ENGINEERING & ENVIR. SVCS. DEPARTMENT



Hameed Malik, Ph.D., P.E., Director

MEMORANDUM

TO

Darrell White, Interim Director - Procurement

FROM:

Hameed Malik, Ph.D., PE, Director - Engineering & Environmental Services

DATE

October 27, 2024

SUBJECT:

Deans Bridge Road Landfill Operations and Regulatory Permit Compliance- Landfill

Equipment Need and lease-to-Own Equipment Purchase Plan

We are seeking permission to move forward with the lease to own options on a list of equipment that landfill staff have identified, tested, and approved as appropriate to fulfill permit compliance needs.

Previous operational procedures for the Augusta Landfill were driven with no long-term planning efforts, no daily maintenance inspections, and a "run-to-failure" mode of operation. As a result, the current landfill equipment is mostly at the end of life, resulting in high maintenance costs and decreased operational time. The run-to-failure mode of operation resulted in emergency equipment purchases, so duplicate equipment was purchased at the same time: this resulted in equipment with the same end-of-service expectancy which resulted in higher capital outlay for multiple equipment purchases at time of failure. Emergency purchases provided the lowest trade-in value since the run-to-failure machinery had little to no value, this decreased negotiation potential on new equipment purchases. Run-to-failure mode also resulted in higher operational costs and higher machine down time because parts related to failures were more expensive and equipment repairs took longer. Emergency negated the opportunity to reasonably plan and negotiate cost effective options, such as short-term rental (non-ownership) and leasing.

For the last three years Augusta Engineering and Environmental Services Department (AEESD) have optimized operations related to heavy equipment operation and maintenance. Our maintenance staff developed effective preventative maintenance procedures, including pre inspections by maintenance staff before all equipment is allowed to be used for the day. Scheduled preventative maintenance programs are in place for the entire fleet of vehicles and heavy equipment. Our heavy equipment operators have been trained on proper pre and post use inspections and are required to thoroughly clean all equipment so maintenance staff can inspect at the beginning of each day. Managers, mechanics, and operators work together to ensure the equipment we use has the potential to last; a significant amount of money has been saved over the past three years as a result. Over the last four months, landfill managers, mechanics, and operators assessed the condition of the current inventory and compared it to equipment needs in order to fulfill all landfill functions. Those functions go beyond garbage handling and include soil and erosion abatement, vegetative maintenance, detention pond maintenance, road maintenance, customer drop off services, dust suppression, and equipment and personnel transport. This effort resulted in identification of classes of equipment for our specific needs and vendors that sold equipment with those parameters. Finally, we asked vendors to provide trial periods for key equipment at the landfill so we could ensure appropriateness for our site and needs.

Landfill equipment is expensive, so in order to optimize available funds, maintenance contracts, and warrantee periods, we asked each vendor to structure prices/payments on available equipment to accommodate a four-year lease period with a \$1 purchase price at the end of the lease period.

ENGINEERING & ENVIR. SVCS. DEPARTMENT



Hameed Malik, Ph.D., P.E., Director

We are seeking permission to move forward with the lease to own options on a list of equipment that landfill staff have identified, tested, and approved as appropriate to fulfill permit compliance needs. The total for all equipment leases is structured so that annual obligations will not exceed \$1,000,000 per year. The equipment list identified as attached Exhibits A& B is structured according to machine class, attached are results of the needs assessment.

The lease term is forty-eight months. Monthly and annual lease amount is \$79,114.21 and &949,370.57, respectively. It is a cost effective option, and spreads the cost over a four-year period that is manageable through the Landfill's yearly operational budget.

Please contact me if you have any questions.

Thank you,

/hm

Attachments: EXHIBITS A & B

cc: Nancy Williams, Procurement Department

Tim S, Interim Finance Director

Lewis Avery, Engineering & Environmental Services

Oscar Flite, Walt Corbin, Engineering & Environmental Services

File

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EXHIBIT B

	Total	Monthly lease	end payment	selected items for lease
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JD (40 ton)				
Rokbak-40 ton				
Volvo A40G- 40 ton				
CAT 740				
Komatsu HM 400-5 (CAT 740 eq)				
excavators JD 250 P-Tier- long reach				
CAT 336				
CAT 336-08				
JD 350P				
Hyundai HX300 A-long reach				
Case CX350D-long reach				
CAT 326 S-long reach				
Komatsu PC 210-11 SLF- long reach				
dozers				
CAT D6-trash				
JD 850-trash				
JD 1050-trash				
JD 850-dirt				
JD 750L-dirt				
CAT DS dist				
CAT D6-dirt				
CAT D5-dirt				
CAT D4-dirt				
Komatsu D51PXi-24 (D6/700K equi.)				
OTR trucks				
OTR estimate				
personnel carriers				
4 passenger ATV Kabota				
4 passenger ATV Kabota				
4 passenger ATV Kabota				
mowers				
FAE Land clearing RCU75				
FAE Land clearing RCU55				
Skid steer				
New Holland C345 skid steer				
ASV RT135 Forestry skid steer				
299D3 Tracked skid steer with mowing heads				
tractors				
New Holland T6.180-electro				
New Holland T6.180-dynamic				
mulchers/grinder				
FAE UML/SSL/VT-175 mulching head				
Vermeer HG4000				
haakhaa				
backhoe CASE				
440 backhoe loader				
light plants				
CAT 21-0250 Light tower (5 ea)				
compactor wheels				

TOTAL-monthly \$ 79,114.21 TOTAL-annual \$ 949,370.57