



Durham Park Association

Stock Tank Maintenance report and recommendations

Jerry Parker, Virginia Malone, Scott Porter

Stock Tank Committee
Durham Park Association
9/15/2014

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PURPOSE

Durham Park Association has two ponds/stock tanks in the park that are part of the community assets. These tanks are currently in a terrible state of repair, and are overgrown with vegetation, heavily silted up, and loaded with dead/decaying material and refuse. When full, this material may present a safety hazard, and these ponds could be considered an “Attractive Nuisance” which could lead to citation and or litigation. One of the stock tanks has some remaining stagnant water in the bottom of it, and without fish or other wildlife visiting it it has become a breeding ground for mosquitoes and other insects.



Our Ponds are a valuable asset

The governing documents state that these ponds are to be kept maintained and stocked. Furthermore, as a community asset, the board is required to insure that this asset be maintained and managed in the same way as any other asset, such as the pool, community building, or other community property. The purpose of this report is to document the deficiencies in these assets, and outline a plan and series of recommendations to repair these assets and insure that they stay well maintained in the future, thus protecting their value to the community and residents.

HISTORY

There isn't much history available to review. The ponds appear to have gone without any maintenance whatsoever for many years. Since we have had several years of drought, the ponds have dried up, vegetation has fallen in or taken root, and trees and other deadfall have collapsed at the banks and fallen in, and all these factors are contributing to the general state of disrepair. Some residents have complained about the state of these tanks/ponds, and

the current board has budgeted for such repairs for the last three years, but have taken no action. The governing documents state, in part : “An Assessment shall be paid ... for each lot in Durham Park for the ... (c) the maintenance and stocking of all tanks and lakes available for use by the owners of lots in Durham Park”. The responsibility of the board is very clear: we are required to correct this long-standing problem.

LEGAL

The stock tanks are part of the Potts Branch Creek System. There are regulated flood plains within this system where stock tank maintenance and alterations are required to be in compliance with Texas Statute¹. Fortunately, the tanks in the park lie outside of the flood plain and are therefore not subject to these regulations. In speaking with the agencies involved^{1 2 3}, they have assured me that we can perform maintenance on these tanks without seeking environmental impact studies, engineering reports or permits. They asked us to insure that the contractor took steps to “mitigate and control the release of silt downstream should a rain event happen during the project”.

Furthermore, I contacted TCEQ and outlined this project to them. They reiterated that we have no special regulations to be concerned about but further stated that we should control possible silting downstream. They issued a letter that stated that we are fine as long as we don't disturb more than one acre of pond. Since our ponds are less than one acre, we have little to worry about. (Their response is included at the end of this document).

I also contacted Williamson County Dept. of Infrastructure, and they informed me that since these ponds are outside of their jurisdiction (they are not in a flood plain) they didn't need to be involved.

I immediately forwarded the silting information over to the contractor³ for consideration in his estimation process. Should there be a need to abate silting deposits, he is prepared to put in silting fence at \$3.50 lf. We are not expecting this to be necessary, but are prepared should the need arise. Furthermore, the contractor has been made aware that as part of the award of work he is to insure that he and his crew are in compliance with any and all regulations as they relate to this repair; he has assured me that is in compliance with any and all regulations, and will insure that his work, and by extension Durham Park is in compliance at all times. Finally, the contractor is licensed with the state of Texas, and is in full compliance with all insurance requirements, including general liability, and other pertinent requirements.

NEED

Our requirements are clear, per the governing documents. We are required to maintain and stock these tanks “...for use by the owners of lots in Durham Park”.

The tanks are in serious disrepair, and are clogged with debris, deadfall, and vegetation. Banks have been eroded as trees have fallen into the basin, damaging the lining of the banks. The basin itself may have been damaged by roots and other invasive (animal) activities. These tanks also loaded with silt and as such have become much shallower than intended, which in turns leads to them drying out faster/earlier in the season. Therefore, our findings dictate that any maintenance plan should include the following goals:

- Remove the dead and rotting vegetation
- Remove the vegetation beds
- Remove the silt to the level of the clay barrier
- Trim up and repair the banks where trees have eroded
- Remove the brush and other vegetation surrounding the ponds and presenting barriers to human traffic
- Determining the future maintenance plans of these ponds, including but not limited to
 - Determining their intended depth
 - Determining the viability of the lining
 - Determining the fitness and suitability of these ponds to hold fish and other aquatic life
 - Determining the longevity of these ponds
 - Determining future maintenance cycles and costs for budgeting and reserves

ACTIONS TAKEN

Under board authority, the maintenance committee formed a public outreach committee to investigate, and determine a course of action for Stock Tank Maintenance. This committee is known as The Stock Tank Committee and consists of two board members, Jerry Parker and Virginia Malone, and one Citizen member, Scott Porter. Scott was chosen for his extensive knowledge of the tanks, and his history with the board as it relates to maintaining these assets.

The committee examined the issues associated with the tanks, and determined the following requirements:

- The tanks need repair

- The tanks appear to be leaking
- The tanks need to be deepened
- The tanks need to be cleaned out/ vegetation beds removed
- The area surrounding the tanks needs landscaping and landscape maintenance

The committee explored the ability of the committee and volunteers to get this work done, and that was discarded as untenable. There is simply too much work that requires heavy equipment. It was decided to seek contractors to perform this work and a contractor was selected based on several factors:

- Contractor knowledge and experience in this particular area of expertise
- Contractor willingness to work with us to achieve our goals
- Contractor abilities and preparedness
- Contractor reputation
- Contractor price

After meeting with the contractor, it was determined that there were several unknowns that needed to be explored/ resolved prior to presenting an encompassing plan. Of particular importance was the depth of the ponds, and how stable and suitable the current lining is. We needed answers to the following questions before embarking on a master maintenance plan:

- Do the ponds leak?
- Has vegetation penetrated the lining?
- Is there one foot of silt or several?
- Would the ponds be holding water if deepened?

The answers to these questions would dictate the contents and requirements of the maintenance plan going forward. Therefore the committee decided to take a small and exploratory step to try to get the answers to these questions.

PLAN

The committee determined that the contract would need to perform some exploratory work on the ponds before committing to a larger and more encompassing plan. Therefore, we worked together with the contractor to determine the best solution to this exploratory operation, and it was determined:

- We need to do the work in phases

- Each phase will dictate the following phases
- It is appropriate to approach this work in phases, each as a separate project, dictated by the facts found on the previous phase

Therefore this report covers the first phase, known as the exploratory phase. The goal of this phase is to remove debris and silt from the smaller pond and to determine the actual extent (depth) of the lining, and also determine the linings current state of repair. Additionally, this data may be applied together with some exploratory work against the larger pond as well. The end result will be a solid and thorough understanding of the ponds (both smaller and larger) current condition, and provide the data needed to formulate more thorough and encompassing plan going forward. Additionally, the smaller pond shall be cleaned out, and deepened to the extent possible. Furthermore, the larger pond may have some work done on it as well in the same manner.

This phase consists of the following work:

- The contractor commits to 20 hours of fixed-price bid.
- The contractor delivers all equipment necessary, but consists of a John Deer 4x4 backhoe and an s3000 bobcat (x2)
- This 20 hours will cover work on the smaller pond (known as pond “A”) and should any remaining time be left it will be applied against the bigger pond (pond “B”)
- The work will include removal of a maximum of 600 cubic yards of material
- The work will include removal of the current vegetation in Pond “A”
- The work will include deepening of Pond “A” to the current water-line or the pond liner, whichever is deeper
- The “tailings” or silt material removed will be spread out across the ground layer or placed in an alternate location as desired
- Test holes will be dug as needed to determine the depth of the pond liner and the general condition of the material lining the pond
- The slope and contour of the pond(s) will be perfected
- Should the work in Pond A require less than 20 Hours of work, the balance of time will be applied to Pond “B”

The results of this work will be documented and then used to establish the correct maintenance requirements going forward in both short and long term, for both Pond “A” and Pond “B”



Pond A



Pond B

Summary:

We wish to clean out the ponds, deepen the ponds, and evaluate the condition of the liner of the ponds. Currently there is no historical information as to the types of construction and materials used, and this coupled with the poor state of the ponds, means we should do some exploratory work in the ponds to evaluate them. Coupled with this evaluation, we would also like to clean out the vegetation and undergrowth currently choking the ponds with plant material.

We have consulted with and arranged for a contractor³ to provide this work for us with a fixed bid. The contractor will insure that we are in compliance with all regulatory agencies, and has agreed to perform any needed abatement as requested by the local agency (Williamson County Environmental Services) to mitigate any potential excessive silt run off should a rain even occur during the work phase of the project.

We are not located in a flood plain and are not subject to the restrictions and regulations governing those types of activities. We are not a tributary to any major body of water, so we are not subject to the regulations governing those types of activities. Both the TCEQ and Williamson County has given us the go ahead to start on this project (see note ⁴).

At the conclusion of this phase of the project, I am confident that the smaller pond will be substantially cleared of vegetation, that the extent of and conditions of the liners will have been evaluated, and we will be in a stronger position to determine further maintenance and repair requirements accurately and fully.

Recommendation

Award the contractor the job per his proposal (attached) and proceed with the phase one project. Should there be no immediate objections I will proceed as early as this September 20th. We will utilize the 20 hours on Pond A exclusively until either Pond A is complete (them move on to Pond B) or until the clock runs out, at which time we negotiate phase 2

Secure a written report from the contractor/committee to document the next phase of the project at the conclusion of this work.

Our intent is to commence work September 20th; pending any objection.

Respectfully

Jerry Parker

Virginia Malone

Scott Porter

Mr. Parker,

We talked about the proposed cleaning of the ponds out at Durham Park Association in Liberty Hill yesterday afternoon. There are two environmental issues here. One issue is the disturbance of soil and the other is the outdoor burning. If you disturb more than 1 acre, you trigger the construction storm water program requirements. A storm water investigator (Wallace Myers) and myself looked at the two ponds on google earth and it looks like they are less than 1 acre in size. As long as what you are doing is less than 1 acre in size, then no permit is required. Just make sure that if you remove any soil from the ponds, that it is stabilized and not running off. You are also over the contributing zone of the Edwards aquifer, but as long as you are less than 1 acre – that should not be a problem. If the project goes over 1 acre in size, then check with Wallace Myers for an additional requirements.

The other issue was the burning of any vegetation that you remove from the ponds. The TCEQ has an outdoor burning guidance that I have attached to this email. Read the attached guidance and let me know if you have any questions. One big thing is that only vegetation that was cut on-site, can be burned on-site. You can't take it to another location and burn it. You also cannot bring in construction debris, insulation, etc., and burn it. That would be considered a violation. And of course, don't smoke out your neighbor or create a nuisance condition for neighbors - or have it affect a roadway (driving safety). The fire has to be burned only in daylight hours, when the area is not in a burn ban. Check with your local fire department for current burn ban status.

Let me know if you have any more questions. When you get ready to do an outdoor burn, please first call Mr. Chris Keffer with the TCEQ Austin Region Office Air Program to discuss it with him first. Both Wallace Myers and Chris Keffer can be contacted at (512) 339-2929. Have a good day.

Sincerely,

Chad W. Ahlgren

Environmental Investigator

TCEQ Austin Region (11) Office

P.O. Box 13087, MC R11

Austin, Texas 78711-3087

Ph: (512) 339-2929

Direct: (512) 239-7040

Fax: (512) 339-3795

Chad.Ahlgren@tceq.texas.gov

F R O M	Estimator of Proposal	A-1 Excavation Inc. 19101 F.M. 1431 Lago Vista, Texas 78645 267-9000 <u>Quality Mission Statement:</u> “To Give our Customers More than they expect anything less is unacceptable”	Page No. 01 of 02 Pages
	Joey Sisca, Owner		

PROPOSAL AND PURCHASING ORDER TO:	DATE 09/05/14	
NAME Jerry Parker	JOB NAME Pond Dredging Work	
STREET 800 Glass Cock Rd	STREET 800 Glass Cock Rd.	
CITY Liberty Hill	CITY Liberty Hill	STATE Texas
STATE Texas	PHONE: (206) 200-8445 Email: jerrycparker@hotmail.com	

We hereby submit specifications and estimate for: **Complete Pond Dredging work To Include The Following:**

Upon site pre construction meeting I determined based upon the length of time since the ponds were constructed and no preventive maintenance hasn't been performed and there isn't a Geo Tech report provided, we do not know exactly how deep we are able to dredge out ponds our best opinion is to provide our equipment services by the hour. Furthermore it has been determined that this is the most cost effective way to do this project.

Objective- To dredge pond levels as deep as possible and or to original clay depths of ponds. Spread out spoils in low areas outside of pond.

Recommendation- Using Backhoe and Bobcat to determine the best equipment need to do this project. We will be able to determine the amount and depth of excavating ponds (x2) 10 Hr. days starting in pond A and moving to Pond B.

Equipment Rates by the hour as Follows:

John Deere 4x4 Backhoe \$125.00 Move In Fee \$250.00 Bobcat S300 \$75.00 Move In Fee \$ 0.00
 Caterpillar 320 Excavator \$ 230.00 Move In Fee \$ 600.00 Off Road 8yd. Dump Truck 65.00Hr.
 Off Road 30yd Dump Truck \$ 220.00Move in Fee \$600.00 D5 Size Dozer 165.00 Move in Fee: \$ 600.00

The Best way to stretch the dollar on this project because there are no plans as per construction of these ponds and No Geo Tech report provided and depth of ponds before hitting water level below surface. Using the John Deere 4x4 Backhoe and Large Bobcat S300 for (x2) 10hr. Days. By allocating this smaller equipment to start out, we will be able to determine if we can complete this project in a timely manner using this equipment or we will need to use the larger equipment based upon being able to move large amounts of material out of the ponds in excess of 600 cu.yds. **Cost For the two days \$ 2,250.00**

Note A-1 Excavation Inc. is a member of the BBB with an A+ Rating for outstanding customer Support and Care, Lago Vista and Jonestown Chamber of

Commerce. Voted Best Excavation Company of the North shore 10 Years Straight by the Readers Choice Awards! We are also a Preferred Contractor with Home Advisor. Thanks for doing business with our Local Business Community. We accept Vista, MasterCard, and Amex. And offer in house Financing on Most projects.

We hereby propose to furnish labor and materials complete in accordance with the above specifications, for the sum Of:
(See Above) with payments to be made as follows: Upon Completion

Page 02 of 02

A-1 Excavation Inc.
6202 Valley View Drive
Lago Vista, Texas 78645
267-9000

Quality Mission Statement:
“To Give our Customers More than they expect anything less is unacceptable”

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All material is property of A-1 Landscape until paid in full. All said drawings and or Landscape layouts are Copyright of A-1 Landscape Inc. All Rights Reserved. All agreements contingent upon strikes, accident or delays beyond our control. This proposal subject to acceptance within 365 days and it is void thereafter at the option of the undersigned.

Joey Sisca, Owner A-1 Excavation Inc. _____

ACCEPTANCE OF PROPOSAL

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

ACCEPTED: Jerry Parker _____ Date _____

Bibliography

¹Texas Administrative Code, Title 30, Part 1, Chapter 7, Rule §7.115

²David Zwarnerman, Flood Plain Manager, Williamson County Dept. of Infrastructure

³ A-1 Excavation Inc, Ponds, Lakes and Dams division.

⁴Letter from TCEQ is attached

