Contract No: 6235-CH Eshibit

8

Continuing Professional Services for Stormwater and Environmental Engineering
WA#10--Extended Monitoring for Bennett Swamp Wetland Application of Excess ReUse Water
Bassed on monitoring requirements of the QAPP for the FDEP Grant and Biota Sampling for the NPDES Permit
Prepared by: Waish

8/23/2017

TEM SRWMAD FIELD MALKS - 8 MONTHLY

MONTHLY FIELD WALKS - 8 MONTHLY

MONTA SAMPLING BEGINNING PLUS QUARTERLY FOR 4 QUARTERS- 5 Total

MONTA SAMPLING BEGINNING PLUS QUARTERLY

DATA ANALYSIS

MONTHLY FIELD WALK REPORTS

MONTHLY GAPP REPORTS -First Year Monitoring per Plan of Study for Bennett Swamp Aquifer Recharge Project Task Description Project Technical Sr. Civil
Manager Specialist Engineer
E: 5184.29 \$198.74 \$144.11
Hours Hours Surveyors \$0.00 BUS 90 90 30 \$0.00 \$2,602.50 Civili Structural III.
Engineers Engineers B
50.00 \$86.75 \$0.00 12 0 5 54,180.56

130 8 522310.09

1490 5 5 540.388.20

150 5 51.282.20

1 51.282.20

1 52.4 0 12 59,781.88

1 100 20 60 10 520,178.20

1 100 20 60 10 520,178.20

1 100 299 8 24 8 56,382.32

1 100 499 0 299 84 50 \$ 133,181.16 check Engineer Interns-Graduate Engineers with El Ilicense-Also staff Biologist aff Speci Enviro. /CADD A. alists Scientists Tech As 124 50.00 \$138.62 \$88.46 wrs Hours Hours 0.00 \$0.00 \$1.50 Plann ers /Gran Admin.
Assistant cost/task
550.94
Hours Total Hours

<b>EXPENSES</b>	

Per Diem Expenses Hotel-Daytona Meals

4x4 Truck Rental-one day trip--From Gainesville 4x4 Truck Rental-two day day tripFrom Gainesville

Mileage Calculations
Orlando to Daytona Beach-50 miles each way
Jacksonville to Daytona Beach 90 miles each way
Gainesville to Daytona Beach 112 miles each way

														=\$10/day	000	×557.83/day x 1day plus \$45.52 for gas ≈\$57.83/day x 2 days plus \$45.52 for gas	250 miles x 2 ways x \$0.535/mile 290 miles x 2 ways x \$0.535/mile 2112 miles x 2 ways x \$0.535/mile	
								11						ww		to to	in in in	
														94.00 30.00	· v	161.1B	53.50 96.30 119.84	
Exhibit 8.2 Subtotal	From Exhibit 8.2 Purchase and installation of Satellite Felentry Equipment—See Exhibit 8.2 for Breakdown \$  Labor  Purchase Equipment—Includes Vendor Time for Setup/Calibration—Training—18 unit \$  Mileage/Hote/PerDiem \$		Subtotal \$	Equipment Purchase for City for Use on Future Monitoring  YSI—Meter  Tree Diameter Tapa—dbh  Pocket Rod—Water Levels  Stainless Steel Mixing Bowl & Stainless Steel—Soil Sampling  \$	Subtorial \$	5 Tasks 5, 6, 7, 8, 9 Office Expenses—October, 2017 through May, 2019 5.1 Printing—10,000 sheets @ \$0.07/sheet 5.2 Postage & Shipping—20 months @ \$45/month 5.3	Subtotal \$	4.3 Rental of Continuous DO/Specific Conductance meters = 5 dates = 2 sites = includes shipping and handling \$	4 Task 4 Water Quality Sampling—Quarterly Biota Sampling 4 I Initial Startup + Quarterly Water Quality Samples—5 events—5526/event 5 Initial Startup + Annual Soil Sampling—Sulfide—2 events—5240/event 5	Subtotal \$	3.2 Mileage=5 trips by Staff Biologist from Jackbonville  3.3 444 Truck Rental—5 @ 2day Trips by 5r. Env. Scientist from Gainesville  3.4 Hotel—5 trips by 2 persons x 1 overnights  3.5 Per Diem—5 trips by 2 days x 2 persons  \$	do	Subtotal \$	2. Task 2 Monthly Field Walk Throughs—does not include Quarterly Blota Sampling Trips—See Item 3 2.1 Milaage—S trips by Hydrologist from Orlando 2.2 4s4 Truck Rental—S @ 1 day trips by 5r, Biologist from Gainesville 5	Subtotal \$		1.1 4s4 Truck Rental by Biologist from Gainesville—1 day 1.2 Mileage for PM from Orlando-SiRWMD meeting—1 day 1.3 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.4 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.4 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.5 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.5 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.5 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.5 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.5 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.5 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.5 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.5 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.5 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.5 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.6 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.7 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.8 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.8 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.8 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.8 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.8 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.8 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.8 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.8 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.8 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.8 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.8 Mileage for PM from Orlando-Followup Coordination with Surveyor—1 day 1.8 Mileage	2. Task 1—SJRWMD Field Meeting
117,206.13	15,012.84 101,303.49 889.80	133,181.16 11,874.85 12,653.27 157,709.28	12,653.27	12,585.05 39.95 18.25 10.02	1,600.00	700.00 900.00	5,704.80	2,594.80	2,630.00	3,094.90	481.50 805.90 940.00 600.00	267.50	1,754.80	428.00 826.80	220.35		103.35 53.50 53.50	

Project Total

45 117,206.13 274,915.41

Continuing Professional Services for Stormwater and Environmental Engineering WA#10--Extended Monitoring for Bennett Swamp Wetland Application of Excess ReUse Water Based upon Purchase of Satellite Telemetry Equipment on Behalf of City and Installation Prepared by: Walsh 8/23/2017

First Year Monitoring per Plan of Study for Bennett Swamp Aquifer Recharge Project

ПЕМ 10 INSTALL 4 NEW STAGE RECORDERS

11 REPLACE 13 CELL PHONES ON EXISTING PIEZOMETERS WITH SATELLITE TELEMETRY EQUIPMENT Task Description TOTAL IABOR COSTS based on RATES ABOVE Project
Manager
\$184.29
Hours 24 44 \$8,108.76 Technical Specialist Specialist Specialist \$0.00 \$0.00 | Staff | Sunve | Sunve | Staff | Sunve | Staff | Sunve | Staff | Sunve | Staff | Sunve | Civil | Engin | Engineers with El | Speci | Sr. Enviro. | Scientist | Sunve \$0.00 \$0.00 Plann ers /Gran Total Hours

	miscerianeous rittings/wire swages/capie ties, etc.	auger rental	51 tie-downs anchors	51 turnbuckles	vinyl coated galvanized cable	17 pieces 1" pvc pipe-conduit from stilling wells to telemetry posts	21 pieces 2" pvc pipe posts and stilling wells	Hardware for Telemetry Systems			Meals	Hotel-Daytona	Per Diem Expenses	The second secon	Ava Truck Rental-two day day trinfrom Gainesville	4x4 Truck Rental-one day tripFrom Gainesville	Gainesville to Daytona Beach 112 miles each way	Jacksonville to Daytona Beach 90 miles each way	Orlando to Daytona Beach-50 miles each way	Mileage Calculations		NOTE: TASK 10 and 11 to occur during same week
	Subtotal	=\$364/week	=\$7.97/anchor	=\$3.27/turnbuckle	=\$71.72/spool	≈\$5.99/10 foot piece	=\$15.99/10 foot piece				=\$30/day	=\$94/night			=557 83/day x 2 days plus 545 52 for pas	=\$57.83/day x 1day plus \$45.52 for gas	=112 miles x 2 ways x \$0 535/mile	=90 miles x 2 ways x \$0.535/mile	=50 miles x 2 ways x \$0.535/mile			
•	un eu	ı (n	•	v	•	v	45			s	v.			4	^	t/s	th.	4.0	4.4			
	1.746.58	364.00	406.47	166.77	71.72	101.83	335.79			30.00	94.00				153.16	95.33	119.84	96.30	53.50			
									<ol><li>General Office -Not included-This is covered in Exhibit 8.2</li></ol>					Hatel and Per Diem—1 person	Mileage-5 trips from Orlando	2. Consumable Expenses		Miscellan	Purchase	<ol> <li>In-Situ monitoring equipment including swap of cell phone to satel</li> </ol>		
Project Total	Cappor Local		Expense Total			1			his is covered in Exhibit 8,2		Subtotal 2			Hatel and Per Diem—1 persons 4 nights-5 days (4XS94/night+5xS30/day)	Mileage-5 trips from Orlando-1 trip from Jacksonville=(5x2x50+1x2x90)x50 535		Subtotal 1	Miscellaneous Hardware—PVC Pipes, Tiedowns, Wellpoints	Purchase Satellite Telemetry Equipment	lite telemetry	EXPENSES	
₩.	•	•	5								w			so i	Un.		45	tn	t/s			
117,206.13	15,U12.04		102,193.29								889.80			526.00	363.80		101,303,49	1,746.58	99,556.91			