

BOARD OF SUPERVISORS WORK SESSION
GOVERNMENT CENTER BOARD ROOM
SEPTEMBER 23, 2008 - 4 P.M.

A. Call to Order

B. Roll Call

C. Board Discussions

1. Subscription Based Residential Solid Waste Collection Program
([Memorandum](#)) ([Attachment](#))
2. Results of the Lower Powhatan Creek Flood Study ([Memorandum](#))
([Attachment](#))
3. Allocations Review ([Memorandum](#)) ([Attachment](#))

D. Break

MEMORANDUM

DATE: September 23, 2008

TO: The Board of Supervisors

FROM: John T. P. Horne, General Services Manager

SUBJECT: Subscription Based Residential Solid Waste Collection Program

At the January 12, 2008, Board work session, staff described the general options available to provide curbside solid waste collection to residences and small businesses in the County. The Board provided direction that it was only interested in a voluntary (subscription) program and asked staff to develop the details of a possible program to be implemented in FY 10. The purpose of this memorandum at the September 23, 2008, work session is to present the results of the additional staff effort and receive further Board direction as to whether we should proceed with the curbside collection program.

A committee was formed to evaluate the implementation of a subscription-based residential and small-business trash and bulk collection program in James City County. This committee consisted of representatives from departments and agencies from within, as well as outside the County. Representatives were: John Horne, General Services Manager; Jim Hill, James City County Solid Waste Superintendent; Stephen B. Geissler, Executive Director, Virginia Peninsulas Public Service Authority (VPPSA); Ann Davis, James City County Treasurer; and Patrick Page, James City County Information Technology Administrator. To obtain information from private service providers, staff issued a Request for Proposals and discussed program composition and costs with interested firms. Staff would like to discuss with the Board the following items:

- Description of available services:
 - Regular service
 - Low generator service
 - Special needs service
 - Backyard Service
 - Bulky waste pickup
 - Additional services included with subscription
- Billing
- Administration of the program
- Costs and Benefits

Description of Regular Service:

After the resident has established a subscription account through the James City County Solid Waste office, the contractor will provide the resident with one 96-gallon roll-out cart. One additional cart may be requested for service at a slightly higher rate. This cart would be placed curbside once a week before 7:00 a.m., on a predetermined day, for collection by the vendor. The vendor would also collect two to three bags of material outside of the cart where applicable.

Description of Low Generator Service:

This service will be available to subscribers who do not generate enough material each week to warrant the use of one 96-gallon roll-out cart. These particular subscribers will be provided with one 64-gallon roll-out cart at a reduced rate. All other service requirements and benefits will apply.

Description of Special Needs Service:

This is a service that will be available to subscribers with health-related issues that are unable to place their cart curbside for pickup. These residents will receive service either at the front or backyard of their residence at no extra charge. Special needs service will cap at three percent of the total number of subscribers to the program. All other service requirements and benefits will apply.

Description of Backyard Service:

Residents who wish to subscribe to this service will have their material picked up at the rear of their residence at a slightly higher rate.

Description of Bulky Waste Pickup:

This service will be available to all subscribers by appointment only and will be provided by the vendor. Residents will contact the Solid Waste office to schedule a pickup. They will be required to place the material curbside/roadside before 7:00 a.m. on the scheduled service date. Each subscriber will receive four service calls per calendar year with a limit of five items per service call.

Additional Services Included with Subscription:

Additional services that will be included with a subscription at no extra charge are as follows:

- Yard waste drop-off at the Jolly Pond Convenience Center
- Use of Jolly Pond Convenience Center
- Use of James City County Transfer Station

Staff anticipates limited cost implications of these additional services due to the vendor services above, but does believe that these services will be an additional incentive for residents to subscribe.

Billing of County Subscribers:

After carefully considering whether the vendor or the County should bill the program subscribers, it was determined that the most efficient way to do this would be to have the vendor assume the responsibility of the billing. The vendor has a billing system in place, and the Solid Waste Division would have "real time" access to the vendors account records. This will give us the ability to verify subscriber inventory, start, stop, and temporarily suspend service, as well as answer any billing questions residents may have. The billing would be done on a quarterly basis both through e-mail or regular mail and in advance of service being provided. Subscribers will also have the ability of viewing their account and paying their bill on-line with links on the County's website. All billing materials could reference James City County.

Administration of Solid Waste Collection Program:

This program would be administered by the County Solid Waste Division with support from the VPPSA. At this time, staff anticipates that no additional County staff would be required, thus keeping the overall cost to the subscribers at a reasonable rate. Further clarification of this will be based on additional discussion with VPPSA.

Cost and Benefit to Residents:

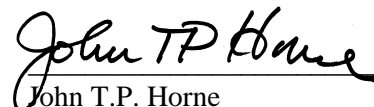
In the January 2008 work session, the staff described two possible significant benefits of a curbside collection program.

- Enhanced and lower cost services to the citizens of the County; and
- Possible offset of existing costs, specifically the costs of the curbside recycling program.

Staff believes that the program described above does provide enhanced services to many residents and small-businesses in the County. Disposal options for both trash and bulk items would be increased for subscribers with the convenience of curbside collection and no-cost access to the Jolly Pond Convenience Center and Transfer Station.

Currently, most residents, who subscribe to a vendor on their own, are paying in the range of \$22 - \$23 per month for weekly trash service. They do not receive any other services for this monthly fee. Twice-weekly and backyard service costs approximately \$35. Through the subscription program described above, based on the regular service fee, and depending on the vendor that is selected, residents would pay in the range of \$13-\$18 per month. **The Board should note, however, that this cost does not offset the costs of the curbside recycling program.** Cost of that program is currently \$2.78 per month, per household, plus drop-off costs. In FY 09 the total costs will be \$796,575. If the Board wishes to begin to offset recycling costs, monthly fees would need to be approximately \$16-\$21 per month. Actual total revenue to offset the costs will depend on the number of subscribers attracted to the curbside program and will grow as more subscribers enroll. The January 2008 staff memorandum indicated an expectation that a significant portion of the recycling costs might be offset. That assumption was based on a universal service program. Staff is concerned about maintaining a sufficient cost differential between the County program and the private services. **Staff needs direction from the Board on the importance of the recycling cost offset.**

In summary, the purpose of the work session is to provide the Board with information to allow it to give direction to staff on additional issues to be researched and/or whether to proceed with final program design with implementation in FY 10. County staff and VPPSA staff will be available to discuss this matter at the work session.



John T.P. Horne

JTPH/nb
SolidWstPro_mem

Attachment

Residential Solid Waste Collection Program

January 2008 Board Direction

- Voluntary (subscription) system only
- Enhance service to citizens at lower cost
- Offset recycling costs

Staff Committee

- General Services
- Solid Waste
- VPPSA
- Treasurer
- Information Technology

Proposed Services

- Regular Service
- Low Generator Service
- Special Needs Service
- Backyard Service
- Bulky Waste Pickup
- Additional Services

Regular Service

- Once weekly pickup, at roadside
- One 96 gallon roll out cart
- 2-3 additional bags

Low Generator Service

- Once weekly pickup, at roadside
- 64 gallon cart
- 2-3 additional bags
- Lower fee

Special Needs Service

- Health Related Needs
- Front or back yard pickup
- No additional fee

Backyard Service

- Additional fee

Bulky Waste Pickup

- 4 pick ups per year
- Provided within basic service by vendor
- Yard waste and other bulky items

Additional Services

- Yard Waste drop off at Jolly Pond
- Use of Jolly Pond Convenience Center
- Use of Jolly Pond Transfer Station

Billing and Administration

- Billing by Vendor, with JCC access to data for customer service
- Cooperative Administration between VPPSA and JCC staff
- No additional JCC staff assumed at this time

Service Benefits

- Lower costs than current private vendors for most customers
- Additional services in basic fee

Fee Assumption

- \$13-\$18/month, without recycling costs
- \$16-\$21, with recycling costs

Board Direction

- Relative importance of service enhancements and recycling cost offsets
- Direction on fee levels
- Should staff proceed to final program design and contract negotiations

MEMORANDUM

DATE: September 23, 2008


TO: The Board of Supervisors

FROM: Frances C. Geissler, Stormwater Director
Darryl E. Cook, County Engineer

SUBJECT: Results of the Lower Powhatan Creek Flood Study

In late 2007, the County contracted with Williamsburg Environmental Group, Inc. (WEG) to prepare an analysis of the lower Powhatan Creek floodplain. Early last month staff received a draft of the final report and the executive summary was forwarded to you in an email sent August 18, 2008. On September 12, 2008, we provided you, via email, a more thorough summary of the study's findings.

Representatives from WEG will make a brief presentation of the study findings and answer any questions. For your convenience the draft executive summary is attached.



Frances C. Geissler



Darryl E. Cook

CONCUR:



John T.P. Horne

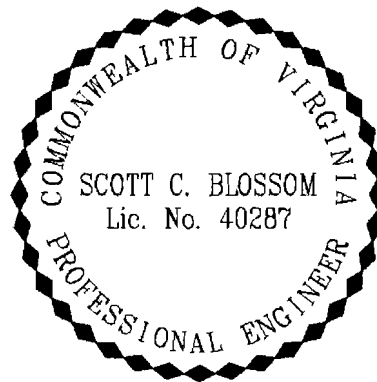
FCG/DEC/nb
PowCrkFlood_mem

Attachment

**Powhatan Creek
Floodplain Study**
James City County, Virginia

Prepared for

James City County
Development Management Department
101-E Mounts Bay Road
Williamsburg, Virginia 23185



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Williamsburg, Virginia 23188
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July 2008

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EXECUTIVE SUMMARY

Williamsburg Environmental Group, Inc. (WEG) has been retained by James City County to evaluate flooding issues at Powhatan Creek, located in James City County, Virginia. This report summarizes the hydrologic analysis of the Powhatan Creek watershed, including a projection for full build-out conditions under current zoning and comprehensive plan conditions. The majority of the main stem Powhatan Creek is currently mapped as Zone AE on Flood Insurance Rate Map panels # 510201 0035 B and 0045 B .

Flow rates and flood inundation mapping shown in the effective Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS), dated September 28, 2007 are based on watershed hydrologic computations developed in 1976 using land use conditions in place at the time. At that time the watershed was predominately forested, with development limited to approximately 10-15% of the watershed. Impervious cover estimates for land cover conditions in 1976 reflect an estimate of 2-3 % watershed imperviousness.

Current land-use and land-cover conditions as of 2007 were evaluated based on Geographic Information System (GIS) data supplied by James City County, supplemented with estimates for other impervious cover currently in place, but not reflected in the GIS data. The evaluation estimates current impervious cover in the Powhatan Creek watershed at approximately 14.4%. This increase in impervious cover results in a significant increase in the runoff rates predicted for a specific return period. The preliminary modeling shows that runoff rates associated with a 100-year or a 500-year return period are estimated to have doubled (approximately), since the original study was performed.

Based on current zoning and comprehensive plan conditions it is expected that the impervious cover in the Powhatan Creek watershed may increase to a maximum of approximately 18.8% under full build-out conditions. It is expected that this further increase in impervious cover will correspondingly increase peak runoff rates by approximately 5%.

In addition to land-use and land cover changes in the Powhatan Creek watershed, another issue has a significant impact on the peak runoff estimate. Previous hydrologic studies have been based on the statistical analysis of rainfall data as was presented in Technical Paper 40: *Rainfall Frequency Atlas of the Eastern United States for Duration from 30 minutes to 24 hours and Return Periods from 1 to 100 years* (1961). This dataset has been in use for many years for stormwater infrastructure design

and hydrologic modeling. The National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center (NCDC) recently released *Precipitation-Frequency Atlas of the United States" NOAA Atlas 14, Volume 2, Version 3* which is intended to supersede the rainfall data presented in *Technical Paper 40*. Using the new Atlas 14 precipitation values (based on statistical analysis of regional rainfall patterns), 24-hour 100-and 500 year precipitation amounts used for modeling are significantly higher than the previously published values. This, in turn, leads to a further increase in peak runoff estimates associated with such return periods. Based on Atlas 14 data, in conjunction with the land cover changes described above, the 100-year peak runoff for 2007 land cover conditions is estimated to be 2.5 times the peak runoff shown in the effective FEMA FIS, and the modeled 500-year peak runoff is 3.2 times the runoff shown in the FIS, respectively. For full build out conditions the corresponding multipliers are 2.6 and 3.3, respectively. The hydrologic analysis used for the updated floodplain mapping herein is based on Atlas 14 rainfall data.

The distribution of the rainfall during Hurricane Floyd resembles a series of shorter storm events with return periods of 40 and 60 years respectively. Based on the actual distribution, the resulting peak runoff rate for Hurricane Floyd corresponds with runoff rates associated with a synthetic 24-hour storm event with a return period approximately 150 years. Similarly, the Nor'easter of October 2006 shows a rainfall distribution that it resembles much more two storm events at the beginning and the end of the storm with statistically rather insignificant precipitation in-between. The resulting peak runoff rate for the 2006 Nor'easter corresponds with a runoff rate associated with a synthetic 24 hour storm event with a return period of approximately 50 years. A further analysis of these storm events for full build-out conditions demonstrates that anticipated peak flow rates are likely to be similar, with increases limited to 1-2%.

The significantly higher peak runoff rates resulting from the updated hydrological modeling however do not translate to significantly higher flood profiles due to the width of the floodplain and an increase of velocity with flow depth. The flood elevation difference is limited to approximately 0.10 – 1.88 ft for a 100-year event. The floodplain mapping confirms that for the portions of Powhatan Creek studied with detailed hydraulic analysis Jamestown 1607 and St. George's Hundred are the subdivisions with the most significant flooding risk. However, it appears that the change in hydrology and the associated increase in expected flood elevations for specific return periods do not significantly increase the amount of residences in those two subdivisions that will experience flood elevations above finished floor elevation. Based on available finished floor elevation data one (1)

additional residence has been identified that would be affected by flood elevations above finished floor.

The expected further increase of peak runoff rates due to the transition from 2007 conditions to future full build-out will not significantly increase expected flood elevations. The modeling indicates that the further increase is limited to approximately 0.25 ft.

The analysis performed includes an assessment of a wide range of tidal peak elevations as downstream boundary condition for the modeling of the Powhatan Creek. It should be noted that in FEMA studies it is common practice to model flood elevations based on coinciding peaks of the riverine flooding source and the corresponding downstream boundary condition (in this case the stillwater elevation of the James River, based on tidal gage analysis). However, it is highly unlikely that during a flooding event 1) both flooding sources experience an event with the same return interval and 2) that the peaks of the two flooding sources actually coincide. Based on the assessment performed it is possible to experience a flooding event that produces higher flood elevations than associated with the respective return period caused by tidal influences, but it is highly unlikely.

Additional analysis was performed to assess the effect of partial obstruction of the bridge openings at the Jamestown Road Bridge and the John Tyler Highway Bridge. Assuming a reduction of the available conveyance area of the bridge opening of 25%, the flood elevation of a 100-year event would potentially increase by approximately 0.70 ft immediately upstream of the Jamestown Road Bridge and approximately 0.30 ft immediately upstream of the John Tyler Bridge.

MEMORANDUM

DATE: September 23, 2008
TO: The Board of Supervisors
FROM: Doug Powell, Manager of Community Services
SUBJECT: Allocations Review


During the FY 09 budget process, the Board had some questions about the process used to review funding requests from outside agencies. At the September 23, 2008 work session, staff will present information on the Allocations Review Team process used to evaluate funding requests from nonprofit agencies.

At the conclusion of the work session, staff will seek feedback from the Board about the FY 10 budget for outside agencies.



Doug Powell

CONCUR:



Sanford B. Wanner

DP/nb
AllocRev_mem

Attachment

Allocation Review

Presentation to the
James City County Board of Supervisors
September 23, 2008

Background

- Allocation Review Team (ART) formed to review human service non-profit agency budget requests in an effort to increase citizen involvement.
- Joint funding application developed for James City County, City of Williamsburg and the United Way.

Overview of the Process

- October-The electronic application is made available.
- November-Recipients are invited to a joint informational meeting.
- January-Deadline for applications
- Early February-ART holds its annual review.

Community Representatives

FY 09

- Steve Chantry-Executive Director for Student Services-WJCC Public Schools
- J. Terry Deaver-Parks and Recreation Commission member
- Donna Dittman Hale-Consultant to Nonprofits
- Clive Fenton-Education Committee of NAACP
- Diane Joyner-Social Services Advisory Board member

Prior to the Review Day

- Staff meet to decide critical elements to include in the letter sent to ART members.
- Each agency is assigned a staff member.
- Staff meet to conduct preliminary review of the applications and determine next steps.
- Agencies are identified for presentations and consent calendar.

What was Important for FY 09?

- Letters were sent to the agencies in advance of the application advising them of the financial constraints.
- A critical review compared funding requests with data on residents served and units of service provided.
- Percentages of FY 08 funding received and residents served for each locality was calculated.

ART Recommendations

- ART members reviewed 22 applications.
- The group recommended a total of \$495,235 for these agencies compared to the FY 08 Approved Budget total of \$632,228.

Important Elements of the Review

- Supports the Strategic Plan.
- Fund only direct service providers, not coalitions.
- If the service were not provided by the agency would local government have to assume their responsibilities?

Important Elements of the Review

- Financial statements
- Are County residents being served in proper proportion?
- Has the agency requested proportionate funding from the other localities?
- We try to determine the effectiveness of services and the outcomes for residents of James City County.

How Can the Process be Improved?

- The application can be cumbersome and repetitive.
- The budget format needs to be simplified to be more understandable.
- Staff will be assigned to each agency to work with them throughout the year.

Allocation Review

Questions/Comments?