CITY OF
WASILLA
• ALASKA •

Date of Action: 11/27/17	
Approved ☑	Denied ☐
By:	

CITY COUNCIL ACTION MEMORANDUM

AM No. 17-46: Contract Extension to Stantec Consulting Services in the amount of $808,709 for Wastewater Outfall Engineering Services.

Originator: Public Works Director
Date: October 26, 2017 Agenda of: November 27, 2017

Route to:	Department Head	Signature	Date
X	Public Works Director		11/1/17
X	Finance Director		11-1-17
X	Deputy Administrator		11/1/17
X	City Clerk		11/1/17

Reviewed by Mayor Bert L. Cottle: 11/02/2017

Fiscal Impact: ☒ yes $808,709 **Funds Available:** ☒ yes

Account name/number: Sewer Treatment Plant-State/310-4359-435.45-29
Attachments: Stantec Proposal (13 pages)

Summary Statement: This contract extension is a continuation of engineering services awarded to Stantec Consulting Services through the City's Request for Proposal No. 0321-0-2014/AG. To date, Stantec has completed an environmental investigation of the 70-acre parcel the City purchased adjacent to the wastewater treatment plant that contains wetlands. The investigation shows the wetlands within the parcel have the potential to serve as the future outfall for the wastewater treatment plant. The proposed wetland outfall is needed to ensure the capacity of the wastewater treatment plant continues to be met in the future.

The Alaska Department of Environmental Conservation has agreed to allow a pilot study to move forward that is intended to test the wetland's ability to treat and dispose of wastewater from the treatment plant. This contract extension includes a significant amount of monthly water sampling and laboratory analysis through 2018 of the pilot study, and includes sampling and analysis that has occurred since August 2017. This contract extension will be funded through a $2 million State of Alaska Legislative Grant the City received in FY2014.

Staff Recommendation: Adopt AM No. 17-46.

Stantec 725 East Fireweed Lane Suite 200, Anchorage AK 99503-2245

October 25, 2017
File: 20470015

Attention: Archie Giddings
City of Wasilla
290 East Herning Avenue
Wasilla, AK 99654-7091

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 2 - Pilot Study and Feasibility Study Completion (Revised – Through End of 2018)

Dear Mr. Giddings:

The original scope for the Wasilla Wastewater Outfall project developed alternatives for disposal of treated wastewater effluent in the 70-acre parcel of wetlands adjacent the wastewater treatment plant (WWTP). To date, Stantec has completed the geotechnical and environmental investigation of the property, developed the feasibility study, performed detailed groundwater and effluent treatment modeling, and conducted agency scoping and permitting coordination. The recommended alternative consists of an effluent discharge to the wetlands.

Based on our Feasibility Study review meeting with you on April 20, and the subsequent meeting with the Alaska Department of Environmental Services (ADEC) on May 18, ADEC agreed with initiating a pilot study to verify the recommended alternative and verify effectiveness of design.

In May 2018, there was approximately $45,000 remaining in the project budget. Using those funds, Stantec Consulting Services began to implement the initial portions of the pilot study. To date, items completed or under way include:

- Preliminary layout and design of access road and effluent discharge piping; presently at approximately a 65% level of completion;
- Updated pilot study plan in response to ADEC comments;
- Initial discussions with vendors regarding treatment options suggested by ADEC, including the Nexom SAGR system;
- Completed initial background sampling of vegetation sites in July; and initial surface and ground water sampling for the pilot study in August. This included establishing stream flow gauging stations on the stream below the WTP.
- Completed second round of surface water sampling the last week of September.

After completion of the September sampling, the remaining project budget is consumed. In fact, the August and September sampling exceeded the project budget by about $33,800. At this time, we are requesting a contract amendment to cover the overrun, and allow for continuation of the pilot study.

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 2 - Pilot Study and Feasibility Study

We are proposing the following scope of work for the amendment:

Task 1- Expanded Feasibility Study

In the May 2017 conference with ADEC, the ADEC requested the scope of the Feasibility Study be expanded to address topics beyond disposal of the WWTP effluent. The additional items to be added to the study include:

- Examination of treatment system enhancements that could improve the effluent prior to the discharge. Stantec believes the most applicable modifications would either be anoxic sand filters, or the Nexom SAGR system, which is a submerged gravel bed bioreactor intended for cold regions nitrification and denitrification. We will examine suitability and cost for these treatment alternatives.
- ADEC specifically requested we consider "operational improvements of the existing lagoon system" to maximize treatment with existing systems before discharge. It is not clear exactly what this is to consist of, as we are not aware of any substantial deviation from good operating practice. In any case, Stantec will review the lagoon operations against best practices and EPA recommendations for aerated lagoons to see what improvements might be advisable.
- Examine alternative options for removal and disposal of sludge. The current sludge removal operations (in alternate years) likely leads to process upsets. A more regular sludge removal process, that does not require complete drawdown of a lagoon is desired. We will also look at sludge disposal and distribution practices, as the concentration of sludge on Beds 8 and 9 is probably contributing to the overall nitrate release from the WWTP.
- For public safety purposes, ADEC also requested we examine disinfection of the effluent prior to discharge to wetlands. We will do this, although we expect the pilot study to show that WWTP effluent bacteria will be indistinguishable from the background bacteria.
- ADEC also asked that the requirements of the State Anti-Degradation Policy for effluent discharge be considered and addressed as practicable within the project scope.

This task includes field and laboratory work for testing of the previously disposed sludge covering percolation beds 8 and 9, agricultural type soil nutrient tests over the remainder of the percolation beds, and characterization of the lagoon sludge. These tests will be part of the sludge removal discussion.

Task 2- Discharge Pipe Design

Discharge to the wetlands requires effluent piping and an access road. This amendment will provide budget required to complete construction documents the City can use to bid the work and procure a contractor. We will provide draft and final designs for this work. Project documents will be provided as drawings with sheet specifications.

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 2 - Pilot Study and Feasibility Study

ADEC plan review and Construction Approval for the discharge piping is addressed in Task 4. We understand that the pipe does not need to be permitted as a discharge for the pilot study, but we are recommending application be made to ADEC for plan review and approval of the pipe anyway, as a means of securing "formal approval" for the study (and future, permanent use of the pipe). ADEC fees have not been included for the plan review. The City can pay these fees directly or Stantec will pay the fees for reimbursement at actual plus 10 percent.

We understand the City wants to proceed with fencing of the property at this time; ADEC also requested at least some of the fence be installed as a condition of the pilot study. Fencing plans, details, and specifications are included in this task. Final limits of the fence need to be discussed with the City, as portions of the property will be difficult to fence, impede wildlife movement, and are possibly not needed for public safety.

Stantec will also continue discussions with the US Army Corp of Engineers (USACE), both for permitting the planned construction, and for the removal of the wetlands from USACE jurisdiction. The road and fence construction will trigger a USACE individual permit for this project, allowing the Corps an avenue to either remove the wetlands from inventory outright, or in exchange for purchase of wetlands compensation elsewhere. USACE coordination and permitting is part of Task 4.

This task includes topographic survey of the road alignment into the wetlands in support of that design.

Task 3 – Wetlands Discharge Pilot Study

This task provides field, laboratory, and reporting efforts to monitor the effluent discharge pilot study. The pilot study plan will be finalized and implemented based on the May 18, 2017, discussions with the ADEC. This task includes finalization of the study design, data collection, and reporting.

Task 3 includes the establishment of 8 new groundwater monitoring wells (about 30 feet deep) and a total of 16 sites for sampling surface waters. Additionally, 6 sites will be established for vegetation monitoring.

Background (pre-effluent disposal) data collection has begun, and will continue at monthly and quarterly intervals through approximately June 2018, when the access road and effluent pipe are constructed. At that time, effluent application will begin, along with regular sampling.. Required coordination with ADEC is included in Task 4.

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 2 - Pilot Study and Feasibility Study

The proposed budget for this task includes approximate 2.5 years of sampling. Subsurface water (i.e., wells), and vegetation will be sampled quarterly (February, May, August, November), approximately 10 events total. Surface waters will be sampled monthly, in the warmer months – April to November. Sampling in the winter will be limited to sites with liquid water and has been estimated at about half the typical samples. Approximately 26 events surface sampling events are expected, which includes one extra set of samples for use as discretionary or confirmation testing purpose. Random duplicates (roughly 1 every 10 tests) are built into the testing quantities for quality control purposes.

Reporting for the pilot study will be done with each sampling event. Comparison tables, graphs or graphics will be updated at least quarterly. At the end of the pilot study, we will provide a summary report with conclusions on the treatment potential of the wetland site and recommendations for continuing, modifying, or concluding effluent application.

This task includes aerial drone photography (four events) for documentation of vegetation and water locations / conditions before effluent application and then at the beginning, during, and end of a pilot study season. We are confirming our subcontractor's capabilities, but the photography may be multi-spectral, allowing for enhanced imaging and separation of vegetation and water.

This task includes updating the previous SubWet model with calibration data from the pilot study to further improve the accuracy and predictions of that model.

This task includes completing whole effluent toxicity testing (WET) on the WWTP effluent. WET testing examines the potential toxicity of the effluent on living organisms, typically minnows and daphnia or other water insects. The test is used to demonstrate the effluent is not harmful to aquatic organisms. While typically used for permitting discharges to rivers and lakes, it seems appropriate for this project and will help establish the safety of the discharge. A composite sample (four daily samples, collected every other day for a week) will be collected, and tested once each quarter, for a total of four tests. We will need the assistance of the WWTP operators to collect the four daily samples.

The WWTP operators collect a variety of compliance data, including BOD, bacteria, and nitrates on a weekly and quarterly basis. Once effluent application starts, additional effluent data will need to be taken at the WWTP monitoring manhole on a more frequent basis. We will need the WWTP operators to collect the following samples in addition to what they already collect:

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 2 - Pilot Study and Feasibility Study

Additional WWTP Effluent Parameters

Description	Frequency
Flow to Beds	Daily, flow to wetlands will be added during pilot study
pH	Mondays
Dissolved oxygen (DO)	Mondays
5-day biochemical oxygen demand (BOD_5)	Monthly
Total suspended solids (TSS)	Mondays
E. Coli bacteria	Monthly
Fecal coliform (FC) bacteria	Monthly
Conductivity	Monthly
Nitrate-N	Monthly
Ammonia	Monthly
Nitrite	Monthly
TKN Nitrogen	Monthly
Metals	Monthly Before and after discharge to wetland at MW7, 17A, 18A, and MW19
WET Test – Sample Collection (Testing by Stantec)	Quarterly (4 quarters / one year only) Four daily samples of whole effluent distributed throughout day, every other day for one week.

The laboratory costs for these WWTP samples is not included in our proposal, this testing cost will need to be borne by the City.

Task 4- Agency Coordination and Permitting

Ongoing coordination will be conducted with relevant stakeholders, in particular ADEC and the USACE. These efforts will be in support of the finalization of the Feasibility Study, the permitting of the new discharge piping for the pilot study, and the acceptance of a pilot study plan.

This task includes preparation of a USACE Section 404 wetlands permit with the desired goal of removing the wetlands from the USACE jurisdiction. This may or may not require purchase of wetlands mitigation credits; however, we intend to argue 1:1 mitigation should not be required, given we are applying water to the wetlands, and not fill.

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Other Assumptions and / or Exclusions

- Submittals will be electronic only, in PDF format. Final construction documents and record drawings will also be provided on CD ROM in PDF and AutoCAD formats.
- ADEC permitting and plan review fees, mitigation, and other agency fees that may arise, are not included. Fees will be billed at actual cost plus ten percent (10%) or can be paid directly by the City as you direct.
- Miscellaneous items of work not specifically included in the tasks outlined herein are not part of our proposal. Where either Stantec or City identifies additional work that may be beneficial to the project, it can be provided by amendment or on a time and materials basis at standard Stantec rates as City directs.

Schedule

The schedule below if based on acceptance of this proposal and receipt of notice-to-proceed (NTP) by December 1, 2017. Based on the identified work, we propose the following schedule for completion:

- Task 1- Feasibility Study Finalization
  - A revised draft submitted by January 25, 2018.
  - A 2-week review period.
  - A final report by February 28, 2018.
  - Completion of this item is subject to logistics of sampling lagoon sludges.

- Task 2- Discharge Pipe Design
  - A meeting will be needed to clarify some of the details of this work, specifically the extent of planned fencing and planned procurement methods. An 85% draft of this deign can be completed within 3 weeks of the meeting.
  - Final design documents can be made available within 3 weeks of receiving review comments on the draft, although these may be held to allow completion of USACE permitting.

- Task 3 – Wetlands Discharge Pilot Study
  - The Pilot Study Plan has been partially updated in accordance with ADEC comments, and can be finalized shortly after your NTP.
  - Sampling events for the pilot study background began in July and will continue at monthly intervals upon approval of this proposal.
  - Updated site map and analytical tables will be provided for your review with the finalized pilot study plan.
  - Sampling event summaries will be submitted quarterly following subsurface events.

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 2 - Pilot Study and Feasibility Study

  - Pilot Study Reports with updated SubWet Model will be submitted in fall or late winter (yet to be determined) of each effluent discharge season (2018 and 2019). The first report will be a draft summarizing apparent result for the first season; the second report will be a final report detailing overall pilot study results, and recommendations for continued or modified effluent discharge to the wetlands.

- Task 4- Agency Coordination and Permitting
  - ADEC Plan Review and USACE coordination will begin upon NTP so that draft applications are available with completion of the Discharge Pipe Design.
  - A USACE Wetlands Permit application will be prepared and submitted to for review with the 85% Discharge Pipe Design. A City signature will be required and, depending on your comments, permitting will begin with the 85% documents so that USACE comments can be included in the final plans. This should allow completion of permitting for road and fence in spring 2018. It should be expected that the permit will take about 120 days to complete.
  - Agency coordination will be ongoing throughout the wetlands permitting and pilot study. We anticipate a status report and briefing meeting with ADEC each year.

The dates proposed here are approximate and may be adjusted depending upon City priorities, agency reviews, and contractor procurement.

Cost Proposal

The total estimated fee for all tasks and services is $1,155,228, for the 2.5-year pilot study thru end of 2019. The incremental cost through the end of 2018 is $808,709 should you wish to begin the study with a partial authorization A cost proposal showing the development of this fee is attached. Tasks 1, 2, and 4 will be lump sum. Task 3, the Wetlands Discharge Pilot study will be performed on a time and materials basis.

Lump sum tasks will be invoiced monthly on a percent completed basis. Work shall be completed under the executed Contract for Professional Services between Stantec-USKH and the City. T&M tasks will be invoiced monthly at the standard Stantec rates in effect at the time the work was completed.

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 2 - Pilot Study and Feasibility Study

Closure

We trust this proposal meets your needs and are ready to begin immediately upon your approval. If you have any questions please contact me or Stephanie Gould at (907)276-4245 or by email at dean.syta@stantec.com or Stephanie.gould@stantec.com.

Sincerely,
Stantec Consulting Services Inc,

Dean Syta
Principal
Phone: (907) 343-5260
Fax: (907) 258-4653
dean.syta@stantec.com

Attachment: Fee Proposal

c. file

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725 East Fireweed Lane, Suite 200
Anchorage, AK 99503
Fee Estimate
Prepared by: Dean Syta

204700415
Wastewater Outfall Study Amendment 2
City of Wasilla
October 25, 2017

Price Per Task Summary

Task	Task Name	Labor	Subcontractors	Expenses	Total
0	Pilot Study Work to Date - July, August, Sept - see proposal letter	$18,330	$15,494	$0	$33,824
1	Feasibility Study Finalization	$112,978	$24,800	$1,700	$139,478
2	Discharge Pipe / Road Design	$34,520	$14,500	$600	$49,620
3	Wetlands Discharge Pilot Study - thru end of 2018	$242,079	$289,939	$4,525	$536,543
4	Agency Coordination and Permitting	$49,145	$0	$100	$49,245
	Totals	**$457,052**	**$344,732**	**$6,925**	**$808,709**

Notes/Assumptions

1 Final design and permitting of a new WWTP effluent discharge at end of pilot study are not included.
2 Subcontracts and will be billed at cost plus 10%.
3 Rates shown are proejcted 2018 composite. T&M tasks will be invoiced at rates in affect at time work is completed.

Stantec

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Task 1: Feasibility Study Finalization

Labor Hours Per Job Classification

		QC	Civil						Environmental				Misc		
		Sr. Engineer Level 18	D. Syta Sr. Eng. / PM Level 16	Gay Process Eng. Level 16	S. Gould Sr. Eng. Level 13	CAD / Designer Level 10	J. Alward EIT Level 9	S. Linderg Env Manager Level 14	R. Cooper Env. Scientist Level 11	J. Marshall Env. Scientist Level 11	C. Pannone Technician Level 10		K. Ross Structural Level 10	L. Schneller Sr. Elect. Level 14	Admin / Clerical
	Sub-Task	$292	$219	$219	$170	$140	$129	$181	$147	$147	$140		$138	$179	$135
1	**Investigations**														
	Site Visit - Operational Review		8	8	8		10								
	Sludge sampling, lagoon optimization process testing (4 events)		8				60			60					
	WET testing - composite sample collection, 3 days x 4 quarters		8				96								
2	see notes														
3	**2nd Draft Report Development**														
4	Addition of non-wetland alternatives, SAGAR, sand filter, (2x)		20	20	8								2	4	
5	Addition of operational discussion / optimization		16	16	4										
6	Sludge removal alternatives		4	12	8		8								
7	Disinfection alternatives		2	10	2										
8	Address Anti-Degradation Policy		2		8										
9	Alternative Figures				4	16	8								
10	Cost Estimates (multiple items)		8		8		16						2	2	
	Compile and publish report		2		4		4								12
11															
12	**Team Meetings**	1	4	4	4		4			2			2	2	2
14	**Review Conference(s)**		8		12										
15															
16	**Final Feasibility Study**														
17	Address comments on 2nd Draft		4	4	4										
18	Update narrative		12	12	18										4
19	Update figures and costs		2		4	4	6						1	1	1
21															
22	**QC and Project Management, Safety Plans**	8	16		12		4								8
Total Labor Hours		**9**	**124**	**86**	**108**	**20**	**216**	**0**	**0**	**62**	**0**	**0**	**7**	**9**	**27**
Labor Costs Subtotal		**$2,628**	**$27,156**	**$18,834**	**$18,360**	**$2,800**	**$27,864**	**$0**	**$0**	**$9,114**	**$0**	**$0**	**$966**	**$1,611**	**$3,645**

SUBCONTRACTORS

Firm	Amount
Stantec Survey - none, based on Lidar as before	$0.00
SGS Lab - Water and sludge testing - see attached table	$22,545.00
Subtotal	**$22,545**
Markup	**10.0%**
Subcontractor Subtotal	**$24,800**

EXPENSES

Item No.	Item (s)	Qty.	Unit Price	Total Price
1	Printing Allowance	1	$350	$350
2	Site Visit (mileage and field supplies)	9	$100	$900
3	Sampling Equipment and Expendables	1	$450	$450
				$0
				$0
				$0
Expenses Subtotal				**$1,700**

NOTES

WET testing assumes plant operators collect the daily composites samples (4 per day, 3 days each quarter).
Assumes boat or raft available at WWTP for lagoon sampling.

TOTALS

Direct Labor Cost	$112,978
Total Subcontractors	$24,800
Total Expenses	$1,700
Total Cost	**$139,478**

Stantec

Anchorage, AK 99503
Fee Estimate
Prepared by: Dean Syta

Wastewater Outfall Study Amendment 2
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October 25, 2017

Task 2: Discharge Pipe / Road Design

Labor Hours Per Job Classification

	Sub-Task	QC	Civil					Environmental				Misc			
		Sr. Engineer Level 18	D. Syta Sr. Eng. Level 16	B. Miskill Process Eng. Level 16	S. Gould Sr. Eng. Level 13	CAD / Designer Level 10	J. Alward EIT Level 9	S. Linderg Env Manager Level 14	Env. Scientist Level 11	J. Marshall Env. Scientist Level 11	C. Pannone Technician Level 10		K. Ross Structural Level 10	L. Schneller Sr. Elect. Level 14	Admin / Clerical
		$292	$219	$219	$170	$140	$129	$181	$147	$147	$140		$138	$179	$135
1	**Draft Design**														
2	Survey & Survey Control Coordination (survey below)				2	2									
3															
4	**Draft Design**														
5	Drawings														
6	General sheets			1		2	4								
7	Pipe/Road plan and profile (~4 sheets)					16	8								
8	Connection, section(s) and misc. details		2	2		8	12								
9	Fencing plan and details				4	8	8								
10	Outfall details		4		4	4									
11	Specifications				8		4								4
12	Cost Estimate				4		4								
13															
14	**Final Design**														
15	Address comments on draft		2		4		4								
16	Update drawings & specifications				4	12	8								
17	Review Cost Estimate				2		2								
18															
19	**Permitting - See Task 4**														
20	**Team Meetings**		1		1		1								
21	**Review Conference(s)** - with DSR or via teleconference		1		1										
22															
23	**Construction Support**														
24	Attend pre-bid meeting and site visit				4		4								
25	Respond to bidder questions						2								
26	Preparaton of addendum (x1)						2								
29	Submittal Review				2		8								
30	Site Visits with report and meeting (x2)				4		10								2
31	Project correspondence				4										
32															
33	**Record Drawings**				2	12	4								
34	**QC and Project Management**	2	6												4
	Total Labor Hours	2	16	3	50	64	85	0	0	0	0	0	0	0	10
	Labor Costs Subtotal	$584	$3,504	$657	$8,500	$8,960	$10,965	$0	$0	$0	$0	$0	$0	$0	$1,350

SUBCONTRACTORS

Firm	Amount
Stantec survey - pipe/road alignment	$14,500.00
no markup on Stantec Survey Crew	
Subtotal	**$14,500**
Markup	**0.0%**
Subcontractor Subtotal	**$14,500**

EXPENSES

Item No.	Item (s)	Qty.	Unit Price	Total Price
				$0
1	Printing Allowance	1	$200	$200
2	Site Visit (mileage and field supplies)	4	$100	$400
				$0
				$0
				$0
Expenses Subtotal				**$600**

NOTES

Draft can be completed over LIDAR data currently available prior to survey.

TOTALS

Direct Labor Cost	$34,520
Total Subcontractors	$14,500
Total Expenses	$600
Total Cost	**$49,620**

Stantec

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October 25, 2017

Labor Hours Per Job Classification

Task 3: Wetlands Discharge Pilot Study - thru end of 2018

		QC	Civil					Environmental				Misc			
		Sr. Engineer Level 18	D. Syta Sr. Eng. Level 16	B. Miskill Process Eng. Level 16	S. Gould Sr. Eng. Level 13	CAD / Designer Level 10	J. Alward EIT Level 9	S. Linderg Env Manager Level 14	R. Cooper Env. Scientist Level 11	J. Marshall Env. Scientist Level 11	C. Pannone Technician Level 10	Intern / Student	K. Ross Structural Level 10	L. Schneller Sr. Elect. Level 14	Admin / Clerical
	Sub-Task	**$292**	**$219**	**$219**	**$170**	**$140**	**$129**	**$181**	**$147**	**$147**	**$140**	**$95**	**$138**	**$179**	**$135**
1	**Finalize Study Plan**														
2	Revisions based on ADEC review and comments		2		8	4				2	2				2
3	Distribute to CoW and ADEC				2										2
4	Review Meeting, Final Revisions to plan		4		12					2	2				
5															
6	**Plan Implementation**														
7	Site establishment (surface, vegetation)						10		10						
8	Well coordination (drilling below)		2		8		8								
	Survey & Survey Control Coordination (survey below)				4		8								
9	Sampling Events Oct-Dec 2017, all of 2018														
10	Subsurface Sampling (16 sites, 5 events @ 2 days each)						90			90		90			
11	Surface Sampling - SUMMER (22 sites, 10 events @ 2 days each)						180			180		180			
	Surface Sampling - WINTER (11 sites, 5 events @ 1 day each)						45			45		45			
12	Vegetation Monitoring (6 sites, 5 events at 1 day each)								45						
13	Prep, Mob, Laboratory Coordination (15 events)		10				120			60					
14	Rolling Event Summaries (20 events)		12		40		80		16	24	24	40			10
15															
17	**Reporting**														
18	Subwet Model update									12	4				
19	Update of Subwet Model Report		2		4			2		4					1
20	Preparation of Pilot Study Results Report, Graphics		12		52		40			24	24				8
21	(Draft and Final 2018 only)														
32	**QC and Project Management, Safety Plans**	10	32		16		4								8
Total Labor Hours		**10**	**76**	**0**	**146**	**4**	**585**	**2**	**71**	**443**	**56**	**355**	**0**	**0**	**31**
Labor Costs Subtotal		**$2,920**	**$16,644**	**$0**	**$24,820**	**$560**	**$75,465**	**$362**	**$10,437**	**$65,121**	**$7,840**	**$33,725**	**$0**	**$0**	**$4,185**

SUBCONTRACTORS

Firm	Amount
Stantec survey - study sites & cross sections	$16,480
SGS Lab - Water Testing - see attached table	$170,600
S&W - 8x subsurface wells (~30 ft bgs), winter const	$67,742
Dronotics - 4 Aerial Flight	$10,256
No markup on Stantec survey crew	
Subtotal	**$265,079**
Markup	**10.0%**
Subcontractor Subtotal	**$289,939**

EXPENSES

Item No.	Item (s)	Qty.	Unit Price	Total Price
				$0
1	Printing Allowance	0.75	$500	$375
2	Site Visit (mileage and field supplies)	24	$100	$2,400
3	Surface site materials, stream gauging stations	1	$1,000	$1,000
4	Misc field equipment	0.75	$1,000	$750
				$0
				$0
				$0
Expenses Subtotal				**$4,525**

NOTES

Surface, subsurface, and vegetation sampling events may be concurrent, but hours required /staff needed remain the same.

TOTALS	
Direct Labor Cost	$242,079
Total Subcontractors	$289,939
Total Expenses	$4,525
Total Cost	**$536,543**

Stantec

725 East Fireweed Lane, Suite 200
Anchorage, AK 99503
Fee Estimate
Prepared by: Dean Syta

204700415
Wastewater Outfall Study Amendment 2
City of Wasilla
October 25, 2017

Task 4: Agency Coordination and Permitting

Labor Hours Per Job Classification

		QC	Civil					Environmental				Misc			
		Sr. Engineer Level 18	D. Syta Sr. Eng. Level 16	B. Miskill Process Eng. Level 16	S. Gould Sr. Eng. Level 13	CAD / Designer Level 10	J. Alward EIT Level 9	S. Linderg Env Manager Level 14	R. Cooper Env. Scientist Level 11	J. Marshall Env. Scientist Level 11	C. Pannone Technician Level 10		K. Ross Structural Level 10	L. Schneller Sr. Elect. Level 14	Admin / Clerical
	Sub-Task	**$292**	**$219**	**$219**	**$170**	**$140**	**$129**	**$181**	**$147**	**$147**	**$140**		**$138**	**$179**	**$135**
1	**Feasibility Study Finalization**														
2	Scoping / permitting updates as needed				2			4	4						4
3															
4	**ADEC Plan Review - Discharge Pipe**														
5	Draft application & coordination		4		10	4	8								4
6	Address ADEC comments / approval to construct				4	2	4								
7	Final application		1		4		2								
8															
9	**Wetlands Pilot Study**														
10	Revised Feasibilty study to reviewers				2					2					
11	Review meeting w/ ADEC each year, 3 total		16		16					16					
12	**Scoping Updates and Agency Coordination**		4		8			12		4					4
13															
14	**USACE Coordination and Permitting**														
15	Investigate removal of property from jurisdiction							4	4		12				
	ADEC reqeusted mtg with USACE		4		4			4							
16	Wetlands Permit application		4		12		8	16	36		32				4
17															
18															
19	**QC and Project Management**	2	6												4
Total Labor Hours		**2**	**39**	**0**	**62**	**6**	**22**	**40**	**44**	**22**	**44**	**0**	**0**	**0**	**20**
Labor Costs Subtotal		**$584**	**$8,541**	**$0**	**$10,540**	**$840**	**$2,838**	**$7,240**	**$6,468**	**$3,234**	**$6,160**	**$0**	**$0**	**$0**	**$2,700**

SUBCONTRACTORS

Firm	Amount
Subtotal	**$0**
Markup	**10.0%**
Subcontractor Subtotal	**$0**

EXPENSES

Item No.	Item (s)	Qty.	Unit Price	Total Price
				$0
1	Printing Allowance	1	$100	$100
2	Site Visit (mileage and field supplies)	0	$100	$0
				$0
				$0
				$0
				$0
				$0
Expenses Subtotal				**$100**

NOTES

TOTALS

Direct Labor Cost	$49,145
Total Subcontractors	$0
Total Expenses	$100
Total Cost	**$49,245**