

COPY

COOPERATIVE AGREEMENT
FOR
SHARING THE COST OF PREPARING A
303(d) MONITORING PLAN and POLLUTANT LOAD MODEL

THIS AGREEMENT, ENTERED INTO ON _____, is by and between the

CITY OF GOLETA, a municipal corporation, referred to herein as "CITY",

and

Santa Barbara County, Public Works Department, Water Resources Division, Project Clean Water, a political subdivision of the State of California, referred to herein as "COUNTY PCW".

WHEREAS, public entities with storm drain systems are required by state and federal law to prepare a 303(d) Monitoring Plan ("Plan") and Pollutant Load Model ("Model") to measure the source and volume of specified pollutants in urban surface water runoff pursuant to the Federal Clean Water Act (33 U.S.C., § 1313);

WHEREAS, the Municipal Storm Sewer System ("MS4") Permit for each public entity requires that the Plan and Model be implemented in conformance with the Stormwater Ambient Monitoring Program ("SWAMP") guidance, and as part of the required Quality Assurance Project Plan ("QAPP") and Program Effectiveness Assessment and Improvement Plan ("PEAIP") for each public entity;

WHEREAS, the COUNTY PCW, CITY, Buellton, Carpinteria and Solvang (the latter four entities shall collectively be referred to as "Partner Cities") have decided that they would benefit from sharing the cost of the professional services needed to prepare a Model and Plan that meets MS4 Permit implementation requirements;

WHEREAS, the COUNTY PCW has negotiated and directly entered into contracts with Geosyntec Engineers, Inc. (See Exhibit A), Weck Laboratories Inc. (See Exhibit B), and Aquatic Bioassay Consulting Laboratories (See Exhibit C) (collectively "Consultants") to develop a Model and Plan as required by state and federal law that will comply with the implementation conditions of the MS4 Permit for each entity ("PROJECT");

WHEREAS, if each of the Partner Cities desire to have its PROJECT completed by the Consultants, they must separately enter into an agreement with the COUNTY PCW;

WHEREAS, Buellton, Carpinteria and Solvang have already executed an agreement with the COUNTY PCW to have the Consultants complete the PROJECT; and

WHEREAS, the CITY now desires to execute an agreement with the COUNTY PCW to have the Consultants complete its PROJECT.

Now therefore, it is mutually agreed as follows:

1. Consultant Contracts

COUNTY PCW agrees to complete the PROJECT for CITY. CITY understands that in performing this work, COUNTY PCW will rely on Consultants or other subcontractors for some or all of the work required to complete PROJECT.

2. Payment

CITY shall pay its proportionate share of the costs required to complete PROJECT as outlined in Exhibit D. CITY shall pay any invoice provided by COUNTY PCW within 30 days receipt of the invoice.

3. Extra Work

No work that would cause Goleta's share of the costs to exceed the amounts delineated in Exhibit D shall be incurred unless the work is approved by the City in writing.

4. Termination

Either party may terminate this Agreement upon providing thirty (30) days written notice to the other party. Within ten (10) days receipt of CITY's written request to terminate, COUNTY PCW shall modify its contracts with each Consultant to terminate services performed for CITY. All compensation for actual work performed and charges outstanding at the time of termination shall be payable by CITY within thirty (30) days receipt of invoice from COUNTY PCW and a final statement by each Consultant.

5. Indemnity

Neither the COUNTY PCW nor any officer or employee thereof shall be responsible for any damage or liability occurring by reason of anything done or omitted to be done by the CITY under or in connection with any work, authority or jurisdiction delegated to CITY under this Agreement. It is also agreed that, pursuant to California Government Code Section 895.4, CITY shall fully indemnify and hold COUNTY PCW harmless from any liability imposed for injury (as defined by Government Code Section 810.8) occurring by reason of anything done or omitted to be done by City under or in connection with any work, authority or jurisdiction delegated to CITY under this Agreement.

Neither CITY nor any officer or employee thereof shall be responsible for any damage or liability occurring by reason of anything done or omitted to be done by COUNTY PCW and its consultants, contractors and employees under or in connection with any work, authority or

jurisdiction delegated to COUNTY PCW under this Agreement. It is also agreed that, pursuant to California Government Code Section 895.4, COUNTY PCW shall fully indemnify and hold CITY harmless from any liability imposed for injury (as defined by Government Code Section 810.8) occurring by reason of anything done or omitted to be done by COUNTY PCW, its consultants, contractors and employees under or in connection with any work, authority or jurisdiction delegated to COUNTY PCW under this Agreement.

6. Amendment

This Agreement may be amended or adjusted by the parties, from time to time, only in writing approved by both parties.

7. Partial Invalidity

If any provision of this Agreement is determined to be invalid, illegal or unenforceable for any reason, that provision shall be deleted from this Agreement and such deletion shall in no way affect, impair, or invalidate any other provision of this Agreement, unless it was material to the consideration for the performance required. If a provision is deleted which is not material to such consideration, the remaining provisions shall be given the force and effect originally intended.

8. Waivers

No waiver of any breach of any covenant or provision herein will be deemed a waiver of any preceding or succeeding breach thereof, or of any other covenant or provision herein contained. No extension of time for the performance of any obligation or act will be deemed an extension of the time for the performance of any other obligation or act.

9. Construction of Terms

Headings at the beginning of each paragraph and subparagraph are solely for the convenience of the parties and are not a part of this Agreement. Whenever required by the context of this Agreement, the singular shall include the plural and the masculine shall include the feminine and vice versa. This Agreement will not be construed as if it had been prepared by one of the parties, but rather as if all parties had prepared the same. Unless otherwise indicated, all references herein to sections and paragraphs are to this Agreement. All exhibits referred to in this Agreement are attached and incorporated by this reference.

10. Governing Law

The parties agree that this Agreement will be governed by, interpreted under, and construed and enforced in accordance with the laws of the United States of America and the State of California. In any action arising in connection with this Agreement, venue will be in the County of Santa Barbara, State of California, United States of America.

11. Notices

Any communications and notices permitted or required hereunder will be in writing and will be deemed given by (a) personal delivery at the time it is delivered, or (b) depositing said notice in the United States mail, postage prepaid and addressed as follows:

COUNTY PCW

John Karamitsos, Project Clean Water Manager
123 E. Anapamu St
Santa Barbara, CA 93101
Ph 805-568-3373
johnk@cosbpw.net

CITY

City of Goleta
Attn: Everett King, Environmental Services Coordinator
130 Cremona Drive, Suite B
Goleta, California 93117
eking@cityofgoleta.org

Any notice mailed as described above will be deemed to have been given as of the time the same is deposited in the United States mail. Any party may change its address for notice purposes by giving notice of such change in the manner set forth above.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first above written.

County of Santa Barbara

City of Goleta

Date: _____

Date: _____

By: _____
SCOTT D. MCGOLPIN
Public Works Director

By: _____
MICHELLE GREENE
City Manager

ATTEST:

By: _____
DEBORAH LOPEZ
City Clerk

APPROVED AS TO FORM:
MICHAEL GHIZZONI
County Counsel

APPROVED AS TO FORM:
TIM GILES
City Attorney

By: _____
Deputy

By: _____

APPROVED AS TO ACCOUNTING FORM:
THEODORE A. FALLATI, CPA
Auditor-Controller

By: _____
Deputy

APPROVED AS TO FORM:
RAY AROMATARIO, ARM, AIC
Risk Manager

By: _____

EXHIBIT A



3415 S. Sepulveda Blvd, Suite 500
Los Angeles, CA 90034
PH 310.957.6100
FAX 310.957.6101
www.geosyntec.com

29 September 2015

Ms. Cathleen Garnand
Santa Barbara County
Department of Public Works
Santa Barbara, CA 93101

Subject: TMDL WAAP 2015 Revision Budget Request

Dear Ms. Garnand:

This scope of work is to provide a simple, tailored spreadsheet-based load calculator capable of prioritizing catchments and quantifying baseline stormwater pollutant loads and pollutant load reductions achieved by the program as a whole (MS4 permit requirement, Program Effectiveness Assessment and improvement Plan [PEAIP], E.14.a.[II].[a].6). This scope of work includes the following tasks:

- Task 1: PM and Meetings
- Task 2: Data Compilation
- Task 3: Draft Model
- Task 4: Finalize Model and Create Guidance Document
- Task 5: Documentation of Initial Results

Task 1: PM and Meetings

Geosyntec will provide Project Management, and attend up to three conference calls and up to two in-person meetings. For each meeting, Geosyntec will provide meeting agendas and summaries.

Task 2: Data Compilation

Geosyntec will request, review, and compile the necessary datasets and GIS shapefiles (e.g., watershed boundaries, subcatchment delineations, city and County MS4 urban area boundaries, land uses, priority pollutants, monitoring data, etc.), as identified in the modeling approach memo (i.e., a separate submittal that is currently under development). These datasets will cover the following five jurisdictions: unincorporated Santa Barbara County, Buellton, Solvang, Goleta, and Carpinteria. Geosyntec will also collect other relevant input datasets as needed (e.g.,

land use pollutant Event Mean Concentrations (EMCs), BMP performance data, rain data, soil types, imperviousness, etc.).

Task 2A: Calibration of land use pollutant EMCs (Optional)

This optional task would use existing Central Coast receiving water and/or outfall monitoring data and SWMM generated hydrology in a multiple regression model to estimate land use specific runoff concentrations. Santa Barbara Channelkeeper, CCAMP, and Santa Barbara County have dissolved copper, dissolved zinc, *E.coli*, nitrate, phosphate, and TSS receiving water monitoring data at over 20 locations in Carpinteria, Goleta, and Orcutt that would be considered for use in calibration. If additional datasets exist, they could be included in the calibration but are not included in this cost estimate.

Task 3: Draft Model

Geosyntec will create a simple, easy to use model to estimate average annual baseline pollutant loads -- from the full watersheds, the jurisdictional MS4 areas, and the subcatchments -- using a static average-annual land use based spreadsheet calculation (using land use pollutant statistics from existing Geosyntec databases for Southern California or land use monitoring data as available).

Geosyntec will design the spreadsheet model with the ability to support Santa Barbara County agencies in producing a useful and credible catchment prioritization that reflects County-specific priority water body-pollutant combination (WBPCs). The priority WBPCs will be provided by the County for each watershed or jurisdictional area and may be based on TMDLs, 303(d) listings, local monitoring data, and/or typical urban stormwater pollutants of concern. Model results for baseline conditions (i.e., pre-BMP) will be presented in tabular form, pdf maps, and GIS shapefiles.

The model will also contain a static spreadsheet approach to estimate pollutant load reductions anticipated from new proposed non-structural BMPs, consistent with methodologies established by Southern California precedent and available literature. These quantifiable BMPs may include implementation of post-construction requirements, LID incentives programs, inspection of non-MS4 permitted parcels, and a general category of other non-structural and institutional BMPs.

The model will be designed in a flexible and intuitive manner to allow for future use and modification as the jurisdictions collect additional land use monitoring data, BMP performance data, and/or expand their BMP implementation programs. The model will contain a summary tab that provides jurisdictional results in a graphically appealing format and allows for easy transfer to reports. An overview and demonstration of the model will be presented to the jurisdictions.

Pollutants available for modeling include: indicator bacteria, nutrients (total nitrogen, total phosphorus, nitrate, total kjeldahl nitrogen, dissolved phosphorus), metals (total copper, total lead, total zinc), and/or TSS. Land uses available for modeling include: commercial, industrial, transportation, education, multi-family residential, single family residential, agriculture, and open space. The model will address wet weather loading only.

If requested, for an additional fee, a GIS-based analysis of potential structural BMP opportunity sites can also be provided. This would follow established, Geosyntec-developed methodologies for identifying and prioritizing structural retrofit opportunity sites, cross-referenced against implementation constraints (e.g., areas of sensitive habitat, shallow or impacted groundwater, non-infiltrative soils, steep slopes or landslide/liquefaction risk, etc.), and would require parcel boundaries and ownership information. This information could be used to support future BMP planning efforts such as grant applications.

Task 3A: Model Dry Weather Baseline Load and Load Reductions

This optional task would incorporate dry weather estimates for the average annual baseline pollutant loads -- from the full watersheds, the jurisdictional MS4 areas, and the subcatchments. Dry weather estimates for pollutant load reductions anticipated from new proposed non-structural BMPs, consistent with methodologies established by Southern California precedent and available literature. These quantifiable BMPs may include implementation of irrigation runoff reduction programs, inspection of commercial and industrial areas, IDDE program enhancements, and a general category of other non-structural and institutional BMPs. Pollutants available for modeling include: indicator bacteria, nutrients (total nitrogen, total phosphorus, nitrate), metals (total copper, total lead, total zinc), and/or TSS. Land uses available for modeling include: commercial, industrial, transportation, multi-family residential, single family residential, agriculture, and open space.

Task 4: Final Model and Guidance Document

Geosyntec will incorporate one round of comments on the draft model into the finalized xls version. Additionally, Geosyntec will create a draft and final memo providing guidance on how to use and make basic modifications to the model.

Task 5: Documentation of Initial Results

Geosyntec will develop a draft and final memo documenting the modeling approach, input data, assumptions, and initial results (i.e., baseline conditions and one proposed suite of non-structural BMPs for each jurisdiction). This document may be used by the MS4 agencies as part of their annual report and for assisting jurisdictions in tracking their long-term program effectiveness. Results will also be calculated for the Orcutt MS4 permit area and summarized in the County's WAAP for the Santa Maria River TMDLs.

Assumptions

The proposed scope, schedule and budget are based on the following are assumptions:

1. For Task 2, the jurisdictions will provide the following GIS shapefiles: watershed boundaries, subcatchment delineations, city boundaries and County MS4 urban area boundaries, land uses, storm drains, MS4 outfalls, and roadways.
2. For Task 3 and 4, one draft and one final model to be provided, with comments on the draft to be provided within 10 working days. Electronic versions only (editable word document and pdf versions). No consolidation of comments; County to provide as one set.
3. For Task 3, the model will not be designed to support parcel-level siting, quantification of water quality benefits, or estimation of costs for structural BMPs.
4. For Task 4, and 5, one draft and one final memo for the initial results to be provided, with comments on the draft to be provided within 5 working days. Electronic versions only (editable word document and pdf versions). No consolidation of comments; County to provide as one set.
5. For Task 4, and 5, one draft and one final memo for the guidance document to be provided, with comments on the draft to be provided within 10 working days. Electronic versions only (editable word document and pdf versions). No consolidation of comments; County to provide as one set.

SCHEDULE

Assuming the receipt of the notice to proceed by September 9 and all requested GIS data by September 16, the schedule will be:

- The draft documentation of initial results (excluding pollutant reductions) will be provided by September 23, 2015
- The draft model and final documentation of initial results will be provided by October 13, 2015
- The draft model and guidance document will be provided by October 30, 2015
- The final guidance document will be provided by November 27, 2015

PAYMENT

The work will be performed on a time and materials basis, according to the following budget and the attached 2015 Rate Schedule.

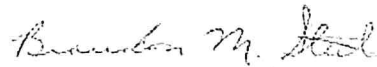
Staff	Hourly Rate	Task 1	Task 2	Task 3	Task 4	Task 5	Total Hours	Total Cost
		PM. and meetings	Data Compilation	Draft Model	Final Model and Guidance Document	Documentation of Initial Results		
Principal	235	0	0	0	0	0	0	\$0
Associate	218	13	0	10	5	10	38	\$8,284
Senior Professional	198	0	0	0	0	0	0	\$0
Project Professional	177	0	0	0	0	0	0	\$0
Professional	155	20.5	12	40	18	28	118.5	\$18,368
Senior Staff Professional	135	0	0	0	0	0	0	\$0
Staff Professional	115	16	60	88	48	48	260	\$29,900
Project Administrator	60	4	0	0	0	0	4	\$240
Total Hours		54	72	138	71	86	421	
Communication Fee (3%)		\$243	\$263	\$555	\$282	\$361		\$1,704
Specialized Computer Applications (GIS)		\$0	\$240	\$0	\$0	\$0		\$240
Total Cost		\$8,334	\$9,263	\$19,055	\$9,682	\$12,401		\$58,735
With Optional Subtask 2A			\$15,221					\$73,957
With Optional Subtask 3A				\$13,550				\$72,285
With Both Optional Subtasks			\$15,221	\$13,550				\$87,506

Ms. Garnand
23 July 2015
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The estimates above are allocations based upon current anticipated work; hourly distributions among staff may vary from those shown above.

Thank you for this opportunity to continue our work with you.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brandon M. Steets".

Brandon Steets
Principle

**GEOSYNTEC CONSULTANTS
2015 RATE SCHEDULE**

<u>Engineer/Scientist</u>	<u>Rate/Hour</u>
Staff Professional	\$115
Senior Staff Professional	\$135
Professional	\$155
Project Professional	\$177
Senior Professional	\$198
Associate	\$218
Principal	\$235
 <u>Construction Services</u>	
Engineering Technician I	\$ 59
Engineering Technician II	\$ 66
Senior Engineering Technician I	\$ 72
Senior Engineering Technician II	\$ 76
Site Manager I	\$ 84
Site Manager II	\$ 93
Construction Manager	\$106
 <u>Design, Graphical, and Administrative Services</u>	
Designer	\$127
Senior Drafter/Senior CADD Operator	\$ 112
Drafter/CADD Operator/Artist	\$ 98
Project Administrator	\$ 60
Clerical	\$ 50
 <u>General</u>	
Direct Expenses	Cost plus 12%
Subcontract Services	Cost plus 12%
Technology/Communications Fee	3% of Professional Fees
Specialized Computer Applications (per hour)	\$ 15
Personal Automobile (per mile)	Current Gov't Rate
Photocopies (per page)	\$.09

Rates are provided on a confidential basis and are client and project specific.
Unless otherwise agreed, rates will be adjusted annually based on a minimum of the applicable Consumer Price Index (CPI).

Rates for field equipment, health and safety equipment, and graphical supplies presented upon request.

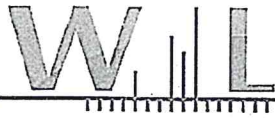


EXHIBIT B

WECK LABORATORIES, INC.

Analytical Laboratory Service - Since 1964

Analytical Service Quotation

Contact: Bree Belyea
Client Name: County of Santa Barbara - Public Works
Address: 123 East Anapamu Street
 Santa Barbara, CA 93101
Phone: (805) 568-3321
Fax: (805) 568-3434

Printed: 9/24/2015
Effective: 09/24/15
Expires: 06/30/16

Project: Stormwater Monitoring

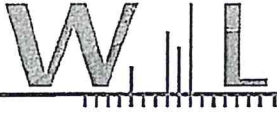
Code	Method	Qty	TAT (workdays)	Unit Price	Extended Price
Water					
Aluminum - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Ammonia-N - EPA 350.1	EPA 350.1	1	15	\$25.00	\$25.00
Cadmium - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Copper - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
EPA 508 - Organochlorine Pesticides & PCBs	EPA 508	1	15	\$100.00	\$100.00
EPA 525.2 SIM or QQQ - OPP low-level	EPA 525.2	1	15	\$190.00	\$190.00
EPA 531.1 - Carbamates	EPA 531.1	1	15	\$95.00	\$95.00
Hardness, Total 200.7	_Varies	1	15	\$20.00	\$20.00
Iron - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Lead - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Nitrate-N - EPA 353.2	EPA 353.2	1	15	\$15.00	\$15.00
Nitrite-N - EPA 353.2	EPA 353.2	1	15	\$15.00	\$15.00
NO2+NO3-N - EPA 353.2	EPA 353.2	1	15	\$15.00	\$15.00
Orthophosphate-P - EPA 365.3	EPA 365.3	1	15	\$25.00	\$25.00
Orthophosphate-P, dissolved - EPA 365.3	EPA 365.3	1	15	\$30.00	\$30.00
Phosphorus Dissolved - EPA 365.1	EPA 365.1	1	15	\$35.00	\$35.00
Phosphorus, Total as P - EPA 365.1	EPA 365.1	1	15	\$40.00	\$40.00
Pyrethroid Pesticides by GC/MS SIM	GC/MS NCI-SIM	1	15	\$190.00	\$190.00
Total Kjeldahl Nitrogen by EPA 351.2	EPA 351.2	1	15	\$35.00	\$35.00
Total Nitrogen by calculation	Calculation	1	15	\$10.00	\$10.00
Total Suspended Solids - SM2540D	SM 2540D	1	15	\$15.00	\$15.00
Zinc - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Additional Items					
Digestion for total metals		1		\$15.00	\$15.00
Diuron+ 3 degradedates (DCPMU DCPU DCA) - 1st sample		1		\$375.00	\$375.00
Diuron+ 3 degradedates (DCPMU DCPU DCA) - 2nd sample		1		\$250.00	\$250.00
Filtration for dissolved metals		0		\$15.00	\$0.00
Neonicotinoid Pesticides by LCMSMS - 1st sample		1		\$375.00	\$375.00
Neonicotinoid Pesticides by LCMSMS - 2nd sample		1		\$250.00	\$250.00

Bid Total: \$2,180.00

Hardness, Total 200.7 consists of:
 Magnesium - EPA 200.7 Calcium - EPA 200.7

Total Nitrogen by calculation consists of:
 Total Kjeldahl Nitrogen by EPA 351.2 NO2+NO3-N - EPA 353.2

Comments:
 2 locations per storm event, up to 8 times per storm season. The drainage areas include residential, industrial, commercial and agricultural land uses. The project will continue for three years. Diuron and degradedates [DCPMU (3-(3,4-dichlorophenyl)-1-methylurea), DCPU (3,4-dichlorophenylurea), and 3,4-DCA (3,4-dichloroaniline)]. Neonicotinoid pesticides: acetamiprid, clothianidin, dinotefuran, imidacloprid, thiacloprid and thiamethoxam



Leo Raab
Marketing Director

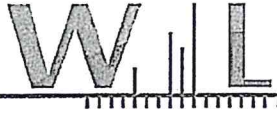
Payment terms are NET 30 days from invoice date. New accounts require payment prior to the release of test results until a credit application has been approved. Weck Laboratories accepts credit card payments (VISA/Master Card, American Express). Credit application/credit card approval form and Weck Laboratories' terms & conditions can be found at www.wecklabs.com under Resources

Method Reporting Limits (MRL) and Method Detection Limits (MDL) are based upon specified sample volume or weight. When matrix interferences are apparent, sample amounts may be reduced during the preparation step and/or may be diluted prior to analysis. This is done to reduce analytical interference and instrumental contamination and will result in elevated MRL/MDL on the test report.

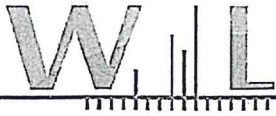


Analytical Method Information

Analyte	MDL	MRL	Units	Surr. % R	DUP RPD	Matrix Spike		Blank Spike		CASNumber
						% R	RPD	% R	RPD	
Aluminum - EPA 200.8 by EPA 200.8 (Water)										
Aluminum, Total	1.3	5.0	ug/l	-	30	70-130	30	85-115	30	7429-90-5
Ammonia-N - EPA 350.1 by EPA 350.1 (Water)										
Ammonia as N	0.048	0.10	mg/l	-	15	90-110	15	90-110	15	7664-41-7
Cadmium - EPA 200.8 by EPA 200.8 (Water)										
Cadmium, Total	0.041	0.10	ug/l	-	30	70-130	30	85-115	30	7440-43-9
Copper - EPA 200.8 by EPA 200.8 (Water)										
Copper, Total	0.13	0.50	ug/l	-	30	70-130	30	85-115	30	7440-50-8
EPA 508 - Organochlorine Pesticides & PCBs by EPA 508 (Water)										
4,4'-DDD	0.00090	0.010	ug/l	-	25	62-144	25	55-142	25	72-54-8
4,4'-DDE	0.0018	0.010	ug/l	-	25	53-134	25	49-129	25	72-55-9
4,4'-DDT	0.0013	0.010	ug/l	-	25	48-170	25	54-160	25	50-29-3
Aldrin	0.00090	0.010	ug/l	-	25	49-107	25	29-115	25	309-00-2
alpha-BHC	0.00080	0.010	ug/l	-	25	47-125	25	59-131	25	319-84-6
Aroclor 1016	0.022	0.10	ug/l	-	25	49-152	25	49-152	25	12674-11-2
Aroclor 1221	0.084	0.10	ug/l	-	-	-	-	-	-	11104-28-2
Aroclor 1232	0.064	0.10	ug/l	-	-	-	-	-	-	11141-16-5
Aroclor 1242	0.070	0.10	ug/l	-	-	-	-	-	-	53469-21-9
Aroclor 1248	0.049	0.10	ug/l	-	-	-	-	-	-	12672-29-6
Aroclor 1254	0.068	0.10	ug/l	-	-	-	-	-	-	11097-69-1
Aroclor 1260	0.020	0.10	ug/l	-	25	52-146	25	52-146	25	11096-82-5
beta-BHC	0.0015	0.010	ug/l	-	25	62-123	25	63-136	25	319-85-7
Chlordane (tech)	0.066	0.10	ug/l	-	25	-	-	-	-	57-74-9
Chlorothalonil	0.0020	0.050	ug/l	-	25	-	-	-	-	1897-45-6
delta-BHC	0.0010	0.010	ug/l	-	25	56-140	25	59-137	25	319-86-8
Dieldrin	0.0020	0.010	ug/l	-	25	65-135	25	59-135	25	60-57-1
Endosulfan I	0.00090	0.010	ug/l	-	25	28-119	25	28-138	25	959-98-8
Endosulfan II	0.00080	0.010	ug/l	-	25	56-127	25	53-133	25	33213-65-9
Endosulfan sulfate	0.0013	0.010	ug/l	-	25	72-171	25	58-155	25	1031-07-8
Endrin	0.0020	0.010	ug/l	-	25	53-123	25	57-148	25	72-20-8
Endrin aldehyde	0.0013	0.010	ug/l	-	25	34-158	25	45-139	25	7421-93-4
gamma-BHC (Lindane)	0.0015	0.010	ug/l	-	25	49-126	25	59-129	25	58-89-9
Heptachlor	0.00080	0.010	ug/l	-	25	56-155	25	42-136	25	76-44-8
Heptachlor epoxide	0.0011	0.010	ug/l	-	25	55-137	25	59-134	25	1024-57-3
Hexachlorobenzene	0.0030	0.050	ug/l	-	25	-	-	-	-	118-74-1
Hexachlorocyclopentadiene	0.014	0.050	ug/l	-	25	-	-	-	-	77-47-4
Methoxychlor	0.0044	0.010	ug/l	-	25	44-192	25	56-167	25	72-43-5
PCBs, Total	0.049	0.50	ug/l	-	-	-	-	-	-	NA
Propachlor	0.010	0.050	ug/l	-	25	-	-	-	-	1918-16-7
Toxaphene	0.066	1.0	ug/l	-	25	-	-	-	-	8001-35-2
Trifluralin	0.0030	0.010	ug/l	-	25	-	-	-	-	1582-09-8
Decachlorobiphenyl	-	-	Surrogate	70-130	-	-	-	-	-	2051-24-3
Tetrachloro-meta-xylene	-	-	Surrogate	70-130	-	-	-	-	-	877-09-8
EPA 525.2 SIM or QQQ - OPP low-level by EPA 525.2 (Water)										
Azinphos methyl (Guthion)	5.5	10	ng/l	-	30	0.1-154	30	0.1-188	30	86-50-0
Bolstar	4.6	10	ng/l	-	30	4-184	30	11-166	30	35400-43-2
Chlorpyrifos	6.9	10	ng/l	-	30	37-168	30	37-169	30	2921-88-2



Analyte	MDL	MRL	Units	Surr. % R	DUP RPD	Matrix Spike		Blank Spike		CASNumber
						% R	RPD	% R	RPD	
Coumaphos	5.1	10	ng/l	-	30	0.1-203	30	0.1-225	30	56-72-4
Demeton-o	10	10	ng/l	-	30	0.1-208	30	0.1-211	30	298-03-3
Demeton-s	10	10	ng/l	-	30	0.1-207	30	0.1-213	30	126-75-0
Diazinon	5.2	10	ng/l	-	30	36-153	30	43-152	30	333-41-5
Dichlorvos	2.9	10	ng/l	-	30	42-137	30	46-133	30	62-73-7
Dimethoate	6.2	10	ng/l	-	30	4-222	30	10-234	30	60-51-5
Disulfoton	10	10	ng/l	-	30	12-199	30	0.1-212	30	298-04-4
Ethoprop	6.7	10	ng/l	-	30	51-167	30	53-163	30	13194-48-4
Ethyl parathion	5.4	10	ng/l	-	30	5-229	30	7-230	30	56-38-2
Fensulfothion	2.9	10	ng/l	-	30	0.1-316	30	0.1-265	30	115-90-2
Fenthion	3.8	10	ng/l	-	30	23-169	30	20-177	30	55-38-9
Malathion	7.6	10	ng/l	-	30	6-184	30	14-175	30	121-75-5
Merphos	5.8	10	ng/l	-	30	3-210	30	28-181	30	150-50-5
Methyl parathion	6.3	10	ng/l	-	30	0.1-249	30	0.1-252	30	298-00-0
Mevinphos	4.2	10	ng/l	-	30	25-189	30	14-202	30	7786-34-7
Naled	7.6	10	ng/l	-	30	0.1-242	30	0.1-240	30	300-76-5
Phorate	3.0	10	ng/l	-	30	31-181	30	26-180	30	298-02-2
Ronnel	4.1	10	ng/l	-	30	29-153	30	34-154	30	299-84-3
Stirophos	3.1	10	ng/l	-	30	0.1-167	30	0.1-188	30	22248-79-9
Tokuthion (Prothiofos)	7.8	10	ng/l	-	30	27-160	30	23-159	30	34643-46-4
Trichloronate	6.7	10	ng/l	-	30	40-150	30	34-153	30	327-98-0
1,3-Dimethyl-2-nitrobenzene	-	-	Surrogate	76-128	-	-	-	-	-	81-20-9
Triphenyl phosphate	-	-	Surrogate	40-163	-	-	-	-	-	115-86-6
EPA 531.1 - Carbamates by EPA 531.1 (Water)										
3-Hydroxycarbofuran	0.48	2.0	ug/l	-	30	65-135	30	80-120	30	16655-82-6
Aldicarb	0.38	2.0	ug/l	-	30	65-135	30	80-120	30	116-06-3
Aldicarb sulfone	0.45	2.0	ug/l	-	30	65-135	30	80-120	30	1646-88-4
Aldicarb sulfoxide	0.41	2.0	ug/l	-	30	65-135	30	80-120	30	1646-87-3
Carbaryl	0.48	2.0	ug/l	-	30	65-135	30	80-120	30	63-25-2
Carbofuran	0.59	2.0	ug/l	-	30	65-135	30	80-120	30	1563-66-2
Methiocarb	0.57	2.0	ug/l	-	30	65-135	30	80-120	30	2032-65-7
Methomyl	0.30	2.0	ug/l	-	30	65-135	30	80-120	30	16752-77-5
Oxamyl	0.48	2.0	ug/l	-	30	65-135	30	80-120	30	23135-22-0
Propoxur (Baygon)	0.60	2.0	ug/l	-	30	65-135	30	80-120	30	114-26-1
Hardness, Total 200.7 by EPA 200.7 (Water)										
Calcium, Total	0.0160	0.100	mg/l	-	30	70-130	30	85-115	30	7440-70-2
Magnesium, Total	0.0120	0.100	mg/l	-	30	70-130	30	85-115	30	7439-95-4
Iron - EPA 200.8 by EPA 200.8 (Water)										
Iron, Total	0.91	20	ug/l	-	30	70-130	30	85-115	30	7439-89-6
Lead - EPA 200.8 by EPA 200.8 (Water)										
Lead, Total	0.031	0.20	ug/l	-	30	70-130	30	85-115	30	7439-92-1
Nitrate-N - EPA 353.2 by EPA 353.2 (Water)										
Nitrate as N	0.041	0.10	mg/l	-	20	90-110	20	90-110	20	14797-55-8
Nitrite-N - EPA 353.2 by EPA 353.2 (Water)										
Nitrite as N	10	100	ug/l	-	20	90-110	20	90-110	20	14797-65-0
NO2+NO3-N - EPA 353.2 by EPA 353.2 (Water)										
NO2+NO3 as N	10	100	ug/l	-	20	90-110	20	90-110	20	NA
Orthophosphate-P - EPA 365.3 by EPA 365.3 (Water)										



Analyte	MDL	MRL	Units	Surr. % R	DUP RPD	Matrix Spike		Blank Spike		CASNumber
						% R	RPD	% R	RPD	
o-Phosphate as P	0.00083	0.010	mg/l	-	20	85-112	20	88-111	20	14265-44-2
Orthophosphate-P, dissolved - EPA 365.3 by EPA 365.3 (Water)										
o-Phosphate as P, dissolved	0.83	10	ug/l	-	20	85-112	20	88-111	20	14265-44-2
Phosphorus Dissolved - EPA 365.1 by EPA 365.1 (Water)										
Phosphorus, Dissolved	0.0014	0.010	mg/l	-	20	90-110	20	90-110	20	7723-14-0
Phosphorus, Total as P - EPA 365.1 by EPA 365.1 (Water)										
Phosphorus as P, Total	0.0014	0.010	mg/l	-	20	90-110	20	90-110	20	7723-14-0
Pyrethroid Pesticides by GC/MS SIM by GC/MS NCI-SIM (Water)										
Allethrin	0.85	2.0	ng/l	-	-	0.1-222	30	23-149	30	584-79-2
Bifenthrin	0.79	2.0	ng/l	-	-	22-209	30	26-153	30	82657-04-3
Cyfluthrin	0.83	2.0	ng/l	-	-	11-214	30	3-168	30	68359-37-5
Cypermethrin	0.66	2.0	ng/l	-	-	20-206	30	2-169	30	52315-07-8
Deltamethrin/Tralomethrin	1.9	2.0	ng/l	-	-	0.2-230	30	0.1-252	30	52820-00-5
Dichloran	0.80	2.0	ng/l	-	-	29-201	30	53-161	30	99-30-9
Fenpropathrin (Danitol)	2.0	2.0	ng/l	-	-	10-233	30	28-154	30	39515-41-8
Fenvalerate/Esfenvalerate	0.98	2.0	ng/l	-	-	32-193	30	35-133	30	51630-58-1
L-Cyhalothrin	1.2	2.0	ng/l	-	-	61-209	30	9-214	30	91465-08-6
Pendimethalin	0.50	2.0	ng/l	-	-	8-203	30	41-158	30	40487-42-1
Permethrin	5.0	5.0	ng/l	-	-	37-209	30	31-154	30	52645-53-1
Prallethrin	0.92	2.0	ng/l	-	-	11-247	30	28-143	30	23031-36-9
Sumithrin (Phenothrin)	2.4	10	ng/l	-	-	12-247	30	12-200	30	26002-80-2
Tefluthrin	0.93	2.0	ng/l	-	-	5-220	30	48-161	30	79538-32-2
<i>Perylene-d12</i>	-	-	Surrogate	-	2-205	-	-	-	-	1520-96-3
<i>Triphenyl phosphate</i>	-	-	Surrogate	-	6-222	-	-	-	-	115-86-6
Total Kjeldahl Nitrogen by EPA 351.2 by EPA 351.2 (Water)										
TKN	0.050	0.10	mg/l	-	10	90-110	10	90-110	10	7727-37-9
Total Nitrogen by calculation by EPA 353.2 (Water)										
NO2+NO3 as N	10	100	ug/l	-	20	90-110	20	90-110	20	NA
TKN	0.050	0.10	mg/l	-	10	90-110	10	90-110	10	7727-37-9
Total Suspended Solids - SM2540D by SM 2540D (Water)										
Total Suspended Solids		5.0	mg/l	-	20	-	-	-	-	NA
Zinc - EPA 200.8 by EPA 200.8 (Water)										
Zinc, Total	0.94	5.0	ug/l	-	30	70-130	30	85-115	30	7440-66-6



Sampling Guide

Analysis	Specific Method	Container	Preservation	Hold (days)	Amount Needed
[Group Analysis] in Water					
Hardness, Total 200.7	_Varies	NA	[Group Analysis]	10	NA
Carbamates and Urea Pesticides in Water					
EPA 531.1 - Carbamates	EPA 531.1	40-mL VOA Amber Vial-531 Na2S2O3/MCAA	<6°C, Na2S2O3 (If Cl2), MCAA	28	40 ml
Chlorinated Pesticides and/or PCBs in Water					
EPA 508 - Organochlorine Pesticides & PCBs	EPA 508	1-L Amber Glass-508	<6°C, Na2S2O3 (If Cl2)	7	2000 ml
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods in Water					
Total Nitrogen by calculation	Calculation	250-mL Poly-Nutrients, H2SO4	<6°C	28	250 mL
Ammonia-N - EPA 350.1	EPA 350.1	250-mL Poly	<6°C, H2SO4	28	250 ml
Total Kjeldahl Nitrogen by EPA 351.2	EPA 351.2	250-mL Poly-Nutrients, H2SO4	<6°C, H2SO4	28	250 mL
Nitrite-N - EPA 353.2	EPA 353.2	250-mL Poly	<6°C	2	250 ml
NO2+NO3-N - EPA 353.2	EPA 353.2	250-mL Poly-Nutrients, H2SO4	<6°C, H2SO4	28	250 ml
NO2+NO3-N - EPA 353.2	EPA 353.2	250-mL Poly-Nutrients, H2SO4	<6°C, H2SO4	28	250 ml
Total Kjeldahl Nitrogen by EPA 351.2	EPA 351.2	250-mL Poly-Nutrients, H2SO4	<6°C, H2SO4	28	250 mL
Orthophosphate-P - EPA 365.3	EPA 365.3	250-mL Poly-OPO4, Filtered and <6C	<6°C, filtered	0.01	250 mL
Orthophosphate-P, dissolved - EPA 365.3	EPA 365.3	250-mL Poly-OPO4, Filtered and <6C	<6°C, filtered	0.01	250 ml
Phosphorus Dissolved - EPA 365.1	EPA 365.1	250-mL Poly	<6°C, H2SO4	28	250 ml
Phosphorus, Total as P - EPA 365.1	EPA 365.1	250-mL Poly-Nutrients, H2SO4	<6°C, H2SO4	28	250 ml
Total Suspended Solids - SM2540D	SM 2540D	2-L Poly - pH-TSS- EC - Unpres.	<6°C	7	1000ml
Nitrate-N - EPA 353.2	EPA 353.2	250-mL Poly	<6°C	2	250 ml
Metals by EPA 200 Series Methods in Water					
Copper - EPA 200.8	EPA 200.8	250-mL Poly-Metals - HNO3	HNO3	180	250 mL
Iron - EPA 200.8	EPA 200.8	250-mL Poly-Metals - HNO3	HNO3	180	250 mL
Cadmium - EPA 200.8	EPA 200.8	250-mL Poly-Metals - HNO3	HNO3	180	250 mL
Lead - EPA 200.8	EPA 200.8	250-mL Poly-Metals - HNO3	HNO3	185	250 mL
Zinc - EPA 200.8	EPA 200.8	250-mL Poly-Metals - HNO3	HNO3	180	250 mL
Aluminum - EPA 200.8	EPA 200.8	250-mL Poly-Metals - HNO3	HNO3	180	250 mL
Magnesium - EPA 200.7	EPA 200.7	250-mL Poly-Metals - HNO3	HNO3	180	250 mL
Calcium - EPA 200.7	EPA 200.7	250-mL Poly-Metals - HNO3	HNO3	180	250 mL
Pyrethroid Pesticides by GC/MS SIM in Water					
Pyrethroid Pesticides by GC/MS SIM	GC/MS NCI-SIM	1-L Amber Glass-FP	<6°C	21	2000 ml
Semivolatile Organic Compounds by GC/MS in Water					
EPA 525.2 SIM or QQQ - OPP low-level	EPA 525.2	1-L Amber Glass-525 OPP	<6°C, Sulfite (if Cl2)	14	2000 mL

EXHIBIT C



September 29, 2015

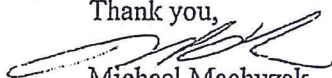
Ms. Bree Belyea
Code Compliance
Project Clean Water
Santa Barbara County Public Works
123 East Anapamu St.
Santa Barbara, CA 93101

Dear Ms. Belyea

As we discussed, pricing for conducting toxicity tests on water with *Hyaella azteca* will be \$400.00 per sample. These tests will be conducted on 100% sample only. Pricing includes required control tests as well as required reference toxicant tests.

Please feel free to contact me at your convenience if you have any questions.

Thank you,



Michael Machuzak
Laboratory Manager

EXHIBIT D

The total estimated cost of the PROJECT for the CITY, COUNTY PCW and Partner Cities at the time of execution of this agreement is as follows:

Pollutant Load Model (Model)	\$58,735.00 (one-time expense)
303(d) Monitoring Plan (Plan)	\$35,190.00 (annual expense)

CITY Contributions

CITY will provide 23% of PROJECT costs, based on proportionate population, as follows:

Pollutant Load Model (Model)	\$13,628.00 (one-time expense)
303(d) Monitoring Plan (Plan)	\$ 5,865.00 (annual expense)