

Memo



To	Dillard Griffin	From	Richard C. Svindland, P.E.
Copy	Rick Buchanan	Company	KAW
Company	KAW	Phone	859.335.3833
Fax		Fax	859.268.6327
Pages	1	Date	11-24-03

KRS Lagoon Sludge Removal and Beneficial Reuse.

I have reviewed the proposals from H&A Resources and C.B. Construction Company to perform the work on the referenced project. A summary of the two bids is below.

H&A Resources proposes to remove all liquid solids from each of the lagoons via a tractor mounted hydraulic pump and process through a mobile belt press. After dewatering, the solids will be land applied in KAW's disposal area by use of sludge slinger. H&A estimates that the entire spoil area will be covered by 1 foot of 20-25% solids. H&A's cost is as follows:

Mobilization Fee:	\$2,000.00 lump sum
Remove sludge from lagoon, dewater and spread:	\$0.070 per gallon
Estimated gallons for lagoons 1 - 4:	4,000,000 gallons
<u>Estimated cost to remove and process:</u>	<u>\$280,000.00</u>
Total Cost:	\$282,000.00

C.B. Construction Company proposes to remove a stand of trees and make additional spoil area. Soil from the existing spoil area will be cleared and stored in the newly cleared area. Upon removal of the excess soil at the spoil area, berms will be created to retain new "wet" solids that will be mucked from the KRS lagoons. C.B.'s cost is as follows:

Remove Tree Stand:	\$8,000.00	American Water
Remove sludge from all lagoons, build berms, move excess:	\$90,000.00	2300 Richmond Road
Cost to haul wet sludge to spoil area:	\$50.00 per load	Lexington, KY 40502
Estimated No. of Loads:	1.200	T 859.269.2386
<u>Estimated cost to haul:</u>	<u>\$60,000.00</u>	F 859.268.6327
Total Cost;	\$158,000.00	I www.amwater.com

Although I believe H&A's method to be safer in terms of the potential for a berm failure, I don't think the reduced risk associated with H&A's method can justify the difference in costs. I recommend that the work be awarded to C.B. Construction, however, I believe it may be prudent to have FMSM engineers come out after construction and give us an opinion as to the stability of the newly bermed spoil area.



Proposal

2004

**C. B.
Construction
Company**

233 East French Ave.
Burnside, KY 42519
(606) 561-9963

PROPOSAL SUBMITTED TO Kentucky American Water Co.	PHONE 58-63 0	DATE 11-14-03
STREET 2300 Richmond Road	JOB NAME Sludge Lagoons	
CITY, STATE AND ZIP CODE Lexington, KY 40502	JOB LOCATION River Station	
ATTENTION Mr. Dillard Griffith	DATE OF PLANS 71-14-03	

We hereby submit specifications and estimates for:

In reference to cleaning sludge lagoons, and dirt excavation replacement, seeding and strawing.

C. B. Construction Co. will clean all four sludge lagoons, (No. 1, 2, 3, & 4), re-gravel all roads and create burms to hold sludge on RAWC site for the sum of \$96,000.00

Will haul dirt from dump site to sites on property- Place, seed, and straw for \$50.00 per load.

Will remove existing trees and create a tree burm for the purpose of having a place to dump dried sludge for the price of \$8,000.00

All work during winter months will be performed as the weather permits.

We Propose hereby to furnish material and labor -- complete in accordance with above specifications, for the sum of:

_____ dollars (\$ _____).

Payment to be made as follows:

All material is guaranteed to be as specified. All work to be completed in a workable manner according to standard practices. Any alteration or omission from above specifications involving extra work will be executed only upon written orders and will require an extra charge over and above the estimate. All agreements contingent upon contract, accidents or delays beyond our control. Owner to carry fire, marine and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Authorized Signature William Christopher
Note: This proposal may be withdrawn by us if not accepted within _____ days.

Acceptance of Proposal — The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature _____



Pax Message

To: Linda Bridwell **From:** Todd Stephens

Fax: 268 - 6327 **Pages:**

Phone: **Date:** 10/6/03

Re: **CC:**

- Urgent
- For Review
- Please Comment
- Please Reply
- Please Recycle

Comments: Attached please find the proposal for removal and management of solids from the lagoons at the KY River Station. Since this proposal was prepared some time ago, we would like to inspect the lagoons again and revise our price if necessary. Please contact me should you have any questions.

Confidentiality Notice:
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103 FIELDVIEW DRIVE VERSAILLES, KENTUCKY 40383 BUS, (859) 873-3331 FAX (859) 873-4611



**RESOURCE
MANAGEMENT**

103 Fieldview Dr.
Versailles, KY 40363
Phone 859-873-3331
Fax 859-873-4611

August 2, 2002

Mr. Richard C. Svindland, P.E.
Kentucky-American Water Company
2300 Richmond Rd.
Lexington, KY 40502

Re: Lagoon Clean-out Proposal

Dear Mr. Svindland:

Enclosed please find a proposal for the removal and management of solids from lagoons located at the Kentucky River Station water treatment plant operated by Kentucky-American. The proposal addresses all aspects of removal, dewatering and management of the solids.

Please do not hesitate to contact me should you have any questions.

Sincerely,

G. Todd Stephens
Vice President

PROPOSAL FOR THE REMOVAL AND MANAGEMENT OF SOLIDS FROM STORAGE LAGOONS

Kentucky-American Water Company
Kentucky River Station
Lexington, Kentucky

INTRODUCTION

H&A Resource Management, (H&A), is proud to present a proposal to the Kentucky-American Water Company (KAWC) for the management of water treatment solids from the storage lagoons at the Kentucky River Station water treatment facility. The facility has three major onsite lagoons that store solids resulting from the water treatment process. KAWC has requested a proposal for the removal, dewatering and onsite disposal as an alternative to the "mucking" operation that has historically been performed.

SCOPE OF WORK

Several methods of managing solids from the lagoon are available. Due to the arrangement at the facility, the onsite stockpiling area, and the desires of KAWC, removal and mobile dewatering was selected as the preferred option. However, H&A would like the opportunity to discuss with KAWC one of the alternate methods of managing the material that potentially reduce costs if it is proven successful.

The removal and dewatering alternative will first require the agitation of solids in the lagoon. This is performed with a tractor powered "lagoon or stick pump". This piece of equipment will mix and agitate the existing solids and can be moved to various locations around the perimeter of the lagoon. The lagoon pump will facilitate more efficient removal of solids from the lagoon and provide a more homogenous mixture of material to feed the belt press. Solids will then either be removed directly from the lagoons and fed to the press or pumped to one of the onsite concrete basins prior to dewatering.

The solids, once removed from the lagoon, will be dewatered with a mobile belt filter press. The resulting solids will be loaded onto trucks and transported to the existing stockpile area. The solids will then be spread with either the rear discharge spreader trucks or with a side discharge applicator vehicle. These methods of stockpiling will allow for a thinner layer to be placed in the area and allow for more expedient drying of the material.

H&A has not proposed any management, in addition to spreading/stockpiling, of the dewatered solids within this proposal. H&A believes that minimal physical movement of the solids after placement and drying will be necessary. However, if desired by KAWC, a management plan will be determined and any price adjustments made in a separate or revised document.

KAWC has informed H&A that solids are removed when two of the three lagoons have reached capacity with solids. The third lagoon is then used for receiving solids until the other lagoons are cleaned and available. H&A will propose to also utilize the third lagoon for receipt of filtrate from the belt press unless another acceptable location is designated by KAWC.

KAWC'S RESPONSIBILITIES

The prices contained within this proposal are based on KAWC being responsible for the following items:

1. Provide H&A with a 480 volt 3-phase 80 amp fused electrical disconnect service and access to a fire hydrant or other clean water source capable of providing a minimum of 100 gpm at no charge to H&A.
2. Provide H&A access to the facility a minimum of 12 hours per day.
3. Allow for filtrate that is produced from the dewatering operation to be discharged to one of the lagoons or other designated location within 150' of the belt press at no charge to H&A.
4. Allow solids that are produced to be dumped/spread at the onsite stockpiling area.
5. Provide for any and all costs associated with the sampling and analysis of solids, water, soil or other materials required by the state or any other regulatory agency.
6. Maintain approval with the state regulatory agency for the stockpiling of dewatered material onsite.



VOLUMES

Based on rough estimates of the dimension of the lagoons, the solids to be removed from each lagoon is believed to be approximately 2 million gallons. The actual volume will be measured with a flow meter mounted on the mobile belt filter press.

TERM

The term of this contract shall be as negotiated between KAWC and H&A. Currently, both parties indicate a desire for a long-term arrangement.

SUBCONTRACTORS

H&A may utilize subcontractors for any part of the project as described. H&A will have personnel on site throughout the project and will be responsible for all aspects of the operation. H&A and its employees will represent themselves in a positive, professional and courteous manner. Any questions or concerns should be directed immediately to the onsite supervisor.

INSURANCE/BACKGROUND CHECKS

H&A will maintain insurance on all equipment and personnel associated with the project. Any subcontractors utilized will be required to carry liability insurance on all equipment and personnel while on the job site. As a minimum H&A maintains insurance coverage as follows:

Equipment	\$1,000,000
Commercial Liability	\$1,000,000
Workers Compensation	Statutory Limit

The price contained within this proposal does not provide for any bonding or pollution liability insurance. Any additional insurance requirements stipulated by the client will be obtained upon request but will be reflected in an appropriate revision of the contract price.

As requested by KAWC, H&A will conduct background checks on all personnel that will be assigned to the project. A letter certifying that the background checks have been performed will be provided to KAWC prior to commencement of any work.



PRICE

H&A will provide the services as describe within this proposal for the following prices. These prices are based upon a minimum of 1,000,000 gallons being removed during the clean-out event.

Mobilization/Setup	\$2,000 Lump Sum
Remove sludge from lagoon, dewater, and stockpile	\$0.079/gallon
Demobilization	None

*\$0.70/gallon
due 2 ponds
re-evaluate*

The following additional costs may apply.

Other Costs if necessary

Downtime (after 2 hours)	up to \$250.00/hr
Temporarily pull off project and leave equipment	up to \$1,000/day

The downtime and pull off project charges listed above are for incidents that are not the fault of H&A. This does not include shut downs due to inclement weather or other "Acts of God". The actual mount charged will depend on the exact circumstances of the shut down. These prices are based upon H&A being responsible for all aspects of the job excluding those items listed in KAWC'S RESPONSIBILITIES section of this proposal.

H&A will maintain a daily record of volumes removed. An invoice with the total (and daily if desired) volume removed will be submitted to KAWC and the end of each month or end of the project, whichever comes first. Payment in full shall be received no later than thirty(30) days from the date of the invoice. If not paid in full by the due date, H&A may charge up to the legal amount allowed for finance charges.

TIMING

Based on a site visit conducted during July of this year, two of the three lagoons are nearing capacity. Therefore, based on previous clean-out events, the project would be estimated to begin during the fall of 2002 or spring of 2003. H&A would also be interested in discussing the clean-out of one lagoon per year as opposed to the cleaning of two lagoons biannually.

The date of commencement will be as negotiated between H&A and KAWC.



REFERENCES/EXPERIENCE

H&A would be pleased to provide KAWC with a list of references and experience upon request.

SIGNATURES

Signing below will serve as an agreement to the terms and conditions as described herein and will be considered official notice for H&A to proceed with the project.

H&A Resource Management

Kentucky-American Water Company


~~Signature of Authorized Representative~~

Signature of Authorized Representative

G. TODD STEPHENS V.P.
Print Name and Title

Print Name and Title

8/2/02
Date

Date



