

# **Planning Commission Agenda**

**February 5, 2001, 7:00 p.m.**

- 1. ROLL CALL**
- 2. MINUTES: Meeting of January 8, 2001**
- 3. DEVELOPMENT REVIEW COMMITTEE REPORT  
(Separate Cover)**
- 4. PLANNING COMMISSION CONSIDERATION**
  - A. Powhatan Creek Watershed Study
  - B. Powhatan Creek Study
- 5. Planning Director's Report**
- 6. Adjournment**

A REGULAR MEETING OF THE PLANNING COMMISSION OF THE COUNTY OF JAMES CITY, VIRGINIA, WAS HELD ON THE EIGHTH DAY OF JANUARY TWO-THOUSAND ONE AT 7:00 P.M. IN THE COUNTY GOVERNMENT CENTER BOARD ROOM, 101C MOUNTS BAY ROAD, JAMES CITY COUNTY, VIRGINIA.

1. ROLL CALL

Martin Garrett, Chair  
John Hagee  
Don Hunt  
Wilford Kale  
Willafay McKenna  
Peggy Wildman

ALSO PRESENT

Marvin Sowers, Director of Planning  
Leo Rogers, Deputy County Attorney  
Christopher Johnson, Planner

2. MINUTES

Upon a motion by John Hagee, seconded by Willafay McKenna, the minutes of the December 4, 2000, meeting were approved by unanimous voice vote.

3. DEVELOPMENT REVIEW COMMITTEE

John Hagee gave the DRC report stating the Hiden Estates was the only case heard and that there were three critical elements omitted from the application. Due to the incomplete application, the DRC was required to defer the case and will review it again at its next monthly meeting.

4. POLICY COMMITTEE

Willafay McKenna stated the Policy Committee did not meet this month but was scheduled to meet on February 5 to start the Capital Improvements Program (CIP).

5. CASE NO. SUP-25-00. STONEHENGE KENNELS.

Christopher Johnson presented the staff report that was deferred from the December 4, 2000, meeting. He stated the applicant requested the expansion of its existing kennel of 18 indoor-outdoor dog runs, six indoor dog runs, and nine cat cages and to construct a second building consisting of an additional 18 indoor-outdoor dog runs and eight indoor dog runs. Staff believed the proposed expansion was inconsistent with the character of the surrounding community and the Rural Lands Land Use designation. Staff recommended denial of this application and stated, should the Planning Commission wish to recommend approval, staff recommended placing the conditions contained in the staff report.

John Hagee said he understood why a special use permit was necessary but asked why staff felt this was not consistent with the Rural Lands Land Use designation.

Christopher Johnson stated there were various factors associated with this type of use that need to be addressed on a site specific basis. He stated that after evaluating this application, staff believed that an expansion in this particular area was not consistent with the Rural Lands Use designation given the now current character of the area.

John Hagee asked if staff had any idea as to what those conditions might be that would make this application appropriate for rural lands.

Christopher Johnson stated that if land uses had not changed and this site had its own entrance and customers did not have to pass in front of several residences to access the kennel it would probably affect staff's determination of the plan's consistency because it would not have the traffic impacts that now exist.

Don Hunt asked for more detail as to how accesses had become an issue and who owned the right-of-way that was shared by the neighbors.

Christopher Johnson gave a brief history of the ownership of the surrounding properties and stated that the original owners of the right-of-way were the Garrett family and it was now located on property owned by the Littles.

Wilford Kale asked when the original right-of-way was granted, and when the kennel was built in 1985, what other residential units existed?

Christopher Johnson stated there were only three other homes in the vicinity at that time.

Martin Garrett opened the public hearing.

Greg Davis of Kaufman and Canoles and representing the Coven family discussed three points to the Commission. He spoke of the need in this community for a kennel of this type and how this proposal minimized the impact of the kennel, including its expansion on the adjacent property owners. He stated the property was surrounded on three sides by rural use parcels and there were nine homes between the kennel property and Riverview Plantation, with two of those having horse pastures, and across the road is a hunt club which keeps dogs on the premises. He stated Stonehenge Kennel was the dominant feature of the area and that six of the nine homes came in after the kennel began its operation in 1985. He stated that he disagreed with staff and felt this expansion was consistent with the rural lands and to hold that the character of the neighborhood should prohibit the kennel expansion would be unfair. He asked that the Commission support this application subject to the staff's conditions.

Jeff Lancaster of 5576 Riverview Road spoke in support of the surrounding residents who were opposed to the expansion of the kennel and felt it would not be in their best interest. He stated the kennel, as it now existed, generated a major nuisance regarding the flow of traffic on the narrow, gravel lane that was used by the kennel and other residents along the right-of-way. He stated the noise from the traffic occurred mainly in the evenings and weekends when most people were home. He said he didn't understand how the patrons of the kennel and residents of Wexford Hills had the right to petition and support the kennel when the issue wasn't about taking care of dogs but about the impact it had on the residents surrounding the kennel. He felt that the kennel owners should be working on how they could alleviate the problems that now existed rather than trying to double its size. He said he was concerned about his rights as a citizen of the County and asked that the Commission deny this application.

Joe Ann Dittmann of 1501 Patriots Colony Drive spoke in support of this application and felt that, since they were there first, they had more of a right to remain and expand the business.

Linette Lancaster of 5576 Riverview Road spoke in support of staff's recommendation of

denial. She stated that she did purchase her property knowing that the kennel existed but that this was not the same kennel as when she purchased her home. She stated she had read letters and petitions from friends and clients of the kennel in support of the expansion. She said no one stated that the Covens did not take care of their pets while in their care and she herself had recommended the kennel to others. She stated the care of the dogs was not the issue and said that while these people were on vacation, the surrounding residents had to listen to the noise from barking dogs, and traffic along the shared gravel right-of-way. She asked that the Commission deny this application.

John Donaldson of 112 Crown Point Road and a past member of the James City County Planning Commission stated he understood the Commission's perspective and how they needed to resolve issues in the best interest of the County. He spoke in support of this application and spoke highly of the kennel owners and the work they did. He encouraged the Commission to approve this application because there were two primary concerns that should govern their decision making process. They should make a decision that was in the public interest and said that sometimes individuals must see their interest compromised for the whole of the community. He said the applicant was conducting a business that was fully authorized when it began in 1985 and they paid to acquire the business and have the rights of the prior owners. He stated they made a major investment with expectations that they would be allowed to adjust to the evolving market conditions and needs. He felt the area was undoubtedly suitable for the use involved and if it had become unsuitable it was not the fault of the applicant, and if there had been a change, the change had been very slight with nine rather than three residences over the course of some fifteen years. He stated that fairness should be recognized and that persons who have made an investment in the County should not be jeopardized of that investment simply because of additional persons moving into an area. He concluded by recommending that the Commission approve this application.

Donald White of 5594 Riverview Road stated that his mother and father put the driveway in after the property was given to them by his grandfather and they maintained it every few years. He stated that when Mr. Wade began the kennel he started out with only three or four dogs. He said since the Covens had taken over the business, business has increased as did the traffic and he himself had been maintaining the driveway at least once a month. His main concern was the traffic generated by the kennel and said the number of traffic trips were more than what the owner estimated. He felt the expansion would double the traffic and asked if the Commission approved this application that there be some type of condition that would hold the Covens responsible for the maintenance of the driveway. He felt there were things that could be done to prevent excessive noise such as privacy fences and landscaping. He said another major concern that had been temporarily addressed was the sanitation issue and requested the owners keep a minimum distance from adjacent property lines when walking the dogs to avoid contamination of the wells.

John Hagee asked about the property originally owned by Donald White's grandfather and how the right-of-way came about.

Donald White stated that the property was owned by his grandfather, it was subdivided for his mother and father, and a right-of-way was granted for their use to access the property, and they maintained that right-of-way. He said once Mr. Galanos purchased and subdivided it the Wade family came in and then the Little and Lancaster homes were built.

Don Hunt asked if Mr. Galanos at any point in time conveyed the right-of-way to the people that built on that road.

Donald White said when Mr. Galanos sold the property to the Littles the right-of-way went with it. He stated when the other property was purchased by a builder, they were told that the state would eventually come in and take care of the right-of-way. He said that after the additional homes were built, the builder left without resolving the right-of-way issue.

Wilford Kale asked who currently owned the land that contained the right-of-way and was it in the deed. He then asked if the Littles were the sole owners of the right-of-way, why was Donald White the one who had maintained it.

Donald White stated it was a job that needed to be done and no one was doing anything so he took it upon himself to take care of the driveway. He later found out it was just a right-of-way for them to use and that they did not own it.

Christopher Johnson stated that the four lots located on the western side of the driveway needed to meet the subdivision ordinance requirement for frontage along a public street, so those flag lots were not created to bring driveways to the sites but solely to permit them under the ordinance at that time. He stated all the lots along the driveway have legal access to that right-of-way.

Marvin Sowers stated the ordinance requires frontage on a public road and it was common practice to allow flag lots like this with a private easement through the middle where there were joint access rights to the easement. To avoid this type of maintenance situation, the County now requires a maintenance agreement between the property owners.

*The following persons also spoke in support of this application expressing the need for this type of kennel, the excellent care given to their pets the peace of mind they have when leaving their animals with the Covens and inability to drive fast on the road due to its condition: George Babe, Steve Brady, John Curtiss, James Heller, Jody Bishop, George Storck, John Magda, Elizabeth McKenna, Jean Groves, Beverly Krams, Ann Reagan, Earl Wysong, Kendall McCall, George Mackert, and Richard Davis.*

*The following persons also spoke against this application expressing their concerns of increased noise and traffic on the shared gravel right-of-way; appearance of the existing building, narrowness of the road, speeding, barking, odor, possible well contamination, dust, and child safety: Angela Andrews, Lori Jarrett Starks, J. R. Smith, Kay Little, and Ben Fenton.*

Glen Coven of 101 Shirley said he'd be happy to answer any questions the Commission might have. He noted that he was not at the kennels very often, mainly on Sunday afternoons when the kennel gets busy. He spoke on behalf of the customer regarding the wild and reckless driving that had been alleged, stating it simply did not occur.

Martin Garrett asked Glen Coven to address the issue of noise abatement inside the new building.

Glen Coven stated that it was their understanding that if a new building could be built which contained enough surface area to use sound absorbing materials, kennel noise could be reduced inside.

Martin Garrett also asked what would be done regarding maintenance of the driveway.

Glen Coven stated that everything that was presented was not necessarily a complete picture. He stated that Donald White had been doing a good job taking care of the driveway and everyone appreciated it. He said he didn't know why the other neighbors had not chipped in for repairs. He said in preceding periods of time, he and his family had purchased and spread the gravel. He stated since Donald White would no longer do anymore, and it appeared no one else was going to, that he would accept responsibility for maintenance of the driveway.

John Hagee asked if the Covens investigated kennels in other areas and how they typically handled things such as dog runs, open and enclosed kennel spaces, and how large they get.

Glen Coven stated they did look at a number of larger kennels but the principles were the same as far as design regarding open and enclosed kennel spaces and dog runs. He stated they had proposed to expand to less than 50 runs, which was a small kennel according to the American Boarding Kennel Association. He noted that many of the kennels in Virginia Beach run up to 100 to 150 dogs and in more populated urban areas kennels run up to 700 to 1,000 dogs. He said that when driving up to a kennel, typically dogs were not seen because of a high fence and you would enter a room and your dog would be brought to you with minimal disturbance from within the kennels itself. He said because there were no neighbors when Stonehenge was originally designed, it was not designed in the same manner as other existing kennels.

Willafay McKenna asked if the dogs were exercised independently or did they just stay their run areas.

Glen Coven stated that many dogs were walked, while others needed to be run. He stated that all dogs were exercised in the exercise facility located in front of the kennel not far from the location of the expansion.

There being no further speakers, the public hearing was closed.

Wilford Kale spoke of his cousin who runs a kennel in a residential area in suburban Charlotte, North Carolina. He stated that her small kennel had 70 runs with additional facilities for cats. He stated that the nearest home was 200 feet and the owners had requested some type of noise abatement. He said her only complaint was from someone a mile and a half away from the facility and after some investigation, it was determined that the noise was coming from the residence across the street from the complaint and not from the kennel. He stated she recommended that they contact the American Boarding Kennel Association for recommendations for new construction as well as information on what can be done to older units in order to abate noise. He said that his cousin erected an eight foot privacy fence with enhanced landscaping in order to abate the noise for the homeowners closes to the kennel. His said his cousins kennel was built in 1975 before anyone lived there and now there were approximately 18 or 20 homes within a quarter of a mile of her facility. He said from what he was able to gather, there can be a harmonious situation between a kennel and a residential area. His stated his concern was where could they put a kennel if it couldn't be placed in A-1 zoned property that was sufficiently spaced, such as these 11 acres. He believed that this could be a doable situation and supported the application.

Willafay McKenna stated she used the kennel and the community needs this type of

kennel. Upon reviewing the code, this was the only zoning district in the County that permitted any kennel at all and only with a special use permit. She also felt that 11 acres should support this application request and felt the conditions were adequate enough for the applicant to work with the County on approval of the building and noise abatement ideas. She also agreed with John Donaldson and other speakers who noted that, as a growing community, there were no facilities of this kind in the County. She thought the road needed attention and felt the neighborhood could get together and work some of the problems out. For those reasons she stated she supported this and made a motion to approve the application with conditions.

John Hagee supported the comments by Willafay McKenna and also had concern as to where a kennel could be placed within the County. He said that rural lands seemed to be compatible with this type of use and, if anyone came in with a proposal for a kennel on an 11 acre site, it would be quite impressive. His main question was regarding the noise and said he visited the kennel and when he arrived there the dogs did start to bark. He said the dogs continued to bark for five to ten minutes at the most. He said when he left, he paused and heard dogs barking but said they weren't the dogs from the kennel, but from other land owners in the area and said he couldn't get a good sense of what the impact of the noise was on the adjacent property owners. He said if the Commission were to approve this he felt they needed to take it to a level of discovering what requirements would maximize the noise abatement. He did not know if the conditions placed on this application necessarily spoke to that issue. He asked if the DRC could get involved.

Martin Garrett made a motion that the DRC be involved in approving the case.

John Hagee asked what conditions could be placed to have them investigate noise and have someone from the American Boarding Kennel Association to speak to the Commission to give them some insight as to what needed to be done to abate the noise.

Willafay McKenna suggested changes to the conditions. In paragraph two change Planning Director to DRC. She stated the Commission wanted to speak on the subject of sound abatement.

Glen Coven stated that the American Boarding Kennel Association offered building advice through seminars and they could get information from them.

Leo Rogers stated his concern with the condition. He said the Commission needed to state what the objective standards they were looking to receive from the DRC. He said they could not just delegate this to the DRC without some type of criteria with which they would be applying kennel or some other standards. He realized the goal was noise abatement, but what he saw now was a concept and not an objective in what they would be asking the DRC to specifically act on. He felt it would not be appropriate for the Board to adopt a condition that just relegated this issue to the DRC without some standards.

Wilford Kale asked Leo Rogers if the Commission could request that Glen Coven contact the American Boarding Kennel Association and bring back to them, at their next meeting, information that would give them some type of a parameters to use.

Leo Rogers said absolutely but they would be talking about a deferral of the case. He said the Commission needed to tell the applicant exactly what they wanted, such as building and design standards that minimize the exterior noise.

Willafay McKenna said she reviewed regulatory statutes and ordinances in other areas and found a large range of things, mainly that kennels were allowed in other areas of the country if they were three-hundred feet away from a housing development. She stated she found an OSHA site that talked about noise from barking dogs in veterinarian hospitals and they said that as long as the decibels could be reduced to below 85 then that was acceptable. She felt that 85 decibels would not be difficult for the Covens to do even on the outside of the kennel because of the distance between the homes and location of the kennel. She felt that would be a very definite goal.

Don Hunt asked if, in the County ordinance, the definition of nuisance or noise mentioned any decibel levels.

Leo Rogers said that neither the noise nor the nuisance ordinance mentions decibel levels. He stated the language was very broad and subject to interpretation by the court.

John Hagee said he did not feel comfortable with the conditions as they appeared and wanted to make sure the noise abatement would be minimized to the maximum. He asked if it were possible to defer this and have the applicant contact the Association and see about getting someone here to help educate the Commission as to what needed to be done.

Willafay McKenna said she would like to vote on this application tonight and when it goes to the DRC then they would have to set the standard and the applicant could provide information to them.

Marvin Sowers commented that there were other ways the Commission could approach this. They could apply a condition from a performance standpoint where they would set a decibel level and that would be the basis for designing and constructing the building and enforcement. Another approval could be to simply address it through design standards, such as ceiling baffles, fencing, and screening without regard to a decibel level. He said when you approach it from a performance standpoint of setting a decibel level, while it sounds like a good approach, there were two inherent difficulties. First would be the actual monitoring and enforcing of it and since this was an older kennel it might be impossible for the stie to meet a decibel standard. He said the other approach would be to try to retrofit the existing building and apply new construction standards to the new building. He said the Commission could add a condition that would require a noise abatement plan to be submitted and implemented by the applicant which incorporated recommended construction standards of the American Boarding Kennel Association as approved by the DRC.

Leo Rogers stated that what Marvin Sowers suggested would be acceptable but pointed out that the special use permit did not apply to the old structure but only to the new structure, therefore, staff could not require that they retrofit the old building. He said they could determine that they must have ceilings of at least nine feet, must have sound absorbing tiles installed on the ceiling, etc. He said those were objectives that could be measured.

Martin Garrett suggested using the wording given by Marvin Sowers as a condition to the special use permit.

Marvin Sowers stated the Planning Commission could add a condition, along with the existing conditions in the staff report, that would state that the applicant shall submit and implement a noise abatement plan to the DRC for approval, that the noise abatement plan shall

consider the recommended standards of the American Boarding Kennel Association with the final determination of the applicable parts of those standards determined by the DRC

Martin Garrett seconded Willafay McKenna's motion.

Peggy Wildman stated she still had a major issue regarding the traffic on the road as it exists now and the maintenance of the road. She felt the Commission owed it to the residents that lived in the area to address that issue.

Martin Garrett stated that Glen Coven said he would maintain the road but that didn't mean it would get done.

Wilford Kale had a hard time holding the Covens responsible for a driveway that everyone else used.

Peggy Wildman stated she didn't mean the Covens have to be solely responsible. She thought it was incumbent upon everyone who lived on that road.

Wilford Kale stated he did not think the Commission had the right to place that responsibility on that community and said the Commission was dealing with a land use question for a piece of property.

Marvin Sowers stated the motion was to approve this application with the additional condition and conditions in the staff report. In a roll call vote, motion passed 6-0. AYE: McKenna, Hagee, Hunt, Kale, Wildman, Garrett (6); NAY: (0).

5. SUP-26-00. JCC DISTRICT PARK-HOTWATER-COLE TRACT.

Christopher Johnson presented the staff report stating that Bernard M. Famer, Capital Projects Administrator for James City County, applied for a special use permit to operate a public community recreation facility, James City County District Park. Staff found the proposal consistent with the surrounding properties and uses and the Comprehensive Plan. Staff recommended that the Planning Commission recommend approval of this application with the conditions outlined in the staff report.

Wilford Kale asked at what level it would take to put a stop light at the intersection of Centerville and Longhill Roads.

Christopher Johnson stated he did not know the specific level but knew that in its review, VDOT had agreed to consider improvements to the intersection on a phased basis depending on the incremental development of the site and the surrounding vacant parcels on the opposite corners.

Peggy Wildman inquired about the Exxon Station proposed at the on corner of the intersection.

Christopher Johnson stated staff was awaiting on an expanded Phase 3 Archeological Study which was recommended by VDHR. He stated that there had been no activity over the last year on the site plan but it was in for staff review.

Martin Garrett opened the public hearing.

Bernard Farmer, representing the applicant, said he would be happy to answer any questions of the Commission.

There being no questions or further speakers, the public hearing was closed.

Wilford Kale made a motion, seconded by Willafay McKenna, to recommend approval of this application. In a roll call vote, motion passed 6-0. AYE: McKenna, Hagee, Hunt, Kale, Wildman, Garrett (6); NAY: (0).

#### 6. PLANNING DIRECTOR'S REPORT

Martin Garrett stated that the Nominating Committee needs to meet and report back at the next Planning Commission meeting. He stated the committee was made up of the Planning Commission Vice Chair, Joe Poole; the DRC Chair, John Hagee; the Policy Chair, Willafay McKenna; and one elected person. He asked for nominations.

Wilford Kale nominated Don Hunt. Willafay McKenna seconded the nomination and in a unanimous voice vote, Don Hunt was elected to the Nominating Committee.

Marvin Sowers stated that the Planning Commission has before them copies of the official calendar for all the meeting dates which was approved by them at the December meeting along with meeting dates for the Board of Supervisors.

Marvin Sowers also stated that Case No. Z-7-99 and SUP-24-99. Greisenauer Residential Development had been withdrawn by the applicant. He said staff recommended that the Commission still hold a work session on the Powhatan Creek Watershed Study sometime in February or March.

#### 7. ADJOURNMENT

There being no further business, Martin Garrett adjourned the January 8, 2001, Planning Commission meeting at approximately 10:10 pm.

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Martin A. Garrett, Chair

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O. Marvin Sowers, Secretary

MEMORANDUM

**Date:** February 5, 2001  
**To:** Planning Commission  
**From:** Wayland N. Bass, County Engineer  
Darryl E. Cook, Environmental Director  
**Subject:** Status of Powhatan Creek Watershed Study

WNB  
DEC

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James City County hired the Center for Watershed Protection (CWP) to conduct a watershed study of Powhatan Creek. The schedule for conducting the study is provided as Attachment 1. To date, CWP has prepared the *Baseline Watershed Assessment* and conducted the first stakeholders meeting, which was held on November 29, 2000. The final Watershed Management Plan will not be completed until July, 2001.

At this time, the Watershed Management recommendations have not been drafted for stakeholder review or consideration by staff, The Planning Commission or The Board of Supervisors.

The baseline assessment is an inventory of the physical and environmental conditions in the watershed, an inventory of the potential impacts to the watershed that could result from development, and an inventory of the tools available to address those impacts. Interested stakeholders have received some information from the baseline assessment. They may have referenced the report in conversations with Board and Commission members.

The Executive Summary of the baseline assessment is provided as Attachment 2.

Background material regarding watershed studies and planning are provided as Attachment 3.



## Executive Summary: Key Findings

1. Powhatan Creek remains one of the outstanding natural areas in the Virginia peninsula. The watershed contains exceptional floodplain wetlands and tidal wetlands that are home to six rare, threatened, or endangered plant species. Over 54 species of fish are found in freshwater and tidal creeks. Eagles, osprey, waterfowl and a blue heron rookery can be found in the diverse mosaic of wetlands, forests, and beaver dam complexes throughout the watershed.
2. The Powhatan Creek watershed is 22 square miles in size, and drains to the James River. Over 12% of the watershed is located within broad floodplains. Based on current zoning, about 36% of the watershed can be potentially developed in the coming years. Currently, over 3,100 homes are located across the watershed.
3. The rapid development seen in the last two decades poses a threat to water quality and natural habitats in Powhatan Creek. Impervious cover is an indicator of the extent and pattern of growth in the watershed, and this growth pattern over the years is very revealing. In 1970, watershed impervious cover was estimated to be 3%, but grew to 8% in 1998, 9.8% in 2000, and is projected to reach a maximum of 15.5% in the future. Prior research has shown that stream and wetland quality begins to decline when the amount of impervious cover in a watershed exceeds 10%. Powhatan Creek appears to be very close to crossing this key threshold, based on our latest estimates.
4. Stream habitat surveys show early and clear signs of stress in headwater streams. The influence of watershed development on the mainstem and tidal creek has been more difficult to detect, but these changes may be masked by the very recent nature of development, the extensive influence of beaver activity and the development regulations adopted by James City County.
5. The key threats to Powhatan Creek include changes in hydrology in streams, wetlands and floodplains; increased pollutant loads delivered in urban stormwater (bacteria, sediment, nutrients); channel erosion in headwater streams; water level fluctuations that degrade wetlands and rare, endangered or threatened plant species habitat; invasive plant species; and fragmentation of contiguous forests and increased flooding.
6. Based on a widely used stream classification model, seven subwatersheds were classified as sensitive and only three subwatersheds were classified as impacted in 1998. Recent growth in the watershed has been rapid, and as of 2000, six subwatersheds are classified as sensitive, and four are now classified as impacted. Based on future growth in the watershed, it is likely that all subwatersheds will shift to the impacted category in the coming decades.
7. Slightly under 11% of the watershed is protected within Resource Protection Areas (or RPAs); 15.5% if the RPA includes buffer areas. Based on field surveys, however, current RPA boundaries do not protect all vulnerable streams or conservation areas, and may need to be expanded or

extended. Of critical concern are populations of rare, threatened and endangered species, such as Virginia least trillium, New Jersey rush, false hopsedge, sweet pinesap and Torrey's peat moss, which are widely dispersed across the watershed, and often located outside RPA boundaries. These species are highly vulnerable to watershed development. In addition, while extensive floodplain forest areas are protected within the RPA, upland forest areas are becoming smaller and more fragmented, and may deserve greater emphasis in land conservation.

8. Conditions and watershed management concerns vary across each of the ten subwatersheds, as well as the mainstem creek and tidal creek segments. This report contains a detailed profile for each of these areas, with respect to current and future impervious cover; developable and RPA areas; stream habitat conditions; presence of wetlands, contiguous forest, and rare, threatened and endangered species; beaver activity; stormwater practices installed; retrofit sites under consideration; and historic flooding problems. This information will be useful to diagnose key problems and opportunities in each watershed area, and help stakeholders choose which watershed protection tools are most appropriate to use.

9. The Center has reviewed the existing authorities and programs that James City County and its stakeholder partners possess to protect the Powhatan Creek watershed. With some minor exceptions, the County has the authority to apply the tools needed to protect the watershed, but may need greater resources to do so. In particular, stronger emphasis in wise land use planning and land conservation is needed.

10. This baseline assessment underscores the urgency for rapid development and implementation of an effective watershed plan for Powhatan Creek. Given the rapid growth of the last two years, and the proximity to the 10% impervious cover threshold, it is essential that the County and its stakeholder partners work together to develop a consensus for the plan.

***Why Prepare Watershed Management Plans?***

In 1998, the Center for Watershed Protection (CWP) prepared a Stormwater Policy Framework for James City County. This document pointed out that urbanizing communities frequently find their water resources are degrading as a result of growth and development. CWP also pointed out that local water resources can only be protected by thinking on a watershed level.

There are many reasons to protect local watersheds: economic, scenic, and/or recreational reasons, for flood prevention and/or to enhance the overall quality of life. Some may place a high value on the aquatic biological community living in these waters, while others will be more concerned about reducing stream channel erosion to the real estate in their backyard. Regardless of the reasons, there are indications of environmental damage from development in both the Powhatan Creek and Yarmouth Creek watersheds. A watershed map for Powhatan Creek is attached.

Watershed plans will also help the County meet requirements of the Federal Environmental Protection Agency (EPA) Phase II Stormwater Management Program. The Program requires the County to obtain a National Pollutant Discharge Elimination System (NPDES) permit and develop stormwater management programs to reduce harmful pollutants from being washed by stormwater runoff into local water bodies by 2003. These plans will help develop watershed-based stormwater management programs, an approach strongly encouraged by the EPA. There is another Federal regulatory program called Total Maximum Daily Loads (TMDL), which will also affect Powhatan Creek. Powhatan Creek has been designated as an impacted waterway and as such, a TMDL must be developed for the Creek by 2010. The Powhatan Creek plan will help identify sources and amounts of pollutants in the watershed and again help the County meet the requirements of regulatory programs.

***Watershed Planning***

The County has hired the Center for Watershed Protection (CWP), assisted by staff from the James River Association, to conduct a technical and public participation process to help County citizens and government choose and implement watershed management strategies for the Powhatan Creek and Yarmouth Creek watersheds. Preparation of each Watershed Management Plan will require about one year. The Powhatan Creek plan would be prepared during 2000-2001 and the Yarmouth Creek plan during 2001-2002.

Early involvement with key watershed stakeholders is a critical ingredient in the success of any watershed planning effort. Stakeholders would participate throughout the watershed planning process in Powhatan and Yarmouth Creeks. Potential stakeholders include the Williamsburg Land Conservancy, Virginia Department of Environmental Quality, Virginia Department of Conservation and Recreation, Chesapeake Bay Local Assistance Department, Virginia Department of Game and Inland Fisheries, Center for Public Policy Research at the College of William and Mary, District U.S. Corps of Engineers, large landowners, watershed organizations, developers, engineers and interested citizens. The CWP has developed a brochure describing the proposed study, distributed it to stakeholders, and has conducted the first stakeholder briefings.

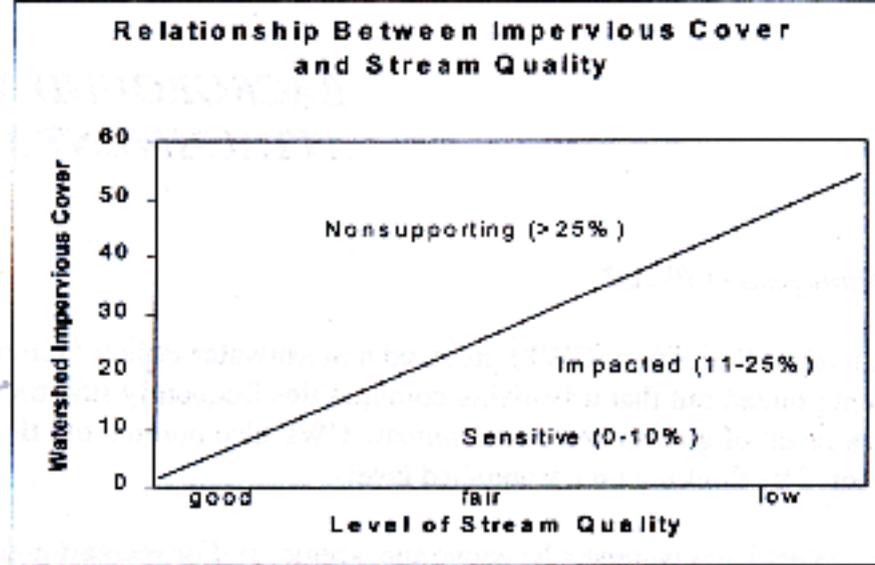


Figure 1

Part of watershed planning involves the influence of impervious cover on the quality of streams within a watershed. Impervious cover consists of manmade surfaces such as roofs, roads, and parking lots which replace natural vegetation increasing stormwater runoff quantities and pollution. Research has shown that the amount of imperviousness in a watershed can be used to estimate the current and future quality of a watershed's streams. Using this research, the Center has developed an Impervious Cover Model (see Figure 1) that can be used to categorize watersheds and subwatersheds into specific management units that have unique characteristics. Photographs illustrating stream degradation in James City County are attached.

The research generally indicates that certain zones of stream quality exist depending on the degree of impervious cover. Note that at about 10 percent impervious cover the most sensitive stream elements are lost from the system. A second threshold appears to exist at around 25 to 30 percent impervious cover, where most indicators of stream quality consistently shift to a poor condition (e.g., diminished aquatic diversity, water quality, and habitat scores). This classification system contains three stream categories, based on the percentage of impervious cover. The model classifies streams into one of three categories: sensitive, impacted, and nonsupporting.

**Sensitive Streams** - These streams typically have a watershed impervious cover of zero to 10 percent. Consequently, sensitive streams are of high quality and are typified by stable channels, excellent habit structure, good to excellent water quality, and diverse communities of both fish and aquatic insects. Since impervious cover is so low, they do not experience frequent flooding and other hydrological changes that accompany urbanization. It should be noted that some sensitive streams located in rural areas may have been impacted by grazing and cropping practices that may have severely altered the riparian zone and consequently, may not have all the properties of a sensitive stream. Once management improves, these streams often recover.

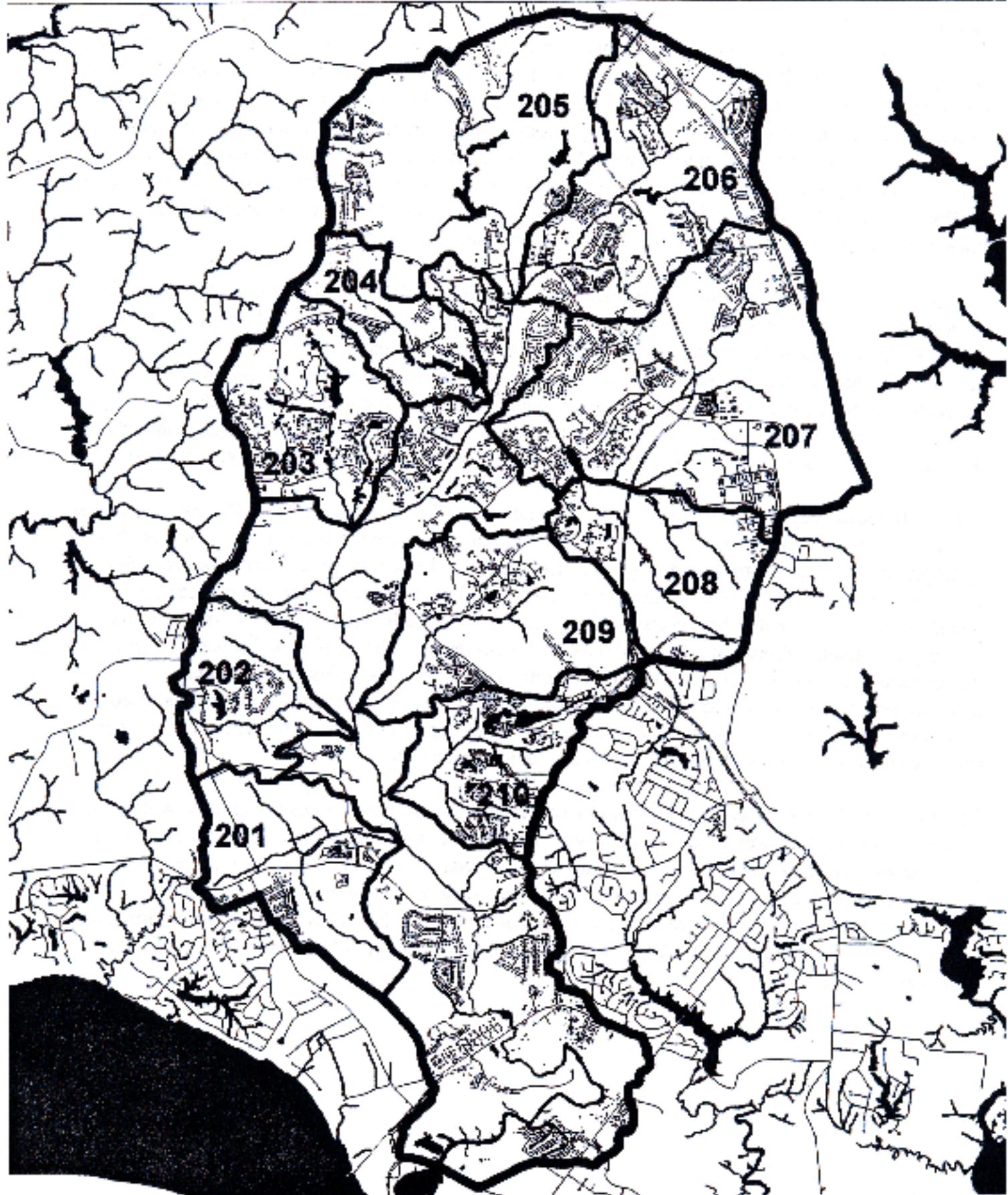
**Impacted Streams** - Streams in this category possess a watershed impervious cover ranging from 11 to 25 percent and show clear signs of degradation due to watershed urbanization. Greater storm flows begin to alter the stream geometry. Both erosion and channel widening are clearly evident. Stream banks become unstable, and physical habitat in the stream declines noticeably. Stream water quality shifts into the fair/good category during both storms and dry weather periods. Stream biodiversity declines to fair levels, with a greater number of fish and aquatic insects disappearing from the stream.

**Nonsupporting Streams** - Once watershed impervious cover exceeds 25 percent, stream quality crosses a second threshold. Streams in this category essentially become a conduit for conveying stormwater flows and can no longer support a diverse stream community. The stream channel becomes highly unstable, and many stream reaches experience severe widening, down-cutting and streambank erosion. Pool and riffle structure needed to sustain fish is diminished or eliminated, and the stream substrate can no longer provide habitat for aquatic insects, or spawning areas for fish. Water quality is consistently rated as fair to poor, and water contact recreation is no longer possible due to the presence of high bacterial levels. Subwatersheds in the nonsupporting category will generally display increases in nutrient loads to downstream receiving waters, even if effective urban BMPs are installed and maintained. The biological quality of nonsupporting streams is generally considered poor and is dominated by pollution tolerant insects and fish.

One of the more important concepts of watershed planning involves the eight tools of watershed protection. When applied together, these tools can comprehensively protect and manage urban subwatersheds in the face of future growth and can be applied to restore subwatersheds where development has already occurred. The proposed watershed planning approach incorporates a methodology for applying these tools to the unique conditions of particular watersheds. So logically, the Powhatan Creek watershed will likely have distinctly different tool applications than the Yarmouth Creek watershed. The general description of each of these tools is presented below.

Perhaps the most important tool for watershed protection, **Watershed Land Use Planning** involves decisions on the amount and location of the development and impervious cover, and choices about appropriate land use and growth management techniques. The second tool, **Land Conservation**, involves choices about the types of land, the location, and the relative importance of different lands that should be conserved to help protect a subwatershed. **Aquatic Buffers** seeks to maintain the integrity of streams, shorelines, and wetlands, and involves providing a physical separation from disturbance. The fourth tool is **Better Site Design**. This tool seeks to design individual development projects with less impervious cover that will reduce impacts to local streams. **Erosion and Sediment Control** deals with the clearing and grading phase in the development cycle when runoff can carry high quantities of sediment into nearby waterways.

The sixth tool, **Stormwater Best Management Practices**, involves choices about how, when, and where to provide stormwater management within a subwatershed, and which combination of best management practices can best meet subwatershed and watershed objectives. **Non-stormwater Discharges** provides ways to control discharges from wastewater disposal systems, illicit connections to stormwater systems, and reducing pollution from household and industrial products. Finally, **Watershed Stewardship Programs** promote private and public stewardship to sustain watershed management.

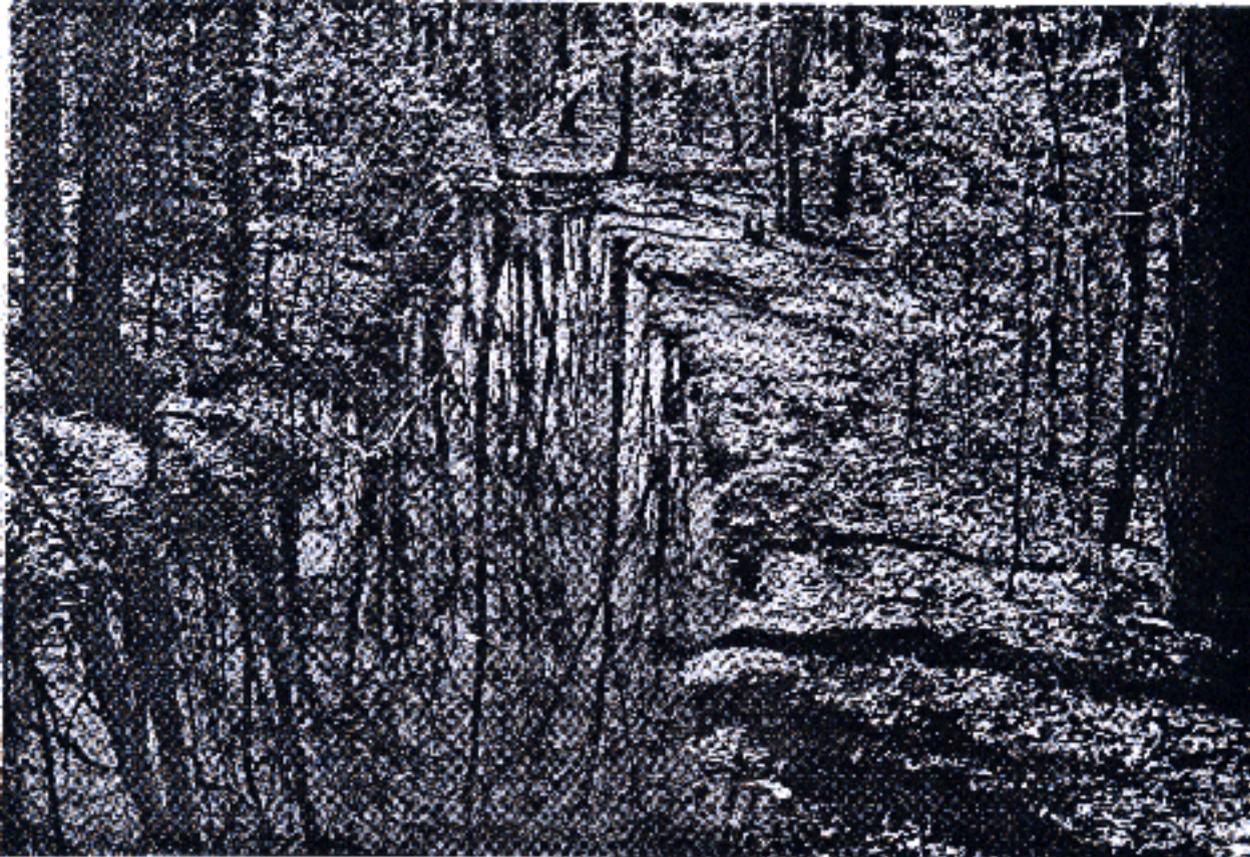


**Legend**

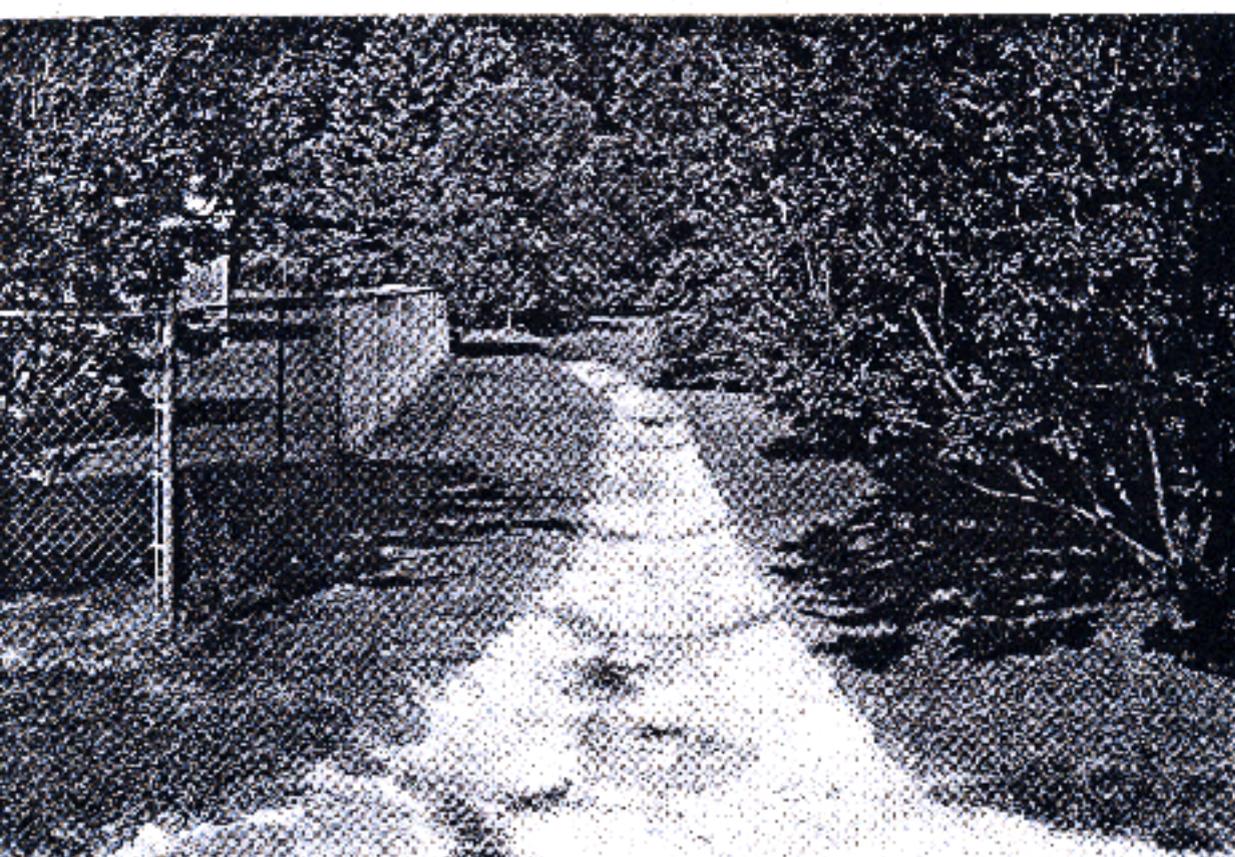
-  Watershed Boundary
-  Subwatershed Boundary

**Figure 13**  
**Powhatan Creek Watershed**

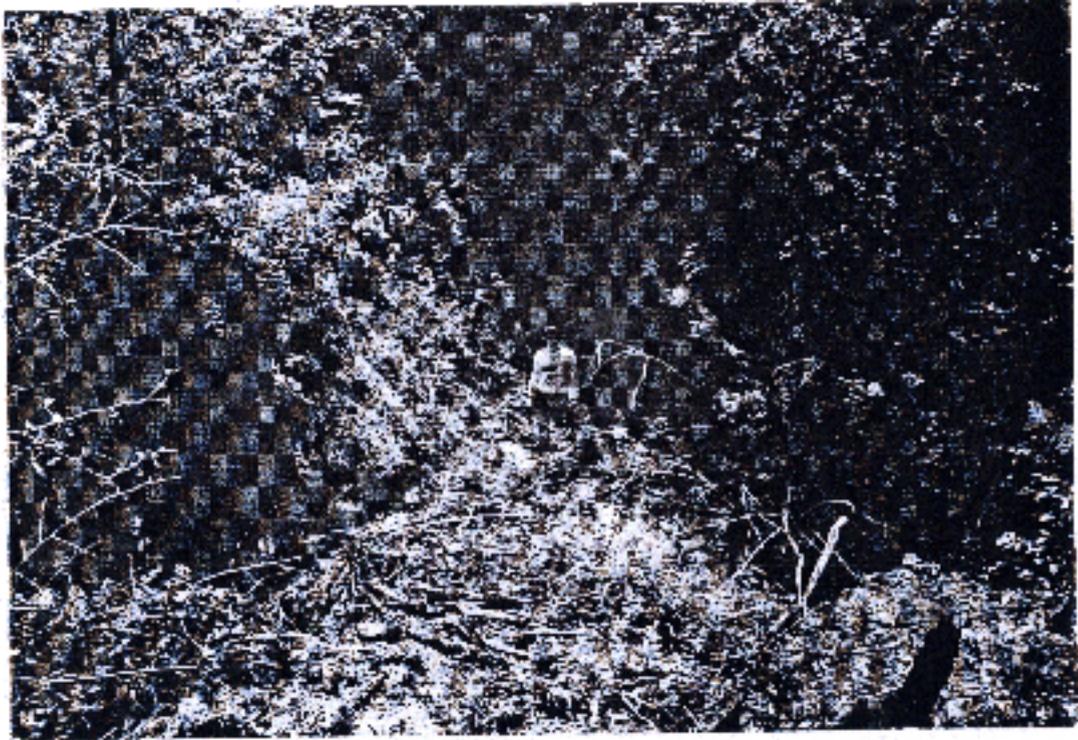




**SENSITIVE STREAM 0-10% IMPERVIOUS COVER**



**TRADITIONAL STORM WATER OUTFALL  
FROM OLDER DEVELOPMENT 25% IMPERVIOUS COVER**



**DOWNSTREAM EROSION**



**FARTHER DOWNSTREAM SEDIMENT-CHOKED  
NON-SUPPORTING STREAM**

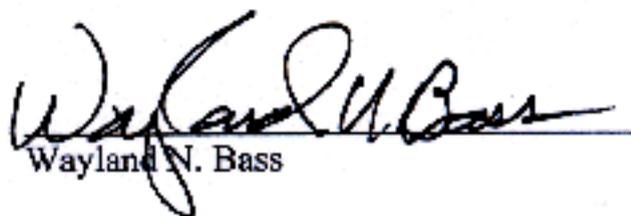
**JCC STREAM DEGRADATION**

MEMORANDUM

DATE: January 30, 2001  
TO: The Planning Commission  
FROM: Wayland N. Bass, County Engineer  
SUBJECT: Powhatan Creek Flooding

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For your information and discussion at the meeting on February 5, 2001, we are attaching a report given to the Board of Supervisors.

  
Wayland N. Bass

WNB/chp

Attachment (Separate Cover)

## PLANNING DIRECTOR'S REPORT

FEBRUARY, 2001

This report summarizes the status of selected Planning Division activities during the month of January.

1. Architectural Survey. Staff continues to work with the consultant and the Historical Commission to identify potential sites for intensive survey.
2. Master Greenway Plan. Staff has begun outlining various components of the Master Greenway Plan and is in the process of developing an overall methodology which will be designed to guide the process and incorporate citizen comment.
3. Timbering Buffer Ordinance. The Board of Supervisors held a work session on the timbering buffer ordinance on November 29, 2000. The purpose of the work session was to discuss recent violations to the ordinance and consider possible amendments to discourage future violations. This will be brought to the Commission in the spring.
4. New Town. The New Town Design Review Board approved the design of the Windsor Meade entrance road.
5. Purchase of Development Rights. An internal, interdepartmental committee met to discuss internal comments on a purchase of development rights program. A Board work session is anticipated in February.
6. RPOD Ordinance. Staff is working on a draft reservoir protection overlay ordinance in anticipation of a work session with the Board in March.
7. Capital Improvement Projects (CIP). The Policy Committee will begin its consideration of Capital Improvement Projects on February 5<sup>th</sup> and is scheduled to complete its review and ranking on February 20<sup>th</sup> and forward recommendations to the Planning Commission in March.
8. Norge Depot TEA-21 Grant Application. On January 9<sup>th</sup> the Board adopted an endorsing resolution for the TEA-21 Grant application for relocating and restoring the Norge Depot. The grant has been completed and sent to VDOT. Staff anticipates hearing back from VDOT in June.
9. Planning Commission Appointments. The Board reappointed Joe Poole to serve a four year term on the Commission as an at-large member and appointed Joe McCleary as its Berkeley District representative.
10. Rt. 199/Jamestown Road Intersection. On June 24, the Board of Supervisors held a work session to consider alternatives for improving this intersection. The Board endorsed Alternative N-2, an improvement consisting primarily of additional right-turn lanes, extensions existing left-turn lanes on Route 199, pedestrian islands, and a multiuse path.
11. Other Board Action. The Board of Supervisors heard no public hearing cases at its January 9, 2001, meeting. At its January 23, 2001, meeting the Board approved Case No. SUP-26-00. JCC District Park Hotwater-Cole Tract.

12. Upcoming Cases. Cases currently scheduled for the March 5, 2001, Planning Commission meeting.

CASE NO. Z-6-00/SUP-28-00. LOULYNN ACRES. Mr. Vernon Geddy, III, has applied on behalf of Loulynn Acre Associates for a special use permit and to rezone approximately 9.8 acres located at 8909 Barhamsville Road from A-1, General Agriculture to B-1, General Business, with proffers. The purpose of the rezoning and special use permit is to construct one and two story buildings for commercial, office and retail uses, including a bank and a gas station/convenience store. The property is generally located adjacent to the Burnham Woods subdivision on property more specifically identified as parcel (1-3A) on the JCC Tax Map No. (12-1).

CASE NO. Z-1-01. Energy Services Group International, Inc. Mr. Tom Gillman, Vice President of ESG and contract purchaser, has applied to rezone 6.23 acres located at 8946 Pocahontas Trail from R-8, Rural Residential to M-1, Limited Business/Industrial, with proffers. The applicant has proposed to construct a ±10,000 square foot metal fabrication shop which would allow the existing business located at 8979 Pocahontas Trail to convert their fabrication shop into office space for other ESG divisions. The property can be further identified as Parcel No. (1-10) on JCC Real Estate Tax Map No. (59-2).

CASE NO. SUP-2-01. JCSA ROUTE 5 WATER MAIN. The applicant, James City Service Authority, has applied to install a 12" water main along Route 5 from an existing line at Powhatan Creek. The proposed line will run along Route 5 to another existing water line at the Williamsburg Community Chapel and have a pressure reduction valve at the entrance to St. George's Hundred. This area is labeled as map number (46-1) and (46-2) on JCC Tax Maps.

CASE NO. Z-8-00/SUP-29-00. WILLIAMSBURG CHRISTIAN RETREAT CENTER. Lloyd Weaver, President of Williamsburg Christian Retreat Association, Inc. has applied for a rezoning and special use permit to rezone 138 acres from A-1, General Agricultural to R-2, General Residential to allow the construction of 51 single-family lots and a nine-hole executive golf course. The property is located at 9275 Barnes Road, in front of the existing Williamsburg Christian Retreat site and adjacent to the Racefield subdivision.

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O. Marvin Sowers, Jr.

Case No. SUP-33-99. Forest Glen, Section 5. Mr. Dick Ashe has applied on behalf of American Eastern, Inc. for a special use permit in order to construct a residential cluster with a maximum gross density of more than one unit per acre. The site is located at the south end of Mildred Road and Walker Drive in Forest Glen and is identified as parcel (1-81) on JCC Real Estate Tax Map (31-1). The Comprehensive Plan Land Use Map designates this area as Low Density Residential with a recommended density of up to 4 dwelling units per acre with a special use permit. The project proposes a density of 3.21 dwelling units per acre.