



1 like, if needed by Consultant, shall be available only during City's normal business  
2 hours and provided that milestones for performance, if any, are met.

3 C. Consultant has requested to receive regular payments. City  
4 shall pay Consultant in due course of payments following receipt from Consultant  
5 and approval by City of invoices showing the services or task performed, the time  
6 expended (if billing is hourly), and the name of the Project. Consultant shall certify  
7 on the invoices that Consultant has performed the services in full conformance  
8 with this Agreement and is entitled to receive payment. Each invoice shall be  
9 accompanied by a progress report indicating the progress to date of services  
10 performed and covered by the invoice, including a brief statement of any Project  
11 problems and potential causes of delay in performance, and listing those services  
12 that are projected for performance by Consultant during the next invoice cycle.  
13 Where billing is done and payment is made on an hourly basis, the parties  
14 acknowledge that this arrangement is either customary practice for Consultant's  
15 profession, industry or business, or is necessary to satisfy audit and legal  
16 requirements which may arise due to the fact that City is a municipality.

17 D. Consultant represents that Consultant has obtained all  
18 necessary information on conditions and circumstances that may affect its  
19 performance and has conducted site visits, if necessary.

20 E. CAUTION: Consultant shall not begin work until this  
21 Agreement has been signed by both parties and until Consultant's evidence of  
22 insurance has been delivered to and approved by City.

23 2. TERM. The term of this Agreement shall commence at midnight on  
24 October 1, 2010, and shall terminate at 11:59 p.m. on September 30, 2013, unless  
25 sooner terminated as provided in this Agreement, or unless the services or the Project is  
26 completed sooner.

27 3. COORDINATION AND ORGANIZATION.

28 A. Consultant shall coordinate its performance with City's

1 representative, if any, named in Exhibit "C", attached to this Agreement and  
2 incorporated by this reference. Consultant shall advise and inform City's  
3 representative of the work in progress on the Project in sufficient detail so as to  
4 assist City's representative in making presentations and in holding meetings on  
5 the Project. City shall furnish to Consultant information or materials, if any,  
6 described in Exhibit "D", attached to this Agreement and incorporated by this  
7 reference, and shall perform any other tasks described in the Exhibit.

8 B. The parties acknowledge that a substantial inducement to City  
9 for entering this Agreement was and is the reputation and skill of Consultant's key  
10 employee, Joan V. Greenwood. City shall have the right to approve any person  
11 proposed by Consultant to replace that key employee.

12 4. INDEPENDENT CONTRACTOR. In performing its services,  
13 Consultant is and shall act as an independent contractor and not an employee,  
14 representative or agent of City. Consultant shall have control of Consultant's work and  
15 the manner in which it is performed. Consultant shall be free to contract for similar  
16 services to be performed for others during this Agreement; provided, however, that  
17 Consultant acts in accordance with Section 9 and Section 11 of this Agreement.  
18 Consultant acknowledges and agrees that (a) City will not withhold taxes of any kind from  
19 Consultant's compensation; (b) City will not secure workers' compensation or pay  
20 unemployment insurance to, for or on Consultant's behalf; and (c) City will not provide  
21 and Consultant is not entitled to any of the usual and customary rights, benefits or  
22 privileges of City employees. Consultant expressly warrants that neither Consultant nor  
23 any of Consultant's employees or agents shall represent themselves to be employees or  
24 agents of City.

25 5. INSURANCE.

26 A. As a condition precedent to the effectiveness of this  
27 Agreement, Consultant shall procure and maintain, at Consultant's expense for the  
28 duration of this Agreement, from insurance companies that are admitted to write

OFFICE OF THE CITY ATTORNEY  
ROBERT E. SHANNON, City Attorney  
333 West Ocean Boulevard, 11th Floor  
Long Beach, CA 90802-4664

1 insurance in California and have ratings of or equivalent to A:V by A.M. Best  
2 Company or from authorized non-admitted insurance companies subject to  
3 Section 1763 of the California Insurance Code and that have ratings of or  
4 equivalent to A:VIII by A.M. Best Company, the following insurance:

5 (a) Commercial general liability insurance (equivalent in scope to  
6 ISO form CG 00 01 11 85 or CG 00 01 10 93) in an amount not less than  
7 \$1,000,000 per each occurrence and \$2,000,000 general aggregate. This  
8 coverage shall include but not be limited to broad form contractual liability,  
9 cross liability, independent contractors liability, and products and  
10 completed operations liability. City, its boards and commissions, and their  
11 officials, employees and agents shall be named as additional insureds by  
12 endorsement (on City's endorsement form or on an endorsement  
13 equivalent in scope to ISO form CG 20 10 11 85 or CG 20 26 11 85 or  
14 both CG 20 10 07 04 and CG 20 37 07 04 or both CG 20 33 07 04 and  
15 CG 20 37 07 04), and this insurance shall contain no special limitations on  
16 the scope of protection given to City, its boards and commissions, and  
17 their officials, employees and agents. This policy shall be endorsed to  
18 state that the insurer waives its right of subrogation against City, its boards  
19 and commissions, and their officials, employees and agents.

20 (b) Workers' Compensation insurance as required by the California  
21 Labor Code and employer's liability insurance in an amount not less than  
22 \$1,000,000. This policy shall be endorsed to state that the insurer waives  
23 its right of subrogation against City, its boards and commissions, and their  
24 officials, employees and agents.

25 (c) Professional liability or errors and omissions insurance in an  
26 amount not less than \$1,000,000 per claim.

27 (d) Commercial automobile liability insurance (equivalent in scope  
28 to ISO form CA 00 01 06 92), covering Auto Symbol 1 (Any Auto) in an

1 amount not less than \$500,000 combined single limit per accident.

2 B. Any self-insurance program, self-insured retention, or  
3 deductible must be separately approved in writing by City's Risk Manager or  
4 designee and shall protect City, its officials, employees and agents in the same  
5 manner and to the same extent as they would have been protected had the policy  
6 or policies not contained retention or deductible provisions.

7 C. Each insurance policy shall be endorsed to state that  
8 coverage shall not be reduced, non-renewed or canceled except after thirty (30)  
9 days prior written notice to City, shall be primary and not contributing to any other  
10 insurance or self-insurance maintained by City, and shall be endorsed to state that  
11 coverage maintained by City shall be excess to and shall not contribute to  
12 insurance or self-insurance maintained by Consultant. Consultant shall notify City  
13 in writing within five (5) days after any insurance has been voided by the insurer or  
14 cancelled by the insured.

15 D. If this coverage is written on a "claims made" basis, it must  
16 provide for an extended reporting period of not less than one hundred eighty (180)  
17 days, commencing on the date this Agreement expires or is terminated, unless  
18 Consultant guarantees that Consultant will provide to City evidence of  
19 uninterrupted, continuing coverage for a period of not less than three (3) years,  
20 commencing on the date this Agreement expires or is terminated.

21 E. Consultant shall require that all subconsultants or contractors  
22 that Consultant uses in the performance of these services maintain insurance in  
23 compliance with this Section unless otherwise agreed in writing by City's Risk  
24 Manager or designee.

25 F. Prior to the start of performance, Consultant shall deliver to  
26 City certificates of insurance and the endorsements for approval as to sufficiency  
27 and form. In addition, Consultant shall, within thirty (30) days prior to expiration of  
28 the insurance, furnish to City certificates of insurance and endorsements

1 evidencing renewal of the insurance. City reserves the right to require complete  
2 certified copies of all policies of Consultant and Consultant's subconsultants and  
3 contractors, at any time. Consultant shall make available to City's Risk Manager  
4 or designee all books, records and other information relating to this insurance,  
5 during normal business hours.

6 G. Any modification or waiver of these insurance requirements  
7 shall only be made with the approval of City's Risk Manager or designee. Not  
8 more frequently than once a year, City's Risk Manager or designee may require  
9 that Consultant, Consultant's subconsultants and contractors change the amount,  
10 scope or types of coverages required in this Section if, in his or her sole opinion,  
11 the amount, scope or types of coverages are not adequate.

12 H. The procuring or existence of insurance shall not be  
13 construed or deemed as a limitation on liability relating to Consultant's  
14 performance or as full performance of or compliance with the indemnification  
15 provisions of this Agreement.

16 6. ASSIGNMENT AND SUBCONTRACTING. This Agreement  
17 contemplates the personal services of Consultant and Consultant's employees, and the  
18 parties acknowledge that a substantial inducement to City for entering this Agreement  
19 was and is the professional reputation and competence of Consultant and Consultant's  
20 employees. Consultant shall not assign its rights or delegate its duties under this  
21 Agreement, or any interest in this Agreement, or any portion of it, without the prior  
22 approval of City, except that Consultant may with the prior approval of the City Manager  
23 of City, assign any moneys due or to become due Consultant under this Agreement. Any  
24 attempted assignment or delegation shall be void, and any assignee or delegate shall  
25 acquire no right or interest by reason of an attempted assignment or delegation.  
26 Furthermore, Consultant shall not subcontract any portion of its performance without the  
27 prior approval of the City Manager or designee, or substitute an approved subconsultant  
28 or contractor without approval prior to the substitution. Nothing stated in this Section

1 shall prevent Consultant from employing as many employees as Consultant deems  
2 necessary for performance of this Agreement.

3           7.    CONFLICT OF INTEREST.    Consultant, by executing this  
4 Agreement, certifies that, at the time Consultant executes this Agreement and for its  
5 duration, Consultant does not and will not perform services for any other client which  
6 would create a conflict, whether monetary or otherwise, as between the interests of City  
7 and the interests of that other client. And, Consultant shall obtain similar certifications  
8 from Consultant's employees, subconsultants and contractors.

9           8.    MATERIALS.    Consultant shall furnish all labor and supervision,  
10 supplies, materials, tools, machinery, equipment, appliances, transportation and services  
11 necessary to or used in the performance of Consultant's obligations under this  
12 Agreement, except as stated in Exhibit "D".

13           9.    OWNERSHIP OF DATA.    All materials, information and data  
14 prepared, developed or assembled by Consultant or furnished to Consultant in  
15 connection with this Agreement, including but not limited to documents, estimates,  
16 calculations, studies, maps, graphs, charts, computer disks, computer source  
17 documentation, samples, models, reports, summaries, drawings, designs, notes, plans,  
18 information, material and memorandum ("Data") shall be the exclusive property of City.  
19 Data shall be given to City, and City shall have the unrestricted right to use and disclose  
20 the Data in any manner and for any purpose without payment of further compensation to  
21 Consultant. Copies of Data may be retained by Consultant but Consultant warrants that  
22 Data shall not be made available to any person or entity for use without the prior approval  
23 of City. This warranty shall survive termination of this Agreement for five (5) years.

24           10. TERMINATION.    Either party shall have the right to terminate this  
25 Agreement for any reason or no reason at any time by giving fifteen (15) calendar days  
26 prior notice to the other party. In the event of termination under this Section, City shall  
27 pay Consultant for services satisfactorily performed and costs incurred up to the effective  
28 date of termination for which Consultant has not been previously paid. The procedures

1 for payment in Section 1.B. with regard to invoices shall apply. On the effective date of  
2 termination, Consultant shall deliver to City all Data developed or accumulated in the  
3 performance of this Agreement, whether in draft or final form, or in process. And,  
4 Consultant acknowledges and agrees that City's obligation to make final payment is  
5 conditioned on Consultant's delivery of the Data to City.

6 11. CONFIDENTIALITY. Consultant shall keep all Data confidential and  
7 shall not disclose the Data or use the Data directly or indirectly, other than in the course  
8 of performing its services, during the term of this Agreement and for five (5) years  
9 following expiration or termination of this Agreement. In addition, Consultant shall keep  
10 confidential all information, whether written, oral or visual, obtained by any means  
11 whatsoever in the course of performing its services for the same period of time.  
12 Consultant shall not disclose any or all of the Data to any third party, or use it for  
13 Consultant's own benefit or the benefit of others except for the purpose of this  
14 Agreement.

15 12. BREACH OF CONFIDENTIALITY. Consultant shall not be liable for  
16 a breach of confidentiality with respect to Data that: (a) Consultant demonstrates  
17 Consultant knew prior to the time City disclosed it; or (b) is or becomes publicly available  
18 without breach of this Agreement by Consultant; or (c) a third party who has a right to  
19 disclose does so to Consultant without restrictions on further disclosure; or (d) must be  
20 disclosed pursuant to subpoena or court order.

21 13. ADDITIONAL COSTS AND REDESIGN.

22 A. Any costs incurred by City due to Consultant's failure to meet  
23 the standards required by the scope of work or Consultant's failure to perform fully  
24 the tasks described in the scope of work which, in either case, causes City to  
25 request that Consultant perform again all or part of the Scope of Work shall be at  
26 the sole cost of Consultant and City shall not pay any additional compensation to  
27 Consultant for its re-performance.

28 B. If the Project involves construction and the scope of work

1 requires Consultant to prepare plans and specifications with an estimate of the  
2 cost of construction, then Consultant may be required to modify the plans and  
3 specifications, any construction documents relating to the plans and specifications,  
4 and Consultant's estimate, at no cost to City, when the lowest bid for construction  
5 received by City exceeds by more than ten percent (10%) Consultant's estimate.  
6 This modification shall be submitted in a timely fashion to allow City to receive new  
7 bids within four (4) months after the date on which the original plans and  
8 specifications were submitted by Consultant.

9 14. AMENDMENT. This Agreement, including all Exhibits, shall not be  
10 amended, nor any provision or breach waived, except in writing signed by the parties  
11 which expressly refers to this Agreement.

12 15. LAW. This Agreement shall be governed by and construed pursuant  
13 to the laws of the State of California (except those provisions of California law pertaining  
14 to conflicts of laws). Consultant shall comply with all laws, ordinances, rules and  
15 regulations of and obtain all permits, licenses and certificates required by all federal, state  
16 and local governmental authorities.

17 16. ENTIRE AGREEMENT. This Agreement, including all Exhibits,  
18 constitutes the entire understanding between the parties and supersedes all other  
19 agreements, oral or written, with respect to the subject matter in this Agreement.

20 17. INDEMNITY.

21 A. Consultant shall indemnify, protect and hold harmless City, its  
22 Boards, Commissions, and their officials, employees and agents ("Indemnified  
23 Parties"), from and against any and all liability, claims, demands, damage, loss,  
24 obligations, causes of action, proceedings, awards, fines, judgments, penalties,  
25 costs and expenses, including attorneys' fees, court costs, expert and witness  
26 fees, and other costs and fees of litigation, arising or alleged to have arisen, in  
27 whole or in part, out of or in connection with (1) Consultant's breach or failure to  
28 comply with any of its obligations contained in this Agreement, or (2) negligent or

1 willful acts, errors, omissions or misrepresentations committed by Consultant, its  
2 officers, employees, agents, subcontractors, or anyone under Consultant's control,  
3 in the performance of work or services under this Agreement (collectively "Claims"  
4 or individually "Claim").

5 B. In addition to Consultant's duty to indemnify, Consultant shall  
6 have a separate and wholly independent duty to defend Indemnified Parties at  
7 Consultant's expense by legal counsel approved by City, from and against all  
8 Claims, and shall continue this defense until the Claims are resolved, whether by  
9 settlement, judgment or otherwise. No finding or judgment of negligence, fault,  
10 breach, or the like on the part of Consultant shall be required for the duty to defend  
11 to arise. City shall notify Consultant of any Claim, shall tender the defense of the  
12 Claim to Consultant, and shall assist Consultant, as may be reasonably requested,  
13 in the defense.

14 C. If a court of competent jurisdiction determines that a Claim  
15 was caused by the sole negligence or willful misconduct of Indemnified Parties,  
16 Consultant's costs of defense and indemnity shall be (1) reimbursed in full if the  
17 court determines sole negligence by the Indemnified Parties, or (2) reduced by the  
18 percentage of willful misconduct attributed by the court to the Indemnified Parties.

19 D. The provisions of this Section shall survive the expiration or  
20 termination of this Agreement.

21 18. AMBIGUITY. In the event of any conflict or ambiguity between this  
22 Agreement and any Exhibit, the provisions of this Agreement shall govern.

23 19. COSTS. If there is any legal proceeding between the parties to  
24 enforce or interpret this Agreement or to protect or establish any rights or remedies under  
25 it, the prevailing party shall be entitled to its costs, including reasonable attorneys' fees.

26 20. NONDISCRIMINATION.

27 A. In connection with performance of this Agreement and subject  
28 to applicable rules and regulations, Consultant shall not discriminate against any

1 employee or applicant for employment because of race, religion, national origin,  
2 color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap or  
3 disability. Consultant shall ensure that applicants are employed, and that  
4 employees are treated during their employment, without regard to these bases.  
5 These actions shall include, but not be limited to, the following: employment,  
6 upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or  
7 termination; rates of pay or other forms of compensation; and selection for training,  
8 including apprenticeship.

9 B. It is the policy of City to encourage the participation of  
10 Disadvantaged, Minority and Women-Owned Business Enterprises in City's  
11 procurement process, and Consultant agrees to use its best efforts to carry out  
12 this policy in its use of subconsultants and contractors to the fullest extent  
13 consistent with the efficient performance of this Agreement. Consultant may rely  
14 on written representations by subconsultants and contractors regarding their  
15 status. Consultant shall report to City in May and in December or, in the case of  
16 short-term agreements, prior to invoicing for final payment, the names of all  
17 subconsultants and contractors hired by Consultant for this Project and information  
18 on whether or not they are a Disadvantaged, Minority or Women-Owned Business  
19 Enterprise, as defined in Section 8 of the Small Business Act (15 U.S.C. Sec.  
20 637).

21 21. EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in  
22 accordance with the provisions of the Ordinance, this Agreement is subject to the  
23 applicable provisions of the Equal Benefits Ordinance (EBO), section 2.73 et seq. of the  
24 Long Beach Municipal Code, as amended from time to time.

25 A. During the performance of this Agreement, the Consultant  
26 certifies and represents that the Consultant will comply with the EBO. The  
27 Consultant agrees to post the following statement in conspicuous places at its  
28 place of business available to employees and applicants for employment:

1           “During the performance of a contract with the City of Long Beach,  
2           the Consultant will provide equal benefits to employees with spouses and its  
3           employees with domestic partners. Additional information about the City of  
4           Long Beach’s Equal Benefits Ordinance may be obtained from the City of  
5           Long Beach Business Services Division at 562-570-6200.”

6           B.     The failure of the Consultant to comply with the EBO will be  
7           deemed to be a material breach of the Agreement by the City.

8           C.     If the Consultant fails to comply with the EBO, the City may  
9           cancel, terminate or suspend the Agreement, in whole or in part, and monies due  
10          or to become due under the Agreement may be retained by the City. The City  
11          may also pursue any and all other remedies at law or in equity for any breach.

12          D.     Failure to comply with the EBO may be used as evidence  
13          against the Consultant in actions taken pursuant to the provisions of Long Beach  
14          Municipal Code 2.93 et seq., Contractor Responsibility.

15          E.     If the City determines that the Consultant has set up or used  
16          its contracting entity for the purpose of evading the intent of the EBO, the City may  
17          terminate the Agreement on behalf of the City. Violation of this provision may be  
18          used as evidence against the Consultant in actions taken pursuant to the  
19          provisions of Long Beach Municipal Code Section 2.93 et seq., Contractor  
20          Responsibility.

21          22.    NOTICES. Any notice or approval required by this Agreement shall  
22          be in writing and personally delivered or deposited in the U.S. Postal Service, first class,  
23          postage prepaid, addressed to Consultant at the address first stated above, and to City at  
24          333 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager, with a  
25          copy to the City Engineer at the same address. Notice of change of address shall be  
26          given in the same manner as stated for other notices. Notice shall be deemed given on  
27          the date deposited in the mail or on the date personal delivery is made, whichever occurs  
28          first.

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23. COPYRIGHTS AND PATENT RIGHTS.

A. Consultant shall place the following copyright protection on all Data: © City of Long Beach, California \_\_\_\_\_, inserting the appropriate year.

B. City reserves the exclusive right to seek and obtain a patent or copyright registration on any Data or other result arising from Consultant's performance of this Agreement. By executing this Agreement, Consultant assigns any ownership interest Consultant may have in the Data to City.

C. Consultant warrants that the Data does not violate or infringe any patent, copyright, trade secret or other proprietary right of any other party. Consultant agrees to and shall protect, defend, indemnify and hold City, its officials and employees harmless from any and all claims, demands, damages, loss, liability, causes of action, costs or expenses (including reasonable attorney's fees) whether or not reduced to judgment, arising from any breach or alleged breach of this warranty.

24. COVENANT AGAINST CONTINGENT FEES. Consultant warrants

that Consultant has not employed or retained any entity or person to solicit or obtain this Agreement and that Consultant has not paid or agreed to pay any entity or person any fee, commission or other monies based on or from the award of this Agreement. If Consultant breaches this warranty, City shall have the right to terminate this Agreement immediately notwithstanding the provisions of Section 10 or, in its discretion, to deduct from payments due under this Agreement or otherwise recover the full amount of the fee, commission or other monies.

25. WAIVER. The acceptance of any services or the payment of any

money by City shall not operate as a waiver of any provision of this Agreement or of any right to damages or indemnity stated in this Agreement. The waiver of any breach of this Agreement shall not constitute a waiver of any other or subsequent breach of this Agreement.

26. CONTINUATION. Termination or expiration of this Agreement shall

1 not affect rights or liabilities of the parties which accrued pursuant to Sections 7, 10, 11,  
2 17, 19, 22 and 28 prior to termination or expiration of this Agreement.

3 27. TAX REPORTING. As required by federal and state law, City is  
4 obligated to and will report the payment of compensation to Consultant on Form 1099-  
5 Misc. Consultant shall be solely responsible for payment of all federal and state taxes  
6 resulting from payments under this Agreement. Consultant shall submit Consultant's  
7 Employer Identification Number (EIN), or Consultant's Social Security Number if  
8 Consultant does not have an EIN, in writing to City's Accounts Payable, Department of  
9 Financial Management. Consultant acknowledges and agrees that City has no obligation  
10 to pay Consultant until Consultant provides one of these numbers.

11 28. ADVERTISING. Consultant shall not use the name of City, its  
12 officials or employees in any advertising or solicitation for business or as a reference,  
13 without the prior approval of the City Manager or designee.

14 29. AUDIT. City shall have the right at all reasonable times during the  
15 term of this Agreement and for a period of five (5) years after termination or expiration of  
16 this Agreement to examine, audit, inspect, review, extract information from and copy all  
17 books, records, accounts and other documents of Consultant relating to this Agreement.

18 30. THIRD PARTY BENEFICIARY. This Agreement is not intended or  
19 designed to or entered for the purpose of creating any benefit or right for any person or  
20 entity of any kind that is not a party to this Agreement.

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1 IN WITNESS WHEREOF, the parties have caused this document to be duly  
2 executed with all formalities required by law as of the date first stated above.

3 CSC TARGHEE, INC., a California  
4 corporation

5 \_\_\_\_\_, November 5, 2010

By [Signature]  
President  
Franco A. Seif  
Type or Print Name

7 \_\_\_\_\_, November 5, 2010

8 By [Signature]  
Secretary  
Brian Clark  
Type or Print Name

10 "Consultant"

11 CITY OF LONG BEACH, a municipal  
12 corporation  
13 Assistant City Manager  
Assistant City Manager

14 \_\_\_\_\_, 11.29, 2010

By [Signature]  
City Manager  
EXECUTED PURSUANT  
TO SECTION 301 OF  
THE CITY CHARTER.

15 "City"

16 This Agreement is approved as to form on Nov. 17, 2010.

17 ROBERT E. SHANNON, City Attorney

18 By [Signature]  
Deputy

19 OFFICE OF THE CITY ATTORNEY  
20 ROBERT E. SHANNON, City Attorney  
21 333 West Ocean Boulevard, 11th Floor  
22 Long Beach, CA 90802-4664

# **EXHIBIT A**



City of Long Beach  
Long Beach CA 90802

### **3.1 SCOPE OF SERVICES**

The Consultant will provide water quality monitoring services, maintain existing equipment, and provide any additional equipment necessary to meet the City's monitoring requirements. The City owns monitoring equipment currently installed at each of the four existing mass emission monitoring sites. All water monitoring will follow 40 CFR 122.41(j) as required in the City's NPDES permit ([http://www.longbeach.gov/pw/stormwater\\_management/municipal\\_permit.asp](http://www.longbeach.gov/pw/stormwater_management/municipal_permit.asp)), page 24 of 34, Item B#1 through #5, with details of implementation as directed by the City with concurrence of the Regional Board.

The activities to be performed under this contract will include water quality sampling, equipment operations and maintenance, field observations, analytical laboratory testing, bioassay testing with Toxicity Identification Evaluations (TIEs), data analyses, data interpretation, annual report preparation, assistance with presentations to regulatory agencies, meeting attendance, and general consulting with the City on the stormwater monitoring program. Assistance with revisions to the program may be required as necessitated by the NPDES permit conditions, ongoing monitoring results, and the Regional Board, including cooperation and participation in certain regional studies.

A range of special studies may be required over the life of the permit. These may include a wide range of topics requiring a wide range of experience in water quality, sediment quality, toxicology, and biology. Special studies would typically focus on evaluation of stormwater impacts.

### **3.2 Mass Emission Monitoring Site Location**

Monitoring sites specified in the permit are as follows:

- Basin 14: Dominguez Gap Pump Station Monitoring Site
- Basin 20: Bouton Creek Monitoring Site
- Basin 23: Belmont Pump Station Monitoring Site
- Portions of Basins 18, 19, 27 and 29: Los Cerritos Channel Monitoring Site

### **3.3 Monitoring Equipment**

Each of the four mass emission monitoring sites has been equipped with telemetered, automatic flow-compositing stormwater samplers. These systems include acoustic Doppler flow meters and/or pressure transducers, a datalogger/control module, cellular or landline telecommunications equipment, a rain gauge, and a peristaltic sampler. The Bouton Creek site also incorporates a pressure and multiple conductivity sensors for accomplishing the required discharge sampling at this intertidal site.

All equipment installed at the monitoring site is owned by the City. It is expected that two of the autosamplers will need to be replaced over the next few years. Most other equipment has been recently upgraded and replaced. The Consultant, however, will be responsible for calibration and maintenance of all equipment at these existing sites, including replacement of any disposal items such as deep cycle marine batteries.



### **3.4 Sampling Frequencies**

#### **3.4.1 Wet Weather Events**

Four storm events are to be monitored each year during the wet-weather period between October 1 and April 15 for each of the four mass emission monitoring sites.

Stormwater monitoring (for TSS only) is also required at the four mass emission sampling sites during all storm events where rainfall is forecast to equal or exceed 0.25 inches.

#### **3.4.2 Dry Weather Events**

Inspections and water quality sampling are to be done twice during the dry weather season at each of three mass emission monitoring sites. Dry weather flows are now permanently diverted from one of the monitoring sites. Typically, one sampling is carried out early in the summer (e.g., May-June) and one later (e.g., September).

### **3.5 Samples and Observations**

#### **3.5.1 Wet Weather Events**

Flow measurements and rainfall data are to be continuously recorded at each of the four mass emission stations throughout the wet weather season. During all rain events, the frequency of recording will be increased so that the flow hydrograph and rain gauge data can be obtained and real-time control of the sampler can be accomplished. A flow-composited water quality sample is required from each of the mass emission stations for chemical analysis and toxicity testing for four storm events per year. In addition, grab samples are to be taken during the rising or near the peak of the hydrograph for oil and grease, total recoverable petroleum hydrocarbons (TRPH), total and fecal coliform, and enterococcus testing.

During all additional events exceeding 0.25 inches of rainfall, flow-composited samples will be obtained from each mass emission site and analyzed only for total suspended solids (TSS).

#### **3.5.2 Dry Weather Events**

Inspections at each site will include whether water is present and whether this water is flowing or just ponded. At sites that are found not to have flowing water, inspections will be conducted in the upstream drains to verify that flow is not occurring into the site. When flowing water is present at one of these mass emission sites, then water quality measurements, flow estimates, and water samples will be taken along with observation of site conditions. Temperature, conductivity, and oxygen are to be measured at the site. For stations where flowing water is encountered, time-composited samples are to be taken along with grab samples (oil & grease, TRPH, and bacteria). Where possible, time composites are to be taken over a 24-hour period in order to ensure that representative samples are obtained.



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On occasion, elevated pH levels have been observed at two of the sites. When high pH levels occur, immediate upstream investigations must be performed to assist in determining if the pH excursions are due to in-stream effects or can be attributed to specific source areas.

### **3.6 Laboratory Analysis**

#### **3.6.1 Chemical Analysis**

The initial water quality constituents selected for this program were established based upon the requirements of the City's NPDES permit for stormwater discharges. Based upon the early results of this monitoring program, the Regional Board has modified the analyte list and the required target detection limits. The current list of required chemical analytes, analytical methods, holding times, and reporting limits is given in Table 1.

#### **3.6.2 Toxicity Analysis**

The toxicity of each discharge sample is to be evaluated using two chronic test methods: the water flea (*Ceriodaphnia dubia*) reproduction and survival test (freshwater) and the purple sea urchin (*Strongylocentrotus purpuratus*) fertilization test (marine). Toxicity testing is to be conducted on flow-rated composite samples from all sites except the Dominguez Gap Pump Station.

Toxicity Identification Evaluations (TIEs) are to be run on discharge samples that exhibit substantial ( $\geq 2$  TU<sub>c</sub> baseline toxicity for water fleas and  $\geq 3$  TU<sub>c</sub> for sea urchins), in order to determine the characteristics of the toxins present. This strategy provides one full TU<sub>c</sub> above the minimum detection limit of each test to allow assessment of the primary toxin. Four or five treatments are applied to each sample. These treatments are particle removal, trace metal chelation, nonpolar organic extraction, organophosphate deactivation (except urchins) and chemical reduction. With the exception of organics extraction, each treatment is applied independently on a salinity-adjusted sample. Test methods are given in Table 2. A maximum of two TIEs are to be conducted for each species at each station during the wet weather season. During dry weather monitoring, a maximum of one TIE is required to be conducted for each species at each station.

Toxicity testing of the Dominguez Pump Station discharge was eliminated by the Regional Board prior to the 2002/2003 monitoring program.

### **3.7 Quality Assurance**

Internal laboratory quality control checks include the use of internal standards, method blanks, matrix spike/spike duplicates, duplicates, laboratory control spikes, and Standard Reference Materials. Data validation is to be performed in accordance with the National Functional Guidelines for Low Level Organic Data Review and Inorganic Data Review (EPA540-R-00-006), and Guidance on the Documentation and Evaluation of Trace Metals Data Collected for the Clean Water Act Compliance Monitoring (EPA/821/B/95/002).



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External QA/QC must include a blind duplicate from one site for each event given the availability of adequate sample volume.

Toxicity testing quality assurance procedures are to be specific for each test protocol specified. These quality assurance procedures are to include control samples and a reference toxicant test to document the health of test organisms and the validity of the test conditions. Results are also to be compared to established performance criteria for control survival, reproduction, reference toxicant sensitivity, sample storage, and test conditions. Any deviations from the performance criteria such as control charts are to be noted in the laboratory records and prompted corrective action, ranging from a repeat of the test to adjustment of laboratory equipment. These are to include detailed monitoring and documentation of all test conditions.

### **3.8 Reporting**

Two types of reports will be required: Monthly Contract Progress Reports and Annual Stormwater Monitoring Reports. The Monthly Contract Progress Reports will be provided with each invoice submittal as internal tracking documents. The Annual Stormwater Monitoring Reports are required to be submitted to the Regional Board as permit compliance.

Required contents of the Annual Monitoring Report are specified in the NPDES permit. At a minimum, the report must provide comparisons with appropriate benchmark water quality levels and provide estimates of annual pollutant loads from each mass emission monitoring station. The report shall also provide a complete analysis of all data collected by the program to date and provide recommendations for improvements or program adjustments that would help to better address overall program objectives.

A draft of the Annual Stormwater Monitoring Report will be prepared in accordance with NPDES permit requirements, page 15 of 34, Item H.1.a, b and c) and will be submitted to the Public Works Department by the consultant. The draft report is to be submitted on or before June 30<sup>th</sup> of each year. A final report will be submitted to the Department each year that will contain corrections based upon review comments and will be suitable for submission to the Regional Board by July 15<sup>th</sup> for permit compliance. All chemical and bioassay data are to be maintained in a database format suitable to the City and any special requirements that may be specified by the Regional Board.

### **3.9 Consultation, Presentations, and Meetings**

In addition to the monitoring program elements defined above, assistance may be required for presentations to regulatory agencies, for project meetings attendance, and for general consulting with the City on the stormwater monitoring program. Assistance with revisions to the program may be required as necessitated by the NPDES permit conditions, ongoing monitoring results, and by the Regional Board, including cooperation/participation in certain regional studies.

A minimum of three to four meetings each year will be required with the Public Works Department to exchange necessary information, discuss the proposed work, set up a schedule of activities, and to present findings of the study to the Regional Board.



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**Table 1 Analytical Methods, Holding Times and Reporting Limits**

<b>Analyte and Reporting Unit</b>	<b>EPA Method No.</b>	<b>Holding Time</b>	<b>Target Reporting Limit</b>
<b>Chlorinated Pesticides (µg/L)</b>			
Aldrin	8081A	7 days	0.005
alpha-BHC	8081A	7 days	0.01
beta-BHC	8081A	7 days	0.005
delta-BHC	8081A	7 days	0.005
gamma-BHC (lindane)	8081A	7 days	0.02
alpha-Chlordane	8081A	7 days	0.1
gamma-Chlordane	8081A	7 days	0.1
4,4'-DDD	8081A	7 days	0.05
4,4'-DDE	8081A	7 days	0.05
4,4'-DDT	8081A	7 days	0.01
Dieldrin	8081A	7 days	0.01
Endosulfan I	8081A	7 days	0.02
Endosulfan II	8081A	7 days	0.01
Endosulfan sulfate	8081A	7 days	0.05
Endrin	8081A	7 days	0.01
Endrin Aldehyde	8081A	7 days	0.01
Heptachlor	8081A	7 days	0.01
Heptachlor Epoxide	8081A	7 days	0.01
Toxaphene	8081A	7 days	0.5
<b>PCBs (µg/L)</b>			
Aroclor-1016	8081A	7 days	0.5
Aroclor-1221	8081A	7 days	0.5
Aroclor-1232	8081A	7 days	0.5
Aroclor-1242	8081A	7 days	0.5
Aroclor-1248	8081A	7 days	0.5
Aroclor-1254	8081A	7 days	0.5
Aroclor-1260	8081A	7 days	0.5
Total PCBs	8081A	7 days	0.5
<b>ORGANOPHOSPHATE PESTICIDES (µg/L)</b>			
Diazinon	8141A	7 days	0.01
Chlorpyrifos (Dursban)	8141A	7 days	0.05
Malathion	8141A	7 days	1.0
Prometryn	8141A	7 days	1.0
Atrazine	8141A	7 days	1.0
Simazine	8141A	7 days	1.0
Cyanazine	8141A	7 days	1.0
<b>CONVENTIONAL PARAMETERS</b>			
Oil and Grease (mg/L)	1664	28 days	5.0
Total Phenols (mg/L)	420.1	28 days	0.1
pH (units)	150.1	ASAP	0-14



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Orthophosphate-P (mg/L)	365.3	48 hours	0.01
Total Phosphorus (mg/L)	365.3	28 days	0.05
Analyte and Reporting Unit	EPA Method No.	Holding Time	Target Reporting Limit
Turbidity (NTU)	180.1	48 hours	1.0
Total Suspended Solids (mg/L)	160.2	7 days	1.0
Total Dissolved Solids (mg/L)	160.1	7 days	1.0
Volatile Suspended Solids (mg/L)	160.4	7 days	1.0
Total Organic Carbon (mg/L)	415.1	28 days	1.0
Biochemical Oxygen Demand (mg/L)	405.1	48 hours	4.0
Chemical Oxygen Demand (mg/L)	410.1	28 days	4.0
Total Ammonia-Nitrogen (mg/L)	350.2	28 days	0.1
Total Kjeldahl Nitrogen (mg/L)	351.3	28 days	0.1
Nitrite Nitrogen (mg/L)	300.0	48 hours	0.1
Nitrate Nitrogen (mg/L)	300.0	48 hours	0.1
Alkalinity, as CaCO <sub>3</sub> (mg/L)	310.1	48 hours	5.0
Specific Conductance (µmhos/cm)	120.1	48 hours	1.0
Total Hardness (mg/L)	130.2	180 days	1.0
MBAS (mg/L)	425.1	48 hours	0.02
Chloride (mg/L)	300.0	48 hours	1.0
Fluoride (mg/L)	300.0	48 hours	0.1
<b>BACTERIA (MPN/100 ml)</b>			
Total Coliform	SM 9221B	6 hours	<20
Fecal Coliform	SM 9221B	6 hours	<20
Enterococcus	SM 9230C	6 hours	<20
<b>TOTAL AND DISSOLVED METALS (µg/L)<sup>1</sup></b>			
Aluminum	200.8	180 days	100
Arsenic	200.8	180 days	0.5
Cadmium	200.8	180 days	0.25
Chromium	200.8	180 days	0.5
Copper	200.8	180 days	0.5
Iron	236.1	180 days	25
Lead	200.8	180 days	0.5
Nickel	200.8	180 days	1.0
Selenium	200.8	180 days	1.0
Silver	200.8	180 days	.25
Zinc	200.8	180 days	1.0

1. Samples to be analyzed for dissolved metals are to be filtered within 48 hours.

**Table 2 Toxicity Testing and Toxicity Identification Evaluations (TIEs)**

Test Type	SPECIES	METHOD	END POINTS
<b>BIOASSAY TESTING</b>			
Water Flea	<i>Ceriodaphnia dubia</i>	USEPA 1994c	6-8 day survival and reproduction
Sea Urchin	<i>Strongylocentrotus</i>	USEPA	20 minute fertilization test



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	purpuratus	1995b	
<b>TOXICITY IDENTIFICATION EVALUATIONS (TIEs) Phase I</b>			
Freshwater	<i>Ceriodaphnia dubia</i>	USEPA 1991	96 hour survival
Marine	<i>Strongylocentrotus purpuratus</i>	USEPA 1996	20 minute fertilization test

## References Cited

- APHA [American Public Health Association]. 1995. Standard Methods for the Examination of Water and Waste Water. (19th edition) Eaton, A.D., L.S. Clesceri, and A.E. Greenberg(Eds.). American Public Health Association, Washington D.C.
- California Regional Water Quality Control Board, Los Angeles Region. 1999. Waste Discharge Requirements for Municipal Stormwater and Urban Runoff Discharges within the City of Long Beach. Order No. 99-060 National Pollutant Discharge Elimination Systems Municipal Permit No. CAS004003 (CI 8052), June 30, 1999.
- USEPA [U.S. Environmental Protection Agency]. 1983. Methods for the Chemical Analyses of Water and Wastes. EPA-600/4-79/020. Revised March 1983.
- USEPA [U.S. Environmental Protection Agency]. 1991. Methods for Aquatic Toxicity Identification Evaluations. Phase I, Toxicity Characterization Procedures (2nd Ed.) EPA/600/6-91/003. Office of Research and Development.
- USEPA [U.S. Environmental Protection Agency]. 1994a. Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (Third Edition). Vol. EPA-600/4-91/002. Cincinnati, OH: U.S. Environmental Protection Agency, National Exposure Research Laboratory:
- USEPA [U.S. Environmental Protection Agency]. 1994b. Short-Term Methods of Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. Edited by D. J. Klemm, G. E. Morrison, T. J. Norberg-King, W. H. Peltier and M. A. Heber. Vol. EPA/600/4-91/003. Cincinnati, OH: Environmental Monitoring Systems Laboratory: 6
- USEPA [U.S. Environmental Protection Agency]. 1995a. Guidance on Documentation and Evaluation of Trace Metals Data Collected for the Clean Water Act Compliance Monitoring. Vol. EPA/821/B-95/002. Washington D.C.: U.S. Environmental Protection Agency, Office of Water, Engineering, and Analysis Division.
- USEPA [U.S. Environmental Protection Agency]. 1995b. Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. Edited by G. A. Chapman, D. L. Denton and J. M. Lazorchak. First ed. Cincinnati, OH: Office of Research and Development.
- USEPA [U.S. Environmental Protection Agency]. 1996. Marine Toxicity Identification (TIE) Phase I Guidance Document. EPA/600/R-95/054. Office of Research and Development, Washington D.C.



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USEPA [U.S. Environmental Protection Agency]. 2001. USEPA Functional Guidelines for Low Level Concentration Organic Data Review. EPA540-R-00-006

USEPA [U.S. Environmental Protection Agency]. 2002. USEPA Functional Guidelines for Inorganic Data Review. EPA 540-R-01-008

## **EXHIBIT B**

CSC TARGHEE, INCORPORATED

SCHEDULE OF FEES  
Effective October 1, 2010 Through September 30, 2013

Targhee provides its Clients with consulting services in environmental management, planning, auditing, inspection, permitting, environmental forensics, water quality monitoring, regulatory compliance and resource management. Compensation is based upon the following schedule of fees and charges.

HOURLY PROFESSIONAL FEE RATES (SPECIAL STUDIES)

Principal .....	\$195
Study/Project Director .....	\$185
Senior Project Manager/Scientist/Engineer/Geologist .....	\$165
Sr. Engineer/Sr. Scientist .....	\$150
Research/Field Analyst/Field Technician II .....	\$ 85
Word Processor/Administrative Assistant .....	\$ 80
Clerical .....	\$ 50

KEY PROJECT PERSONNEL

Project Principal .....	\$195
Program/Contract Manager .....	\$115
Technical Policy Analyst .....	\$275
Technical Director .....	\$125
Project Manager .....	\$120
Associate Project Manager .....	\$120
Research Associate .....	\$ 75
Project Accountant .....	\$ 75

DEPOSITION PROFESSIONAL FEE RATES

Principal/Designated Expert .....	\$450/hour; \$2,000/day minimum
All other Project Managers/Professionals .....	\$250/hour

In addition, travel time, other direct costs and out-of-pocket expenses will be charged at cost per this Schedule of Fees.

OVERTIME FACTORS for FIELD WORK and SHORT NOTICE RESPONSE ACTIONS		
Occasion	Factor	Labor Categories Affected
Holiday	2.0	Field Technician
Weekend	1.5	Field Technician
Night (8 p.m. to 7 a.m.)	1.5	Field Technician

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OTHER DIRECT CHARGES & NTE UNIT FEES			
Charge	Price/Unit	Charge	Price/Unit
Computer Drafting (In-house)	\$85.00/Hour	Subcontracted Copying Services	Vendor Invoice
Field Instruments (Rental)	Vendor Invoice	Subcontracted Marine Field Sampling	Time & Materials
Field Instruments (Parghee-owned)	\$75 - \$100/Day	Field Sampling Supplies	\$11.50/Sample
Monitoring Equipment Servicing and Replacement	Time & Materials	Subcontracted Graphic Services	Vendor Invoice
Mileage	\$0.57/mile	TSS Grab Sampling (>0.25 Inch Rainfall Predicted)	\$939/Event (NTE)
Laboratory Testing & Bioassays	Per Attached Price List	pH Excursion Investigation & Report	\$469/Event (NTE)
Subcontracted Services: Special Studies	Time & Materials	Phase I TTEs for Freshwater Species	\$2,875
Phase I TTEs for Marine Species	\$3,450		

Travel charges, such as airfare, lodgings, meals, vehicle rentals, communications, etc., will be invoiced at cost. Complete and detailed backup will be supplied with invoices.

Laboratory Price List						
October 1, 2010 Through September 30, 2013						
Municipal Stormwater Runoff and Dry Weather Water Quality Monitoring						
						Unit Price
Chlorinated Pesticides (8081A)						\$103.50
PCBs ((8081A/8082)						\$74.75
Organophosphate Pesticides (8141A)						\$115.00
Oil & Grease (1664)						\$46.00
Total Phenols (420.1)						\$46.00
pH (150.1)						\$11.50
Orthophosphate-P (365.3)						\$25.30
Total Phosphate (365.3)						\$25.30
Turbidity (189.1)						\$17.25
Total Dissolved Solids (160.1)						\$17.25
Volatile Suspended Solids (160.4)						\$17.25
Total Organic Carbon (415.1)						\$34.50
Biochemical Oxygen Demand (405.1)						\$34.50
Chemical Oxygen Demand (410.1)						\$30.00
Total Ammonia-Nitrogen (350.2/350.3)						\$28.75
Total Kjeldahl Nitrogen (351.3)						\$31.05
Nitrite/Nitrate Nitrogen (300.0)						\$28.75
Alkalinity, as CaCO <sub>3</sub> (310.1)						\$17.25
Specific Conductance (120.1)						\$17.25
Total Hardness ((130.2)						\$17.25
MBAS (425,1)						\$40.25
Chloride (300.0)						\$17.25
Fluoride (300.0)						\$25.30
Total and Dissolved Metals (200.8)						\$575.00
<b>Bacteria Testing</b>						
Total Coliform (SM 9221B)						\$17.25
Fecal Coliform (SM 9221B)						\$17.25
Enterococcus (SM9230C)						\$23.00
<b>Bioassay Testing</b>						
Water Flea (USEPA 1994, 6-8 day survival and reproduction), Definitive (5 dilutions)						\$1,311.00
Sea Urchin (USEPA 1995b, 20-minute fertilization test, Definitive (5 dilutions)						\$983.25
<b>Other Parameters</b>						
Cyanide						\$46
Dissolved Oxygen (360.1)						\$23
Base/Neutral Acids (625/8250)						\$190
SVOCs/PAH (8270)						\$173
Fecal Streptococcus						\$21

<b>Toxicity Identification Evaluations (TIEs) Phase I</b>					<b>Unit Cost</b>		
Freshwater: Water Flea, USEPA 1991, 96-hour survival					\$ 2,875.00		
Marine: Sea Urchin, USEPA 1996, 20-minute fertilization					\$ 3,450.00		

# EXHIBIT “C”

City’s Representative:

Anthony Arevalo

(562) 570-6023

# EXHIBIT “D”

Materials/Information Furnished: None