


SUBJECT: Award of proposal number 22-055P to Heartland Water Technology Inc. for the contract amount of \$5,995,000.00 to design and construct a leachate reduction system at the Central Landfill.

AGENDA OF: December 19, 2023

ASSEMBLY ACTION: Approved under the consent agenda 12/19/23 - BJH

AGENDA ACTION REQUESTED: Present to the Assembly for consideration.

Route To:	Signature	
Purchasing Officer	X  Signed by: Russ Kraftt	/ 1 / 2 0 2 3
Public Works Director	X T o m A d a m s , P E Signed by: Tom Adams	/ 4 / 2 0 2 3
Finance Director	X C h e y e n n e H e i n d e l Signed by: Cheyenne Heindel	/ 4 / 2 0 2 3
Borough Attorney	X N i c h o l a s S p i r o p o u l o s Signed by: Nicholas Spiropoulos	/ 6 / 2 0 2 3
Borough Manager	X M i c h a e l B r o w n Signed by: Michael Brown	/ 6 / 2 0 2 3
Borough Clerk	X L o n n i e M c K e c h n i e Signed by: Lonnie McKechnie	/ 7 / 2 0 2 3

ATTACHMENT (S) : Analysis Sheet (1p)
Scope of Services (2p)

SUMMARY STATEMENT: On March 1, 2023, the Matanuska-Susitna Borough (MSB) Purchasing Division issued a solicitation requesting Proposals from qualified firms to design and build a new Leachate Management System located at MSB's Central Landfill (CLF) at 1201 E 49th State Street, Palmer, Alaska. Currently, the MSB exports approximately 4 million gallons of leachate from lined lagoons at the central landfill to the Anchorage Water & Wastewater Utility, a volume that may rise to 6 million gallons per year over the next two decades. The system that Heartland Water & Technology will provide the MSB will eliminate the need to export leachate and allow the MSB to become self-sufficient in leachate management. Design and Construction Services purchased will support the Public Works Department in Assembly District #2.

In response to the advertisement, two proposals were received. A proposal evaluation team made up of Borough Public Works staff evaluated the proposals and selected Heartland Water Technology Inc. as the most advantageous firm for the Borough.

The substantial completion date for this project is November 30, 2024 with the final completion of December 31, 2024.

In accordance with MSB 3.08.170(C), Administration requests a 5% (\$299,750.00) change order authority to modify the resulting contract for reasons established under 3.08.170(B).

In accordance with MSB 3.08.170(B), Administration requests authority to modify the resulting contract completion date by 90 days for unforeseen circumstances.

The Public Works Department, Solid Waste Division will be administering the contract.

RECOMMENDATION OF ADMINISTRATION: Approve the subject action memorandum.

MATANUSKA-SUSITNA BOROUGH

FISCAL NOTE

Agenda Date: December 19, 2023

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FISCAL ACTION (TO BE COMPLETED BY FINANCE)	FISCAL IMPACT YES NO
AMOUNT REQUESTED \$5,995,000	FUNDING SOURCE ARPA/Landfill Cap. Projects/ADEC loan
FROM ACCOUNT # 475/420.000.000 4xx.xxx	PROJECT# 47534-7100-7112/25048-2400-2425/25054-7500-7504
TO ACCOUNT :	PROJECT #
VERIFIED BY: <div style="display: flex; justify-content: space-between;"> <u> X </u> <u> </u> L i e s e l W e i l a n d 1 2 / 4 / 2 0 2 3 </div> <div style="display: flex; justify-content: space-between;"> S i g n e d b y : L i e s e l W e i l a n d _____ </div>	CERTIFIED BY:
DATE: 12/4/2023	DATE:

EXPENDITURES/REVENUES:

(Thousands of Dollars)

OPERATING	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Personnel Services						
Travel						
Contractual						
Supplies						
Equipment						
Land/Structures						
Grants, Claims						
Miscellaneous						
TOTAL OPERATING						

CAPITAL	5,995.0					
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REVENUE						
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FUNDING:

(Thousands of Dollars)

General Fund						
State/Federal Funds	1 495 0					
Other	4 500 0					
TOTAL	5 995 0					

POSITIONS:

Full-Time						
Part-Time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

PREPARED BY: _____ PHONE: _____

DEPARTMENT: _____ DATE: _____

1 2 / 4 / 2 0 2 3

X

C h e y e n n e H e i n d e l

APPROVED BY: _____ DATE: _____

S i g n e d b y : C h e y e n n e H e i n d e l

SCOPE OF SERVICES

23-055P, Design Build Leachate Management System Phase 1

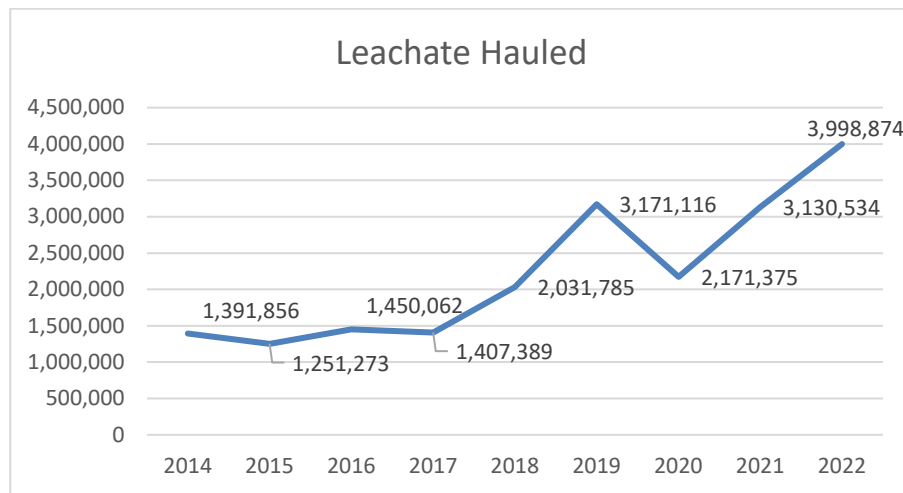
Summary

The intent of Phase I Request for Proposals (RFP) is to pre-qualify up to 3 design-build teams to participate in the Phase II Request for Proposals to design and construct the new Leachate Management System (Project) that will reduce volume, treat or sequester contaminants of concern (e.g., per- and polyfluoroalkyl substances – PFAS), and manage any resulting residual streams.

The Matanuska-Susitna Borough (MSB) is requesting qualification proposals from Design-Build Teams to design and build a new Leachate Management System located at MSB's Central Landfill (CLF) at 1201 E 49th State Street, Palmer, Alaska. Construction is scheduled for 2024 and the project budget is approximately \$5 Million.

Selected teams will be invited to participate in the Phase II design.

Leachate is collected from three lined municipal solid waste (MSW) cells at CLF, Cells 2B, 3, and 4. Collected leachate is stored in 2, 750,000-gallon lined lagoons. Leachate is currently loaded out of the lagoons and hauled by MSB to the Anchorage Water & Wastewater Utility (AWWU) at Turpin Street. The graph below illustrates the annual leachate hauled to AWWU since 2014. The current annual volume is approximately 4 Million gallons. During the next 20 years leachate generation may increase to 6 Million gallons per year. Note that MSB is in the process of obtaining a research, development, and demonstration (RD&D) permit from the Alaska Department of Environmental Conservation (ADEC) that will allow the recirculation of leachate and leachate treatment residuals.



As an energy source, the leachate management design shall consider incorporating the existing landfill gas (LFG) collection and control system (GCCS), which consists of 13 collection wells and an enclosed flare. The flare was provided by Perennial Energy, Inc.; information is available upon request. In 2023, the installation of 4 new wells is planned that should increase LFG production to approximately 300 SCFM. Recent GCCS operating data for flow and quality is tabulated below.

Landfill Gas Production

Date	SCFM	CH4 %	CO2 %	O2 %	Temp F
1/1/2023	185	34.5	26.5	1.0	39
12/1/2022	182	35.1	27.8	1.0	40
11/1/2022	186	32.6	27.1	1.6	45
10/1/2022	180	34.8	27.8	1.4	54
9/1/2022	194	36.3	29.2	0.5	54
7/27/2022	192	32.1	29	0.5	60
7/1/2022	195	30.7	27.3	1.1	64
5/30/2022	183	28.1	26.6	0.8	59
5/1/2022	182	30	27.2	0.6	48
4/1/2022	183	32.4	26.9	0.3	40
3/9/2022	154	22.4	25	1.3	46
2/2/2022	185	31.5	26.1	0.6	59
1/6/2022	190	33.6	26.8	0.6	68
12/1/2021	195	35.8	29.3	0.3	42
10/28/2021	185	33.4	27.7	0.7	40

scfm – standard cubic feet per minute

Stages of the Project

This Phase I of the RFP allows potential teams for this Project to provide their qualifications of their technology, services, and leachate treatment equipment.

In Phase II, work will encompass all design, including but not limited to civil, architectural, structural, mechanical, electrical, and all required permitting. Phase III construction includes but is not limited to site prep, extension of electrical, and telecommunication utility services to structures, on-site improvements including connection of the leachate and LFG systems.

The successful proposer can anticipate a July 1, 2023 NTP for phase II.

At a minimum, the design and construction is subject to the specifications and guidelines set forth in the Matanuska-Susitna Borough Facilities Design Criteria Manual.

Proposers will be responsible for all costs to design and deliver construction documents stamped by the appropriate Alaska licensed Architectural/Engineering disciplines, costs for all regulatory agency reviews and permits, such as but not limited to ADEC, Fire Marshal, Historian, MSB Code Compliance, etc. and all other authorities having jurisdiction. It will be the responsibility of the successful design/builder to ascertain all requirements necessary to complete the entire project.

The following evaluation criteria section outlines how MSB will review and assess the information provided by the proposer. MSB may conduct interviews with select proposers to further understand their qualification.



22-055P Design Build Leachate Reduction System Phase II

Scoring Summary

	Total	TECHNICAL CAPABILITY	OPERATIONAL EFFICIENCY	REGULATORY COMPLIANCE	SERVICE AND SUPPORT	PERFORMANCE DATA AND REFERENCES	COST
Supplier	/ 100 pts	/ 20 pts	/ 15 pts	/ 10 pts	/ 15 pts	/ 10 pts	/ 30 pts
Heartland Water Technology, Inc.	76.72 pts	20 pts	13.2 pts	9.6 pts	13.8 pts	9.2 pts	10.92 pts (\$5,995,000.00)
ASRC Energy Services, LLC	48 pts	4 pts	3.6 pts	3.2 pts	4.8 pts	2.4 pts	30 pts (\$2,181,541.00)