost estimate of $52,000.00 was provided by Amjad Obeid, Construction Traffic Advisor-South, on 03/10/08 and including 5% increase to the construction years.
3. It is anticipated work will be performed behind Temporary Rail (Type K) or in accordance with the Lane Closure Charts provided in the Maintaining Traffic Specifications.

PREPARED BY R Shehata Raymond Shehata, T.E. DATE 3/10/08

APPROVAL RECOMMENDED BY Albert Yu, S.T.E. DATE 3-10-08

APPROVED BY John Yang, Dist. Traffic Mgr. DATE 3/10/08

Attachment I – Storm Water Compliance

Long Form - Storm Water Data Report

Dist-County-Route: 07-LA-10, 90, 101, 110 and 405

Post Mile (Kilometer Post) Limits:
Various

Project Type: Implementation of Treatment BMPs

EA: 23870K (Phase 7)

RU: 07-186

Program Identification: 20.XX.201.335

Phase: ☒PID ☐PA/ED ☐PS&E

Regional Water Quality Control Board(s): Region 4 – Los Angeles

Is the project required to consider incorporating Treatment BMPs? ☒Yes ☐No

If yes, can Treatment BMPs be incorporated into the project? ☒Yes ☐No

If No, a Technical Data Report must be submitted to the RWQCB at least 60 days prior to PS&E Submittal. List submittal date: _____

Total Disturbed Soil Area: 4.77 Acres (1.93 Hectares)

Estimated Construction Start Date: 02/17/10 Construction Completion Date: 09/17/12

Notification of Construction (NOC) Date to be submitted: 01/17/10

Notification of ADL reuse (if Yes, provide date) ☐Yes Date: _____ ☒No

Separate Dewatering Permit (if Yes, permit number) ☐Yes Permit #: _____ ☒No

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

Kenneth Yip, *Registered Project Engineer/Landscape Architect* — 9/22/2008 Date

I have reviewed the storm water quality design issues and find this report to be complete, current, and accurate:

Ojas Sheth, *Project Manager* — 9/25/08 Date

Roger Castillo, *Designated Maintenance Representative* — 09-25-08 Date

Ron Russak, *Designated Landscape Architect Representative* — 09.29.08 Date

Shirley Pak, *District/Regional SW Coordinator or Designee* — 9/29/2008 Date

STAMP
[Required for PS&E only]

Attachment J – Performance Indicators

SHOPP Project Performance Output

Update Date:	Source		Program	Fiscal	RTL	Programming Information ($1,000)
District - County - Rte -PM	**EA**	**PPNO**	**Code**	**Year**	**Date**	**R/W $4,543 Construction $59,311 Support $21,120**
07-LA-10,90,101,110,405-various	**23870K**	**3281**	**201.335**	**2010**	**12/30/11**	**Project Manager : Ojas Sheth**
Location: Los Angeles County at various locations						**HQ Program Manager: Jagjiwan Grewal**
Project Discription: Implement Treatment Best Management Practices (BMPs) - Phase VII						

PROGRAM	ACCT. CODE 20.XX.	Quantity of Performance Output							After Construction	PERFORMANCE units
		Ten Year Plan	PID		PA&ED	RTL		CCA		
Approval Date				Output Cost ($1,000)			Output Cost ($1,000)			
Construction Cost ($1,000)										
Right of Way Cost ($1,000)										
Support Cost Cost ($1,000)										
EMERGENCY RESPONSE										
Major Damage Restoration	201.130									Locations
Permanent Restoration	201.131									Locations
COLLISION REDUCTION										
Safety Improvements	201.010									Collision Reduce
Collision Severity Reduction	201.015									Collision Reduce
Median Barrier Upgrade	201.020									Centerline Miles
MANDATES										
Relinquishments	201.160									Lane Miles
Noise Attenuation for Schools	201.270									Locations
Railroad	201.325									Locations
Hazardous Waste Mitigation	201.330									Locations
Storm Water	201.335	**2009**	**228**	**$63,900**						Acres Treated/Pollutant
ADA Compliance	201.361									Curb Ramps
SHOPP TEA	201.736									Locations
BRIDGE PRESERVATION										
Bridge Rehabilitation	201.110									Bridges
Bridge Scour Mitigation	201.111									Bridges
Bridge Rail Replacement/Upgrade	201.112									Linear Feet
Bridge Seismic Restoration	201.113									Bridges
Bridge Widening	201.114									Bridges
Trans Permit Requirements for Bridges	201.322									Bridges
ROADWAY PRESERVATION										
Roadway Rehabilitation (3R)	201.120									Lane Miles
Pavement Preservation (CAPM)	201.121									Lane Miles
Pavement Rehabilitation (2R)	201.122									Lane Miles
Long-Life Pavement Corridors (4R)	201.125									Lane Miles
Roadway Protective Betterment	201.150									Locations
Drainage System Restoration	201.151									Culverts
Signs and Lighting Rehabilitation	201.170									Signs
										Light Fixtures
MOBILITY										
Operational Improvements	201.310									Daily Vehicle Hours of delay
Transportation Management Systems	201.315									Field Elements
										Miles of fiber
Truck Inspection & WIM Facilities	201.321									Locations
ROADSIDE PRESERVATION										
Highway Planting Restoration	201.210									Acres
Freeway Maintenance Access	201.230									Locations
Roadside Enhancement	201.240									Locations
Beautification and Modernization	201.245									Centerline Miles
Safety Roadside Rest Area Restoration	201.250									Locations
New Safety Roadside Rest Areas	201.260									Locations
FACILITIES										
Equipment Facilities	201.351									Locations
Maintenance Facilities	201.352									Locations
Office Buildings	201.353									Locations
Materials Lab	201.354									Locations
Additional Performance Units										
Paved Shoulders										