

# CITY OF NAPLES, FLORIDA

## AGREEMENT (PROFESSIONAL SERVICES)

**Bid/Proposal No.** RFQ 024-10 Library of Consultants  
**Contract No.** 09-12326 13-00041  
**Project Name** Stormwater Quality Sampling, Analysis, and Reporting at Various Locations throughout the City.

THIS AGREEMENT (the "Agreement") is made and entered into this 15<sup>th</sup> day of May 2013, by and between the City of Naples, a Florida municipal corporation, (the "CITY") and AMEC Environment & Infrastructure, Incorporated; a Nevada corporation, located at: 404 SW 140<sup>th</sup> Terrace; Newberry, Florida 32669-3000, (the "CONTRACTOR").

### WITNESSETH:

WHEREAS, the CITY desires to obtain the services of the CONTRACTOR concerning certain services specified in this Agreement (referred to as the "Project"); and

WHEREAS, the CONTRACTOR has submitted a proposal for provision of those services; and

WHEREAS, the CONTRACTOR represents that it has expertise in the type of professional services that will be required for the Project.

NOW, THEREFORE, in consideration of the mutual covenants and provisions contained herein, the parties hereto agree as follows:

### ARTICLE ONE CONTRACTOR'S RESPONSIBILITY

1.1. The Services to be performed by CONTRACTOR are generally described as **Stormwater Quality Sampling, Analysis, and Reporting at Various Locations throughout the City** and may be more fully described in the Scope of Services, attached as **EXHIBIT A** and made a part of this Agreement.

1.2. The CONTRACTOR agrees to obtain and maintain throughout the period of this Agreement all such licenses as are required to do business in the State of Florida, the City of Naples, and in Collier County, Florida, including, but not limited to, all licenses required by the respective state boards and other governmental agencies responsible for regulating and licensing the professional services to be provided and performed by the CONTRACTOR pursuant to this Agreement.

1.3. The CONTRACTOR agrees that, when the services to be provided hereunder relate to a professional service which, under Florida Statutes, requires a license, certificate of authorization or other form of legal entitlement to practice such services, it shall employ or retain only qualified personnel to provide such services.

1.4. CONTRACTOR agrees to employ and designate, in writing, within 5 calendar days after receiving its

Notice to Proceed, or other directive from the CITY, a qualified licensed professional to serve as the CONTRACTOR's project manager (the "Project Manager"). The Project Manager shall be authorized and responsible to act on behalf of the CONTRACTOR with respect to directing, coordinating and administering all aspects of the services to be provided and performed under this Agreement.

1.5. The CONTRACTOR has represented to the CITY that it has expertise in the type of professional services that will be required for the Project. The CONTRACTOR agrees that all services to be provided by CONTRACTOR pursuant to this Agreement shall be subject to the CITY's review and approval and shall be in accordance with the generally accepted standards of professional practice in the State of Florida, as may be applied to the type of services to be rendered, as well as in accordance with all published laws, statutes, ordinances, codes, rules, regulations and requirements of any governmental agencies which regulate or have jurisdiction over the Project or the services to be provided and performed by CONTRACTOR. In the event of any conflicts in these requirements, the CONTRACTOR shall notify the CITY of such conflict and utilize its best professional judgment to advise CITY regarding resolution of the conflict.

1.6. The CONTRACTOR agrees not to divulge, furnish or make available to any third person, firm or organization, without CITY's prior written consent, or unless incident to the proper performance of the CONTRACTOR's obligations hereunder, or in the course of judicial or legislative proceedings where such information has been properly subpoenaed, any non-public information concerning the services to be rendered by CONTRACTOR hereunder, and CONTRACTOR shall require all of its employees, agents, subconsultants and subcontractors to comply with the provisions of this paragraph. However, the CONTRACTOR shall comply with the Florida Public Records laws.

1.7. The CONTRACTOR agrees not to employ or offer to employ any Elected Officer or City Managerial Employee of the CITY who in any way deals with, coordinates on, or assists with, the professional services provided in this Agreement, for a period of 2 years after termination of all provisions of this Agreement. For purposes of this paragraph, the term "Elected Officer" shall mean any member of the City Council. For purposes of this paragraph, the term "City Managerial Employee" shall mean the City Manager, the Assistant City Manager, the City Clerk, and any City department head or director. If the CONTRACTOR violates the provisions of this paragraph, the CONTRACTOR shall be required to pay damages to the CITY in an amount equal to any and all compensation which is received by the former Elected Officer or City Managerial Employee of the CITY from or on behalf of the contracting person or entity, or an amount equal to the former Elected Officer's or City Managerial Employee's last 2 years of gross compensation from the CITY, whichever is greater.

1.8. The CONTRACTOR agrees not to provide services for compensation to any other party other than the CITY on the same subject matter, same project, or scope of services as set forth in this Agreement without approval from the City Council of the CITY.

1.9. Except as otherwise provided in this Agreement, the CONTRACTOR agrees not to disclose or use any information not available to members of the general public and gained by reason of the CONTRACTOR's contractual relationship with the CITY for the special gain or benefit of the CONTRACTOR or for the special gain or benefit of any other person or entity.

## **ARTICLE TWO CITY'S RESPONSIBILITIES**

2.1. The CITY shall designate in writing a project coordinator to act as the CITY's representative with respect to the services to be rendered under this Agreement (the "Project Coordinator"). The Project Coordinator shall have authority to transmit instructions, receive information, interpret and define the CITY's

policies and decisions with respect to the CONTRACTOR's services for the Project. However, the Project Coordinator is not authorized to issue any verbal or written orders or instructions to the CONTRACTOR that would have the effect, or be interpreted to have the effect, of modifying or changing in any way whatever:

- (a) The scope of services to be provided and performed by the CONTRACTOR;
- (b) The time the CONTRACTOR is obligated to commence and complete all such services; or
- (c) The amount of compensation the CITY is obligated or committed to pay the CONTRACTOR.

Any such modifications or changes ((a) (b) or (c)) shall only be made by or upon the authorization of the CITY's city manager as authorized by city council in the enabling legislation or in the CITY's procurement policies.

2.2. The Project Coordinator shall:

(a) Review and make appropriate recommendations on all requests submitted by the CONTRACTOR for payment for services and work provided and performed in accordance with this Agreement;

(b) Arrange for access to and make all provisions for the CONTRACTOR to enter the Project site to perform the services to be provided by the CONTRACTOR under this Agreement; and

(c) Provide notice to the CONTRACTOR of any deficiencies or defects discovered by the CITY with respect to the services to be rendered by the CONTRACTOR hereunder.

2.3. The CONTRACTOR acknowledges that access to the Project Site, to be arranged by the CITY for the CONTRACTOR, may be provided during times that are not the normal business hours of the CONTRACTOR.

### **ARTICLE THREE TIME**

3.1. Services to be rendered by the CONTRACTOR shall be commenced subsequent to the execution of this Agreement upon written Notice to Proceed from the CITY for all or any designated portion of the Project and shall be performed and completed by **September 30, 2014**. Time is of the essence with respect to the performance of this Agreement.

3.2. Should the CONTRACTOR be obstructed or delayed in the prosecution or completion of its services as a result of unforeseeable causes beyond the control of the CONTRACTOR, and not due to its own fault or neglect, including but not restricted to acts of God or of public enemy, acts of government or of the CITY, fires, floods, epidemics, quarantine regulations, strikes or lock-outs, then the CONTRACTOR shall notify the CITY in writing within 5 working days after commencement of such delay, stating the cause or causes thereof, or be deemed to have waived any right which the CONTRACTOR may have had to request a time extension.

3.3. No interruption, interference, inefficiency, suspension or delay in the commencement or progress of the CONTRACTOR's services from any cause whatsoever, including those for which the CITY may be responsible in whole or in part, shall relieve the CONTRACTOR of its duty to perform or give rise to any right to damages or additional compensation from the CITY. The CONTRACTOR's sole remedy against the CITY will be the right to seek an extension of time to its schedule. This paragraph shall expressly apply to claims for early

completion, as well as claims based on late completion.

3.4. Should the CONTRACTOR fail to commence, provide, perform or complete any of the services to be provided hereunder in a timely and reasonable manner, in addition to any other rights or remedies available to the CITY hereunder, the CITY at its sole discretion and option may withhold any and all payments due and owing to the CONTRACTOR until such time as the CONTRACTOR resumes performance of its obligations hereunder in such a manner so as to reasonably establish to the CITY's satisfaction that the CONTRACTOR's performance is or will shortly be back on schedule.

#### **ARTICLE FOUR COMPENSATION**

4.1. The total compensation to be paid the CONTRACTOR by the CITY for all Services shall not exceed **\$85,778.00** and shall be paid in the manner set forth in the "Basis of Compensation", which is attached as **EXHIBIT B** and made a part of this Agreement.

#### **ARTICLE FIVE MAINTENANCE OF RECORDS**

5.1. The CONTRACTOR will keep adequate records and supporting documentation which concern or reflect its services hereunder. The records and documentation will be retained by the CONTRACTOR for a minimum of five 5 years from the date of termination of this Agreement or the date the Project is completed, whichever is later. The CITY, or any duly authorized agents or representatives of the CITY, shall have the right to audit, inspect and copy all such records and documentation as often as they deem necessary during the period of this Agreement and during the 5 year period noted above; provided, however, such activity shall be conducted only during normal business hours. If the CONTRACTOR desires to destroy records prior to the minimum period, it shall first obtain permission from the CITY in accordance with the Florida Public Records laws.

#### **ARTICLE SIX INDEMNIFICATION**

6.1. The CONTRACTOR agrees to indemnify and hold harmless the City from liabilities, damages, losses and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONTRACTOR and persons employer or utilized by the CONTRACTOR in the performance of the Contract.

#### **ARTICLE SEVEN INSURANCE**

7.1. CONTRACTOR shall obtain and carry, at all times during its performance under this Agreement, insurance of the types and in the amounts set forth in the document titled General Insurance Requirements, which is attached as **EXHIBIT C** and made a part of this Agreement.

#### **ARTICLE EIGHT SERVICES BY CONTRACTOR'S OWN STAFF**

8.1. The services to be performed hereunder shall be performed by the CONTRACTOR's own staff, unless otherwise authorized in writing by the CITY. The employment of, contract with, or use of the services of any other person or firm by the CONTRACTOR, as independent contractor or otherwise, shall be subject to the



prior written approval of the CITY. No provision of this Agreement shall, however, be construed as constituting an agreement between the CITY and any such other person or firm. Nor shall anything contained in this Agreement be deemed to give any such party or any third party any claim or right of action against the CITY beyond such as may otherwise exist without regard to this Agreement.

#### **ARTICLE NINE WAIVER OF CLAIMS**

9.1. The CONTRACTOR's acceptance of final payment shall constitute a full waiver of any and all claims, except for insurance company subrogation claims, by it against the CITY arising out of this Agreement or otherwise related to the Project, except those previously made in writing and identified by the CONTRACTOR as unsettled at the time of the final payment. Neither the acceptance of the CONTRACTOR's services nor payment by the CITY shall be deemed to be a waiver of any of the CITY's rights against the CONTRACTOR.

#### **ARTICLE TEN TERMINATION OR SUSPENSION**

10.1. The CONTRACTOR shall be considered in material default of this Agreement and such default will be considered cause for the CITY to terminate this Agreement, in whole or in part, as further set forth in this section, for any of the following reasons: (a) failure to begin work under the Agreement within the times specified under the Notice(s) to Proceed, or (b) failure to properly and timely perform the services to be provided hereunder or as directed by the CITY, or (c) the bankruptcy or insolvency or a general assignment for the benefit of creditors by the CONTRACTOR or by any of the CONTRACTOR's principals, officers or directors, or (d) failure to obey laws, ordinances, regulations or other codes of conduct, or (e) failure to perform or abide by the terms or spirit of this Agreement, or (f) for any other just cause. The CITY may so terminate this Agreement, in whole or in part, by giving the CONTRACTOR at least 3 calendar days' written notice.

10.2. If, after notice of termination of this Agreement as provided for in paragraph 10.1 above, it is determined for any reason that the CONTRACTOR was not in default, or that its default was excusable, or that the CITY otherwise was not entitled to the remedy against the CONTRACTOR provided for in paragraph 10.1, then the notice of termination given pursuant to paragraph 10.1 shall be deemed to be the notice of termination provided for in paragraph 10.3 below and the CONTRACTOR's remedies against the CITY shall be the same as and limited to those afforded the CONTRACTOR under paragraph 10.3 below.

10.3. The CITY shall have the right to terminate this Agreement, in whole or in part, without cause upon 7 calendar day's written notice to the CONTRACTOR. In the event of such termination for convenience, the CONTRACTOR's recovery against the CITY shall be limited to that portion of the fee earned through the date of termination, together with any retainage withheld and any costs reasonably incurred by the CONTRACTOR that are directly attributable to the termination, but the CONTRACTOR shall not be entitled to any other or further recovery against the CITY, including, but not limited to, anticipated fees or profits on work not required to be performed.

#### **ARTICLE ELEVEN CONFLICT OF INTEREST**

11.1. The CONTRACTOR represents that it presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance of services required hereunder. The CONTRACTOR further represents that no persons having any such interest shall be employed to perform those services.

**ARTICLE TWELVE  
MODIFICATION**

12.1. No modification or change in this Agreement shall be valid or binding upon the parties unless in writing and executed by the party or parties intended to be bound by it.

**ARTICLE THIRTEEN  
NOTICES AND ADDRESS OF RECORD**

13.1. All notices required or made pursuant to this Agreement to be given by the CONTRACTOR to the CITY shall be in writing and shall be delivered by hand or by United States Postal Service Department, first class mail service, postage prepaid, return receipt requested, addressed to the following CITY's address of record:

City of Naples  
735 Eighth Street South  
Naples, Florida 34102-3796  
Attention: **A. William Moss**, City Manager

13.2. All notices required or made pursuant to this Agreement to be given by the CITY to the CONTRACTOR shall be made in writing and shall be delivered by hand or by the United States Postal Service Department, first class mail service, postage prepaid, return receipt requested, addressed to the following CONTRACTOR's address of record:

AMEC Environment & Infrastructure, Incorporated  
404 SW 140<sup>th</sup> Terrace  
Newberry, Florida 32669-3000  
Attention: **Mark C. Diblin**, Vice President  
Federal Identification Number: 911641772

13.3. Either party may change its address of record by written notice to the other party given in accordance with requirements of this Article.

**ARTICLE FOURTEEN  
MISCELLANEOUS**

14.1. The CONTRACTOR, in representing the CITY, shall promote the best interest of the CITY and assume towards the CITY a duty of the highest trust, confidence, and fair dealing.

14.2. No modification, waiver, suspension or termination of the Agreement or of any terms thereof shall impair the rights or liabilities of either party.

14.3. This Agreement is not assignable, in whole or in part, by the CONTRACTOR without the prior written consent of the CITY.

14.4. Waiver by either party of a breach of any provision of this Agreement shall not be deemed to be a waiver of any other breach and shall not be construed to be a modification of the terms of this Agreement.

14.5. The headings of the Articles, Exhibits, Parts and Attachments as contained in this Agreement are for the

purpose of convenience only and shall not be deemed to expand, limit or change the provisions in such Articles, Exhibits, Parts and Attachments.

14.6. This Agreement constitutes the entire agreement between the parties hereto and shall supersede, replace and nullify any and all prior agreements or understandings, written or oral, relating to the matter set forth herein, and any such prior agreements or understanding shall have no force or effect whatever on this Agreement.

14.7. The CONTRACTOR shall comply fully with all provisions of state and federal law, including without limitation all provisions of the Immigration Reform and Control Act of 1986 ("IRCA") as amended, as well as all related immigration laws, rules, and regulations pertaining to proper employee work authorization in the United States. The CONTRACTOR shall execute the Certification of Compliance with Immigration Laws, attached hereto as **EXHIBIT D**.

#### **ARTICLE FIFTEEN APPLICABLE LAW**

15.1. Unless otherwise specified, this Agreement shall be governed by the laws, rules, and regulations of the State of Florida, and by the laws, rules and regulations of the United States when providing services funded by the United States government. Any suit or action brought by either party to this Agreement against the other party relating to or arising out of this Agreement must be brought in the appropriate Florida state court in Collier County, Florida.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement for the day and year first written above.

ATTEST:

CITY:

CITY OF NAPLES, FLORIDA,  
A Municipal Corporation

By: Patricia L. Rambosk  
Patricia L. Rambosk, City Clerk

By: A. William Moss  
A. William Moss, City Manager

Approved as to form  
and legal sufficiency:

By: Robert D. Pritt  
Robert D. Pritt, City Attorney

CONTRACTOR:

AMEC Environment & Infrastructure, Incorporated  
404 SW 140<sup>th</sup> Terrace  
Newberry, Florida 32669-3000  
Attention: **Mark C. Dibley**, Vice President  
Federal Identification Number: 911641772  
A Nevada Corporation [or other entity]

By: Mark C. Dibley  
Its Vice President

Sam W. Allee  
Witness

(CORPORATE SEAL)

General Contract (not Architects/Engineers)

**EXHIBIT A**

**SCOPE OF SERVICES**

*Exhibit A-1, which is attached and made part of this Agreement*



April 24, 2013

Mr. Gregg Strakaluse, PE  
The City of Naples  
295 Riverside Circle  
Naples, Florida 34102

**RE: Proposal for City of Naples Water Quality Sampling and Analysis Support**

Dear Mr. Strakaluse:

AMEC Environment & Infrastructure, Inc. (AMEC) has been requested to provide environmental services to the City of Naples (City) for their City-wide Water Quality Sampling and Analysis. AMEC is pleased to provide this proposal to the City for this program. The scope of work is based largely on continuation and redirection of stormwater and lake water quality monitoring that has been conducted continuously since the fourth calendar quarter of 2010. Based on lessons learned during the past year, AMEC proposes to modify the continuation of that program with a reduced budgetary commitment.

City staff also requested development of scopes of work and cost estimates for several prospective tasks. These include:

- Monthly Naples Bay Water Quality Monitoring – City staff monitor Naples Bay water quality monthly. City staff could be more productive performing other departmental priorities, so the City has requested a proposal to take over the established Naples Bay water quality sampling effort.
- Gordon River and Naples Bay Watershed Pollutant Loading – In 2011 AMEC developed pollutant loading estimates to these waterbodies from City stormwater lakes. In this task AMEC proposes to estimate loadings from all sources to better understand the City's contribution to impairment of the water bodies. Estimates will rely, in part, on data from other published sources including Collier County Watershed Management Plan and Florida Department of Environmental Protection (FDEP) Total Maximum Daily Load (TMDL) Reports.

This proposal describes prospective tasks for consideration by the City. A separate proposal is in development for engineering design services for Lake Manor improvements.

**Task 01 – Continued Quarterly Monitoring of Pump Stations**

Stormwater samples will be collected quarterly from pump stations identified as 11-PUMP, 14-PUMP and PW-PUMP in our previous reports. All samples will be analyzed for total nitrogen (TN), total phosphorus (TP), total suspended solids (TSS), copper, fecal coliform and enterococcus. Temperature, dissolved oxygen, and conductivity will be measured in the field using an YSI multiprobe meter. The three pump stations will continue to be monitored on a quarterly basis to provide a better indication of baseflow loadings to downstream waterbodies. This scope remains the same as in 2012.

**Correspondence:**  
AMEC  
404 SW 140<sup>th</sup> Terrace  
Newberry, Florida  
USA 32669-3000  
Tel + 1 352 332 3318  
Fax + 1 352 333 6622

*Proposal for Water Quality Sampling and Analysis Support  
City of Naples  
April 24, 2013*

**Task 02 – Lake Condition Assessment and Source Identification**

Water samples will be collected twice during 2013 from 15 stormwater lakes, for a total of 30 samples. This plan represents a reduction in scope from 2012 during which 19 lakes were sampled twice per year. Lakes 7, 8, 16 and 21 are not recommended for sampling in 2013 due to relatively low priority as defined by AMEC (2013). All samples will be analyzed for TN, TP, TSS, copper, fecal coliform and enterococcus. Sampling frequency will be semi-annual (one wet season, one dry season). Continued sampling at priority locations provide a consistent long term data set that supports evaluation of baseline, trends, and the effects of City actions.

In addition, 10 samples are proposed at locations to be specified by City staff in consultation with Contractor, primarily in stormwater conveyances or at locations expected to have high pollutant concentrations. The basis for anticipated elevated pollutant concentrations will be all past data, as well as the results of the prioritization analysis performed as part of 2011 and 2012 work efforts.

In addition, the cost estimate provides for analysis of caffeine in eight (8) additional samples collected during either Task 01 or Task 02. In other words, eight (8) of the 12 quarterly pump station samples, 30 biannual lake assessment samples, or 10 source identifications samples will be analyzed for caffeine, at the discretion of the City. AMEC will develop a list of sample locations, already identified for Task 01 or Task 02, for analysis of caffeine prior to each sampling event, and these analyses will be performed with the City's concurrence.

**Task 03 – Naples Bay Water Quality Monitoring**

Monthly samples will be collected from the locations indicated in Attachment 2. Samples will be submitted to Collier County Pollution Control Laboratory (CCPCL) under the City's current agreement. Field logs will be completed for each monitoring event and submitted to City. Field logs will document general sample event information including sample time, date, weather, sample method, sample depth, and any deviation from standard sampling procedures. The cost estimate for this task does not account for laboratory analysis fees; it is assumed that the City will maintain its current contract with CCPCL and will transfer payment for laboratory fees directly to CCPCL.

**Task 04 – Gordon River and Naples Bay Watershed Pollutant Loading Allocation**

AMEC will perform a review of available hydrologic, nutrient and pollutant loading analyses performed for the Gordon River and Naples Bay contributing drainage basins. Loadings will be summarized by jurisdiction, including City of Naples, Unincorporated Collier County, or Other. Reference documents may include, but not be limited to, Collier County Watershed Management Plan and FDEP TMDL Reports. Summary of loading allocations will be provided as a technical memorandum.

**Task 05 – Reports and Meeting**

AMEC will report water quality monitoring data as acquired to the City and FDEP (Task 04), within 30 days of receipt. Following completion of all efforts previously described, AMEC will submit a draft final report to the City for review. The draft final report will summarize the work performed as detailed above, with any technical memoranda or documents previously submitted included as appendices to the draft final report. AMEC will finalize the draft final report upon receipt of comments from the City. AMEC staff will meet with City staff to present the findings of the work completed to date and assess future data gaps. The meeting with City staff may be substituted by one (1) briefing / workshop for City Council, at the direction of the City.

**Schedule**

AMEC will mobilize for the first biannual and quarterly sampling event within 15 business days of receipt of authorization. For any stormwater lake water quality monitoring results (Tasks 01 and 02)



**Proposal for Water Quality Sampling and Analysis Support**  
 City of Naples  
 April 24, 2013

obtained prior to submittal of the Draft Final Report, AMEC will submit the results in memo format to include a brief summary of notable findings, tabulated results and laboratory reports. Within 30 days of the final contracted sampling event, AMEC will provide the City with the Draft Final Report, which will include all previous submittals (water quality monitoring result memos, Task 04 memo) as appendices and will provide a summary and discussion of 2013 monitoring activities. AMEC will finalize Draft Final Report upon receipt of comments from the City.

### Fee

Our proposal provides lump sum fees by task. The total fee is \$85,788. Costs are shown by task in the table below. Cost estimate detail is included as Attachment 1. Attachment 1 is based on AMEC's current standard professional rate schedule, which is also attached and is valid for calendar year 2013. The standard professional rate schedule also shows rates for labor categories that are not anticipated to be used for this project, but may be used on future City of Naples projects.

Task		Fee
01	Continued Quarterly Monitoring of Pump Stations	\$8,324
02	Lake Condition Assessment and Source Identification	\$32,155
03	Naples Bay Water Quality Monitoring	\$18,106
04	Gordon River and Naples Bay Watershed Pollutant Load Allocation	\$11,060
05	Reports and Meeting	\$16,142
<b>Total</b>		<b>\$85,788</b>

### Closing

AMEC appreciates the opportunity to provide a price quotation for environmental services to the City of Naples. If you have any questions regarding this proposal, or would like to discuss it further, please contact me via email, [william.tucker@amec.com](mailto:william.tucker@amec.com), or telephone (352) 333-2609.

Sincerely,

**AMEC Environment & Infrastructure, Inc.**



William A. Tucker, PhD  
 Senior Project Manager



for Charlene Stroehlen, PE with permission  
 Senior Associate Engineer

Attachments:  
 Attachment 1  
 Attachment 2

**ATTACHMENT 1**



City of Naples Streets and Stormwater Department  
 Revised: Wednesday, April 24, 2013

**Scope: Water Quality Monitoring and Assessment**

	Task 01		Task 02		Task 03		Task 04		Task 05		TOTAL	
	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST
<b>I. LABOR SUMMARY</b>												
Continued Quarterly Monitoring of Pump Stations												
Senior Associate	4	\$676	12	\$2,028	8	\$1,352	24	\$4,056	36	\$6,084	84	\$14,196
Senior 1	6	\$696	8	\$928	6	\$696	6	\$696	8	\$928	34	\$3,944
Technical Professional 3	32	\$2,496	120	\$9,360	72	\$5,616	\$0	\$0	\$0	\$0	224	\$17,472
Technical Professional 2		\$0	120	\$8,520	32	\$2,272	72	\$5,112	64	\$4,544	288	\$20,448
Technical Professional 1		\$0		\$0		\$0		\$0	16	\$1,024	16	\$1,024
Technician 2		\$0		\$0		\$0		\$0	32	\$1,536	32	\$1,536
Technician 1		\$0		\$0		\$0		\$0		\$0	7	\$546
Admin Level 6	1	\$78	4	\$312	2	\$156		\$0		\$0	6	\$408
Admin Level 5	2	\$136	4	\$272		\$0		\$0		\$0	12	\$780
Admin Level 4	2	\$130	4	\$260		\$0	4	\$260	2	\$130	14	\$700
Admin Level 3	2	\$100		\$0		\$0		\$0	12	\$600	14	\$700
Technical Professional 3 - GIS	2	\$156	2	\$156		\$0	12	\$936	4	\$312	20	\$1,560
Technical Professional 1 - GIS	2	\$0		\$0		\$0		\$0	6	\$384	6	\$384
<b>LABOR SUBTOTAL</b>	<b>51</b>	<b>\$4,468</b>	<b>274</b>	<b>\$21,836</b>	<b>120</b>	<b>\$10,092</b>	<b>118</b>	<b>\$11,060</b>	<b>180</b>	<b>\$15,542</b>	<b>743</b>	<b>\$62,998</b>

	Task 01		Task 02		Task 03		Task 04		Task 05		TOTAL	
	UNITS	COST	UNITS	COST	UNITS	COST	UNITS	COST	UNITS	COST	UNITS	COST
<b>II. EXPENSES</b>												
Continued Quarterly Monitoring of Pump Stations												
Laboratory (Biannual Lake)	12	\$1,896	40	\$6,320		\$0		\$0		\$0	52	\$8,216
Laboratory (Caffeine)		\$0	8	\$2,120		\$0		\$0		\$0	8	\$2,120
Fee (12%)		\$228		\$1,013		\$0		\$0		\$0	0	\$1,240
<b>OTHER DIRECT COSTS (+6%)</b>												
Boat		\$0		\$0	12	\$3,600		\$0		\$0	12	\$3,600
Meters (YSI)	4	\$480	2	\$240	12	\$1,440		\$0		\$0	18	\$2,160
Sample Kit - Supplies/Expendables/Ice	4	\$400	2	\$200	12	\$1,200		\$0		\$0	18	\$1,800
Fee (6%)		\$53		\$26		\$374		\$0		\$0	0	\$454
<b>IN-HOUSE RECOVERABLES (+0%)</b>												
Truck/Trip	4	\$400	2	\$200	2	\$200		\$0		\$0	10	\$1,000
Miscellaneous charges estimate (shipping, printing, daily expenses)	4	\$400	2	\$200	12	\$1,200		\$0		\$0	22	\$2,200
<b>EXPENSES SUBTOTAL</b>	<b>28</b>	<b>\$3,856</b>	<b>56</b>	<b>\$10,319</b>	<b>50</b>	<b>\$8,014</b>	<b>0</b>	<b>\$0</b>	<b>6</b>	<b>\$600</b>	<b>140</b>	<b>\$22,790</b>
<b>TOTAL BY TASK</b>	<b>\$8,324</b>		<b>\$32,155</b>		<b>\$18,106</b>		<b>\$11,060</b>		<b>\$16,142</b>		<b>\$85,788</b>	

**AMEC Environment & Infrastructure, Inc.**  
**Professional Rate Schedule**  
**Valid January 1 to December 31, 2013**

<b>Environmental Engineering Services</b>	<b>Rate/Hr</b>
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**Professional Services**

Principal	\$174
Senior Associate	\$169
Associate	\$131
Senior 2	\$128
Senior 1	\$116
Technical Professional 3	\$78
Technical Professional 2	\$71
Technical Professional 1	\$64

**Technician Services**

Technician 6	\$71
Technician 5	\$68
Technician 4	\$65
Technician 3	\$62
Technician 2	\$48
Technician 1	\$45

**Survey Services**

	<b>Rate/Hr</b>
Senior 2	\$128
Technician 3	\$62
Technician 1	\$45

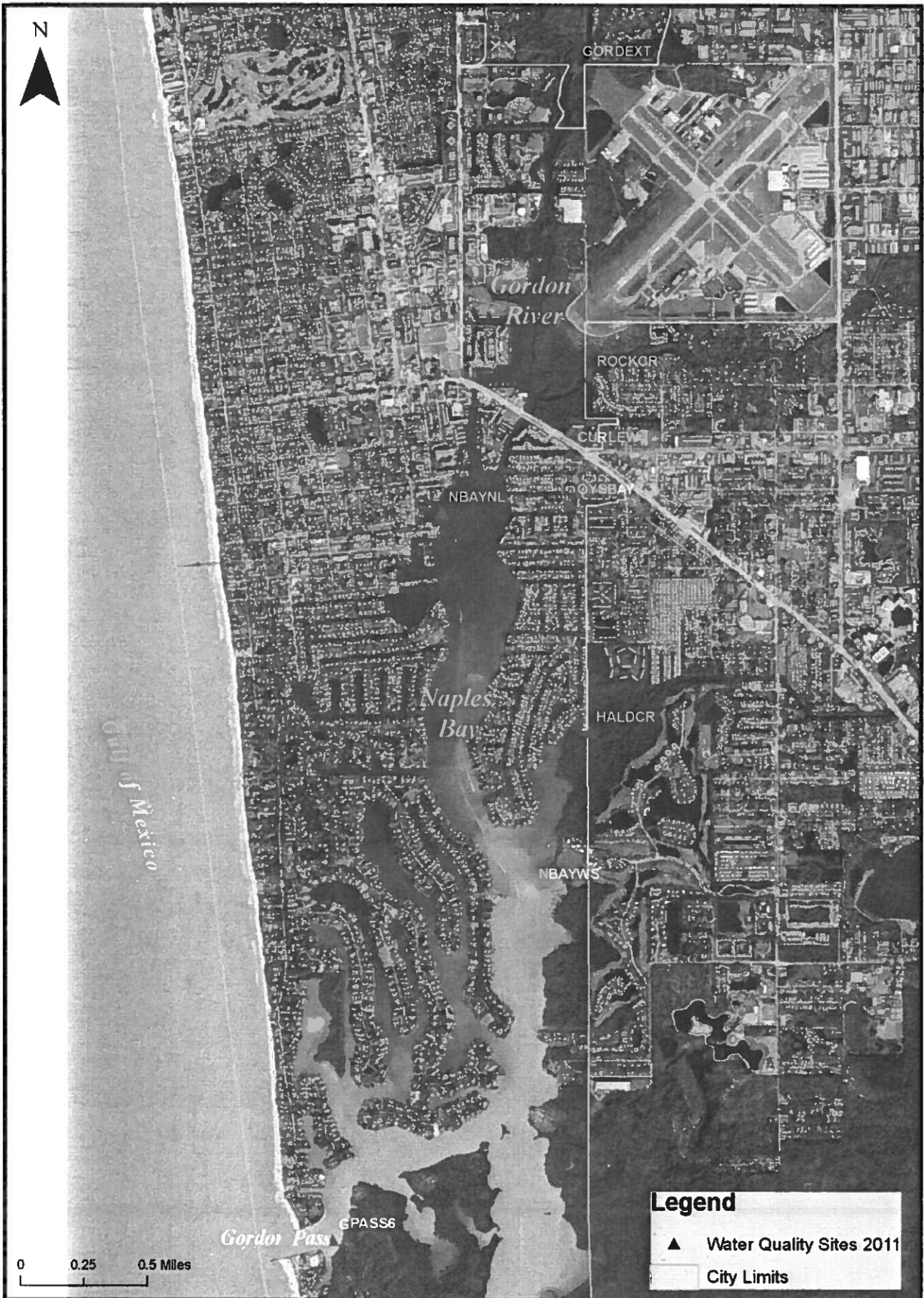
**Administrative Support**

	<b>Rate/Hr</b>
Admin Level 6	\$78
Admin Level 5	\$68
Admin Level 4	\$65
Admin Level 3	\$50
Admin Level 2	\$48
Admin Level 1	\$45

**Technical Support**

	<b>Rate/Hr</b>
Technical Professional 3 - GIS	\$78
Technical Professional 1 - GIS	\$64

**ATTACHMENT 2**



Land Use information shown is based on 3010 aerial photography. Source: Collier County Property Appraiser's office. The City of Naples assumes no liability for errors or omissions in the accuracy of this map. All information shown is for reference only.

**NATURAL RESOURCES**  
**Water Quality Sampling Sites 2011**  
 CITY OF NAPLES, FLORIDA



**EXHIBIT B**

**BASIS OF COMPENSATION**

As consideration for providing the Services as set forth in the Agreement, the CITY agrees to pay, and the CONTRACTOR agrees to accept payment as indicated in the below Fee Schedule.

<b>Task</b>		<b>Fee</b>
01	Continued Quarterly Monitoring of Pump Stations	\$8,324
02	Lake Condition Assessment and Source Identification	\$32,155
03	Naples Bay Water Quality Monitoring	\$18,106
04	Gordon River and Naples Bay Watershed Pollutant Load Allocation	\$11,060
05	Reports and Meeting	\$16,142
<b>Total</b>		<b>\$85,788</b>

**END OF EXHIBIT B**



**EXHIBIT C**

**GENERAL INSURANCE REQUIREMENTS**

The Contractor shall not commence work until he has obtained all the insurance required under this heading, and until such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work until all similar insurance required of the subcontractor has also been obtained and approved by the Owner.

Certificates of insurance must be issued by an authorized representative of the insurance company at the request and direction of the policyholder and must include sufficient information so as to identify the coverage and the contract for Owner's improvements for which they are issued. Certificates of insurance must be issued by a nationally recognized insurance company with a Best's Rating of no less than B+VII, satisfactory to the Owner, and duly licensed to do business in the state of said Contract.

The Contractor shall procure and maintain, during the life of this Contract, Workmen's Compensation Insurance for all of his employees to be engaged in work under this Contract, and he shall require any subcontractor similarly to provide Workmen's Compensation Insurance for all of the latter's employees to be engaged in such work, unless such employees are covered by the protection afforded by the Contractor's insurance. In case any employees are to be engaged in hazardous work under this Contract, and are not protected under this Workmen's Compensation statute, the Contractor shall provide, and shall cause each subcontractor to provide, adequate coverage for the protection of such employees. It is acceptable to use a State-approved Workmen's Compensation Self-Insurance fund.

The Contractor shall take out and maintain during the life of this Contract, Public Liability and Property Damage and shall include Contractual Liability, Personal Injury, Libel, Slander, False Arrest, Malicious Prosecution, Wrongful Entry or Eviction, Broad Form Property Damage, Products, Completed Operations and XCU Coverage to be included on an occurrence basis, and to the full extent of the Contract to protect him, the Owner, and any subcontractor performing work covered by this Contract from damages for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this contract, whether such operations be by himself or by a subcontractor, or by anyone directly or indirectly employed by either of them. The Contractor shall also maintain automobile liability insurance including "non-owned and hired" coverage. The entire cost of this insurance shall be borne by the Contractor.

The amount of such insurance shall be no less than \$1,000,000 annual aggregate for bodily injury and property damage combined per occurrence.

The City of Naples must be named as Additional Insured on the insurance certificate and the following must also be stated on the certificate. "These coverage's are primary to all other coverage's the City possesses for this contract only." The City of Naples shall be named as the Certificate Holder. The Certificate Holder shall read as follows:

The City of Naples  
735 Eighth Street South  
Naples, Florida 34102

No City Division, Department, or individual name should appear on the Certificate.

No other format will be acceptable.

The Certificate must state the bid number and title.

When using the ACORD 25 – Certificate of Insurance only the most current version will be accepted.

The City of Naples requires a copy of a cancellation notice in the event the policy is cancelled. The City of Naples shall be expressly endorsed onto the policy as a cancellation notice recipient.

*[If other insurance or insurance requirements or any waivers, attach as Exhibit C-1 through C-\_\_]*

**EXHIBIT D**

**CERTIFICATION OF COMPLIANCE WITH IMMIGRATION LAWS**

The undersigned is the **Vice President** of the **AMEC Environment & Infrastructure, Incorporated** company ("the **CONTRACTOR**"), and hereby certifies to the following:

1. The **CONTRACTOR** is in full compliance with all provisions of the Immigration Reform and Control Act of 1986 ("IRCA"), as well as all related immigration laws, rules, regulations pertaining to proper employee work authorization in the United States.

2. The undersigned has verified that the **CONTRACTOR** has obtained and maintains on file, and will continue to obtain and maintain on file, all documentation required by law, including but not limited to, Form I-9, Employment Eligibility Verification, for all persons employed by or working for the **CONTRACTOR** in any capacity on any project for the City of Naples (**CITY**). All such persons have provided evidence of identity and eligibility to work to the **CONTRACTOR** in accordance with the IRCA and related law. The undersigned hereby affirms that no person has been or will be employed by the **CONTRACTOR** to work on projects for the **CITY** who is not authorized to work under law. The undersigned further affirms that the **CONTRACTOR**'s files will be updated by written notice any time that additional employees work on projects for the **CITY**.

3. The **CONTRACTOR** will have its contractors, subcontractors, suppliers and vendors who are involved in projects for the **CITY** to sign a written acknowledgment that they too are in compliance with immigration law. It is understood that failure to do so could result in the **CONTRACTOR** being liable for any violation of the law by such third parties.

4. The **CONTRACTOR** will fully cooperate with and have its contractors, subcontractors, suppliers and vendors to fully cooperate with, all inquiries and investigations conducted by any governmental agency in connection with proper compliance with the laws pertaining to appropriate work authorization in the United States.

5. The undersigned, on behalf of the **CONTRACTOR**, acknowledges that this Certification may be relied upon by the **CITY**, its officers, directors, employees, and affiliates or related persons and entities.

6. If it is found that the **CONTRACTOR** has not complied with the laws pertaining to proper employment authorization, and any legal and administrative action ensues against the **CITY**, the **CONTRACTOR** will indemnify, defend and hold the **CITY** harmless along with their officers, directors, employees, and affiliated or related persons and entities.

7. The **CONTRACTOR** acknowledges that the **CITY** by their authorized representatives shall have the right, at any time, upon 24 hours notice, to examine the **CONTRACTOR**'s books and records to confirm that the **CONTRACTOR** is in compliance with the terms of this certification.

Executed this 21<sup>st</sup> day of May, 2013.

By: Mark C. Dyer

**ACKNOWLEDGMENT**

STATE OF Florida  
COUNTY OF Alachua

SWORN TO AND SUBSCRIBED before me this 21<sup>st</sup> day of May, 2013.  
The Affiant, Mark C. Doblin, is  personally known to me or [ ] has produced  
NA as identification, which is current or has been issued within the past five years and  
bears a serial number or other identifying number.

Karen L. Grubel  
Print Name:  
Karen L. Grubel  
NOTARY PUBLIC - STATE  
OF Florida  
Commission Number: DD 964829  
My Commission Expires: 3/29/14  
(Notary Seal)



543759 v\_01 \ 016763.0001 REV. 12-27-07 RDP



April 24, 2013

Mr. Gregg Strakaluse, PE  
The City of Naples  
295 Riverside Circle  
Naples, Florida 34102

**RE: Proposal for City of Naples Water Quality Sampling and Analysis Support**

Dear Mr. Strakaluse:

AMEC Environment & Infrastructure, Inc. (AMEC) has been requested to provide environmental services to the City of Naples (City) for their City-wide Water Quality Sampling and Analysis. AMEC is pleased to provide this proposal to the City for this program. The scope of work is based largely on continuation and redirection of stormwater and lake water quality monitoring that has been conducted continuously since the fourth calendar quarter of 2010. Based on lessons learned during the past year, AMEC proposes to modify the continuation of that program with a reduced budgetary commitment.

City staff also requested development of scopes of work and cost estimates for several prospective tasks. These include:

- Monthly Naples Bay Water Quality Monitoring – City staff monitor Naples Bay water quality monthly. City staff could be more productive performing other departmental priorities, so the City has requested a proposal to take over the established Naples Bay water quality sampling effort.
- Gordon River and Naples Bay Watershed Pollutant Loading – In 2011 AMEC developed pollutant loading estimates to these waterbodies from City stormwater lakes. In this task AMEC proposes to estimate loadings from all sources to better understand the City's contribution to impairment of the water bodies. Estimates will rely, in part, on data from other published sources including Collier County Watershed Management Plan and Florida Department of Environmental Protection (FDEP) Total Maximum Daily Load (TMDL) Reports.

This proposal describes prospective tasks for consideration by the City. A separate proposal is in development for engineering design services for Lake Manor improvements.

**Task 01 – Continued Quarterly Monitoring of Pump Stations**

Stormwater samples will be collected quarterly from pump stations identified as 11-PUMP, 14-PUMP and PW-PUMP in our previous reports. All samples will be analyzed for total nitrogen (TN), total phosphorus (TP), total suspended solids (TSS), copper, fecal coliform and enterococcus. Temperature, dissolved oxygen, and conductivity will be measured in the field using an YSI multiprobe meter. The three pump stations will continue to be monitored on a quarterly basis to provide a better indication of baseflow loadings to downstream waterbodies. This scope remains the same as in 2012.

**Correspondence:**

AMEC  
404 SW 140<sup>th</sup> Terrace  
Newberry, Florida  
USA 32669-3000  
Tel + 1 352 332 3318  
Fax + 1 352 333 6622

### **Task 02 – Lake Condition Assessment and Source Identification**

Water samples will be collected twice during 2013 from 15 stormwater lakes, for a total of 30 samples. This plan represents a reduction in scope from 2012 during which 19 lakes were sampled twice per year. Lakes 7, 8, 16 and 21 are not recommended for sampling in 2013 due to relatively low priority as defined by AMEC (2013). All samples will be analyzed for TN, TP, TSS, copper, fecal coliform and enterococcus. Sampling frequency will be semi-annual (one wet season, one dry season). Continued sampling at priority locations provide a consistent long term data set that supports evaluation of baseline, trends, and the effects of City actions.

In addition, 10 samples are proposed at locations to be specified by City staff in consultation with Contractor, primarily in stormwater conveyances or at locations expected to have high pollutant concentrations. The basis for anticipated elevated pollutant concentrations will be all past data, as well as the results of the prioritization analysis performed as part of 2011 and 2012 work efforts.

In addition, the cost estimate provides for analysis of caffeine in eight (8) additional samples collected during either Task 01 or Task 02. In other words, eight (8) of the 12 quarterly pump station samples, 30 biannual lake assessment samples, or 10 source identifications samples will be analyzed for caffeine, at the discretion of the City. AMEC will develop a list of sample locations, already identified for Task 01 or Task 02, for analysis of caffeine prior to each sampling event, and these analyses will be performed with the City's concurrence.

### **Task 03 – Naples Bay Water Quality Monitoring**

Monthly samples will be collected from the locations indicated in Attachment 2. Samples will be submitted to Collier County Pollution Control Laboratory (CCPCL) under the City's current agreement. Field logs will be completed for each monitoring event and submitted to City. Field logs will document general sample event information including sample time, date, weather, sample method, sample depth, and any deviation from standard sampling procedures. The cost estimate for this task does not account for laboratory analysis fees; it is assumed that the City will maintain its current contract with CCPCL and will transfer payment for laboratory fees directly to CCPCL.

### **Task 04 – Gordon River and Naples Bay Watershed Pollutant Loading Allocation**

AMEC will perform a review of available hydrologic, nutrient and pollutant loading analyses performed for the Gordon River and Naples Bay contributing drainage basins. Loadings will be summarized by jurisdiction, including City of Naples, Unincorporated Collier County, or Other. Reference documents may include, but not be limited to, Collier County Watershed Management Plan and FDEP TMDL Reports. Summary of loading allocations will be provided as a technical memorandum.

### **Task 05 – Reports and Meeting**

AMEC will report water quality monitoring data as acquired to the City and FDEP (Task 04), within 30 days of receipt. Following completion of all efforts previously described, AMEC will submit a draft final report to the City for review. The draft final report will summarize the work performed as detailed above, with any technical memoranda or documents previously submitted included as appendices to the draft final report. AMEC will finalize the draft final report upon receipt of comments from the City. AMEC staff will meet with City staff to present the findings of the work completed to date and assess future data gaps. The meeting with City staff may be substituted by one (1) briefing / workshop for City Council, at the direction of the City.

### **Schedule**

AMEC will mobilize for the first biannual and quarterly sampling event within 15 business days of receipt of authorization. For any stormwater lake water quality monitoring results (Tasks 01 and 02)

obtained prior to submittal of the Draft Final Report, AMEC will submit the results in memo format to include a brief summary of notable findings, tabulated results and laboratory reports. Within 30 days of the final contracted sampling event, AMEC will provide the City with the Draft Final Report, which will include all previous submittals (water quality monitoring result memos, Task 04 memo) as appendices and will provide a summary and discussion of 2013 monitoring activities. AMEC will finalize Draft Final Report upon receipt of comments from the City.

**Fee**

Our proposal provides lump sum fees by task. The total fee is \$85,788. Costs are shown by task in the table below. Cost estimate detail is included as Attachment 1. Attachment 1 is based on AMEC's current standard professional rate schedule, which is also attached and is valid for calendar year 2013. The standard professional rate schedule also shows rates for labor categories that are not anticipated to be used for this project, but may be used on future City of Naples projects.

Task		Fee
01	Continued Quarterly Monitoring of Pump Stations	\$8,324
02	Lake Condition Assessment and Source Identification	\$32,155
03	Naples Bay Water Quality Monitoring	\$18,106
04	Gordon River and Naples Bay Watershed Pollutant Load Allocation	\$11,060
05	Reports and Meeting	\$16,142
<b>Total</b>		<b>\$85,788</b>

**Closing**

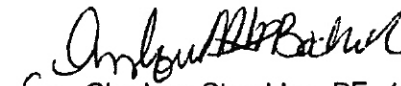
AMEC appreciates the opportunity to provide a price quotation for environmental services to the City of Naples. If you have any questions regarding this proposal, or would like to discuss it further, please contact me via email, [william.tucker@amec.com](mailto:william.tucker@amec.com), or telephone (352) 333-2609.

Sincerely,

**AMEC Environment & Infrastructure, Inc.**



William A. Tucker, PhD  
Senior Project Manager

  
for Charlene Stroehlen, PE with permission  
Senior Associate Engineer

Attachments:  
Attachment 1  
Attachment 2

**ATTACHMENT 1**



City of Naples Streets and Stormwater Department  
 Revised: Wednesday, April 24, 2013



**Scope: Water Quality Monitoring and Assessment**

		Task 01		Task 02		Task 03		Task 04		Task 05		TOTAL	
		Continued Quarterly Monitoring of Pump Stations		Lake Condition Assessment and Source Identification		Naples Bay Water Quality Monitoring		Gordon River and Naples Bay Watershed Pollutant Loading Allocation		Reporting, Meeting		TOTAL	
I. LABOR SUMMARY		HOURLY RATE		HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST
Senior Associate	\$169	4	\$676	12	\$2,028	8	\$1,352	24	\$4,056	36	\$6,084	84	\$14,196
Senior 1	\$116	8	\$696	8	\$928	8	\$696	8	\$696	8	\$928	34	\$3,944
Technical Professional 3	\$78	32	\$2,496	120	\$9,360	72	\$5,616		\$0		\$0	224	\$17,472
Technical Professional 2	\$71		\$0	120	\$8,520	32	\$2,272	72	\$5,112	64	\$4,544	288	\$20,448
Technical Professional 1	\$64		\$0		\$0		\$0		\$0	16	\$1,024	16	\$1,024
Technician 2	\$48		\$0		\$0		\$0		\$0	32	\$1,536	32	\$1,536
Admin Level 6	\$78	1	\$78	4	\$312	2	\$156		\$0		\$0	7	\$546
Admin Level 5	\$68	2	\$136	4	\$272		\$0		\$0		\$0	6	\$408
Admin Level 4	\$65	2	\$130	4	\$260		\$0	4	\$260	2	\$130	12	\$780
Admin Level 3	\$50	2	\$100		\$0		\$0		\$0	12	\$600	14	\$700
Technical Professional 3 - GIS	\$78	2	\$156	2	\$156		\$0	12	\$936	4	\$312	20	\$1,560
Technical Professional 1 - GIS	\$64		\$0		\$0		\$0		\$0	8	\$512	8	\$512
<b>LABOR SUBTOTAL</b>		<b>61</b>	<b>\$4,468</b>	<b>274</b>	<b>\$21,836</b>	<b>120</b>	<b>\$10,092</b>	<b>118</b>	<b>\$11,066</b>	<b>180</b>	<b>\$15,542</b>	<b>743</b>	<b>\$62,998</b>
		Continued Quarterly Monitoring of Pump Stations		Lake Condition Assessment and Source Identification		Naples Bay Water Quality Monitoring		Gordon River and Naples Bay Watershed Pollutant Loading Allocation		Reporting, Meeting		TOTAL	
II. EXPENSES		COST PER UNIT		UNITS	COST	UNITS	COST	UNITS	COST	UNITS	COST	UNITS	COST
<b>SUBCONTRACTORS (+12%)</b>													
Laboratory (Biannual Lake)	\$158	12	\$1,896	40	\$6,320		\$0		\$0		\$0	52	\$8,216
Laboratory (Caffeine)	\$265		\$0	8	\$2,120		\$0		\$0		\$0	8	\$2,120
Fee (12%)	12%		\$228		\$1,013		\$0		\$0		\$0	0	\$1,240
<b>OTHER DIRECT COSTS (+6%)</b>													
Boat	\$300		\$0		\$0	12	\$3,600		\$0		\$0	12	\$3,600
Meters (YSI)	\$120	4	\$480	2	\$240	12	\$1,440		\$0		\$0	18	\$2,160
Sample Kit - Supplies/Expendables/Ice	\$100	4	\$400	2	\$200	12	\$1,200		\$0		\$0	18	\$1,800
Fee (6%)	6%		\$53		\$26		\$374		\$0		\$0	0	\$454
<b>IN-HOUSE RECOVERABLES (+0%)</b>													
Truck/Trip	\$100	4	\$400	2	\$200	2	\$200		\$0	2	\$200	10	\$1,000
Miscellaneous charges estimate (shipping, printing, daily expenses)	\$100	4	\$400	2	\$200	12	\$1,200		\$0	4	\$400	22	\$2,200
<b>EXPENSES SUBTOTAL</b>		<b>28</b>	<b>\$3,855</b>	<b>56</b>	<b>\$10,319</b>	<b>50</b>	<b>\$8,014</b>	<b>0</b>	<b>\$0</b>	<b>6</b>	<b>\$600</b>	<b>140</b>	<b>\$22,790</b>
<b>TOTAL BY TASK</b>		<b>\$8,324</b>		<b>\$32,155</b>		<b>\$18,106</b>		<b>\$11,066</b>		<b>\$16,142</b>		<b>\$85,788</b>	

**AMEC Environment & Infrastructure, Inc.**  
**Professional Rate Schedule**  
**Valid January 1 to December 31, 2013**

<b>Environmental Engineering Services</b>	<b>Rate/Hr</b>
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**Professional Services**

Principal	\$174
Senior Associate	\$169
Associate	\$131
Senior 2	\$128
Senior 1	\$116
Technical Professional 3	\$78
Technical Professional 2	\$71
Technical Professional 1	\$64

**Technician Services**

Technician 6	\$71
Technician 5	\$68
Technician 4	\$65
Technician 3	\$62
Technician 2	\$48
Technician 1	\$45

**Survey Services**

	<b>Rate/Hr</b>
Senior 2	\$128
Technician 3	\$62
Technician 1	\$45

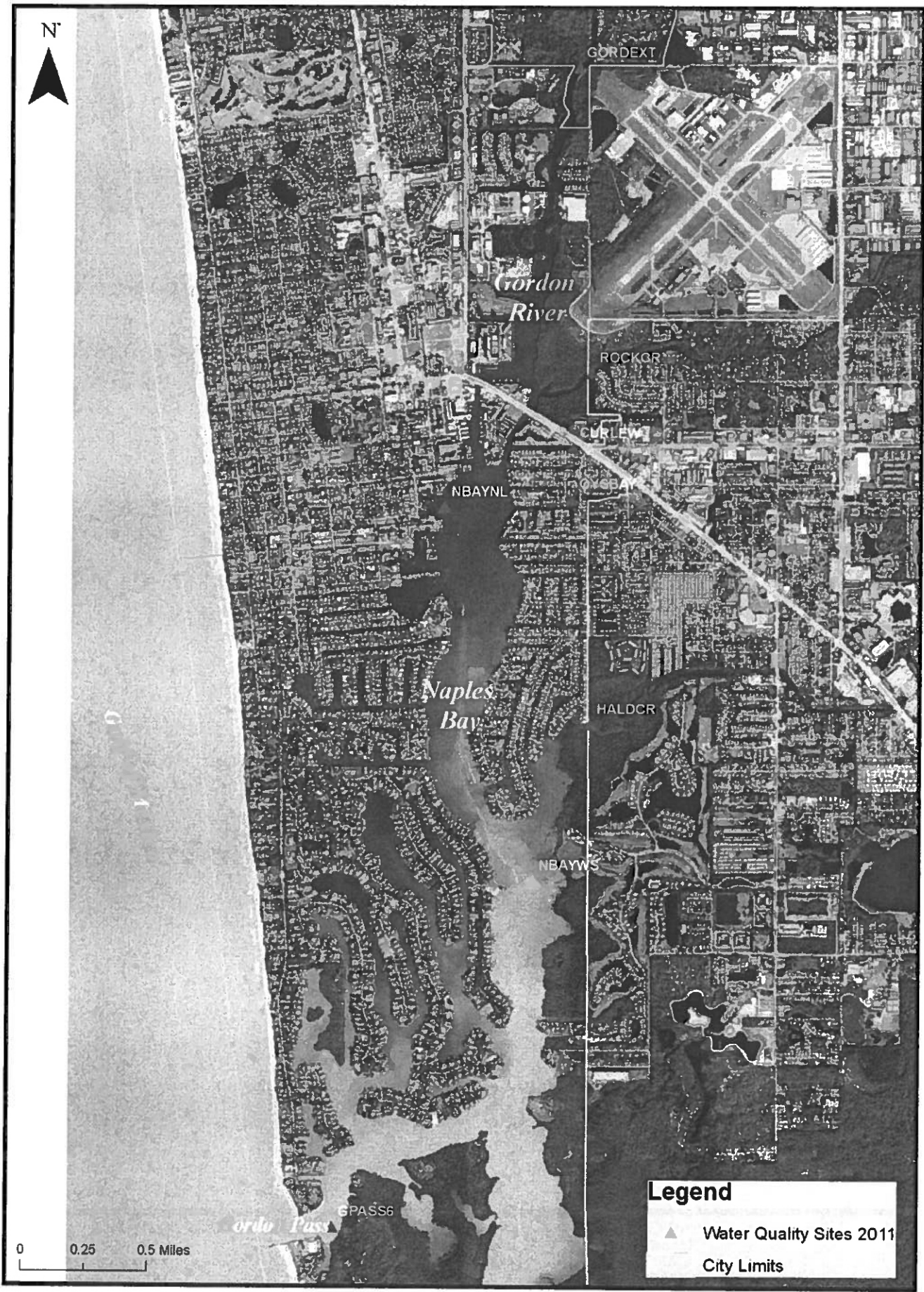
**Administrative Support**

	<b>Rate/Hr</b>
Admin Level 6	\$78
Admin Level 5	\$68
Admin Level 4	\$65
Admin Level 3	\$50
Admin Level 2	\$48
Admin Level 1	\$45

**Technical Support**

	<b>Rate/Hr</b>
Technical Professional 3 - GIS	\$78
Technical Professional 1 - GIS	\$64

**ATTACHMENT 2**



Land Use information shown is based on 2010 aerial photography. Source: Collier County Property Appraiser's office. The City of Naples assumes no liability for errors or omissions in the accuracy of this map. All information shown is for reference only.

### NATURAL RESOURCES Water Quality Sampling Sites 2011

CITY OF NAPLES, FLORIDA



## Gregg Strakaluse

---

**Subject:** FW:

**From:** Tucker, William A (Gainesville) [<mailto:William.Tucker@amec.com>]  
**Sent:** Wednesday, May 01, 2013 5:44 PM  
**To:** Gregg Strakaluse  
**Cc:** Arden, Sam C  
**Subject:**

During the City Council workshop of February 19, questions were posed regarding statistical validity of the historical and planned future stormwater monitoring program. AMEC has considered this question with several qualitative findings and recommendations.

AMEC reviewed trends at the Cove (11) and Lantern Lane (14) pump stations. These locations were selected for additional evaluation of statistical validity because each location has been sampled quarterly for two (2) years, with a total of 8 samples. Neither location shows statistically significant trends at this time, although concentrations of both TN and TP appear to be going down at Lantern Lane Pump Station. Concentrations of TN and TP appear to be declining at Lantern Lane Pump Station, but additional data are required to reach a conclusion of a statistically significant trend. The apparent trend is strong enough that if the apparent trend continues for 1 to 2 years, the trend may "become" statistically significant.

The most important characteristic of a statistically useful monitoring program will be to consistently sample at a regular frequency (whether that frequency be twice per year, quarterly, or any consistent frequency) until such time that approximately 20 samples are available. I have found it's a useful rule of thumb that statistically significant conclusions cannot usually be drawn from environmental data sets with less than 20 results. When looking for trends, time has to pass – you can't take 20 samples in a month and see a trend unless it's a really, really dramatic trend. The most important feature of data sets to be evaluated for trends will be approximately 20 samples taken on a regular schedule. You might see a trend with 12 or 15 samples collected quarterly, when you're lucky. There's a balance between the strength of the trend, the duration of the sampling program, and the consistent scheduling of sampling. Therefore continued sampling at a consistent rate for a few years will allow trends to be observed, if they exist.

The City's monitoring program has been consistently at a quarterly frequency for Cove and Lantern Lane pumps for two years. Quarterly sampling was initiated at the Public Works Pump one year ago, and so only 5 samples are available at that location. Seven (7) lake stations have been sampled 7 or 8 times. Some of those lakes are higher priority than others, in our opinion.

To detect trends, if present, in less than 5 years, it may be required to increase the sampling frequency to quarterly. Prioritized lakes for intensifying the sampling effort with the potential for relatively short term payoff in terms of trend identification include Spring Lake, Lake Manor, Swan Lake, and Lake Suzanne. Each of these lakes already have 7 or 8 historical samples, so increasing the sampling frequency to quarterly could reveal significant trends in a reasonable time period of 2 to 4 years. The City should consider, in selecting stations for more frequent monitoring: Is there reason to believe in-lake or lake watershed management actions have been taken over the period of interest for improvements to be realized?

Increasing the entire lake condition assessment monitoring program (according to the most recent proposal, this includes 15 lakes) to quarterly frequency with no increase in source identification sampling (no increase in roaming conveyance sampling and caffeine analyses), would increase annual program cost by approximately \$26,000. Increasing the sampling frequency at only a few targeted lakes (for example 5 lakes) would increase program cost by approximately \$5,000.

William A. Tucker, Ph.D.  
Principal Environmental Scientist  
AMEC Environment & Infrastructure, Inc.  
404 SW 140th Terrace  
Newberry, FL 32669  
352-333-2609 direct  
352-332-3318 switchboard  
352-333-6622 fax