



COMMONWEALTH OF VIRGINIA
COUNTY OF HENRICO

DEPARTMENT OF PUBLIC UTILITIES

August 18, 2015

ARTHUR D. PETRINI, P.E.
DIRECTOR
(804) 501-4517

**RE: Upham Brook Trunk Sewer Project
Public Meeting Questions**

Dear Resident:

Thank you for attending the public information meeting held on May 6, 2015 in the Lakeside Elementary School auditorium regarding the referenced County sewer system project that is currently under design and located within your neighborhood along Upham Brook. We are sending this letter in response to questions and comments documented during the citizen public meeting.

General Comments

1. Citizens had requested that a time frame for the project be made available and updated as design progresses.

The Department of Public Utilities website will be updated as design and construction progresses. A page has been set up for this project and can be accessed at <http://henrico.us/projects/upham-brook-trunk-sewer/>. Staff contact information is provided on the website. The project is currently under design. The remaining design tasks include addressing all review comments on design plan and contract document submittals and obtaining the necessary plan approvals and permits for the project. The County is also obtaining easements for the construction of the trunk sewer. Construction is anticipated from mid-2016 thru the end of 2018.

2. Inquiries were made concerning efforts made to explore other options to minimize tree loss and disturbance. Address where and how trees are being retained or replaced. Would the County review tree impacts after construction and add trees along the route? Is the County using higher standards for tree protection such as not working under the tree canopy? Can shrubs or other restoration be done in temporary construction easement areas?

Clearing and grubbing will be required for installation of the new trunk sewer, associated structures, site access and material storage. The limits of the clearing and grubbing will be related to the depth and size of the sewer or structure as well as access and storage requirements. Limits of clearing will be adjusted accordingly along the project to minimize impact to existing mature trees where possible. Property owners may contact the County's DPU Design Division with questions and concerns they may have about specific areas or trees on their property which are or may be impacted by the project. The County will direct the engineer to perform a field stakeout and to delineate the limits of construction on specific properties, if requested by the property owner.

The contractor is permitted to clear any areas within the limits of disturbance, including temporary construction easements. In wetlands and Resource Protection Areas (RPAs), the contractor is allowed to clear but not grub stumps and roots. If requested by the property owner, grubbing may be specified within other areas of temporary construction easement. This requirement may be specified for all

temporary easements if requested by the property owner. County or City standards, as applicable, will be followed for all replanting requirements as well as Chesapeake Bay Preservation Act (CBPA), US Army Corps of Engineers (USACOE) and Department of Environmental Quality (DEQ) guidance as required. Citizen input will be considered in selecting seed mixes, shrubs, and trees to be placed in the temporary easement areas.

Woody plants will not be replanted in permanent easement areas. Replanting in permanent easements will be in accordance with County or City standards, as applicable, and as required by the governing agencies listed above. The County maintains the right and abilities to clear the permanent easements as part of standard maintenance practices. Citizen input will be considered by the County as noted above for permanent easement replanting at specific locations on their property.

The County will include a miscellaneous landscaping allowance to be used for any changes that occur during construction and to address restoration needs.

3. The importance of strict construction oversight was discussed; due to the sensitivity of the environment along Upham Brook.
 - a. Citizens had cited experiences with past projects in their neighborhood(s) where contractor actions produced incidental damages and/or inconveniences that could have been easily avoided with proper construction inspection (i.e. leaving holes unprotected, burning trees with hot engine of the vehicles, no supervision of on-street contractors, contractors parking in front of homes).

County DPU will assign construction inspectors for monitoring the installation of the new trunk sewer and structures as well as the Contractor's construction means and methods. Notes on the construction plan sheets as well as within the project specifications will reflect the importance of protecting and preserving adjacent properties and the environment. Based on project requirements, easement conditions and regulatory requirements, the County will provide independent, third party or supplementary inspection services as needed during construction.

A County contact number will be provided to address any questions or concerns arising from the Contractor's activities as well as to provide contact information via the project website.

4. Citizens were concerned about the impact of the project to their property values.
 - a. A request was made to adjust the tax assessment to reflect any property value loss due to the construction of the project.

The Director of Real Estate Assessment advises:

"Real estate assessments are based on conditions that exist as of January 1 each year and are not adjusted during the year due to temporary conditions. The only exceptions would be if the property is actually taken by a government entity or an event occurred which condemned the property and prevented occupancy for more than 30 days. If the project permanently affects the market value of the properties, the 2016 assessment would be adjusted to reflect the change in value. As always, if anyone believes their property is assessed at more than market value they may appeal their 2016 assessment at any time before April 1 of 2016. They simply need to call our office at 501-4300 or email AssessmentAppeal@henrico.us."

- b. Citizens requested individual compensations for the impacts of the project on their property. Similar to the reimbursement that is being offered to the Park for tree loss. If we are giving

money to the City for tree replacement, why is that not happening for homeowners to plant native grasses and trees? Citizens also suggested that other methods of compensation be considered to account for the tangible losses and emotional strains related to the Project's impact to their property.

The County will include a miscellaneous landscaping allowance item as part of the construction contract to address miscellaneous landscaping replacement and restoration needs identified during design or easement acquisition. Also, the Assistant Director of Real Property advises: "If the County is not acquiring a part of (or easement across) the landowner's private property, there is no requirement for compensation. Nuisance, noise, inconvenience, disruption of traffic, dust, etc., as a result of a County project in County easements or rights-of-way are "non-compensable"."

5. Hardwood preservation, particularly on Kenmore. Residents stressed the value of the mature trees in buffering them from adjacent industrial areas. They want native species of trees that will be nice shade trees (oak, hickory) to replace ones that are taken down.

As noted above, woody plants can be provided in temporary easement areas and clearing limits will be minimized to the maximum extent practical for the preservation of existing hardwood trees. These areas are typically coordinated with the property owner as part of the easement negotiations.

The County will review a replanting schedule for specific and sensitive locations during the remainder of the design phase. The County can also be contacted by the property owner to schedule field staking with the engineer to show the limits of construction on specific properties for review.

6. Request was made for above ground manhole rims, etc. be minimized or eliminated, due to aesthetics. How will we disguise them to maintain the character of the area?

Manholes placed on private properties or in open, widely used areas will be set flush with the ground surface. The new trunk sewer will require structures for air exchange. Vent structures will be minimized at locations on private properties. When necessary a small diameter vertical pipe (approximately 12 inches in diameter) will extend vertically 1' above the 100 year floodplain elevation for ventilation. In general, there are 6 vent structures west of Lakeside Avenue, varying in height from 4 ft. to 6 ft. East of Lakeside Avenue, there are 11 vent structures, varying in height for 4 ft. to 6 ft. Details of these structures and facilities are included on the design plans. The County will work with the engineer to confirm all manhole rim elevations and air release structures to confirm final locations and if supplemental landscaping may be needed to buffer or conceal these features from public view.

7. Mr. Farmer located at 2813 Kenmore Ave. expressed concern with the blasting that would occur very close to his house. He stated he has made substantial improvements to the house/property and intended to sell the property to his son.

- a. Farmer stated that the perception of the projects impact to his property may deter his son from purchasing the property.

Blasting and other means of rock removal will be necessary for many parts of the project and will be required in close proximity to some homes and structures. Blasting contractor selection criteria will be developed such that only experienced, qualified blasting specialists will be considered for the project. In addition, the contractor is required to hire and provide an

independent vibration control consultant to perform field monitoring of the construction activities and their effects on existing structures and utilities. Pre-construction surveys will be completed on all homes and structures typically within 300 ft. of the scheduled blast locations and activities or as required by Henrico County and the City of Richmond. Pre-construction surveys typically include a detailed review and photographic documentation of the interior and around the exterior of the home or structure to record its current condition. The vibration control consultant records their observations in writing as well as in photographs. During construction, each identified home or structure will also be monitored for ground vibrations and for air blasts (or impact forces). A post-construction survey will also be performed on all homes or structures that received pre-construction surveys. The surveys are intended to document the monitoring results and the condition of the home or structure as a result of the anticipated rock removal and blasting. The surveys and final reports will be submitted to the engineer and the County for record. These reports may be available and requested from the County when completed. The Contractor will be required to hold proper insurance coverage for damages to structures and/or homes during construction.

Henrico County and the City of Richmond may require sensitive structures or facilities beyond 300 ft. from the blast locations to also be surveyed, monitored and reported. These limits will be confirmed during final project review and approvals with Henrico County and the City of Richmond.

The contractor will undertake many activities along the pipe alignment, including clearing, establishing access, pipe installation, cleanup and restoration. After the project is bid, we will be able to provide a more detailed description of activities; however, installation and excavation of pipe on the Farmer property is expected to have a duration of approximately two weeks, weather permitting.

8. Homeowners would like copies of the pre- and post- blasting records.
 - a. How will the County monitor the homes during blasting? How is a house on slab monitored?

Documents from the pre- and post-construction surveys completed on private properties may be provided to the property owner through the County. During the blasting activity, seismographs will be placed within the vicinity of the blast site to document the ground movement and air blasts generated by the blasting activity. Any concerns after the blasting activity should be reported by the property owner to the County's DPU Construction Division.

9. The resident at 2306 Bryan Park Ave. requested to be notified of any construction activity occurring near her house, especially if work is within 10 ft. of the structure.
 - a. Resident stated that her house is built over a "dry well" that had once been used for ice storage and that she has structural problems as a result of this, particularly from the last earthquake.
 - b. Citizen heard that any damage as a result of the project would be compensated. Is that correct?

See response above regarding additional monitoring and reporting requirements during the blasting and rock removal activities. Any concerns related to blasting activity should be reported to the County's DPU Construction Division for investigation.

Damages to personal property determined to be "as a result of" the blasting activities will be reviewed and remedied or compensated by the Contractor as required. The property owner must provide access to specific features or structures (dry wells, etc.) for the Contractor and the

vibration control consultant to perform the proper pre-construction survey and to document the existing damages. The Contractor will be required to carry sufficient insurance coverage for damages from the construction and blasting activities.

The sewer alignment shown on the 90% design plans will not require any blasting within approximately 100 ft. of the structure located at 2306 Bryan Park Ave. Work will be completed in Bryan Park Ave. in front of the parcel and on the opposite side of the street. The residence will be monitored and will receive pre- and post-construction surveys.

10. Ms. Chamberlin requested that the impact to the south side of Upham Brook across from her house (2820 Kenmore) for water line replacement be minimized. Look into capping ex. line and abandon in place as opposed to removing it.
 - a. Requested that restoration of the temporary access for this activity be done with native plant species.

The water line at this location is scheduled to be replaced as part of the sewer line project. Presently, the existing water line can be seen exposed on the northern bank of Upham Brook at this location. The existing line is protruding from the bank; increasing the potential for failure by debris carried by the creek during high flow events. The work will place the waterline back under ground, for protection, at a location in the same creek bend that is less susceptible to erosion. In addition, at this location, the outside creek bank will be re-stabilized, as part of the project. This work will involve the construction of a rock wall to provide long-term stability to the creek banks. The construction of the rock wall and waterline realignment scheduled for this area would preclude the preservation of the existing abandoned waterline in its current location, as the line will need to be removed with this work and any concerns associated with leaving it in place can be eliminated.

Restoration of the temporary access on the other side of the creek may be done in accordance with the methods described above.

11. Ms. Chamberlin stated that she had planted (3) Bald Cypress in the vicinity of her house.

The County will follow-up with Ms. Chamberlin to determine the location of the trees and where they are located in relation to the limits of disturbance for this project.

12. Ms. Chamberlin requested consulting the VA Native Plant Society, for guidance on preferred replanting methods.

Replanting methods will be in accordance with State and Local requirements for seeding and planting and in accordance with landscaping best practices. This society may be able to provide guidance for the property owners and to assist the project team as needed.

13. Near the conclusion of the meeting, WRA obtained contact information from Ms. Tucker for the Virginia Native Plant Society. Ms. Tucker volunteered to assist the project team with information on native species as part of the restoration efforts and requirements for the project.

During easement acquisition, each property owner has input on restoration preferences that may include use of native species on their property. Restoration shall be in compliance with the Virginia Erosion and

Sediment Control Manual. This society may be able to provide guidance for the property owners and to assist the project team as needed.

14. Ms. Chamberlin requested that plans be sent to her at info@friendsofbryanpark.org.

WRA has forwarded a pdf copy of the current 90% design plans to Ms. Chamberlin, at the email address noted above.

15. Discussions after the meeting included how notifications for upcoming work and areas affected during construction would be made to the public. The use of a dedicated website was not well received, with some discussion about the use of flyers or mailers being provided and delivered ahead of construction activities. This needs to be coordinated with the County's Construction Division.

The County has created a project website at <http://henrico.us/projects/upham-brook-trunk-sewer/>. The website will be updated to reflect progress during design and construction. Letters will be mailed prior to bidding and prior to construction. A pre-construction meeting will be held prior to construction, which will give a timetable of construction activities.

16. 2409 Essex – What is the timing of this project? Will the sewer mains in the neighborhood be replaced or repaired also? What is the timing of all projects in the area?

The Upham Brook trunk sewer project is estimated to be under construction from mid-2016 thru the end of 2018. There is a separate sewer rehabilitation project, Bryan Parkway Area (SH-02D, Part 1), that will rehabilitate or replace sanitary sewer piping in the area bordered by Greenway Avenue to the north, Bryan Park Avenue to the south, the CSX railroad to the west, and Lakeside Avenue to the east. The timing of this project is anticipated for construction to begin in mid-2016.

17. Is a house on Bryan Park Avenue connected to the Upham Brook trunk sewer?

Homes along Bryan Park Avenue are not directly connected to the Upham Brook trunk sewer; there are 8-inch diameter sanitary sewer pipes in Bryan Park Avenue that serve the houses along Bryan Park Avenue. The 8-inch diameter pipes connect into the Upham Brook trunk sewer near Lakeside Avenue. The 8-inch sewer pipes will be rehabilitated with the Upham Brook trunk sewer project.

18. What other Henrico Parks have sewer going through them?

There are many parks in Henrico County that have sewer going across its property to serve other properties. Some of the parks that have larger sized sanitary sewer lines across them are Meadowview Park, Cheswick Park, Deep Run Park, Dorey Park, Crump Park, RF&P Park, and Three Lakes Park.

19. How will the ROW stay clear?

The ROW will stay clear through mechanical means (cutting anything that grows). Chemicals are not used.

20. What is the funding for this project? Is any federal money or bonds proposed?

Henrico County's Department of Public Utilities (DPU) operates as an Enterprise Fund. An Enterprise Fund is an organization which supports all of its expenses through the revenues generated by the organization. The cost of providing water and sewer services to our utility customers is recovered or financed through charges to the users of these services (i.e. water and sewer rates, connection fees, etc.). County tax dollars are not used to pay any of the costs associated with these water and sewer services. These costs are paid entirely by current and future water and sewer customers. There is no federal funding involving bonds, in the forms of grants or loans, proposed for this project.

21. Is there any federal oversight from the permit agencies? Does this work fall under NEPA?

Environmental permitting requirements for the project were coordinated through the Joint Permit Application Process. This process includes review of the project by The United States Army Corps of Engineers (USACE), the Virginia Marine Resources Commission (VMRC), the Virginia Department of Environmental Quality (DEQ), and the Local Wetlands Boards (LWB). The permitting agencies for this project will be the USACE and VMRC. The DEQ permit will be received as a condition of the receipt of the USACE permit. Plan approvals and permits will also be obtained through the County's DPW and the City of Richmond.

This project will not fall under NEPA as the project will be funded locally by Henrico DPU. Federal financial assistance will not be obtained; which would be necessary for the project to fall under NEPA guidance.

22. Will the bidding be closed or open?

Requests for bids are publicly advertised. Contractor's sealed bids are delivered to the Purchasing Department by the date and time indicated in the Invitation to Bid (ITB). The bids should be in accordance with the conditions, specifications, and instructions in the ITB and on the plan sheets or drawings. Bids are opened and publicly read aloud at the Purchasing Department twenty four (24) hours after the Bid Receive date and time.

23. Are there alternatives to constructing this line that would minimize impact to the park? Have all alternatives been reviewed? Can the sewer be moved into the median of Bryan Park Road?

The selected design alternative was chosen due to the following circumstances. The existing sewer alignment parallels Upham Brook for a majority of the project including across City property and within Bryan Park (adjacent to Young's Pond). The new sewer has been placed as close as practicable to the existing sewer in order to use the existing easements for the construction and future maintenance of the new trunk sewer. This effort reduces the cumulative clearing requirements for both sewer lines necessary for periodic maintenance.

The selected design alternative includes approximately, 3,500 LF of sewer line to be installed within the City between Lakeside Avenue and Stoneleigh Rd. Most of this pipe will be installed within Bryan Park Avenue or within clear areas of the Bryan Park Avenue right-of-way. Approximately 800 LF of pipe installation is proposed in Bryan Park. The alignment in the park is located at the bottom of a steep wooded embankment in the NW corner of the park; this area is partially screened by the embankment. The sewer depth is minimized at this location, which in turn minimizes the clearing required for installation and potential impacts to existing utilities and adjacent property owners. Typically, as sewer

depth increases the width of the required installation trench, limits of construction, the construction cost, and construction duration will proportionally increase.

By moving more of the new trunk sewer into the western end of Bryan Park Avenue, the excavation depths and costs increase substantially. In addition, there will be greater potential impacts to existing utilities within Bryan Park Avenue as well as the properties that front Bryan Park Avenue and its median.

As discussed in the informational meeting, the alternative of installing and operating a very large pump station and force main to divert the pipelines away from Bryan Park remains a very poor option from an initial capital cost and long-term operations and maintenance cost perspective. The gravity sewer alternative chosen is the least expensive option to construct and to maintain for the County.

24. Could the County limit growth so that this project is not required?

The Director of Planning advises the following:

“The County’s Master Sewer Plan was developed in conjunction with the 2026 Comprehensive Plan and its Future Land Use Map, which was adopted by the Board of Supervisors in 2009. The 2026 Comprehensive Plan (the Plan) established a framework for land use decisions to be coordinated with transportation and public service improvements. Changing demographics, along with changes in the housing market and new developments in technology, have contributed to changing land use patterns over the last 20 years. Henrico has seen steady influxes of both new residents and new businesses, creating an increase in the percentage of developed land in the county. In addition, there has been an increase in the amount of redevelopment and infill efforts in the County.

As part of the planning process, a series of forecasts were prepared based on historic trends in population, housing and employment growth. These forecasts were used to evaluate the feasibility of future land uses identified in the Plan and the ability of the County to accommodate anticipated growth. Projections estimate the County’s population will increase more than 40% (113,223 residents) between 2003 and 2026. Employment forecasts, which are typically projected based upon correlations with population growth, estimate an additional 60% (194,790 jobs) increase between 2001 and 2016.

In reviewing the future land use designations of the 2010 Plan and the 2026 Plan, there were not a significant number of changes made throughout the County. Most changes that were made reflect the existing zoning and/or density of those areas, providing a more accurate representation of what has been built or anticipated for development.

The Upham Brook Trunk Sewer project has been identified as a necessary capital improvement in order to rehabilitate the existing sanitary sewer system to reduce the occurrence of sanitary sewer overflows, as well as provide additional capacity for the growth identified in the 2026 Comprehensive Plan. Redevelopment and intensification of development in areas with established infrastructure can be challenging to serve with adequate (water and) sewer. In many of these areas, the sewer line capacity or pipe diameter was designed and installed to handle former or existing development intensity and flow. Areas of the County with the oldest sewer lines frequently do not have existing capacity for the additional projected growth, necessitating these rehabilitation projects.”

25. Why is tunneling done under a road? Can you tunnel under Bryan Park to avoid removing the trees? Is there any less invasive way to do this project?

Tunneling will be necessary under most of the roadways along the project alignment. Roadway tunneling will be completed to prevent extended interruption to traffic on heavily traveled roadways and single access roadways. Tunneling under roadways also allows the County the ability to rehabilitate the existing utility without open cutting the road and interrupting traffic. Tunneling under roadways, in nearly all cases, is required by VDOT or the County.

Tunneling under wooded areas, as opposed to open cutting, would still require clearing of the easement above the tunneled sewers for maintenance purposes. The current design has placed most of the new trunk sewer (the portion that lies within the City) in Bryan Park Ave. and in clear areas of the road right-of-way and Bryan Park in order to minimize tree loss and to save money.

A tunnel within and under portions of Bryan Park will also result in some tree loss due to the limits of the excavation needed for the tunneling equipment and work staging. As noted above, the alternative of installing and operating a very large pump station and force main to divert the pipelines away from Bryan Park is a very poor option from an initial capital cost and long-term operations and maintenance cost perspective. The gravity sewer alternative chosen is the least expensive option to construct and to maintain for the County.

26. What does cost effective mean as related to this or other projects?

Cost effective means economical in terms of tangible benefits produced by money spent. For Public Utilities projects, it means the option selected in an approved facilities plan that meets the requirements of the project, recognizes environmental and other nonmonetary impacts, and offers the lowest cost over the life of the project. The label of "most cost effective" is typically applied to the least expensive alternative in terms of capital costs and long-term operations and maintenance costs. The County works cooperatively with all of their design engineers on all projects to determine if the most cost effective alternative is within the County's overall project budget and best represents the needs of the County and its citizens.

27. It was noted that the park has caves. Would they be impacted by the blasting?

The geological review and geotechnical investigation for the project did not uncover or locate any existing caves within Bryan Park. If specific information about any caves is known, please let the County's DPU Design Division know so we can investigate.

Invasive species/replanting

1. Discussed placing requirements within specification for proper construction methods to reduce the spread of invasive species.
 - a. It was noted that construction equipment will carry invasive seeds in their tracks and suggested having drivers wash vehicles to prevent spread of seeds from one part to another.
 - b. Suggested educating drivers on not bumping trees and protecting roots of the trees.
 - c. Arthur Petrini suggested an Environmental Manager who will be responsible for reporting, overseeing E&S and ensuring all environmental impacts minimized, including protection of trees outside the project limits. This person would be a full time employee of the contractor to supplement DPU and DPW staff.

The spread of invasive plant species will most likely take place through disturbance of the ground surface at specific locations, through runoff and storm water flows along Upham Brook at its contributing

drainage area, and by germination of species already present in adjacent areas. By comparison, spreading by use and transport of construction equipment is anticipated to have minimal effect on the spread of invasive species.

The contractor's equipment operators have received proper training on the proper use of the equipment. In most cases, damage to nearby trees and tree roots are unintentional and considered incidental to normal construction practices. However, these actions do result in damage or loss of trees and landscaping on occasion, with the damages not taking effect until after construction is completed. As a result, the County will use a miscellaneous landscaping allowance in the construction contract to correct incidental damages to existing landscaping or similar existing features along the project corridor.

The County will provide independent, third party or supplemental inspection services as needed during construction. The additional inspection services would focus on environmental impacts, erosion and sediment control measures, and the use of temporary construction measures (such as bypass pumps and piping) required for the trunk sewer installation.

2. Replanting with native small plants, create native meadow. Specifically cited native nectar producing plants, - i.e., milkweed.

The project specifications will require the use of native seed mixes for the stabilization of disturbed areas. Existing wetland areas will also receive a wetland seed mix. The use of native seed mixes to establish a vegetative cover will be placed immediately after construction activities and will be replanted if necessary prior to construction completion. The County's inspections forces will oversee this activity.

The design engineer will walk the extent of the project and will determine where invasive species are within the areas of disturbance. Disturbed areas will be restored in accordance with the project specifications. We cannot control encroachment of native species in areas outside of the limits of clearing after project completion.

As noted above, replanting and restoration in specific locations and the effect on future easement clearing and maintenance will be further considered by the County and coordinated throughout the remainder of the design phase of the project.

3. Preferred native hardwoods are oak, hickory, etc.

As noted above, replanting and restoration with native hardwood species could be performed in temporary easement locations and in specific locations. Native hardwood species will not be planted in permanent easements for the existing and new trunk sewers. As noted above, replanting and restoration in specific locations will be further considered by the County throughout the remainder of the design phase of the project.

FOBP concerns raised by John Zeugner

1. FOBP stated that erosion/siltation has substantially affected Young's Pond and the creek and requested that the contractor diligently follow all Erosion Control measures to prevent any turbid construction runoff from entering the creek and/or pond. They also asked whether Henrico County could be required to design and construct fore bays at the head of Young's Pond.

The Director of Public Works advises "Erosion control measures will be designed and constructed with the best management practices in mind as outlined in the County's environmental manual. This manual mirrors state regulations. The County cannot install forebays and other facilities on City of Richmond property."

2. FOBP requested consideration for improvements to the "Young's Spring" area adjacent to Buckingham Ave. along the bank of Upham Brook. Can we protect an area here? FOBP would like to place a marker here.

The location of Young's Spring has not been identified or included in the base mapping for the project. It appears that the spring may be situated between Bryan Park Avenue and Upham Brook, just west of the intersection with Hermitage Road/Lakeside Avenue and directly south of Buckingham Avenue. In this location of the project, the construction excavations and related activities will be taking place within the pavement of Bryan Park Avenue, with planned bypass piping being placed just outside of the roadway, directly across from Buckingham Avenue.

The County will confirm the location of the spring with the City and in cooperation with the Friends of Bryan Park in order to incorporate the appropriate notes and/or limits on the design plans regarding Young's Spring.

3. FOBP reminded the group that there are 11 criteria for development within an RMA, set by CPBA that must be followed for the project. Be diligent with erosion protection measure when they are put in.

Plans for this project must comply with requirements for work within the CBPA before they are approved for construction by the appropriate regulatory agencies. The County will provide independent, third party or supplementary inspection services as needed during construction.

4. FOBP would like the fee paid to the City, for tree loss, to be specifically allocated for Bryan Park.

John Chupek with the City of Richmond, Department of Public Works – Urban Forestry Division, advises "The money will be used specifically for tree canopy replacement and will be used as much as possible/desired in Bryan Park; the remainder will be utilized to plant trees elsewhere in the City of Richmond - to replace the lost tree canopy."

5. FOBP stated that priority be given to the trees to be preserved in the construction zone to assure their survival. He stated that he could like to see the County commit to the highest level of tree protection (as is done in Massachusetts) for trees within the vicinity of construction zone to protect from damage.

The County will provide independent, third party or supplementary inspection services as needed during construction. In addition, the County will include a miscellaneous landscaping allowance to be used for any changes that occur during construction and to address restoration needs.

6. FOBP stated that there are a number of documented historic sites along the creek (i.e. stone bridge) and asked that the County make satisfactory efforts to assure their protection from any damage resulting from the project.

The locations of the documented historic sites have been reviewed in conjunction with the limits of construction for this project. Through the Joint Permit Application process and coordination with the Corps of Engineers (COE) and the Department of Historic Resources (DHR), additional study efforts

have been needed at specific locations along the project corridor. The historic artifacts and documented sites that lie along the floodplain of Upham Brook, north of Dumbarton Road, have received Phase 1 and Phase 2 cultural resource surveys to review the condition of these documented resources, to confirm the need to protect or to recover the resources, and to satisfy the requirements of the Joint Permit Application process and requirements of the DHR. At this time, the Phase 2 cultural resource survey and final report are being transmitted to the COE and the DHR for review, coordination, and final approval, prior to permit issuance. If you have a historic site that you want us to know about, please forward that information to the County's DPU Design Division.

7. FOBP would like to discuss options for remediating the garbage the collects in Upham Brook from upstream Henrico County Areas (i.e. sieve, trash collector at Byrdhill, water wheel). He stated that this is a huge problem in the park.

The Director of Public Works advises "The County has an active litter prevention program called Keep Henrico Beautiful which provides educational programs to reduce litter production. The County also picks up litter along its road right-of-way on a regular basis. The County cannot install trash racks on stormwater drop inlets as these could cause flooding of roads and property if they became blocked."

8. What is the status for the future Young's Pond dredging project? FOBP would like to discuss their request for joint County/City involvement in the future Young's Pond dredging project. FOBP stated that in the last dredging project (1995) the County contributed by removing the dredge spoils and properly disposing offsite. FOBP stated that the majority of the sediment in Young's Pond is from Henrico County.

Susan Hamilton with the City of Richmond advises "We are preparing documentation to submit a scope of work to ACOE for dredging and forebay installations. They will review and determine if they will design the project themselves or cost share in the design and construction with the City. I am not sure how long it will take to receive their response."

The Henrico Director of Public Works advises "The County landfill formerly accepted dredge spoils at its landfill and this may have been the case with the 1995 dredging. The County landfill is now closed and we are not able to accept dredge spoils any more. The County cannot participate in the dredging of this lake. Dredging is the responsibility of the lake's owner."

9. FOBP requested preservation of the "Better Together Garden" located on the SW side of the entrance of Bryan Park off of Bryan Park Ave. This is the park entrance nearest to Westlake Ave. Garden was started by Hatcher Memorial Baptist Church.

The garden is located in an area outside of the excavation zone. A temporary easement has been requested over a portion of the garden area in order to accommodate the temporary, above-ground bypass piping. The bypass piping will be placed around the garden and on wooden supports or skids to avoid the existing plantings, roots, and landscaping at this location. The proper notes and requirements will be added to the contract documents. The Contractor is required to provide pre- and post-construction photographic documentation that shows all disturbed areas have been properly restored.

Key Staff Contacts:

- Arthur Petrini, P.E. (Director of Public Utilities, County of Henrico)
 - 501-4516; pet12@henrico.us
- Bill Mawyer, P.E. (Assistant Director of Public Utilities, County of Henrico)
 - 501-4516; maw@henrico.us
- Ralph Claytor, P.E. (Design Division Director, County of Henrico)
 - 501-4514; cla01@henrico.us
- Lee Maddox, P.E. (Construction Division Director, County of Henrico)
 - 727-8730; mad06@henrico.us
- Marchelle Sossong, P.E. (Senior Engineer, Design Division, County of Henrico)
 - 501-7341; sos@henrico.us
- Kristie Garofalo, P.E. (Utilities Engineer, Design Division, County of Henrico)
 - 501-5483; gar05@henrico.us
- Dan Seli, P.E. (Senior Vice President, Whitman, Requardt & Associates)
 - 272-8700; dseli@wrallp.com
- Charles Luck, P.E. (Vice President, Whitman, Requardt & Associates)
 - 272-8700; cluck@wrallp.com
- Greg Dempsey, P.E. (Project Engineer, Whitman, Requardt & Associates)
 - 272-8700; gdempsey@wrallp.com

We hope this letter is helpful in answering your questions. If you have any questions, please contact our Community Liaison, Melvin Slough, at (804) 501-7540, or the Henrico DPU Project Manager, Kristie Garofalo, at (804) 501-5483. At any time, you can contact me directly at (804) 501-4516.

Sincerely,



Arthur D. Petrini, P.E.
Director of Public Utilities

cc: The Honorable Frank J. Thornton, Chairman, Board of Supervisors
The Honorable Richard W. Glover, Supervisor, Brookland Magisterial District
County Manager
Deputy County Manager for Community Operations