FREQUENTLY ASKED QUESTIONS

What is the volume of accumulated sediment in the lake?

The homeowners association commissioned a study in 2005; the watershed tributary to the lake is shown in Figure 1. That study estimates that nearly 130,000 cy of silt should be removed from subareas identified as A, B, C, and D (See Figure 2) to restore recreational access and improve water quality. The lake was dredged in 1993 and the 130,000-cy volume of silt to be removed has been delivered to the watershed since then.

Using the 2005 study, it is estimated that Subarea A will be unnavigable in 5-6 years (which will significantly reduce the water quality due to algae blooms) and completely filled with silt in 10-12 years.

How many sites were evaluated as a potential location for use as a disposal facility?

Figure 3 shows the locations of 9 sites that were looked at, many with a representative from the Corps of Engineers. The Corps representative identified the sites near the lake as having wetland characteristics and not suitable. Other sites were determined to be too distant to pump to.

How much material can be disposed at the Fogle property?

The property will hold a maximum of 50,000 cy of slurry. The slurry mix is expected to be 60% water so that the basin will be filled, allowed to drain and filled again. The dried material will be excavated and hauled to an offsite location to restore the needed volume to complete the dredging project.

Restoration of the property will involve some grading to promote surface drainage and seeding the site to promote the establishment of grass turf. The site can be designed as a passive common area or an active-use park amenity.

How will the properties adjacent to the Fogle property be accommodated?

The perimeter of the site will be fenced to deter exploration by pets and children. A vegetative screen will be planted; this will include a mix of trees and lower-story shrubbery

Where perimeter berms are constructed, a geotechnical engineer will determine the composition and compaction requirements to minimize the seepage through the berm. An evaluation will also be performed to determine whether toe drains are needed to prevent flow onto adjacent properties.

How is the slurry managed?

The slurry is discharged to a basin that is sized large enough to hold the volume of the sediment to be dredged and the water used to form the slurry. Over time, the sediment will settle out of the water and accumulate in the basin. An outfall structure is designed to draw relatively clear water from the top portions of the basin. That water will be released and drained back to the lake. The rate of the discharge of water will vary and may range from a trickle to a steady stream. The path that the water will take back to the lake will be evaluated and the decant structure will be sized so as to not exceed the capacity of existing culverts and channels.

Are there any noises at the basin?

There will be construction equipment used when the basin is constructed. That is typically managed by restricting the available work times to day-time hours (no earlier than 8:00 am and no later than 5:00 pm; and no weekends). Construction of the basin could take 2-3 months. Often, the annoyance is more related to the beep-beep of the back-up alarms and not the hum of large diesel-powered equipment. The noise during dredging operations is limited to the pump at the barge and at any booster pump station along the discharge line. The level of the noise will be similar to a generator. The noise will be limited to the times that the dredge is operating. This can be limited to day-time only hours and weekdays.

Are there any odors during the dredging operation?

History of work at the lake suggest there should be no odors: the south end of the lake was excavated in 2009 and there was no smell; the lake was dredged in 1993 and there was no smell; the water level in the lake is lowered on a 5-year interval exposing the areas that will be dredged and there is no smell.

How will construction traffic be managed?

The contractor can be restricted to specific routes during construction. The likely haul route will be from Governors Parkway, to Gerber Road, to East Lake Drive.

What is the duration of the project?

The duration is dependent on many things: location of area to be dredged relative to the disposal site, volume to be dredged, and the settelability of the silt. If the silt is fine, it can take a significant amount of time for the sediment to drop. This may require the dredging operation to occur sporadically. A 12-inch dredge move 175 cubic yards of silt/mud per hour (compared to an 8-inch dredge which can move roughly half of that volume). At this rate and limiting the operation hours to 8:00 am to 5:00 pm and the days of operation to Monday-Friday (and applying the bulking factor), the job of removing 130,000 cubic yards from the lake could take 22-26 weeks. However, because the volume available at the Fogle property cannot accommodate the total volume, the dredging project will likely occur over several years. The activity during the dredging season will likely be limited to a 12-16 week period and is significantly dependent of the size of the desilting basin. The duration of the project could be significantly reduced by the use of ecobags on various sites around the lake.

How does the project benefit the City?

While the lake may seem like an amenity to the local home owners, solely, the lake is an asset to the city. Should the lake become filled in to a point where the homeowners cannot realize the benefit of the recreation the lake provides, the neighborhood risks becoming a blighted area. The city has also been benefitting from the water quality and flood protection mechanisms that the lake provides. Should the lake silt in significantly, the attenuation of significant runoff events in the lake will be reduced exposing downstream properties to an increased risk of flooding and/or deterioration of the outfall structures. Because the silt drops out in the lake, the downstream creek and properties enjoy a water quality higher than if the lake was not there or significantly silted in.