Questions from the May 17th and May 24th Public Information Meetings

The following list of questions and responses come from the questions submitted prior to and as part of the recent May 17th and May 24th public information meetings. If you asked a question that was not addressed at the recorded meeting or as part of the Q&A below, please let us know by writing to futureof828@townofchapelhill.org.

1. **This risk assessment only looks at the area along the trail, but the Town is contemplating redeveloping the entire site where most of the coal ash is located. When will the Town do a risk evaluation for the entire site, and what standards will it use to ensure any proposed uses for the property are safe (for example, business, residential, etc. during and after construction)? See N.C. Gen. Stat. § 130A-310.68 (remediation standards).**

   Synterra Response:
   A risk evaluation for the entire site can be performed once suitable redevelopment options have been identified. As indicated previously, the redevelopment may be undertaken by a private party pursuant to an appropriate agreement with the Town. In any event, risk evaluation standards are required by USEPA and NCDEQ rules and will be followed for any construction activities associated with the intended land use.

2. **The 2021 Risk Assessment (p. 4) states "For known or suspected carcinogens, the sum of individual excess lifetime cancer risk values for all constituents and for all exposure pathways may not exceed 1 in 10,000." But the summary of the 2019 risk assessment (2021 Risk Assessment p. 8) states that in 2019, "an additive lifetime increased cancer risk of less than or equal to 1 in 100,000 for cancer endpoints" was used. Please clarify what standard was used for cancer risk in 2019 and 2021 and if it is correct that the 2021 standard is less protective, why?**

   Synterra Response:
   A lifetime excess cancer risk of 1 in 10,000 is the maximum allowable cumulative cancer risk to a specific target organ or to a critical effect for all exposure pathways and exposure routes identified by the U.S. EPA and NC DEQ DWM (≤1.0 in 10,000 excess cancer risk). A "1 in 10,000" excess cancer risk means there may be one additional case of cancer in a population of 10,000 persons above the population's background cancer rate. Using an excess cancer risk of "1 in 100,000" is 10 times more protective as it is set at 1 excess cancer case in a population of 100,000 above the population background cancer rate. The "population background cancer rate" is the same in both instances, approximately 40%.

3. **The risk assessment does not indicate the Town assessed risk at the constituent level (for example, arsenic). Normally the acceptable risk for a constituent is less than or equal to 1 in 1,000,000. See N.C. Gen. Stat. § 130A-310.68(b)(9) (remediation standards). Did the Town evaluate risk at the constituent level, in addition to cumulative risk? If it did, which constituents were considered, what standards were used, and what was the result of this evaluation?**

   Synterra Response:
   Risks estimates were calculated for each individual analyte ("constituent") included in the analytical data by exposure route (inhalation, ingestion, dermal), for each medium (soil, sediment) and for each receptor type. Cumulative risk represents a summation of the risk estimates for all analytes for each exposure pathway and exposure route for each receptor.

4. **The risk assessment bases some of its evaluation on the results of a user survey. Please share the data from the user survey. The assessment only uses the mean exposure—why did the risk assessment not consider the high end exposure scenario? In addition to the mean, the assessment should take into account the worst case scenario (high end exposure) and a probabilistic scenario (accounting for uncertainty) in order to protect all users of the trail.**

   Synterra Response:
   The mean exposure period generated from the greenway user survey is 8.0 minutes. A much more health protective 30-minute exposure period, which is well above the mean, was selected for the risk estimates as a "reasonable maximum" exposure period. In addition, a health protective value of 195 days per year was used as the exposure frequency parameter. This represents 3.75 days per week, a value which exceeds the mean frequency of visits identified in the user survey. Few respondents indicated they spend more than 30-minutes on this area of the greenway during a visit. We believe the values we selected are reasonable and protective.

   Greenway recreational users survey results summary.

Human Health Risk Estimate Exposure Parameter	Exposure Frequency (days per week)	Exposure Duration (minutes per visit)
Minimum	1	2.0
Mean	3	8.0
Maximum	7	60.0

5. **What is the Town's plan for permanent remedial measures along the creek? Has the Town evaluated removing the ash from the eroding, steep hillside next to the creek and trail (Area F)? What is the timeline for these permanent measures?**

Hart &Hickman Response:
The Town has yet to identify and evaluate all the options and select a long-term remedial measure(s) along the creek, which, once selected, will be subject to regulatory approval by DEQ before such a remedy is implemented. Potential long-term remediation options for the embankment that separates the upper and lower portions of the site could include, but are not limited to: (1) installation of an earth retention system along the base of the embankment (north of the Bolin Creek Greenway Trail), and implementation of further stormwater management controls (2) removing buried and recently stabilized (during Interim Remedial Measures) materials from the embankment and transporting them to an approved landfill, or (3) some combination of options 1 and 2.

Currently, there is no proposed timeline for implementation of long-term remedial measures; however, the Town has conducted a risk assessment for the area along the creek and will periodically monitor site conditions in the vicinity of the trail and embankment area and maintain the interim measures as needed.

6. **The risk assessment says the interim remedial measures are effective (p. 15), but the interim remedial measures report says that after a storm event, 15 cubic yards of ash eroded from the eroding, steep slope (Area F) to a spot right next to the trail (Area H), despite the presence of hydroseed and silt fences (p. 9). Please provide more detail what happened, including the dates of the storm and the Town's response. Why did the interim remedial measures fail, and what is the Town doing to prevent more coal ash from washing down the hill (Area F)?**

Hart &Hickman Response:
Several significant storm events occurred at the site during August through October 2020. According to a United States Geologic Survey (USGS) rain gage located approximately 0.75 mile west of the site at Bolin Creek Village Drive in Chapel Hill, significant storm events during this time period included four occasions where over 2 inches of rain fell during a 24-hr time period.

The migration of up to approximately 15 cubic yards of surficial soil/coal ash from Area F to Area H was the result of erosion from surface water runoff from the police department parking lot directed towards the embankment prior to the implementation of the enhanced upland stormwater controls near the police department parking lot. The buildup of eroded soil and coal ash in the southeast corner of Area F resulted in a break in the super silt fence. To reduce the potential for future erosion of the embankment by this mechanism, stormwater controls were installed in the vicinity of the police department parking lot to divert surface water runoff away from the embankment in this area including Area F. It should also be noted that while migration of soil/coal ash from Area F occurred following the hydroseeding of Area F, grass seed included in the hydroseed mixture likely had not reached a maturation point to fully minimize erosion of loose surficial soil/coal ash. As such, the enhanced stormwater controls and now-established vegetation are expected to significantly reduce the potential for future migration of surficial soil/coal ash to the downgradient portions of Area F. In addition, the Town will

periodically monitor site conditions in this area and maintain the interim remedial measures as necessary.

7. **In a June 2019 meeting, the Town Council requested periodic sampling every 6 months and after major storm events. Has the Town been performing this sampling, and if so, can you please share the results?**

Hart &Hickman Response:
To evaluate potential coal ash erosional pathways that could be influenced by storm events, additional samples were collected from near surface (0-2 inch) soil in drainage pathways located in the lower portion of the Site between the embankment and Bolin Creek in August 2019. Results of this additional drainage pathway soil sampling are documented in Hart & Hickman's Results of Post-Data Gap Assessment Report dated December 1, 2020. After that time, the interim remedial measures were implemented in January through November 2020 and post excavation samples were collected following removal of materials in each area. The results of analysis of the post-excavation samples are reported in the April 19, 2021 Interim Remedial Measures Report. Because of the implementation of the interim remedial measures which have removed and stabilized the areas of observed surficial coal ash, we do not believe that the routine soil sampling is needed. However, if significant erosion is observed during the Town's routine inspections or major flooding events occur, additional samples may be collected to evaluate potentially changing conditions which may affect the risk evaluation.

8. **In the December 2020 data gap report, the Town's consultant reported there is likely much less ash at the site than previously estimated. However, the site conditions remain the same—we know there is a significant amount of exposed coal ash and ash close to the surface, for example on the eroding hillside (Area F), but the updated cross-section of the site shows hardly any coal ash deposits in this area (cross-section A-A'). How was this cross-section developed, and if it is not an accurate depiction of where ash is located relative to the ground surface, can the Town please provide one?**

Hart &Hickman Response:
The previous volume estimate was based upon a summary table of boring observations contained in a report prepared by Falcon Engineering in 2014. To characterize the conditions more fully in the fill, H&H performed detailed lithologic descriptions of continuous cores of the fill materials during installation of monitoring wells in the fill in 2019 and 2020. The results of these detailed lithologic observations indicated that the fill materials consist primarily of construction and demolition debris and fill soil intermixed with thin zones of coal ash ranging from less than 1 ft to 3 ft with some thicker zones in what appears to be isolated areas as opposed to thick zones of coal ash as had been interpreted previously.

The cross-section provided in Hart & Hickman's Results of Post-Data Gap Assessment Report is an updated interpretation of likely subsurface conditions based upon detailed lithologic data obtained from the monitor wells installed in 2019 and 2020. Consistent with standard scientific principles, the cross-section included in the Data Gap report is therefore an updated interpretation of the subsurface conditions at the Site modified from a previous version to

include additional geologic information and direct observations as they were collected and interpreted.

9. **The interim measures report says the Town dug up an additional 12 cubic yards of coal ash when it dug stormwater ditches to divert stormwater away from the top of the hill of eroding coal ash (Area F) (pp. 12-13). The ditch runs along the parking lot and out into the woods next to a residential cul-de-sac. Given the ditch was dug in deposits of coal ash, is there still coal ash near the surface of the ditch? What measures has the Town taken to ensure coal ash is not washing out the stormwater ditch?**

   Hart &Hickman Response:
   A small amount of coal ash was encountered while installing a portion of the storm diversion channel just outside of the southwestern portion of the police department parking lot. The diversion channel directs surface water runoff to a storm outfall channel east of the parking lot, which diverts surface water runoff to a natural drainage area that slopes to the south towards an unnamed tributary of Bolin Creek.

   Coal ash that was encountered during installation of the storm diversion channel was removed for off-Site disposal, and the excavation area was backfilled with soil that had been removed and stockpiled from other portions of the diversion channel. The storm diversion channel was then lined with polypropylene turf reinforcement matting and seeded.

   The Town will periodically monitor site conditions in this area and perform maintenance and corrective measures as warranted.

10. **The interim remedial measures report says the vegetation planted in the coal ash will need to be fertilized periodically (p. 12). How often will it be fertilized? What type of fertilizer will be used? Will it be safe for trail users and the creek?**

    Hart &Hickman/Staff Response: The grass in the hydroseed mixture (Bermuda, German Millet, and fescue) will likely need fertilizer at some point. Town staff will evaluate fertilizer need, type, and frequency in the fall of this year (when fertilizer is usually applied). Application of the fertilizer will be limited to the Area F and Area D and is not expected to impact trail users or the creek. Staff will also seek to apply fertilizer when heavy rains are not forecasted, minimizing spread and will explore organic/natural alternatives.

11. **What is the Town's plan for permanent remedial measures for the rest of the site? Has the Town determined a cleanup standard (see N.C. Gen. Stat. § 130A-310.68)? Aside from Area F, there are other areas of exposed ash and ash that is close to the surface. Has the Town evaluated removing this ash and contaminated soil?**

    Hart &Hickman Response:

As noted previously, the Town has not selected long-term remedial measure(s) for the Site. Potential long-term remediation options could include, but are not limited to: (1) capping a portion of the buried materials that currently have minimal soil cover; and installation of an earth retention system along the base of the embankment (north of the Bolin Creek Greenway Trail), (2) fully removing all of the buried materials and transporting them to an approved landfill, or (3) some combination of options 1 and 2.

Final cleanup goals have not been established for the Site. However, the Town will evaluate potential institutional controls (such as those that may be required in a Brownfields Agreement) and risk-based remediation, which includes calculation of cleanup standards as referenced in N.C. Gen. Stat. § 130A-310.68.

12. **At a meeting in March, the Town's consultants presented only one option to redevelop the site, and Council members requested staff to present additional options. When will those options be presented? Is the Town considering a range of options, including some that would minimize ground disturbance like renovating the existing building or constructing a new building on a smaller footprint? Will these options be presented to the public in an open forum for discussion and feedback (not a "webinar" style meeting with only written questions from the public)?**

Staff Response:
The Town Council expressed interest in exploring the feasibility of siting the Municipal Services Center (MSC) on the existing police station site. No decisions have been made about additional use types for the site, but staff will be sharing information about site options at the May 28th public information meeting, and with Council at the June 2nd Council Meeting. The renovation of the existing building is not considered to be viable both in terms of cost and in inadequacy of meeting Town needs for space for additional Town services.

13. **Will safety be a factor in Town's decision on how to develop the site? In other words, will the Town first consider, among other factors, the health and environmental risks of each proposed use and development plan and the required safety measures for each option, and *then* decide on a development plan? Or will it decide on a development plan first, prioritizing economic development, and then work backwards?**

Staff response:
Safety is the primary concern for the site. Based on the extensive research and sampling of the site, there is a path for safe redevelopment that could include different use types. Any development plan would include an environmental management plan, as well as safety plans for site workers, subject to the approval of the NCDEQ.

14. **The Town only gave the public one week notice of this meeting and is not allowing an open forum for questions and discussion. Why did the Town not provide more notice of the meeting, and why did the Town chose this closed format? If the consultants and Town staff are sharing the same information provided during the March 5 subcommittee meeting, which is available for the public to view online, what is the purpose of this meeting?**

Staff Response:
The Town has been using the webinar format for public information meetings during the pandemic. We recognize that this may not be ideal and will explore methods in the virtual format that allow for additional public comment. The intent for the May 17th meeting was to provide the public with an additional opportunity to learn about the site background and Council's interest in exploring the MSC on the site. Notices were sent to neighbors in the vicinity of the property on April 26th with meeting information, and the meeting was noticed on the Town calendar. As a courtesy, notice was also sent via e-mail to neighbors and the SELC. Hearing this feedback about the 17th, staff changed the format of the virtual meeting on the 24th to invite members of the public to speak by bringing them into the webinar as a panelist. Based on the feedback we received at the meeting, it sounds like this format worked better and was responsive to the concerns raised about the meeting on the 17th.