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WASTEWATER ENGINEERING SERVICES DIVISION  
2714 MEDIA CENTER DRIVE  
LOS ANGELES, CA 90065  
FAX: (323) 342-6210 OR 342-6211

To: Bureau of Sanitation Pre-Qualified On-call Contract Consultants

File: TOS-S32

**Subject: Issuance of Task Order Solicitation TOS-S32  
Environmental Monitoring Services**

The City is soliciting responses from the entire Pre-Qualified On-Call Consultant List. Attached are details of the Task Order Solicitation (TOS) required services.

The Pre-proposal meeting will be held on Friday, August 26, 2011, at 10:00 a.m. to 11:00 a.m., at 12000 Vista Del Mar, Harry Pregerson Technical Support Facility, 4<sup>th</sup> Floor, Conference Room #405, Playa Del Rey, CA 90293.

Questions regarding this TOS must be submitted before or at the Pre-proposal meeting to the Task Manager, Jeffrey Beller, at [Jeffrey.Beller@lacity.org](mailto:Jeffrey.Beller@lacity.org).

For Pre-proposal attendance, please RSVP by e-mailing Jeffrey Beller the names of attendees and the company for the security at the Main Gate (Gate C).

Proposal shall be submitted by Tuesday, September 13, 2011, no later than 2:00 p.m., to:  
Wastewater Engineering Services Division  
2714 Media Center Drive, Los Angeles, CA 90065  
Attention: Debbie Pham

Thank you for your interest and we look forward to receiving your response to this Task Order Solicitation.

Sincerely,

Ali Poosti, Acting Division Manager  
Wastewater Engineering Services Division  
Bureau of Sanitation

cc: Varouj S. Abkian, BOS/ Exec  
Mas Dojiri, EMD  
Susan Chang, EMD

Adel Hagekhalil, BOS/Exec  
Jeffrey Beller, EMD  
Thu-Van Ho, WESD

Ali Poosti, WESD  
Debbie Pham, WESD

**City of Los Angeles  
Department of Public Works  
Bureau of Sanitation**

**Pre-Qualified Sanitation On-call Consultant Services Contract**

**Task Order Solicitation for Environmental Monitoring Services – TOS-S32**

**August 2011**

**1. INTRODUCTION**

The Environmental Monitoring Division (EMD) of the Bureau of Sanitation must routinely utilize commercial laboratories to provide various legally-mandated specialized environmental monitoring services in support of the Bureau's Cleanwater, Watershed Protection, and Solid Resources Programs. These services may include, but are not limited to sampling and analyses of various constituents in sewer gases, air discharged from air treatment facilities, raw sewage, POTW effluent, recycled water, biosolids, groundwater, landfill leachate and condensate, as well as sorting and identification of benthic infauna, invertebrates, and fish from Santa Monica Bay and the Los Angeles Harbor. Additionally, the services of personnel with knowledge and experience in collection of aqueous, sediment, and tissue samples from marine and freshwater environments may be required.

The EMD is responsible for providing environmental monitoring support to the Bureau of Sanitation in order to comply with the requirements of National Pollutant Discharge Elimination System (NPDES) Permits and Reclaimed Water Permits at the Bureau's treatment and water reclamation plants; NPDES and South Coast Air Quality Management District (SCAQMD) Permits at its landfills; SCAQMD Permits at its Air Treatment Facilities; and Total Maximum Daily Loads (TMDL) in various watersheds where the City of Los Angeles is the lead agency, as well as MS<sub>4</sub> and stormwater monitoring support in these watersheds. Additionally, EMD provides monitoring support, as required by the Bureau, to provide background information required for the development and furtherance of the above programs.

EMD provides direct monitoring support to the abovementioned programs; but, EMD sends samples out for analyses by commercial laboratories when it is not technically or economically feasible to perform the analyses in-house. Additionally, due to the extended hiring freeze and attrition of staff due to transfer (DWP and LAPD) and retirement, EMD is increasingly forced to rely on commercial laboratories for services that it has historically provided, such as sorting and identification of benthic infauna and demersal invertebrates and vertebrates.

## **2. SCOPE OF WORK**

Work under this TOS shall include as-requested support to the BOS Environmental Monitoring Division with laboratory analytical services including the following tasks:

- Task 1. Coordination support that includes the following:
  - i. Reviewing and evaluating monitoring requirements and laboratory capabilities.
  - ii. Coordinating sample pick-up and analysis between City staff requesting services and Subcontractor laboratories.
  - iii. Supporting City staff with tracking sample submittal, data retrieval, and approval of invoices from Subcontractor laboratories.
- Task 2. NPDES Permit Analytical Support – Analyze samples in support of monitoring requirements in BOS’s wastewater reclamation and treatment plants’ NPDES wastewater permits, including water and biosolids.
- Task 3. Recycled Water Permit Analytical Support – Analyze samples in support of monitoring requirements in BOS’s water recycling permits.
- Task 4. NPDES Permit Biological Assessment Support – Provide laboratory and in-the-field biological assessment services in support of monitoring requirements in BOS’s wastewater reclamation and treatment plants’ NPDES wastewater permits
- Task 5. Land Fill – Analyze samples in support of monitoring requirements related to landfills.
- Task 6. Watershed Protection Support – Analyze samples in support of BOS’s Watershed Protection Division.
- Task 7. Industrial Waste Management Support – Analyze samples in support of BOS’s Industrial Waste Management Division.
- Task 8. Special Request Support – Analyze samples in support of other BOS programs not specifically identified in other tasks.

The scope of work of Tasks 2 to 8 are described in more details in attachments.

The City’s TOS Manager or designee shall be allowed to contact Subconsultant laboratories directly to request assistance, either verbally or in writing, for work related to the established tasks listed above. The City’s TOS Manager or designee shall be allowed to contact laboratory Subconsultants directly to request assistance, either verbally or in writing, for work that is not related to the established tasks listed above. The Contractor shall be informed by the City’s TOS Manager of approved designees prior to said designee requesting services through this TOS.

**3. Term of Engagement**

The term of engagement will end on April 30, 2013. It is estimated that the cost ceiling for this TOS is approximately \$ 500,000.

**4. Solicitation Schedule**

- Issue Task Order Solicitation .....Date of Cover Letter
- Receive Solicitation Responses.....As indicated in Cover Letter.
- Conduct Interviews if necessary.....5 weeks after issuance of TOS
- Select and Negotiate.....7 weeks after issuance of TOS
- Issue Task Work Order.....12 weeks after issuance of TOS

**5. Solicitation Response Requirements**

Five (5) Copies of Solicitation Responses shall be submitted no later than 2:00 pm of proposal due date to:

Wastewater Engineering Services Division  
2714 Media Center Drive  
Los Angeles, CA 90065  
Attention: Debbie Pham

Solicitation Responses shall include:

- Resumes demonstrating that the candidates are capable of meeting the requirements of the Scope of Work. Resumes shall include work experience history with dates, and references from past employers, owners, and/or organizations.
- Proposed Hourly Billing Rate Summary (Sample Attached).
- MBE/WBE/OBE subcontractors utilized and the percent utilization.
- Cost calculations for each individual candidate considering all direct and indirect costs.
- Proposed Project Cost Worksheet estimated cost by tasks. (all respective direct and indirect costs, markups, expenses, overhead rates and profit)

**6. Selection Criteria**

The selection team will evaluate the proposals with the following criteria:

- Capability and experience to provide the Scope of Services as demonstrated by the proposal.
- The value offered to the City considering cost relative to capabilities and experience of the candidates.
- Demonstrated capability of providing resources within timeframes needed to for EMD to meet legally mandated reporting deadlines.

**7. Anticipated MBE/WBE Participation Levels**

The City had set anticipated participation levels (APLs) of 18 percent and 4 percent for MBE/WBE participation, respectively for TOS over \$100,000.

For proposal with cost ceiling of less or equal to \$100,000, the MBE/WBE anticipated participation levels will not apply. However, the consultant is still encouraged to utilize MBE/WBE/OBE sub-consultants wherever feasible.

**8. Contract Manager**

The City's Contract Manager is Ali Poosti, Acting Division Manager, Wastewater Engineering Services Division, (323) 342-6228.

The Task Order Manager is Mr. Jeffrey Beller, Assistant Division Manager, Environmental Monitoring Division, (310) 648-5262.

**9. Disclaimer**

The City may or may not decide to award any or part of this task order based on its sole convenience and shall not be responsible for any solicitation response costs.

# **ATTACHMENTS**

**HOURLY BILLING RATES**  
(To be submitted for each Task Order Solicitation)

FIRM	Status	Last Name	First Name	Position	Rate (\$/hr)	Approved Overhead Rate	Approved Profit	Billing Rate (\$/hr)	Effective Date	Notes
PRIME FIRM	Prime	LastPrime	FirstPrime	Task Manager						
PRIME FIRM	Prime	LastPrime	FirstPrime	Sr Engineer						
PRIME FIRM	Prime	LastPrime	FirstPrime	Associate Engineer						
PRIME FIRM	Prime	LastPrime	FirstPrime	Technician						
OBE FIRM NAME1	OBE	Last	First	Position						
OBE FIRM NAME2	OBE	Last	First	Position						
MBE FIRM NAME1	MBE	Last	First	Position						
MBE FIRM NAME2	MBE	Last	First	Position						
WBE FIRM NAME	WBE	Last	First	Position						

Summary	Total Fee (\$)	% Fee
Total OBE		
Total MBE		
Total WBE		
Prime		
Total		100%

Firm Name	Status	Fee	% Fee
OBE FIRM NAME1	OBE		
OBE FIRM NAME2	OBE		
MBE FIRM NAME1	MBE		
MBE FIRM NAME2	MBE		
WBE FIRM NAME	WBE		

Scope of Work - Tasks 2 and 3

Constituent	Analytical Method	Program	Number of Samples Per Month												Number of Samples Per Year
			J	F	M	A	M	J	J	A	S	O	N	D	
CTAS	SM 5540D	NPDES	3	12	3	3	7	3	3	12	3	3	7	3	62
Organophosphorus Pesticides	EPA 8141A	NPDES	2	13	0	2	0	0	2	13	0	2	0	0	34
Chlorinated Herbicides	EPA 8151A	NPDES	0	12	0	0	0	0	0	12	0	0	0	0	24
Dioxin (High Resolution)	EPA 1613B	NPDES	11	8	0	11	6	0	11	8	0	11	6	0	72
Dioxin (Low Resolution)	EPA 1613	NPDES	0	6	0	0	0	0	0	6	0	0	0	0	12
Mercury	EPA 1631E	NPDES	7	7	7	7	7	7	7	7	7	7	7	7	84
Tributyltin	Organo Tin GCMS	NPDES	7	0	0	6	0	0	7	0	0	6	0	0	26
Perchlorate	EPA 314.0	NPDES	0	10	0	0	0	0	0	10	0	0	0	0	20
Asbestos	EPA 100.2	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
Chlorate	EPA 300.1	Reclaimed	0	2	0	0	0	0	0	2	0	0	0	0	4
Dioxin (High Resolution)	EPA 1613B	Reclaimed	0	0	0	0	0	0	0	0	0	0	0	0	0
Organochlorine Pesticides & PCBs	EPA 508	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
Chlorinated Herbicides	EPA 515.3	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
NDEA, NDMA	EPA 521	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
Organophosphorus Pesticides (low level)	EPA 525.2	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
Semi-Volatile Organics															
Glyphosate	EPA 547	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
Endothall	EPA 548.1	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
Diquat	EPA 549.2	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
Phenols	EPA 8270C-SIM	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
1,2,3-TCP	EPA 524.2M-SIM	Reclaimed	0	2	0	0	0	0	0	2	0	0	0	0	4
EDB, DBCP	EPA 504.1	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
Volatile Organics	EPA 524.2	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
Acrolein, Acrylonitrile															
TBA															
Carbamates	EPA 531.1	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
Halo Acetic Acids	EPA 552.2	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
Formaldehyde	EPA 8315	Reclaimed	0	2	0	0	0	0	0	2	0	0	0	0	4
Langelier Index	SM 2330B	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
Odor	EPA 140.1	Reclaimed	0	2	0	0	2	0	0	2	0	0	2	0	8
<b>Solids</b>															
Dioxin - all congeners wTEQ (High Resolution)	EPA 1613	Biosolids	2	0	0	2	0	0	2	0	0	2	0	0	8
Dioxin (Low Resolution)	EPA 8280A	Biosolids	0	4	2	0	2	1	0	4	2	0	2	1	18
Chlorinated Herbicides	EPA 8151A	Biosolids	2	0	0	2	0	0	2	0	0	2	0	0	8
Organophosphorus Pesticides	EPA 8141A	NPDES	0	3	0	0	0	0	0	3	0	0	0	0	6

## Scope of Work - Tasks 2 and 3 List of Analytes and Required Reporting Limits

Constituent	Sample Matrix	Required RL	Units	Analytical Method
Asbestos	Drinking water	0.2	MFL	EPA 100.2
Threshold odor	Drinking water	1	T.O.N.	EPA 140.1
Mercury	Drinking water		ng/L	EPA 1631E
Chlorate	Drinking water	20	ug/L	EPA 300.1
1,2,3-Trichloropropane (Fumigant 1,2,3-TCP)	Drinking water	0.005	ug/L	EPA 524.2M-SIM
1,2-Dibromo-3-chloropropane (DBCP)	Drinking water	0.01	ug/L	EPA 504.1
1,2-Dibromoethane (EDB)	Drinking water	0.02	ug/L	
4,4'-DDD	Drinking water	0.02	ug/L	EPA 508.1
4,4'-DDE	Drinking water	0.01	ug/L	
4,4'-DDT	Drinking water	0.01	ug/L	
Aldrin	Drinking water	0.075	ug/L	
alpha-BHC	Drinking water	0.01	ug/L	
beta-BHC	Drinking water	0.05	ug/L	
Chlordane	Drinking water	0.1	ug/L	
delta-BHC	Drinking water	0.05	ug/L	
Dieldrin	Drinking water	0.02	ug/L	
Endosulfan I	Drinking water	0.02	ug/L	
Endosulfan II	Drinking water	0.01	ug/L	
Endosulfan sulfate	Drinking water	0.05	ug/L	
Endrin	Drinking water	0.1	ug/L	
Endrin aldehyde	Drinking water	0.05	ug/L	
gamma-BHC	Drinking water	0.2	ug/L	
Heptachlor	Drinking water	0.01	ug/L	
Heptachlor epoxide	Drinking water	0.01	ug/L	
Hexachlorobenzene	Drinking water	0.5	ug/L	
Hexachlorocyclopentadiene	Drinking water	1	ug/L	
Methoxychlor	Drinking water	10	ug/L	
PCB 1016	Drinking water	0.5	ug/L	
PCB 1221	Drinking water	0.5	ug/L	
PCB 1232	Drinking water	0.5	ug/L	
PCB 1242	Drinking water	0.5	ug/L	
PCB 1248	Drinking water	0.5	ug/L	
PCB 1254	Drinking water	0.5	ug/L	
PCB 1260	Drinking water	0.5	ug/L	
Toxaphene	Drinking water	1	ug/L	
2,4,5-TP (Silvex)	Drinking water	1	ug/L	EPA 515.3
2,4-Dichlorophenoxyacetic acid (2,4-D)	Drinking water	10	ug/L	
Bentazon	Drinking water	2	ug/L	
Dalapon	Drinking water	10	ug/L	
Dinoseb	Drinking water	2	ug/L	
Pentachlorophenol	Drinking water	0.2	ug/L	
Picloram	Drinking water	1	ug/L	
N-Nitrosodiethylamine	Drinking water	0.002	ng/L	EPA 521
N-Nitrosodimethylamine	Drinking water	0.002	ng/L	
1,1,1-Trichloroethane	Drinking water	0.5	ug/L	EPA 524.2
1,1,2,2-Tetrachloroethane	Drinking water	0.5	ug/L	
1,1,2-Trichloro-1,2,2-Trifluoroethane	Drinking water	10	ug/L	
1,1,2-Trichloroethane	Drinking water	0.5	ug/L	
1,1-Dichloroethane	Drinking water	0.5	ug/L	
1,1-Dichloroethene	Drinking water	0.5	ug/L	

## Scope of Work - Tasks 2 and 3 List of Analytes and Required Reporting Limits

Constituent	Sample Matrix	Required RL	Units	Analytical Method
1,2,4-Trichlorobenzene	Drinking water	0.5	ug/L	
1,2,4-Trimethylbenzene	Drinking water	0.5	ug/L	
1,2-Dichlorobenzene	Drinking water	0.5	ug/L	
1,2-Dichloroethane	Drinking water	0.5	ug/L	
1,2-Dichloropropane	Drinking water	0.5	ug/L	
1,3,5-Trimethylbenzene	Drinking water	0.5	ug/L	
1,3-Dichlorobenzene	Drinking water	0.5	ug/L	
1,4-Dichlorobenzene	Drinking water	0.5	ug/L	
2-Chloroethyl vinyl ether	Drinking water	1	ug/L	
2-Chlorotoluene	Drinking water	0.5	ug/L	
4-Chlorotoluene	Drinking water	0.5	ug/L	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	Drinking water	5	ug/L	
Acrolein	Drinking water	5	ug/L	
Acrylonitrile	Drinking water	2	ug/L	
Benzene	Drinking water	0.5	ug/L	
Bromodichloromethane	Drinking water	0.5	ug/L	
Bromoform	Drinking water	0.5	ug/L	
Bromomethane	Drinking water	0.5	ug/L	
Carbon disulfide	Drinking water	0.5	ug/L	
Carbon tetrachloride	Drinking water	0.5	ug/L	
Chlorobenzene	Drinking water	0.5	ug/L	
Chloroethane	Drinking water	0.5	ug/L	
Chloroform	Drinking water	0.5	ug/L	
Chloromethane	Drinking water	0.5	ug/L	
cis-1,2-Dichloroethene	Drinking water	0.5	ug/L	
cis-1,3-Dichloropropene	Drinking water	0.5	ug/L	
Dibromochloromethane	Drinking water	0.5	ug/L	
Dichlorodifluoromethane	Drinking water	0.5	ug/L	
Ethylbenzene	Drinking water	0.5	ug/L	
Isopropylbenzene	Drinking water	0.5	ug/L	
Methylene chloride	Drinking water	0.5	ug/L	
Methyl-tert-butyl-ether (MTBE)	Drinking water	3	ug/L	
Naphthalene	Drinking water	0.5	ug/L	
N-Butylbenzene	Drinking water	0.5	ug/L	
N-Propylbenzene	Drinking water	0.5	ug/L	
sec-Butylbenzene	Drinking water	0.5	ug/L	
Styrene	Drinking water	0.5	ug/L	
tert-Butyl alcohol	Drinking water	2	ug/L	
tert-Butylbenzene	Drinking water	0.5	ug/L	
Tetrachloroethene	Drinking water	0.5	ug/L	
Toluene	Drinking water	0.5	ug/L	
trans-1,2-Dichloroethene	Drinking water	0.5	ug/L	
trans-1,3-Dichloropropene	Drinking water	0.5	ug/L	
Trichloroethene	Drinking water	0.5	ug/L	
Trichlorofluoromethane	Drinking water	5	ug/L	
Vinyl chloride	Drinking water	0.5	ug/L	
Xylene	Drinking water	0.5	ug/L	
Carbofuran	Drinking water	5	ug/L	EPA 531.1
Oxamyl	Drinking water	20	ug/L	
Glyphosate	Drinking water	25	ug/L	EPA 547

## Scope of Work - Tasks 2 and 3 List of Analytes and Required Reporting Limits

Constituent	Sample Matrix	Required RL	Units	Analytical Method	
Endothall	Drinking water	45	ug/L	EPA 548.1	
Diquat	Drinking water	4	ug/L	EPA 549.2	
Dibromoacetic acid	Drinking water	1	ug/L	EPA 552.2	
Dichloroacetic acid	Drinking water	1	ug/L		
Monobromoacetic acid	Drinking water	1	ug/L		
Monochloroacetic acid	Drinking water	2	ug/L		
Trichloroacetic acid	Drinking water	1	ug/L		
2,4-Dinitrophenol	Drinking water	5	ug/L		EPA 8270C-SIM
4,6-Dinitro-2-methylphenol	Drinking water	5	ug/L		
4-Nitrophenol	Drinking water	5	ug/L		
2-Nitrophenol	Drinking water	5	ug/L		
Pentachlorophenol	Drinking water		ug/L		
2,4,6-Trichlorophenol	Drinking water		ug/L		
2,4-Dichlorophenol	Drinking water		ug/L		
2,4-Dimethylphenol	Drinking water		ug/L		
2-Chlorophenol	Drinking water		ug/L		
4-Chloro-3-methylphenol	Drinking water		ug/L		
Phenol	Drinking water		ug/L		
2,4-Dinitrotoluene	Drinking water		ug/L	EPA 525.2	
2,6-Dinitrotoluene	Drinking water		ug/L		
2-Chloronaphthalene	Drinking water		ug/L		
3,3'-Dichlorobenzidine	Drinking water		ug/L		
4-Bromophenyl phenyl ether	Drinking water		ug/L		
4-Chlorophenyl phenyl ether	Drinking water		ug/L		
Acenaphthene	Drinking water		ug/L		
Acenaphthylene	Drinking water		ug/L		
Anthracene	Drinking water		ug/L		
Azobenzene (1,2-diphenylhydrazine)	Drinking water		ug/L		
Benzidine	Drinking water		ug/L		
Benzo(a)anthracene	Drinking water		ug/L		
Benzo(a)pyrene	Drinking water	0.1	ug/L		
Benzo(b)fluoranthene	Drinking water		ug/L		
Benzo(g,h,i)perylene	Drinking water		ug/L		
Benzo(k)fluoranthene	Drinking water		ug/L		
Bis(2-chloroethoxy)methane	Drinking water		ug/L		
Bis(2-chloroethyl)ether	Drinking water		ug/L		
Bis(2-chloroisopropyl)ether	Drinking water		ug/L		
Butylbenzyl phthalate	Drinking water		ug/L		
Chrysene	Drinking water		ug/L		
Dibenzo(a,h)anthracene	Drinking water		ug/L		
Diethyl phthalate	Drinking water		ug/L		
Dimethyl phthalate	Drinking water		ug/L		
Di-n-butylphthalate	Drinking water		ug/L		
Di-n-octylphthalate	Drinking water		ug/L		
Fluoranthene	Drinking water		ug/L		
Fluorene	Drinking water		ug/L		
Hexachlorocyclopentadiene	Drinking water		ug/L		
Hexachloroethane	Drinking water		ug/L		
Indeno(1,2,3-cd)pyrene	Drinking water		ug/L		
Isophorone	Drinking water		ug/L		

## Scope of Work - Tasks 2 and 3 List of Analytes and Required Reporting Limits

Constituent	Sample Matrix	Required RL	Units	Analytical Method
Nitrobenzene	Drinking water		ug/L	
N-Nitrosodiphenylamine	Drinking water		ug/L	
N-Nitrosodipropylamine	Drinking water		ug/L	
Phenanthrene	Drinking water		ug/L	
Pyrene	Drinking water		ug/L	
Alachlor	Drinking water	1	ug/L	
Atrazine	Drinking water	0.5	ug/L	
Bis(2-ethylhexyl)adipate	Drinking water	5	ug/L	
Diazinon	Drinking water	0.1	ug/L	
Molinate	Drinking water	2	ug/L	
Simazine	Drinking water	1	ug/L	
Thiobencarb	Drinking water	1	ug/L	
2,3,7,8-TCDD (Low Resolution)	Groundwater		ng/L	
PCDD/PCDF (Low Resolution)	Groundwater		ng/L	EPA 8280A
2,3,7,8-TCDD (High Resolution)	Groundwater		pg/L	EPA 1613
PCDD/PCDF (High Resolution)	Groundwater		pg/L	EPA 1613
2,3,7,8-TCDD (Low Resolution)	Solids		ug/kg	EPA 8280A
PCDD/PCDF (Low Resolution)	Solids		ug/kg	EPA 8280A
2,3,7,8-TCDD (High Resolution)	Solids		pg/g	EPA 1613
PCDD/PCDF (High Resolution)	Solids		pg/g	EPA 1613
Formaldehyde	Drinking water	30	ug/L	EPA 8315A
Langelier Index @ 20C	Drinking water	N/A	-	SM 2330B
Langelier Index @ 60C	Drinking water	N/A	-	SM 2330B
Cobalt Thiocyanate Active Surfactants (CTAS)	Drinking water	0.2	mg/L	SM 5540D
Azinphos methyl (Guthion)	Drinking water	0.15	ug/L	EPA 8141A
Demeton-o	Drinking water	0.1	ug/L	
Demeton-s	Drinking water	0.1	ug/L	
Ethyl parathion	Drinking water		ug/L	
Malathion	Drinking water	0.25	ug/L	
Methyl parathion	Drinking water		ug/L	
Perchlorate	Drinking water	4	ug/L	EPA 314.0
2,4,5-T	Wastewater		ug/L	EPA 8151A
2,4,5-TP (Silvex)	Wastewater		ug/L	EPA 8151A
Tributyltin	Wastewater		ug/L	Organo Tin GCMS
2,4,5-T	Solids	0.25	ug/L	EPA 8151A
2,4,5-TP (Silvex)	Solids	0.25	ug/L	
2,4-D	Solids	0.5	ug/L	
2,4-DB	Solids	2.5	ug/L	
3,5-Dichlorobenzoic Acid	Solids	1.2	ug/L	
4-Nitrophenol	Solids	1.2	ug/L	
Acifluorfen	Solids	0.5	ug/L	
Bentazon	Solids	2.5	ug/L	
Dalapon	Solids	0.5	ug/L	
DCPA	Solids	0.25	ug/L	
Dicamba	Solids	0.75	ug/L	
Dichloroprop	Solids	1	ug/L	
Dinoseb	Solids	0.5	ug/L	
MCPA	Solids	100	ug/L	
MCPP	Solids	100	ug/L	
Pentachlorophenol	Solids	0.25	ug/L	

## Scope of Work - Tasks 2 and 3 List of Analytes and Required Reporting Limits

Constituent	Sample Matrix	Required RL	Units	Analytical Method
Picloram	Solids	0.75	ug/L	

## **Scope of Work – Task 4**

### **Taxonomy**

1. Contractor will perform benthic macrofauna (infauna) laboratory analyses (taxonomic sorting, identification, and related data procedures) on 48 samples collected from Santa Monica Bay and 11 samples collected from Los Angeles Harbor.
2. Samples will have been collected by CLAEMD according to B'08 protocols.
3. Benthic macrofauna samples will be sorted according to Bight '08 protocols and quality control (QC) procedures.
4. Benthic macrofauna identification will be conducted by qualified taxonomists, endorsed by the Southern California Association of Marine Invertebrate Taxonomists (SCAMIT).
5. Benthic macrofauna data will be submitted according to City specifications (bench sheets) and to Bight '08 standard electronic data formats.
6. Data and samples (jars of grunge and vials of identified material) must be transferred back to CLAEMD seven months from receipt of samples from CLAEMD.

### **Field Work**

1. Contractor will provide scientific staff (one or two persons, based on need for any given field day) on an on-call (or on demand) basis to accompany and assist EMD scientific staff with field operations (trawling, CTD casts and associated discrete water sampling, benthic grabs) in Santa Monica Bay (SMB) and Los Angeles Harbor (LAH) aboard City monitoring vessels.
2. Benthic sampling season begins on July 1 and ends circa late July. Trawl sampling season typically begins early August and ends circa late August. Water Quality season is through out the year (staggered quarterly surveys).
3. Not all field days will require contractor services.
4. Contractor field scientific staff will be able to identify common demersal soft-bottom fish and/or megainvertebrates in SMB and LAH, record data on field sheets, and deploy and retrieve various equipment, including otter trawl net, Van Veen grab sampler, and CTD with carousel/rosette discrete water sampler.

#### Scope of Work – Task 4

5. City staff will perform all technical aspects of CTD electronics, including associated software operations. Contractor familiarity and knowledge in Seabird Electronics, Inc. software is preferable.
6. Contractor field staff will adhere to Southern California Bight 2008 Regional Monitoring Program (Bight '08) sediment grab and trawl methodology.
7. The City will provide all necessary field equipment necessary, including monitoring vessels, to perform field operations. SMB work is conducted from one vessel berthed in Marina del Rey and LAH work is conducted from another berthed in Ports 'o Call (San Pedro).
8. Typically, a field day will consist of eight (8) hours.
9. The estimated total number of possible field days for benthic macrofauna sampling is nine (9) in SMB and two (2) in LAH (see table below).
10. The estimated total number of possible field days for trawling is five (5) in SMB and two (2) in LAH (see table below).
11. The estimated total number of possible field days for water quality (CTD work) sampling is six (6) in SMB and two (2) in LAH (see table below).
12. The Contractor must adhere to all City safety policies, written or verbal, while conducting field operations on City monitoring vessels.

## Scope of Work – Task 5

The following analytical support is required for the Landfill NPDES Monitoring Programs:

- Herbicide Analysis by EPA 8151A –
  - Semiannually - 34 groundwater samples
  - Quarterly – 2 leachate samples
- 40 CFR 258, Appendix II Constituents
  - Annually – 1 seepage and 1 leachate sample
  - Every 5 years – 10 groundwater samples

### 40 CFR Part 258 Appendix II Constituents (EPA 8151A, EPA 8141A, EPA8260, & EPA8270C)

EPA 8151A		Units	Required MDL
2,4,5-T	EPA 8151A	ug/l	0.25
2,4,5-TP (Silvex)	EPA 8151A	ug/l	0.25
2,4-D	EPA 8151A	ug/l	0.5
2,4-DB	EPA 8151A	ug/l	2.5
2,4-DCAA	EPA 8151A	ug/l	0.5
3,5-Dichlorobenzoic acid	EPA 8151A	ug/l	1.2
4-Nitrophenol	EPA 8151A	ug/l	1.2
Acifluorfen	EPA 8151A	ug/l	0.5
Bentazon	EPA 8151A	ug/l	2.5
Dalapon	EPA 8151A	ug/l	0.5
DCPA	EPA 8151A	ug/l	0.25
Dicamba	EPA 8151A	ug/l	0.75
Dichloroprop	EPA 8151A	ug/l	1
Dinoseb	EPA 8151A	ug/l	0.5
MCPA	EPA 8151A	ug/l	100
MCPP	EPA 8151A	ug/l	100
Pentachlorophenol	EPA 8151A	ug/l	0.25
Picloram	EPA 8151A	ug/l	0.75

EPA 8141A		Units	Required MDL
Azinphos methyl (Guthion)	EPA 8141A	ug/l	0.15
Bolstar	EPA 8141A	ug/l	0.1
Chlorpyrifos	EPA 8141A	ug/l	0.1
Coumaphos	EPA 8141A	ug/l	0.1
Demeton-o	EPA 8141A	ug/l	0.1
Demeton-s	EPA 8141A	ug/l	0.1
Diazinon	EPA 8141A	ug/l	0.1
Dichlorvos	EPA 8141A	ug/l	0.15
Dimethoate	EPA 8141A	ug/l	0.25
Disulfoton	EPA 8141A	ug/l	0.1

## Scope of Work – Task 5

Ethoprop	EPA 8141A	ug/l	0.15
Ethyl parathion	EPA 8141A	ug/l	0.25
Fensulfothion	EPA 8141A	ug/l	0.1
Fenthion	EPA 8141A	ug/l	0.1
Malathion	EPA 8141A	ug/l	0.25
Merphos	EPA 8141A	ug/l	0.1
Methyl parathion	EPA 8141A	ug/l	0.1
Mevinphos	EPA 8141A	ug/l	0.1
Naled	EPA 8141A	ug/l	0.1
Phorate	EPA 8141A	ug/l	0.1
Ronnel	EPA 8141A	ug/l	0.1
Stirophos	EPA 8141A	ug/l	0.1
Tokuthion (Prothiofos)	EPA 8141A	ug/l	0.1
Trichloronate	EPA 8141A	ug/l	0.1
Thionazin	EPA 8141A	ug/l	0.25

### EPA 8260

		Units	Required MDL
1,1,1,2-Tetrachloroethane	EPA 8260	ug/L	1
1,1,1-Trichloroethane	EPA 8260	ug/L	1
1,1,2,2-Tetrachloroethane	EPA 8260	ug/L	1
1,1,2-Trichloroethane	EPA 8260	ug/L	1
1,1-Dichloroethane	EPA 8260	ug/L	1
1,1-Dichloroethylene	EPA 8260	ug/L	1
1,1-Dichloropropene	EPA 8260	ug/L	1
1,2,3-Trichloropropane	EPA 8260	ug/L	1
1,2,4-Trichlorobenzene	EPA 8260	ug/L	1
1,2-Dibromo-3-chloropropane	EPA 8260	ug/L	1
1,2-Dibromoethane	EPA 8260	ug/L	1
1,2-Dichlorobenzene	EPA 8260	ug/L	1
1,2-Dichloroethane	EPA 8260	ug/L	1
1,2-Dichloropropane	EPA 8260	ug/L	1
1,3-Dichlorobenzene	EPA 8260	ug/L	1
1,3-Dichloropropane	EPA 8260	ug/L	1
1,4-Dichlorobenzene	EPA 8260	ug/L	1
2,2-Dichloropropane	EPA 8260	ug/L	1
2-Butanone (MEK)	EPA 8260	ug/L	5
Acrolein	EPA 8260	ug/L	5
Acrylonitrile	EPA 8260	ug/L	5
Acetone	EPA 8260	ug/L	5
Benzene	EPA 8260	ug/L	1
Bromochloromethane	EPA 8260	ug/L	1
Bromodichloromethane	EPA 8260	ug/L	1
Bromoform	EPA 8260	ug/L	1
Carbon tetrachloride	EPA 8260	ug/L	1
Chlorobenzene	EPA 8260	ug/L	1

## Scope of Work – Task 5

Chlorodibromomethane	EPA 8260	ug/L	1
Chloroethane	EPA 8260	ug/L	1
Chloroform	EPA 8260	ug/L	1
cis-1,2-Dichloroethylene	EPA 8260	ug/L	1
cis-1,3-Dichloropropene	EPA 8260	ug/L	1
Dichlorodifluoromethane	EPA 8260	ug/L	1
Ethylbenzene	EPA 8260	ug/L	1
Methyl bromide	EPA 8260	ug/L	1
Methyl chloride	EPA 8260	ug/L	1
Methylene chloride	EPA 8260	ug/L	1
Naphthalene	EPA 8260	ug/L	1
Styrene	EPA 8260	ug/L	1
Tetrachloroethylene	EPA 8260	ug/L	1
Toluene	EPA 8260	ug/L	1
trans-1,2-Dichloroethylene	EPA 8260	ug/L	1
trans-1,3-Dichloropropene	EPA 8260	ug/L	1
Trichloroethylene	EPA 8260	ug/L	1
Trichlorofluoromethane	EPA 8260	ug/L	1
Vinyl chloride	EPA 8260	ug/L	1
Xylene	EPA 8260	ug/L	1
Acetonitrile	EPA 8260	ug/L	5
Allyl Chloride	EPA 8260	ug/L	1
Carbon disulfide	EPA 8260	ug/L	1
Methylene bromide	EPA 8260	ug/L	1
Chloroprene	EPA 8260	ug/L	1
Ethyl methacrylate	EPA 8260	ug/L	1
Methyl iodide	EPA 8260	ug/L	1
Isobutyl alcohol	EPA 8260	ug/L	5
Methacrylonitrile	EPA 8260	ug/L	5
Methyl methacrylate	EPA 8260	ug/L	1
trans-1,4-Dichloro-2-butene	EPA 8260	ug/L	1
Vinyl acetate	EPA 8260	ug/L	1
2-Hexanone (MBK)	EPA 8260	ug/L	5
4-Methyl-2-pentanone	EPA 8260	ug/L	5
Propionitrile	EPA 8260	ug/L	5

### EPA 8270C

		Units	Required MDL
2,4-Dinitrotoluene	EPA 8270C	ug/L	5
2,4,5-Trichlorophenol	EPA 8270C	ug/L	5
2,4,6-Trichlorophenol	EPA 8270C	ug/L	10
2,4-Dichlorophenol	EPA 8270C	ug/L	5
2,4-Dimethylphenol	EPA 8270C	ug/L	5
2,4-Dinitrophenol	EPA 8270C	ug/L	10
2,6-Dichlorophenol	EPA 8270C	ug/L	10
2,6-Dinitrotoluene	EPA 8270C	ug/L	5
2-Chloronaphthalene	EPA 8270C	ug/L	5

## Scope of Work – Task 5

2-Chlorophenol	EPA 8270C	ug/L	5
2-Methylphenol	EPA 8270C	ug/L	5
3-Methylcholantrene	EPA 8270C	ug/L	10
3-Methylphenol	EPA 8270C	ug/L	5
3,3-Dichlorobenzidine	EPA 8270C	ug/L	5
4-Bromophenyl phenyl ether	EPA 8270C	ug/L	5
4-Chlorophenyl phenyl ether	EPA 8270C	ug/L	5
4-Methylphenol	EPA 8270C	ug/L	5
2-Acethylaminofluorene	EPA 8270C	ug/L	10
Acenaphthene	EPA 8270C	ug/L	5
Acenaphthylene	EPA 8270C	ug/L	5
Anthracene	EPA 8270C	ug/L	5
Benzo(a)anthracene	EPA 8270C	ug/L	5
Benzo(b)fluoranthene	EPA 8270C	ug/L	5
Benzo(k)fluoranthene	EPA 8270C	ug/L	5
Bis(2-chloroethoxy)methane	EPA 8270C	ug/L	5
Bis(2-chloroethyl) ether	EPA 8270C	ug/L	5
Bis(2-chloro-1-methylethyl)ether	EPA 8270C	ug/L	TBD
Bis(2-ethylhexyl) phthalate	EPA 8270C	ug/L	5
Butyl benzyl phthalate	EPA 8270C	ug/L	5
p-Chloroaniline	EPA 8270C	ug/L	5
Chrysene	EPA 8270C	ug/L	5
Dibenz(a,h)anthracene	EPA 8270C	ug/L	5
alpha, alpha-Dimethylphenethylamine	EPA 8270C	ug/L	TBD
P-(Dimethylamino)azobenzene	EPA 8270C	ug/L	10
Diethyl phthalate	EPA 8270C	ug/L	5
Dimethyl phthalate	EPA 8270C	ug/L	5
Di-n-butyl phthalate	EPA 8270C	ug/L	5
Di-n-octyl phthalate	EPA 8270C	ug/L	5
4,6-Dintro-2-methylphenol	EPA 8270C	ug/L	10
Fluoranthene	EPA 8270C	ug/L	5
Fluorene	EPA 8270C	ug/L	5
Hexachlorobenzene	EPA 8270C	ug/L	5
Hexachlorobutadiene	EPA 8270C	ug/L	5
Hexachlorocyclopentadiene	EPA 8270C	ug/L	20
Hexachloroethane	EPA 8270C	ug/L	5
Indeno(1,2,3-cd)pyrene	EPA 8270C	ug/L	5
Isophorone	EPA 8270C	ug/L	5
N-Nitrosodimethylamine	EPA 8270C	ug/L	5
N-Nitrosodiphenylamine	EPA 8270C	ug/L	5
N-Nitrosodipropylamine	EPA 8270C	ug/L	5
Pentachlorophenol	EPA 8270C	ug/L	5
Phenanthrene	EPA 8270C	ug/L	5
p-Phenylenediamine	EPA 8270C	ug/L	10
Phenol	EPA 8270C	ug/L	5
Pyrene	EPA 8270C	ug/L	5
Nitrobenzene	EPA 8270C	ug/L	5

## Scope of Work – Task 5

0-Toluidine	EPA 8270C	ug/L	10
1,2,4,5-Tetrachlorobenzene	EPA 8270C	ug/L	10
1,4-Naphthoquinone	EPA 8270C	ug/L	10
2,3,4,6-Tetrachlorophenol	EPA 8270C	ug/L	10
2-Acetylamino fluorene	EPA 8270C	ug/L	5
2-Methylnaphthalene	EPA 8270C	ug/L	5
1-Naphthylamine	EPA 8270C	ug/L	10
2-Naphthylamine	EPA 8270C	ug/L	10
3,3-Dimethylbenzidine	EPA 8270C	ug/L	10
4-Aminobiphenyl	EPA 8270C	ug/L	10
4-Chloro-3-methylphenol	EPA 8270C	ug/L	5
5-Nitro-o-toluidine	EPA 8270C	ug/L	10
7,12-Dimethylbenz(a)anthracene	EPA 8270C	ug/L	10
Acetophenone	EPA 8270C	ug/L	10
Benzo(a)pyrene	EPA 8270C	ug/L	5
Benzo(g,h,i)perylene	EPA 8270C	ug/L	5
Benzyl alcohol	EPA 8270C	ug/L	5
Chlorobenzilate	EPA 8270C	ug/L	10
Diallate	EPA 8270C	ug/L	10
Dibenzofuran	EPA 8270C	ug/L	5
Dimethoate	EPA 8270C	ug/L	10
Diphenylamine	EPA 8270C	ug/L	10
Disulfoton	EPA 8270C	ug/L	10
Ethyl methanesulfonate	EPA 8270C	ug/L	10
Famphur	EPA 8270C	ug/L	10
Hexachloropropene	EPA 8270C	ug/L	10
Isodrin	EPA 8270C	ug/L	10
Isosafrole	EPA 8270C	ug/L	10
Kepone	EPA 8270C	ug/L	50
Methapyrilene	EPA 8270C	ug/L	50
Methyl methanesulfonate	EPA 8270C	ug/L	10
Methyl parathion	EPA 8270C	ug/L	10
N-Nitrosodiethylamine	EPA 8270C	ug/L	10
N-Nitrosodi-n-butylamine	EPA 8270C	ug/L	10
N-Nitrosomethylethylamine	EPA 8270C	ug/L	10
N-Nitrosopiperidine	EPA 8270C	ug/L	10
N-Nitrosopyrrolidine	EPA 8270C	ug/L	10
o,o,o-Triethyl phosphorothioate	EPA 8270C	ug/L	10
Parathion	EPA 8270C	ug/L	10
Pentachlorobenzene	EPA 8270C	ug/L	10
Pentachloronitrobenzene	EPA 8270C	ug/L	10
Phenacetin	EPA 8270C	ug/L	10
Phorate	EPA 8270C	ug/L	10
Pronamide	EPA 8270C	ug/L	10
Safrole	EPA 8270C	ug/L	10
4,4-DDD	EPA 8270C	ug/L	5
4,4-DDE	EPA 8270C	ug/L	5

## Scope of Work – Task 5

4,4-DDT	EPA 8270C	ug/L	5
Aldrin	EPA 8270C	ug/L	5
alpha-BHC	EPA 8270C	ug/L	5
beta-BHC	EPA 8270C	ug/L	5
delta-BHC	EPA 8270C	ug/L	5
Dieldrin	EPA 8270C	ug/L	5
Endosulfan I	EPA 8270C	ug/L	10
Endosulfan II	EPA 8270C	ug/L	10
Endosulfan sulfate	EPA 8270C	ug/L	5
Endrin aldehyde	EPA 8270C	ug/L	5
gamma-BHC (Lindane)	EPA 8270C	ug/L	5
Heptachlor	EPA 8270C	ug/L	5
Heptachlor epoxide	EPA 8270C	ug/L	5
Methoxychlor	EPA 8270C	ug/L	5
1,2- Diphenylhydrazine	EPA 8270C	ug/L	5
1,3,5-Trinitrobenzene	EPA 8270C	ug/L	10
1,3-Dinitrobenzene	EPA 8270C	ug/L	10
1,4-Phenylenediamine	EPA 8270C	ug/L	10
2-Nitroaniline	EPA 8270C	ug/L	5
3-Methylcholantrene	EPA 8270C	ug/L	10
2-Nitrophenol	EPA 8270C	ug/L	10
3-Nitroaniline	EPA 8270C	ug/L	5
4,6-Dintro-2-methylphenol	EPA 8270C	ug/L	10
4-Nitroaniline	EPA 8270C	ug/L	5
4-Nitrophenol	EPA 8270C	ug/L	10
Azobenzene	EPA 8270C	ug/L	5
Benzidine	EPA 8270C	ug/L	10
Bis(2-chloroisopropyl)ether	EPA 8270C	ug/L	5
Dimethylaminoazobenzene	EPA 8270C	ug/L	10
Endrin	EPA 8270C	ug/L	5
Hexachlorophene	EPA 8270C	ug/L	50
N-Nitrosomorpholine	EPA 8270C	ug/L	10
o-2-pyrazinylphosphorothioate	EPA 8270C	ug/L	10
Sulfotep	EPA 8270C	ug/L	10
1,2,4-Trichlorobenzene	EPA 8270C	ug/L	5
4-Chloroaniline	EPA 8270C	ug/L	5
Naphthalene	EPA 8270C	ug/L	5
o,o-Diethyl-0-2-pyrazinyl phosphorothioate (Thionazin)	EPA 8270C	ug/L	10

## **Scope of Work – Tasks 6, 7, and 8**

### **Task 6. Watershed Protection Support**

EMD routinely contracts one sample per month for analysis of metals in salt water matrix.

On an ad hoc basis, EMD periodically contracts out samples for various analyses, not performed in-house, needed by the Watershed Protection Division's Illicit Discharge Group to characterize illicit discharges into storm drains within the jurisdiction of the City of Los Angeles.

Also, on an ad hoc basis, EMD periodically contracts out samples for various analyses, not performed in-house, needed by the Watershed Protection Division's TMDL Group to characterize the effectiveness of pollutant removal by various stormwater BMPs.

### **Task 7. Industrial Waste Management Support**

Currently, EMD contracts out 9 samples per quarter for analysis of volatile pharmaceutical compounds by EPA Method 1666 and one sample each per quarter for analysis of thiosulfate and flashpoint.

Occasionally, EMD is required to contract out analyses of raw sewage and/or industrial waste samples in order to provide data for the Industrial Waste Management Division to characterize a new or proposed input into the City's sewerage system.

### **Task 8. Special Request Support**

Occasionally, EMD is asked to provide analytical support to some of the Bureau's various other programs and is required to contract out sampling and/or analytical services. The most recent example of this was a request from the Wastewater Collections Services Division to prepare a SCAQMD approved sample collection protocol, collect and analyze samples for total non-methane hydrocarbons and total reduced sulfur compounds, and to prepare and submit the test report to SCAQMD for permitting of one of the Bureau's Air Treatment Facilities.

Direction to Harry Pregerson Technical Support Facility Building at Hyperion Treatment Plant



**Address:**

Hyperion Treatment Plant, Main Gate (Gate C)  
Harry Pregerson Technical Support Facility (TSF) Building, 4th Floor, Room 405  
12000 Vista Del Mar  
Playa del Rey, CA 90293