Action: ☒ Approved | ☐ Denied | ☐ Other
Date Action Taken: 10/10/2022
Verified By: [signature]
Clerk's Note: Johnson absent

City of Wasilla
Action Memorandum No. 22-40

Contract Extension To Stantec Consulting Services In The Amount Of $677,404 For Permitting And Continued Monitoring Of The Wastewater Treatment Plant Outfall Pilot Study.

Originator: April Dwyer, Purchasing Officer
Date: 9/26/2022

Agenda of: 10/10/2022

Route to:	Department Head	Signature	Date
X	Public Works Director	Robert L Walden	9/28/22
X	Finance Director	[signature]	9/28/22
X	Deputy Administrator	[signature]	9/28/22
X	City Clerk	[signature], Deputy Clerk	09/28/2022
X	Mayor	Glenda Ledford	9/28/22

Fiscal Impact: ☒ yes or ☐ no **Funds Available:** ☒ yes or ☐ no

Account name/number/amount:
Sewer Treatment Plant Improvements 310-4359-435.45-35 $677,404

Attachments: Stantec Proposal (16 pages)

Summary Statement: If approved, this AM will continue the contract originally awarded to Stantec Consulting Services in December of 2014 through Request for Proposals 0312-0-2014/AG to study the viability of treating ammonia in the City's wastewater effluent through native wetlands. The wetland parcel and surrounding parcels were studied over a 2-year period. Stantec engineers found the wetland parcel had potential to improve treatment performance at the Wastewater Plant. A one-half mile outfall pipe and diffusers were installed, and the Pilot Study began discharging treated wastewater over the parcel in 2019. Monitoring continues to show good removal of nutrients and bacteria within the wetlands and no degradation of groundwater.

The City is currently operating under a temporary authorization from the Alaska Department of Environmental Conservation (ADEC). With sufficient data compiled, the proposed next steps include vetting permitting strategies for this innovative treatment method, along with a formal application for a permanent discharge permit. The Pilot Study will continue during the permitting application and approval process.

The discharge permitting costs are estimated at $130,098; the continuation of the Pilot Study is estimated at $473,446; and the costs to update the Feasibility Study and Concept Report are estimated at $73,860. These costs are billed on a time and material basis and are expected to cover the Pilot Study through at least December 2023.

Staff Recommendation: Approve the Action Memorandum.

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

September 12, 2022
File: 204700415

Attention: Robert Walden
City of Wasilla
290 East Herning Avenue
Wasilla, AK 99654-7091

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 6 - Pilot Study and Discharge Permitting 2022-2023

Dear Mr. Walden:

The Wasilla Wastewater Pilot Study Discharge began in June of 2019. The discharge has been at 300,000 gpd since June of 2020, essentially full plant flow, with limited interruptions or flow reduction during late winter each year. All data to date continues to show good removal of nutrients and bacteria within the wetlands. There is evidence that nutrient concentrations downstream of the WWTP are declining, suggesting improvements to water quality in the project area. Testing of offsite residential wells has found no degradation of groundwater. At this time, we believe sufficient data has been compiled to develop permitting strategies and apply for a formal discharge permit for the project.

Previous Amendments #4 (April 2019) and #5 (December 2020) established the budget for the previous years of pilot study monitoring, field work and laboratory testing. This work has been completed, and the authorized budget will be exhausted by November of this year.

Stantec is requesting Contract Amendment 6 to encompass the following:

1. Application for permanent discharge permitting.
2. Continuation of the pilot study during the permitting application and approval process, through at least December 2023.

AMENDMENT #6 EFFLUENT DISCHARGE PERMITTING SCOPE:

This effort has now generated enough baseline and experimental data to move from the pilot study phase into permitting of the outfall for regular use.

Wetlands based wastewater treatment is innovative in Alaska. State and federal agencies are not certain if the system can be permitted through existing regulations. Some previous examples do exist in the Lower 48, but they are using the waterflows to create new wetlands in arid environments. Stantec will be utilizing our existing relationships with the Environmental Protection Agency (EPA), US Army Corps of Engineers (USACE), and Alaska Department of Environmental Conservation (ADEC) to chart a pathway forward. Obtaining a successful permit will likely require working with staff from each agency to interpret existing regulatory guidance in innovative ways.

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 6 - Pilot Study

Effluent discharge permitting encompasses the following tasks:

TASK 1: WATER QUALITY STANDARDS (WQS) AND WATERSHED REVIEW

Stantec will review the contributing constituents and the potentially applicable water quality standards (WQS). While this task is traditionally straight forward, the regulations do differ between the potential permitting pathways this project may take (e.g., end of pipe discharge, mixing zone, designation of a waste treatment facility).

This task will also summarize the findings of the pilot studies. These measurements of pre- and post-discharge constituent monitoring will be important evidence of treatment. This summary will help inform agencies of where WQS are met at various months throughout the wetland.

Additionally, this task will summarize impacts to the potential water users downstream of the project. Regardless of the permitting pathway, each agency will require that downstream users do not experience significant impacts. This may require a site visit, as the National Hydrologic Dataset and regional wetland mapping datasets do not provide a clear flow path from the site to the ocean. Potential users of downstream waters may include residential, recreational, and commercial/industrial users.

This task will result in a single deliverable summarizing our findings.

TASK 2: POTENTIAL PERMITTING PATHWAYS

Stantec will review the potential permitting pathways for the project. At this stage, these include:

- No Action
- Meet WQS at end of pipe (e.g., diffuser)
- Meet WQS with mixing zone (e.g., wetlands, on property downstream of diffuser)
- Meet WQS by designating the wetlands to be a waste treatment facility
- Implement an engineering solution to meet the legal definitions required in the permits
- Additional viable pathways identified during the process

This task will include initial consultation with state and federal agency regulators on the potential viability for each permitting strategy. It is likely the final permitting path may be some combination of these elements.

Stantec expects ADEC will require additional treatment processes or engineering solutions to meet permitting requirements, including, but not limited to 1) additional removal of ammonia from effluent during winter treatment conditions; and 2) improvements to sludge removal and handling processes. These items will be reviewed in concept only. Any subsequent engineering design will require a future amendment.

This task will result in a single memo summarizing the findings of the study and recommending a path forward.

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 6 - Pilot Study

It is possible that there is not a permitting pathway forward. In that case, the City of Wasilla will be notified of the findings immediately and work will cease. If this were to occur, it would most likely happen during Task 2.

TASK 3: WASTEWATER TREATMENT PLANT PERMITTING

Stantec will prepare a draft and final permit application package for the wastewater treatment plant. Applications may include Clean Water Act Section 401, 402, and 404 permits. The permit package will consist of a project description, maps, and completed permit applications. The package will also include a summary of the previous pilot study, and an appendix of the detailed findings of the pilot study.

Stantec assumes that any agency permit fees will be paid by the City of Wasilla, and these fees have not been included in the budget.

TASK 4: AGENCY CONSULTATION AND ASSISTANCE THROUGH PERMITTING

Stantec will support the permit application as it moves through consideration inside the state and federal agencies. This may include edits to the permit, and meetings with agency stakeholders and other stakeholders, as required.

DELIVERABLES/SCHEDULE

Tentative schedule for the effluent permitting series of Tasks is:

- Task 1: WQS and Watershed Review Memo – January 15, 2023
- Task 2: Potential Permitting Pathways Memo – March 15, 2023
- Task 3: Permitting Application – May 15, 2023
- Task 4: Agency Consultation and Continued Permitting Assistance – Though permit issuance

Duration of agency review and approval process cannot be determined at this time.

AMENDMENT #6 PILOT STUDY CONTINUATION:

Continuation of the pilot study is proposed so that the City may continue to discharge effluent to the wetlands during the permitting process. Continuation of the pilot study includes the following tasks:

TASK 5 – WETLANDS DISCHARGE MONITORING

This task includes field, laboratory, and reporting efforts to monitor the effluent discharge and water quality within the project limits during the pilot study discharge. Monitoring for the pilot study

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 6 - Pilot Study

will be implemented based on sampling procedures conducted since the startup of the project. All 19 surface sites and 16 sub-surface sites will continue to receive the same set of tests with the exception that total suspended solids (TSS) will no longer be tested. It was determined after reviewing the past years results that TSS gave no real insight on changing water conditions in the wetland.

The budget for this task includes sampling for an additional 14 months. Subsurface water (i.e., onsite monitoring wells), and vegetation will be sampled quarterly (December 2022, and March, June, and September 2023). Surface water will be sampled monthly. During winter months, November to February, the budget includes sampling for only half the sites due to freezing conditions. Duplicates are built into the testing quantities for quality control purposes. Stantec will collect the samples and field data. Samples will be processed by SGS Laboratory.

This task includes aerial drone and / or satellite multi-spectra photography used to monitor vegetation health, nutrient uptake, and the spread of the wastewater. The site has been flown twice a year; the amendment includes two flights for 2023. The cost for this item includes the camera rental and imagery processing.

Reporting for the pilot study will be done with each sampling event. A field report will be completed for each month of sampling, a quarterly report will be compiled for each quarter for submission to ADEC, and a yearly summary report will be completed for 2022 and 2023. This will be provided for City review and posting to the project website.

TASK 6 – PUBLIC INVOLVEMENT

This task includes 2 public involvement meetings, one winter 2022/2023 and one summer 2023 to provide the community updates on the project. It is assumed the meetings will be held at the City of Wasilla City Hall and be co-hosted by the City and Stantec, and that the City will handle advertising

TASK 7 – PRIVATE WELL TESTING

Private well testing was implemented at the request of the public to confirm the pilot study was not impacting drinking water wells in the project area. Wells were tested twice in 2020, and again in 2021 and 2022. The program has relative low participation - only 13 homeowners have signed up, but the offsite data will still be useful when it comes time to demonstrate if the effluent discharge has offsite impact. For this reason, we are proposing to continue testing of the private wells. The amendment request includes two sets of private well testing in 2023.

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 6 - Pilot Study

AMENDMENT #6 REVISE / UPDATE FEASBILITY STUDY REPORT:

TASK 8 – STUDY REPORT UPDATE

The effluent discharge project began with a feasibility study report initial completed in April of 2017. As part of the permitting effort, Stantec expects ADEC will require updating the report to include the following items:

1. Review of current WWTP lagoon operating effectiveness.
2. Alternative(s) for improving nitrification (ammonia removal) from the effluent, particular under winter operating conditions; this is mostly like going to require additional treatment equipment or biological construction.
3. Address process upsets associated with sludge removal practices; this is most likely going take the form of improvement to the sludge dredging and dewatering practices.

Stantec will incorporate this material into the previous feasibility report (or perhaps a separate standalone report) to a concept level sufficient to illustrate the proposed alternatives, to include estimates of probable construction cost.

Amendment Cost Summary

The total estimated fee for all tasks and services expected under this amendment is $768,260. A spreadsheet showing the development of the fee is attached.

As of September 9, there is approximately $90,856 total remaining in prior pilot study authorizations (Amendment 5) that will be rolled forward. Therefore, Stantec is requesting Amendment #6 in the total amount of **$677,404** to cover the balance of the 2022-2023.

	2022-2023 Budget	Remaining Authorization to Roll Forward	Requested Amendment
EFFLUENT DISCHARGE PERMITTING			
Task 1 – WQS and Watershed	$24,278	---	$24,278
Task 2 – Permitting Pathways	$24,616	---	$24,616
Task 3 – Permitting	$48,380	---	$48,380
Task 4 – Agency Consultation	$32,824	---	$32,824

Reference: Wasilla Wastewater Outfall
Subject: Request for Amendment 6 - Pilot Study

PILOT STUDY CONTINUATION			
Task 5 – Pilot Study	$530,774	$62,000	$468,774
Task 6 – Public Involvement	$13,966	$14,490	--- (524)
Task 7 – Private Well Testing	$19,562	$14,366	$5,196
UPDATE FEASBILITY STUDY			
Task 8 – Concept Report	$73,860		$73,860
Total	$768,260		**$677,404**

Work for Amendment #6 tasks will be performed on a time and materials basis under the executed Contract for Professional Services between Stantec and the City. Rates shown on the budget worksheet are estimated rates for 2023. Actual effort will be invoiced monthly at the standard Stantec rates in effect at the time the work was completed.

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 Jake Alward 907-343-5202, jake.alward@stantec.com.

Sincerely,
Stantec Consulting Services Inc,

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

Attachment: Fee Proposal

c. file

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Stantec

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

204700415
Wastewater Outfall Study Amendment 6
City of Wasilla
September 12, 2022

Price Per Task Summary

Task	Task Name	Labor	Subcontractors	Expenses	Total
1	Effluent Discharge Permitting				
5	Task 1: WQS and Watershed	$24,278	$0	$0	$24,278
6	Task 2: Permitting Pathways	$24,416	$0	$200	$24,616
7	Task 3: Plant Permitting	$48,080	$0	$300	$48,380
8	Task 4: Agency Consultation	$32,474	$0	$350	$32,824
9				subtotal	$130,098
10	Pilot Study				
11	Task 5 Wetland Discharge Monitoring	$229,976	$293,348	$7,450	$530,774
12	Task 6 Public Involvement	$13,666	$0	$300	$13,966
13	Task 7 Private Well Testing	$13,352	$5,610	$600	$19,562
14				subtotal	$564,302
15	Feasibility Study				
16	Task 8 Update Feasibility Report	$73,660	$0	$200	$73,860
17				subtotal	$73,860
	Totals	$459,902	$298,958	$9,400	$768,260
			Less $90,856 remaining on current authorization		$677,404

Notes/Assumptions

1. See scope letter dated 9/12/2022 for scope of services, assumptions, and exclusions.
2. Subcontracts and direct expenses will be billed at cost plus 10%.
3. Rates shown are estimated escalation for 2023. T&M tasks will be invoiced at actual standard rates in affect at time work is completed.

Stantec

725 East Fireweed Lane, Suite 200
Anchorage, AK 99503
Fee Estimate
Prepared by: Ryan Cooper

204700415
Wastewater Outfall Study Permitting
City of Wasilla
September 7, 2022

Task 1: WQS and Watershed

Labor Hours Per Job Classification

	Sub-Task	QC	Civil				Environmental				Misc			
		Sr. Level 18	D. Syta Sr. Eng.	B. Miskill Process Eng.	S. Gould Sr. Eng.	R. Bronga EIT	J. Alward Eng.	V. Ross Env Manager	R. Cooper Env. Scientist	J. Marshall Env. Scientist	Pannone GIS	Intern / Student BLS	K. Ross Structural Level 10	L. Schneller Sr. Elect. Level 14	Admin / Clerical
			$253	$253	$217	$166	$196	$229	$208	$198	$171				
1	WQS Review		2				4	8	16	16	8				
2	Pilot Study Summary		2				8		8	8					
3	Watershed Review		2				4	8	16	8					
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															
25															
	Total Labor Hours	0	6	0	0	0	16	16	40	32	8	0	0	0	0
	Labor Costs Subtotal	$0	$1,518	$0	$0	$0	$3,136	$3,664	$8,320	$6,272	$1,368	$0	$0	$0	$0

SUBCONTRACTORS

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

EXPENSES

Item No.	Item (s)	Qty.	Unit Price	Total Price
1				$0
2				$0
3				$0
4				$0
				$0
				$0
Expenses Subtotal				$0

NOTES

TOTALS

Direct Labor Cost	$24,276
Total Subcontractors	$0
Total Expenses	$0
Total Cost	$24,276

Stantec

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Prepared by: Ryan Cooper

204700415
Wastewater Outfall Study Permitting
City of Wasilla
September 7, 2022

Labor Hours Per Job Classification

Task 2: Permitting Pathways

		QC	Civil					Environmental								
	Sub-Task	Sr. Level 18	D. Syta Sr. Eng.	B. Misiak Process Eng.	S. Gould Sr. Eng.	R. Bronga EIT	J. Alward Eng.	V. Ross Env Manager	R. Cooper Env. Scientist	J. Marshall Env. Scientist	Pannone GIS				
			$253	$253	$217	$166	$198	$229	$208	$196	$171				
1															
2	No Action								1	4					
3	End of Pipe							2	4	8					
4	Mixing Zone		4					2	6	8					
5	Waste Treatment Facility		4					2	6	8					
6	Engineering Solution		4					2	6	8					
7															
8	Agency Coordination		4					16	8		8				
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
	Total Labor Hours	0	16	0	0	0	0	24	31	36	8	0	0	0	0
	Labor Costs Subtotal	$0	$4,048	$0	$0	$0	$0	$5,496	$6,448	$7,056	$1,368	$0	$0	$0	$0

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			$100
2	Misc. Field Supplies			$0
3	Mileage			$100
				$0
				$0
				$0
				$0
Expenses Subtotal				$200

NOTES:

TOTALS

Direct Labor Cost	$24,416
Total Subcontractors	$0
Total Expenses	$200
Total Cost	$24,616

Stantec

725 East Fireweed Lane, Suite 200
Anchorage, AK 99503
Fee Estimate
Prepared by: Ryan Cooper

204700415
Wastewater Outfall Study Permitting
City of Wasilla
September 7, 2022

Task 3: Plant Permitting

Labor Hours Per Job Classification

		QC	Civil				Environmental				Dept 6			
	Sub-Task	Sr. Level 18	D. Syta Sr. Eng.	B. Miskill Process Eng.	S. Gould Sr. Eng.	R. Bronga EIT	J. Alward Eng.	V. Ross Env Manager	R. Cooper Env. Scientist	J. Marshall Env. Scientist	Pannone GIS	Intern / Student BL5	K. Ross Structural Level 10	L. Schneller Sr. Elect. Level 14	Admin / Clerical
		$253	$253	$217	$166	$196	$229	$208	$196	$171					
1	Draft Permit Package		8				16	8	40	16	8				
2	Final Permit Package		8				16	8	20	8	8				
3															
4	Agency Coordination / Review Comments		16				8	16	16	8					
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
Total Labor Hours		0	32	0	0	0	48	32	76	32	16	0	0	0	0
Labor Costs Subtotal		$0	$8,096	$0	$0	$0	$7,840	$7,328	$15,808	$6,272	$2,736	$0	$0	$0	$0

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			$200
2	Misc. Field Supplies			$0
3	Mileage			$100
				$0
				$0
				$0
				$0
Expenses Subtotal				$300

NOTES

TOTALS

Direct Labor Cost	$48,080
Total Subcontractors	$0
Total Expenses	$300
Total Cost	$48,380

Stantec

725 East Fireweed Lane, Suite 200
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Fee Estimate
Prepared by: Ryan Cooper

204700415
Wastewater Outfall Study Permitting
City of Wasilla
September 7, 2022

Task 4: Agency Consultation

Labor Hours Per Job Classification

		QC	Civil				Environmental								
	Sub-Task	Sr. Level 18	D. Syta Sr. Eng.	B. Miskill Process Eng.	S. Gould Sr. Eng.	R. Bronga EIT	J. Alward Eng.	V. Ross Env Manager	R. Cooper Env. Scientist	J. Marshall Env. Scientist	Pannone GIS				
			$253	$253	$217	$166	$196	$229	$208	$196	$171				
1															
2	Agency Coordination		16				16	24	40	40	16				
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
Total Labor Hours		0	16	0	0	0	16	24	40	40	16	0	0	0	0
Labor Costs Subtotal		$0	$4,554	$0	$0	$0	$3,528	$5,496	$8,320	$7,840	$2,736	$0	$0	$0	$0

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			$200
2	Misc. Field Supplies			$0
3	Mileage			$150
				$0
				$0
				$0
				$0
Expenses Subtotal				$350

NOTES

TOTALS

Direct Labor Cost	$32,474
Total Subcontractors	$0
Total Expenses	$350
Total Cost	$32,824

Stantec

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

2047000415
Wastewater Outfall Study Amendment 6
City of Wasilla
September 12, 2022

Task 5 Wetland Discharge Monitoring

Labor Hours Per Job Classification

		QC	Civil				Environmental					Misc			
		Sr. Level 18	D. Syta Sr. Eng. Level 18	B. Miskill Process Eng. Level 16	S. Gould Sr. Eng. Level 14	R. Bronga EIT Level 10	J. Alward Eng. Level 12	S. Linderg Env Manager Level 14	R. Cooper Env. Scientist Level 12	J. Marshall Env. Scientist Level 11	A. Badger EIT Level 10	Intern / Student BL5	K. Ross Structural Level 10	L. Schneller Sr. Elect. Level 14	Admin / Clerical
	Sub-Task	$253	$253	$253	$217	$166	$196	$208	$208	$196	$166	$128			$156
1	Initial Startup		16		16										
	Continuation of Monthly Monitoring														
2	Sampling Events: Nov 22 - Dec 23														
3	Subsurface Sampling (16 sites, 4 events @ 2 days each, 3 people)						72			72	36				
4	Surface Sampling - SUMMER (20 sites, 10 events @ 2 days each, 2 people)						120			120	60				
5	Surface Sampling - WINTER (11 sites, 4 events @ 1 day each, 2 people)						36			36	36				
6	Vegetation Monitoring (6 sites, 4 events at 1 day each)									32					
7	Prep, Mob, Laboratory Coordination (12 events)						32								
	Additional Monitoring Elements														
8	DNA Tracking (1 events @ 1 day each, 3 people)						10			10	10				
9	Drone Flight (2 events @ 1 day each, 1 person)									12					
10	Prep, Mob, Laboratory Coordination						8								
11	Event Summary Reporting		12		24		48			12					16
	Reporting														
12	Preparation of Annual Report (x2) and Quarterly Reports (x4)		36		12		60			80					16
13	QC and Project Management, Safety Plans	8	40		24		16								24
	Total Labor Hours	8	104	0	76	0	402	0	0	374	142	0	0	0	56
	Labor Costs Subtotal	$2,024	$26,312	$0	$16,492	$0	$78,792	$0	$0	$73,304	$23,572	$0	$0	$0	$8,736

SUBCONTRACTORS

Firm	Amount
SGS Lab - Water Testing - see attached table	$241,980
Microbial Insights, Inc - see attached table	$14,700
Drone flight	$10,000
Subtotal	$266,680
Markup	10.0%
Subcontractor Subtotal	$293,348

EXPENSES

Item No.	Item (s)	Qty.	Unit Price	Total Price
1	Printing Allowance	1	$500	$500
2	Site Visit (mileage, field supplies, and disposables)	36	$125	$4,500
3	Misc field equipment (pumps, YSI, ice augers)	1	$2,000	$2,000
4	Microbial Insights Shipping	3	$150	$450
				$0
				$0
				$0
Expenses Subtotal				$7,450

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

TOTALS	
Direct Labor Cost	$229,976
Total Subcontractors	$293,348
Total Expenses	$7,450
Total Cost	$530,774

Stantec

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

204700415
Wastewater Outfall Study Amendment 6
City of Wasilla
September 12, 2022

Task 6 Public Involvement

Labor Hours Per Job Classification

	Sub-Task		Civil					Environmental				Misc			
			D. Syta Sr. Eng. Level 15	B. Mishill Process Eng. Level 16	S. Gould Sr. Eng. Level 14	R. Bronga EIT Level 10	J. Alward Eng. Level 12	S. Lindeg Env Manager Level 14	R. Cooper Env. Scientist Level 12	J. Marshall Env. Scientist Level 11	A. Badger EIT Level 10	Intern / Student BL5	K. Ross Structural Level 10	L. Schneller Sr. Elect. Level 14	Admin / Clerical
		$253	$253	$253	$217	$166	$198	$208	$208	$198	$166	$128			$156
1	Public Involvement														
2	2021 Meetings		12				16			12					2
3	Response to Comments & Other Coordination						16								
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17	QC and Project Management		2		4										2
Total Labor Hours			14	0	4	0	32	0	0	12	0	0	0	0	4
Labor Costs Subtotal			$3,542	$0	$868	$0	$6,272	$0	$0	$2,352	$0	$0	$0	$0	$632

SUBCONTRACTORS

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

EXPENSES

Item No.	Item (s)	Qty.	Unit Price	Total Price
1	Printing Allowance	2	$50	$100
2	(Mileage & Meeting) Supplies	2	$100	$200
Expenses Subtotal				$300

NOTES

	TOTALS	
$0	Direct Labor Cost	$13,966
$0	Total Subcontractors	$0
$0	Total Expenses	$300
	Total Cost	$13,966

Stantec

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

204700415
Wastewater Outfall Study Amendment 6
City of Wasilla
September 12, 2022

Task 7 Private Well Testing

Labor Hours Per Job Classification

			Civil					Environmental				Misc			
Sub-Task		$253	D. Syta Sr. Eng. Level 16 $253	B. Miskill Process Eng. Level 16 $253	S. Gould Sr. Eng. Level 14 $217	R. Bronga EIT Level 10 $166	J. Alward Eng. Level 12 $196	S. Linderg Env Manager Level 14 $208	R. Cooper Env. Scientist Level 12 $208	J. Marshall Env. Scientist Level 11 $198	A. Badger EIT Level 10 $166	Intern / Student BL5 $128	K. Ross Structural Level 10	L. Schneller Sr. Elect. Level 14	Admin / Clerical $158
1	Private Well Sampling (14 Residents)														
2	Sampling Event #1						16				12				
3	Sampling Event #2						16				12				
4	Prep, Mob, Laboratory Coordination (2 events)						6				4				
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17	QC and Project Management		2		2										2
Total Labor Hours			2	0	2	0	38	0	0	0	28	0	0	0	2
Labor Costs Subtotal			$506	$0	$434	$0	$7,448	$0	$0	$0	$4,648	$0	$0	$0	$316

SUBCONTRACTORS

Firm	Amount
SGS Lab - Water Testing - see attached table	$5,100
Subtotal	$5,100
Markup	10.0%
Subcontractor Subtotal	$5,610

EXPENSES

Item No.	Item (s)	Qty.	Unit Price	Total Price
1	Mileage & Meeting Supplies	6	$100	$600
				$0
				$0
				$0
Expenses Subtotal				$600

NOTES

TOTALS

Direct Labor Cost	$13,352
Total Subcontractors	$5,610
Total Expenses	$600
Total Cost	$19,562

Stantec

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

204700415
Wastewater Outfall Study Amendment 6
City of Wasilla
September 12, 2022

Task 8 Update Feasibility Report

Labor Hours Per Job Classification

			Civil					Environmental				Misc			
	Sub-Task	QC / ITR	D. Syta Sr. Eng. Level 15	B. Miskill Process Eng. Level 15	S. Gould Sr. Eng. Level 14	R. Bronga EIT Level 10	J. Alward Eng. Level 12	S. Linderg Env Manager Level 14	R. Cooper Env. Scientist Level 12	J. Marshall Env. Scientist Level 11	A. Badger EIT Level 10	Intern / Student BL5	K. Ross Structural Level 10	L. Schneller Sr. Elect. Level 14	Admin / Clerical
		$253	$253	$253	$217	$166	$196	$208	$208	$196	$166	$128			$158
1	Report														
2	Review existing lagoon treatment effectiveness		16				16			12					
3	Alternatives - Winter Ammonia Removal		16			8	24								
4	Alternatives - Sludge removal and handling		16	16			8								
5	15% level concept drawings		8			24	24								8
6															
7	Estimate of Probable Construction Cost (ROM level)		4	8		8	8								
8															
9	ADEC Review / Address Review Comments		8	8			12								
10															
11	Issue Final Report		16	8		8	16								8
12															
13	Quality Control and Project Management	12	12				8								4
14															
15	Note: update assumes only adding new material to existing report, not update of prior material														
16															
17															
	Total Labor Hours	12	96	40	0	48	116	0	0	12	0	0	0	0	20
	Labor Costs Subtotal	$3,036	$24,288	$10,120	$0	$7,968	$22,736	$0	$0	$2,352	$0	$0	$0	$0	$3,160

SUBCONTRACTORS

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

EXPENSES

Item No.	Item (s)	Qty.	Unit Price	Total Price
1	Printing Allowance	1	$200	$200
				$0
				$0
Expenses Subtotal				$200

NOTES

TOTALS

Direct Labor Cost	$73,660
Total Subcontractors	$0
Total Expenses	$200
Total Cost	$73,860

SGS Quote # 392770, dates 09/01/22, expires 12/31/2023

Sample	Matrix	Unit Price
Fecal Coliform	Water	$100.00
Ammonia by SM 4500G (W)	Water	$50.00
Total Coli P/A - Quantitray (1x/10x)	Water	$125.00
RCRA Metals +Cu/Zn	Water	$200.00
Metals Digestion, Water	Water	$20.00
Total Kjeldahl Nitrogen (W)	Water	$70.00
Biochemical Oxygen Demand	Water	$100.00
Total Phosphorus	Water	$50.00
Nitrate/Nitrite Combo IC	Water	$60.00
CAN Kit	Water	$150.00

Task 1: Quarterly Subsurface Sampling (December 2022, and March, June, September 2023)

Parameter	Analytical Method	# Sites	Duplicates	#Events	Unit Price from above	Subtotal	Notes
Temperature	Field Measurement	16		4	$0.00	$0.00	
Conductivity	Field Measurement	16		4	$0.00	$0.00	
pH	Field Measurement	16		4	$0.00	$0.00	
Dissolved Oxygen (DO)	Field Measurement	16		4	$0.00	$0.00	
FC bacteria	SM21 9555D	16	2	4	$100.00	$7,200.00	
Nitrate (NO3-N)	SM21 4500NO3-F or EPA 300.0	16	2	4	$60.00	$4,320.00	
Nitrite-N	SM21 4500NO3-F or EPA 300.0	16	2	4	with above		
Ammonia (NH_3 – N)	SM21 4500-NH3 G	16	2	4	$50.00	$3,600.00	
Total Kjeldahl Nitrogen (W)		16	2	4	$70.00	$5,040.00	
RCRA Metals +Cu/Zn		16	2	2	$220.00	$7,920.00	
Sites at 16 designated borings and monitoring wells.						$28,080.00 TOTAL	

Task 1: Monthly Surface Sampling (14 events total; half the sites Nov, Dec, Jan, Feb addressed by counting as 1/2 events)

Parameter	Analytical Method	# Sites	Duplicates	#Events	Unit Price from above	Subtotal	Notes
Temperature	Field Measurement	21		12	$0.00	$0.00	
Conductivity	Field Measurement	21		12	$0.00	$0.00	
pH	Field Measurement	21		12	$0.00	$0.00	
DO	Field Measurement	21		12	$0.00	$0.00	
BOD_5	SM21 5210B	21	2	12	$100.00	$27,600.00	
FC bacteria	SM21 9555D	21	2	12	$100.00	$27,600.00	
E. Coli bacteria (Total Coli P/A - Quantitray)	EPA 9132	21	2	12	$125.00	$34,500.00	
Nitrate (NO3-N)	SM21 4500NO3-F or EPA 300.0	21	2	12	$60.00	$16,560.00	
Nitrite-N	SM21 4500NO3-F or EPA 300.0	21	2	12	with above		
Ammonia (NH_3 – N)	SM21 4500-NH3 G	21	2	12	$50.00	$13,800.00	
Total Phosphorus	EPA 365.4	21	2	12	$50.00	$13,800.00	
RCRA Metals		21	2	12	$220.00	$60,720.00	
Total Kjeldahl Nitrogen (W)		21	2	12	$70.00	$19,320.00	
Sites include 18 surface sites, 1 at the pipe outfall, and 1 for Shaw. Half sites Nov, Dec, Jan, Feb equal to 2 full events.						$213,900.00 TOTAL	

Task 1: Additional DNA Source Tracking - Microbial Insights

Parameter	Analytical Method	# Sites	Duplicates	#Events	Unit Price	Subtotal	Notes
Microbial Source Tracking (Plume)		20	1	2	$350.00	$14,700.00	
Plume sampling includes a four by four grid at one discharge location. Ongoing is one full site sampling event in Summer 2023.						$14,700.00 TOTAL	

Task 3: Private Well Sampling

Parameter	Analytical Method	# Sites	Duplicates	#Events	Unit Price	Subtotal	Notes
CAN Kit (Nitrates, Arsenic, Total Coliform (P/A)		14	3	2	$150.00	$5,100.00	
14 Residents. Duplicates added for verification testing.						$5,100.00 TOTAL	

$241,980.00 TOTAL SGS
$256,680.00 TOTAL All tables