

Staff Summary Report

Council Meeting Date: 10-16-2008

Agenda Item Number: 27

SUBJECT: Request to award a one-year contract with four, one-year renewal options to Aquatic Consulting and Testing for water quality sampling, testing, aquatic weed control and insect monitoring services at Tempe Town Lake and Indian Bend Wash Habitat.

DOCUMENT NAME: 20081016fstst16 **PURCHASES (1004-01)**

SUPPORTING DOCS: Yes

COMMENTS: (RFP #09-043) Total cost for this contract shall not exceed \$350,000 during the initial contract period.

PREPARED BY: Ted Stallings, CPPB, Procurement Officer, 480-350-8617

REVIEWED BY: Michael Greene, CPM, Central Services Administrator, 480-350-8516
Chris Salomone, Community Development Manager, 480-350-8294
Nancy Ryan, Rio Salado Manager, 480-350-8096
Don Hawkes, Water Utilities Manager, 480-350-2660
Basil Boyd, Water Resources Hydrologist, 480-350-2603

**LEGAL REVIEW AS
TO CONTRACT FORM**

ONLY: N/A

FISCAL NOTE: Sufficient funds have been appropriated in 5012-6672 for the anticipated expenditures in fiscal year 2008/09.

RECOMMENDATION: Award the contract.

ADDITIONAL INFO: The City received one offer in response to this RFP. An evaluation committee composed of Community Development, Water Utilities and Procurement staff reviewed and scored the offer in accordance with the evaluation criteria. Aquatic Consulting and Testing is fully compliant with the RFP requirements and is well qualified to perform this work. The purpose of this contract is to provide water quality sampling, testing, aquatic weed control, and insect monitoring services.

The pricing offered by the recommended firm is considered fair and reasonable and represents a significant cost reduction from the previous contract.

Vendor's Proposal Offer

It is REQUIRED that Proposal Offeror COMPLETE, SIGN and SUBMIT the original of this form to the City Procurement Office with the proposal response offer. An unsigned "Vendor's Proposal Offer", late proposal response and/or a materially incomplete response will be considered non-responsive and rejected.

Proposal offeror is to type or legibly write in ink all information required below.

Proposal Offeror's Company Name	<u>Aquatic Consulting & Testing, Inc.</u>
Company Mailing Address	<u>PO Box 1510, Tempe AZ 85280</u>
Company Street Address	<u>1525 W. University Dr, Suite 106 Tempe AZ 85281</u>
Proposal Offeror Contact	<u>Frederick Amalfi</u> Title <u>Vice President</u>
Contact's Phone No.	<u>480-921-8044</u> E-mail Address <u>ramalfi@aquaticconsulting.com</u>
<u>Proposal Offeror's Company Tax Information:</u>	
Arizona Transaction Privilege (Sales) Tax No.	<u>07-3799388-B</u> or
Arizona Use Tax No.	_____
Federal I.D. No.	<u>860625289</u>
City & State Where Sales Tax is Paid	<u>Tempe</u> , <u>Arizona</u>
If a Tempe based firm, you must indicate your Tempe Transaction Privilege (Sales) Tax No.	<u>N/A</u>

THIS PROPOSAL IS OFFERED BY

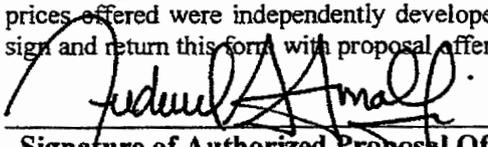
Authorized Proposal Offeror (Type or Print in ink) Frederick A. Amalfi

Proposal Offeror's Title (Type of Print in ink) Vice President

Date 09-30-08

REQUIRED SIGNATURE OF AUTHORIZED PROPOSAL OFFEROR (Must Sign in Ink)

By signing this Proposal Offer, Offeror acknowledges acceptance of all terms and conditions contained herein and that prices offered were independently developed without consultation with any other offeror or potential offeror. Failure to sign and return this form with proposal offer will result in a non-responsive proposal.


Signature of Authorized Proposal Offeror

09-30-08
Date

Company Name: Aquatic Consulting

PRICE SHEET

ITEM NO.	DESCRIPTION OF REQUIRED MATERIAL, SERVICE OR CONSTRUCTION	QTY	UNIT	UNIT PRICE	EXTENDED PRICE
1.	Weekly/Monthly water quality sampling, testing, treating, insect monitoring and reporting. Rate all inclusive of personnel, vehicles, fuel, travel/per diem, maintenance, shop supplies, mobilization, etc.	12	Month	\$ <u>7550.*</u>	\$ <u>90,600.00*</u>
2.	Hourly Labor Rate (Straight Time) for related services not described in Scope and Specifications of RFP. Normal Work hours 7:00am to 4:00pm (Monday - Friday) - Rate all inclusive of personnel, vehicles, fuel, travel/per diem, maintenance, shop supplies, mobilization, etc.	1	Hour	\$ <u>75.</u>	\$ <u>75.00</u>
3.	Overtime Labor Rate (Straight Time) for related services not described in Scope and Specifications of RFP. Overtime Labor Rate (Night, Weekends, City Holidays) - Rate all inclusive of personnel, vehicles, fuel, travel/per diem, maintenance, shop supplies, mobilization, etc.	1	Hour	\$ <u>100.</u>	\$ <u>100.00</u>
4.	Percentage markup for Sample Testing. <u>∅</u> %				
5.	Percentage markup for subcontractor services not identified in RFP. <u>∅</u> %				
6.	Percentage markup for Chemicals. <u>∅</u> %				
7.	Percentage markup for miscellaneous equipment/supplies <u>∅</u> %				
8.	Provide description and pricing for additional services. <u>See Section 10 - Fee schedule</u>				

*Price covers all field sampling (water and mosquitoes) and chemical application labor and laboratory tests for Tempe Town Lake. It does not include chemical costs for lake treatments, fish, fogging, or emergent vegetation control in the IBW Habitat that are condition (weather and river flow) dependent. See following page for inclusive projected annual costs.

Projected Inclusive Annual Costs with Options

Optional services to be approved by City of Tempe Project Manager prior to commencing activity.

Task	Low Rate \$	High Rate \$	Projected Annual Cost \$	
			Low	High
Lake monitoring, field testing, lab testing, and chemical applications for lake (fixed fee)	7,550.00 per month	7,550.00 per month	90,600.00	90,600.00
Chemicals for pH and algae control Algaecide (Cutrine, Cutrine Ultra, Earthtec) (as needed)	57,600.00 (2 complete applications)	115,200.00 (4 complete applications)	57,600.00	115,200.00
Chemicals for lake filamentous algae and weed control: Reward Cutrine Ultra Komeen Phycomycin/Green Clean Pro (as needed)	525.00 215.00 300.00 1332.00	1320.00 536.00 750.00 2664.00	2,372.00	5,270.00
Optional predatory (insect control) fish (based on water flows and losses)	25,000.00	45,000.00	25,000.00	45,000.00
Optional cattail management in IBW Habitat, labor and chemicals	10,000.00	25,000.00	10,000.00	25,000.00
Optional Fogging (adulticiding) for mosquito and midge adults	Not anticipated	0.00	0.00	0.00
TOTAL			185,572.00	281,070.00

MICROBIOLOGY

<u>ANALYSIS</u>	<u>METHOD</u>	<u>COST / SAMPLE</u>	
		<u>WATER</u>	<u>SOIL</u>
<u>TOTAL COLIFORM</u>			
MPN (10 tube)	SM9221B	\$25.00	\$30.00
MPN (15 tube/3 dilution series)	SM9221B	\$25.00	\$50.00
P/A	SM9221E	\$25.00	--
Colilert (24hr)	SM9223B	\$25.00	--
Colilert (24hr Escrow)	SM9223B	\$50.00	--
Membrane Filter	SM9222B	\$25.00	--
<u>FECAL COLIFORM</u>			
MPN (15 tube/3 dilution series)	SM9221C	\$25.00	\$50.00
each additional dilution add		\$20.00	\$20.00
Membrane Filter	SM9222D	\$25.00	--
Biosolids	SM9221C	--	\$75.00
<u>E. COLI</u>			
Colilert (P/A)	SM9223B	\$25.00	--
MPN	SM9221F	\$25.00	\$50.00
Membrane Filter		25.00	--
<u>FECAL STREPTOCOCCUS</u>			
MPN (15 tube/3 dilution series)	SM9230B	\$45.00	\$75.00
each additional dilution add		\$20.00	\$20.00
Membrane filter	SM9220C	\$45.00	--
<u>HETROTROPHIC PLATE COUNT</u>	SM9215B	\$50.00	\$75.00
<u>IRON BACTERIA (P/A Reactivity)</u>	SM9240B	\$60.00	\$100.00
<u>SULFUR BACTERIA (P/A Reactivity)</u>	SM9240C	\$60.00	\$100.00
<u>BOTULISM TOXIN SCREENING</u>		\$75.00	
<u>DENITRIFYING BACTERIA</u>		\$60.00	
<u>NITRIFYING BACTERIA</u>		\$60.00	
<u>SLIME FORMING BACTERIA</u>		\$60.00	
<u>PSEUDOMONAS SCREEN</u>		\$50.00	
<u>E. COLI TYPE H0157:H7</u>		\$60.00	
<u>BACTERIA SPECIES IDENTIFICATON (Biolog)</u>		\$75.00 Culture + \$90.00 per colony type	
<u>YEAST AND MOLD COUNT</u>		\$75.00	
<u>FUNGUS (Genus Identification)</u>		\$75.00	
<u>COLIPHAGE</u>		\$150.00	
<u>MUTAGENICITY (AMES Test)</u>		Quote	

BIOLOGY CONSULTING

CONSULTATION AND SPECIAL ANALYSES

COST / HOUR

Research and Development - Special Projects	\$125.00*
Senior Microbiologist	\$125.00*
Senior Biologist	\$75.00*
Microbiology Technician	\$35.00*
Clerical	\$30.00*

*minimum.

BIOMONITORING/BIOTOXICITY

COST / SAMPLE

<u>ACUTE TOXICITY TEST (EPA/600/4-90/027F)</u>	2 Replicates	4 Replicates	5 Replicates
100% vs Control (Daphnia, Ceriodaphnia, or Fathead minnow)			
24-hr static test	\$150.00	\$200.00	\$250.00
48-hr static or renewal test	\$175.00	\$225.00	\$300.00
96-hr static or renewal test	\$300.00	\$400.00	\$450.00
Five Dilution Series (Daphnia, Ceriodaphnia, or Fathead minnow)			
24-hr static test	\$400.00	\$400.00	\$450.00
48-hr static or renewal test	\$450.00	\$550.00	\$650.00
96-hr static or renewal test	\$550.00	\$750.00	\$850.00

CHRONIC TOXICITY TEST - (EPA-600-4-91/002; EPA-R-821-02-013)

COST / SAMPLE

Cladoceran (C. dubia) survival and reproduction (10 rep.) (USEPA 1002.0)	
100% vs. Control	\$800.00
Five Dilution Series	\$1,100.00

CHRONIC TOXICITY TEST - (EPA-600-4-91/002; EPA-R-821-02-013)

COST /SAMPLE

Fathead minnow (*P. promelas*) survival and growth (USEPA 1000.0)

100% vs. Control (4 rep.)

\$800.00

Five Dilution Series (4 rep.)

\$1,100.00

Algal Growth Test (*S. capricornutum*) (USEPA 1003.0)

96-hr, 100% vs Control

\$350.00

96-hr, Five Dilution Series

\$700.00

BIOSTIMULATION TEST (SM8111)

\$900.00

SEDIMENT TOXICITY TEST

COST / SAMPLE

ASTM E 1383

5 replicates, 20 organisms per replicate, static

Hyalella azteca, *Chironomus* spp.

10-day survival test

\$700.00

10-day survival and growth test

\$800.00

30-day survival, growth, and reproduction test

\$2,200.00

EPA 600/R-94/024

8 replicates, 10 organisms per replicate, renewal

Hyalella azteca Method 100.1

\$1,300.00

Chironomus tentans Method 100.2

\$1,300.00

PRODUCT TESTING

Screening

\$150.00 *

* plus Acute or Chronic fees listed on page 8 & 9

PRYMNESIN (Golden Algae) toxin screen

\$200.00

All Toxicity testing MUST be scheduled with the laboratory prior to sample submittal.

ORGANISM IDENTIFICATION AND QUANTIFICATION

ALGAE

COST / SAMPLE

Identification (only) to Division level	\$45.00
Identification (only) to Genus level	\$75.00
Quantification (total cell count)	\$50.00
Golden Algae Screen	\$50.00
Identification and Differential Quantification to Genus	\$100.00
Identification and Differential Quantification to Species	\$250.00
Chlorophyll a	\$50.00
Chlorophyll a & Pheophytin a	\$60.00
Chlorophyll a,b,c & Pheophytin a	\$80.00

ZOOPLANKTON

Identification (only) to major taxa	\$60.00
Quantification (total count)	\$50.00
Identification and Differential Quantification, by major taxa	\$100.00

AQUATIC INVERTEBRATES

Identification-includes	\$125.00
Insects (to Order level)	
Nematodes (to Phylum level)	
Flatworms (to Class level)	
Annelids (to Class level)	
Mollusks (to Family level)	
Identification and Differential Quantification, by major taxa	\$150.00

MICROSCOPIC EVALUATIONS**COST / SAMPLE**

Microscopic Particulate Analysis (MPA)	\$375.00
MPA Pump rental	\$50.00
General microscopic identification of unknown material	\$75.00 / hr*
Particle Count / Identification	\$75.00 / hr*
Enteric Virus	\$600.00
Parasites - extraction, plus	\$425.00
Giardia lamblia	\$65.00
Cryptosporidium	\$65.00
Ascaris (common large tapeworm)	\$65.00
Entamoeba histolytica	\$65.00
Common tape worm	\$65.00
Ascaris only	\$75.00
Common tapeworm only	\$75.00

*75.00 minimum

GENERAL CHEMISTRY ANALYSIS

Water / Wastewater

<u>ANALYTE</u>	<u>COST /SAMPLE</u>	<u>ANALYTE</u>	<u>COST / SAMPLE</u>
Alkalinity	\$20.00	Oil & Grease	
Biochemical Oxygen Demand	\$40.00	Gravimetric (413.1)	\$100.00
Bromide	\$20.00	Spectrometric (413.2)	\$100.00
Cation Exchange Capacity	\$50.00	Gravimetric (1664)	\$100.00
Carbon Dioxide	\$30.00	pH	\$15.00
Chemical Oxygen Demand	\$40.00	Phenol, total (EPA 420.1)	\$100.00
Chloride	\$20.00	Phosphorus	
Chlorine, free	\$20.00	Total	\$30.00
Chlorine, total	\$20.00	Ortho	\$20.00
Chromium, Hexavalent	\$65.00	Silt Density Index (lab)	\$50.00
Color	\$40.00	Silica, Soluble	\$25.00
Cyanide, total or amenable	\$60.00	Solids	
Electrical Conductivity	\$20.00	Dissolved	\$20.00
Fluoride	\$20.00	Suspended	\$20.00
Formaldehyde	\$50.00	Settleable	\$20.00
Hardness, total	\$20.00	Total	\$20.00
Iron, Ferrous	\$50.00	Volatile	\$40.00
Nitrogen		Sulfate	\$20.00
Ammonia	\$20.00	Sulfide	
Kjeldahl	\$35.00	Total	\$25.00
Organic	\$35.00	Dissolved	\$25.00
Nitrate + Nitrite	\$20.00	Sulfite	\$40.00
Nitrate (only)	\$40.00	Surfactants (MBAS)	\$85.00
Nitrite	\$20.00	Tannin/Lignin	\$100.00
Total N (TKN+NO3 +NO2)	\$55.00	Total Organic Carbon	\$60.00
Oxygen, dissolved (electrode)	\$20.00	TPHC (418.1 Freon)	\$100.00
Oxygen, dissolved (Winkler)	\$35.00	Turbidity	\$20.00
ORP (Redox Potential)	\$50.00	Threshold Odor Number	\$100.00
		UV254	\$50.00

METALS ANALYSIS

COST / ELEMENT

INDUCTIVELY COUPLED ARGON PLASMA (ICP)

Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Cu, Fe, Pb, Li, Mg, Mn, Mo Ni, K, Se, Ag, Na, Sr, Ti, Sn, V, Zn \$15.00

GRAPHITE FURNACE ATOMIC ABSORPTION SPECTROSCOPY (GFAA)

Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Cu, Fe, Au, Pb, Li, Mg, Mn, Mo Ni, K, Se, Ag, Na, Sr, Ti, Sn, V, Zn \$15.00

COLD VAPOR ATOMIC ABSORPTION SPECTROSCOPY

Mercury \$45.00

ANCILLARY TESTING

Ferric Iron \$25.00

Ferrous Iron \$50.00

Hexavalent Chromium \$65.00

Arsenic Speciation for source water treatment (As+3, As+5 and Total) \$75.00

Gold \$25.00

Palladium \$25.00

Zirconium \$25.00

SAMPLE PREPARATION

<u>METHOD NUMBER</u>	<u>MATRICES</u>	<u>COST / SAMPLE</u>
3005, 3010, 3020	Water, Wastewater	\$30.00
3050	Soils, Sediments, Solids	\$30.00
1311	Toxicity Characterization Leaching Procedure (TCLP)	\$100.00
1312	Synthetic Precipitation Leaching Procedure (SPLP)	\$125.00
ASTM	Soluble Metals	\$30.00

GROUP ANALYSIS

SAFE DRINKING WATER ACT MARICOPA COUNTY NEW SOURCE APPROVAL

COST / SAMPLE

Inorganic Compounds

Metals (Sb,As,Ba,Be,Cd,Cr,Ni,Hg,Se,Tl), Cyanide (as Free CN), Fluoride, Nitrate (as N), Nitrite (as N) \$300.00

Asbestos \$175.00

Recommended Inorganic Compounds

Metals (Ca, Cu, Fe, Pb, Mg,Mn,Na,Zn), Alkalinity, Chloride, Hardness, pH, Sulfate, Total Dissolved Solids \$150.00

Lead & Copper \$30.00

Langlier/Ryznar Index (pH, Temp., Calcium Hardness, Alk, TDS) \$75.00

Volatile Organic Compounds \$225.00

Semivolatile Organic Compounds (less Dioxin & Glyphosate*) \$1,275.00

(EPA Methods, 525.2, 531.1, 508, 515.1, 504, 548, 549.1)

* Waiver program available. Contact ADEQ for details.

Waiver program compounds

2,3,7,8-TCDD (Dioxin) (Method 1613) \$600.00

Glyphosate (Method 547) \$175.00

Radiochemical

Gross α^{**} \$50.00

** Additional testing may be required with positive detection.

Microbiology

Total Coliform (P/A or Colilert) \$25.00

MISCELLANEOUS

Trihalomethanes (THMs 524.2) \$150.00

Haloacetic Acids (HAAs 552.2) \$200.00

Perchlorate \$120.00

ICP Scan \$200.00

GROUP ANALYSIS

RESOURCE CONSERVATION AND RECOVERY ACT HAZARDOUS

COST / SAMPLE

WASTE CHARACTERIZATION

pH	\$15.00
Paint Filter	\$25.00
Flash Point	\$75.00
Reactivity (Cyanide, Sulfide & Water)	\$180.00
<u>8 RCRA Heavy Metals by Toxicity Characteristic Leaching Procedure</u>	\$250.00
(As, Ba, Cd, Cr, Pb, Hg, Se, Ag)	
<u>8 RCRA Heavy Metals, Total, by digestion</u>	\$180.00
(As, Ba, Cd, Cr, Pb, Hg, Se, Ag)	
<u>13 Priority Pollutant Metals, Total</u>	\$255.00
(Sb, As, Be, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Tl, Zn)	

CLEAN WATER ACT

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) MUNICIPAL DISCHARGE

WATER QUALITY MONITORING

pH	\$15.00
Sulfides	\$25.00
Total Petroleum Hydrocarbons (TPH)	\$100.00
Cyanide	\$60.00
Metals	See Metals Analysis Section
Total Toxic Organics (TTO)	\$925.00
<u>TTO Methods:</u>	
Volatile Organic Compounds by EPA Method 624	\$225.00
Semi-volatile Organic Compounds by EPA Method 625 (Dioxin Screen separate)	\$450.00
Chlorinated Pesticides by EPA Method 608	\$250.00

BIOTREATMENT

	COST / SAMPLE	
	<u>SOIL</u>	<u>WATER</u>
Plate count-heterotrophic, HC-degrading bacteria, moisture content (gravimetric)	\$75.00	\$75.00
Total Petroleum Hydrocarbons	\$100.00	\$100.00
pH	\$15.00	\$15.00
Soil water capacity	\$15.00	-
Phosphate - Ortho-P (water soluble)	\$25.00	\$20.00
Ammonia - N	\$25.00	\$20.00
Nitrate + Nitrite - N (water soluble)	\$25.00	\$20.00
Organic nitrogen - N	\$35.00	\$35.00
Total organic carbon (Walkley-Black)	\$60.00	\$60.00
Dissolved oxygen (Winkler)	-	\$35.00*
Written Evaluation	\$75.00	\$75.00

* Minimum charge.

Turnaround time estimated at 15 to 20 working days to permit slow-growing bacteria to colonize medium and be detected.

BIO-SOLIDS ANALYSIS

	COST / SAMPLE	
	<u>SOIL</u>	<u>WATER</u>
<u>503 Nutrients</u> (NH3, TKN, NO3 + NO2, P-T)	\$100.00	-
<u>503 Metals</u> (As, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Zn)	\$210.00	-
S.O.U.R. (includes TS & VSS)	\$135.00	-
<u>Total Solids</u> (TFS, TS, TVS)	\$60.00	-
<u>Hazardous Waste Disposal</u>		
8260 TCLP-ZHE (Volatiles)	\$300.00	-
8270 TCLP-ZHE (Semi-Volatiles)	\$450.00	-
8081 (Pesticides)	\$300.00	-
8151 (Herbicides)	\$375.00	-
Enteric Virus	\$550.00	-
Salmonella	\$150.00	-
Helminth Ova	\$425.00	-

GENERAL AGRONOMY AND SOIL TESTS

<u>TEST GROUP</u>	<u>METHOD</u>	<u>COST/ SAMPLE</u>
<u>Cations:</u>		
Ca, Mg, Na, K, cation exchange capacity (CEC), exchangeable sodium	SPAC-NAA ICP	\$60.00
<u>Minor elements:</u>		
Fe, Zn, Cu, Mn	SPAC-DPTA	\$60.00
Boron	SPAC-ICP	\$20.00
Sulfate/Sulfur	ASA 79-4	\$20.00
Nitrate	SPAC DPTA	\$20.00
Kjeldahl nitrogen	ASA 83-7	\$40.00
Phosphate/Phosphorus	SPAC DPTA	\$30.00
Salinity (soluble salts or electrical conductivity)	ARIZ 237B	\$20.00
pH	ARIZ 237B	\$15.00
Organic matter	ASA 90-3	\$60.00
Cation exchange capacity	ASA 57-3	\$60.00
Chloride	ARIZ 736	\$20.00
Free lime (qualitated)		\$10.00
Lime (quantitated)		\$30.00
Petiole analysis (nitrate)		\$20.00
Petiole analysis (nitrate & phosphorus)		\$40.00
Soil herbicide bioassay		\$100.00
Agronomic/landscape data assessment		\$35.00

FIELD SAMPLING AND CONSULTATION FEES

<u>FIELD SAMPLING</u>	<u>COST</u>
Travel, per hour	\$50.00
Mileage, per mile	\$0.75
<u>Specimen Collection, per hour (3-hour minimum)</u>	
Field Biologist/Chemist	\$75.00
Project Manager	\$110.00
Principle, Sr. Staff	\$150.00
SAMPLE PICK-UP SERVICE	
Routine sample pick-up (Phoenix Metro Area) (24 hour notice required for scheduling)	\$30.00
CONSULTATION	
Expert Witness Testimony	\$250.00
<u>Research, or report preparation</u>	
Field Biologist/Chemist	\$75.00
Project Manager	\$110.00
Principle, Sr. Staff	\$150.00
Clerical	\$30.00
MISCELLANEOUS	
Disposal Fee*	\$2.00
Minimum Invoice (does not apply to contracts)	\$25.00
Sample hold charge	\$5.00/sample
Compositing fee	\$10.00/sample

*Applied to any sample that is determined to be a hazardous/special waste.