

Powhatan County Infrastructure Citizens Work Group Comprehensive Plan Review Report

Revised: 12 October 2007



The following pages detail Goals and Objectives associated with the updating of the *Powhatan County Comprehensive Plan* scheduled for 2008.

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Infrastructure CWG Charter

Powhatan County Infrastructure Citizens Work Group

Revised: 10 October 2007

Each subheading will have an organizational meeting at the beginning of its consideration. Questions and requested interviews will be decided during these initial meetings; though additional questions may arise later, we hope to give interviewees ample time to prepare their presentation. It is assumed that in considering each topic, that this committee will evaluate what the Comprehensive Plan currently states, what the current state of the topic is, and formulation of recommendations to revise the existing Comprehensive Plan. Current information and future projections are also assumed to be evaluated for each heading as well.

The following will be considered by the committee and in order in which they are listed:

A) Water and Sewer Utilities

- 1) Including septic and wells
- 2) Existing W/S infrastructure and future

B) Schools

- 1) Location
- 2) Facilities
- 3) Capacity vs. Projections
- 4) Funding

C) Emergency Services

- 1) Growth and Trends
- 2) Vehicles vs needs
- 3) Programs
- 4) Communication Infrastructure
- 5) Staffing
- 6) Facilities

D) County Facilities

- 1) Parks, Recreation and County Administration (all Branches)

E) Solid Waste

- 1) Transfer and pickup points
- 2) Alternate Methods
- 3) Enhancing recycling efforts

F) Telecommunication Utilities

- 1) Telecommunications

G) Technology

- 1) County Administration
- 2) Public Schools

Infrastructure CWG Goals and Objectives

Water and Sewer Utilities

Powhatan County Infrastructure Citizens Work Group

Revised: 24 January 2007

Goal: Maintain rural character and environmental integrity of the County.

- A. Control sprawl by limiting/controlling service area.*
- B. Assure compliance with source water protection via the Planning Dept.*
- C. Promote and assure Powhatan's storm water management program and investigate control opportunities through planning and zoning.*
- D. Monitor and protect residential wells and assure proper use and design of septic fields.*

Objective 1: Provide and promote economic opportunities within the service area in an effort to establish a 30/70 % (commercial and industrial/residential) revenue base. While it is important to limit sprawl, the County has made a substantial investment in water and sewer utilities with the hope of reducing the tax burden on its citizens. Thus the utilities service area boundary should be clearly defined in a Utilities Master Plan.

- A. Align economic development and service area expansion without dependence on general fund resources.

Objective 2: Secure a long term source(s) of water with a decreased reliance on groundwater.

- A. Investigate the availability of off stream storage such as quarries.
- B. Investigate whole sale purchase of water and sewer service from with surrounding Counties.
- C. Continue pursuing cooperative efforts with surrounding Counties (e.g. reservoir).
- D. Investigate opportunities for a long term surface water supply.

Objective 3: Develop Utilities into a self reliant enterprise fund.

- A. Move towards a "user fee" revenue based utility.
- B. Development should fund future utility line extensions.
- C. Conduct a rate study for water and sewer fees and implement.
- D. Investigate alternative funding sources such as Water Quality Improvement Fund, VRF etc.
- E. Support Economic Development without compromising Primary Goal.

Objective 4: Assure the long term success of the wastewater system.

- A. Develop a program to secure “nutrient credits” for future wastewater plant expansions (e.g. offsets and credits).
- B. Investigate and secure alternative wastewater discharge points (larger Tier I waters).
- C. Explore water reuse opportunities.

Public Schools

Powhatan County Infrastructure Citizens Work Group

Revised: 29 June 2007

Goal: To educate the children of Powhatan County from grades K-12 so that they will reach their fullest intellectual potential and develop into productive members of our community and society, as well as prepare students who seek higher education and attainment of career positions in the worldwide workplace.

Objective 1: Promote increased academic achievement for all students beyond the requirements of *No Child Left Behind*, especially in the areas of:

- A. Language proficiency so that career and community service goals can be achieved,
- B. Understanding of basic scientific concepts and processes,
- C. Economics and finance principles which support good decision making and personal money management,
- D. Technological knowledge, especially regarding use of computers and internet services,
- E. Continue to explore new distance learning opportunities with the use of emerging technology,
- F. Continue to evaluate the effectiveness of technology in classroom instruction, including the assessment of teachers’ skills,
- G. Multicultural literacy providing the ability to understand and appreciate similarities and differences in customs, values, and beliefs between cultures, and
- H. Global awareness.

Objective 2: Develop a needs assessment for additional school facilities based on projected population growth, especially with regard to:

- A. Develop a school “level of service” analysis utilizing long range impact analyses,
- B. Renovation/addition of Powhatan Junior High School,
- C. Addition to Powhatan High School,
- D. Renovation/addition to Pocahontas Middle School,
- E. Replacement of heating, air conditioning and ventilation equipment, and
- F. Addition of transportation vehicles, bus garage and maintenance facility,
- G. Evaluate and procure land for future schools.

Objective 3: Maintain a current information technology program for computer hardware replacements and software upgrades. Add additional computer labs within the school facilities as required to meet student needs at all appropriate levels.

Objective 4: Enhance existing and institute new programs, classes, and procedures to promote improved student health and fitness.

Objective 5: Revise, upgrade and implement new programs, when needed, to assure school safety and appropriate student discipline.

Objective 6: Continue to recruit and hire the most highly qualified teachers, administrators and staff personnel. Continue to provide training programs for teachers and other personnel to assure they are current in teaching and supervising techniques and procedures. To enhance the recruitment and retention of the best qualified personnel:

- A. Provide competitive salaries and benefit programs,
- B. Refine employee evaluation systems, and
- C. Update training and evaluation programs for substitute teachers.

Objective 7: Refine and expand educational programs, curriculum development and teacher training programs for gifted students.

Emergency Services

Powhatan County Infrastructure Citizens Work Group

Revised: 6 July 2007

Goal: To provide an effective emergency response network required for the citizens of the County in recognition of our suburban locality's changing population density and demographics. This review should be in the form of an Emergency Services Master Plan that would address the following objectives.

Objective 1: Establish growth plans for police, fire and rescue services that should:

- A. Provide a long range *Level of Service* impact analysis on all emergency services throughout the County.
- B. Include the phased introduction / expansion of career (paid) fire and rescue staff including the consideration of a pay-for-use system of rescue response.
- C. Address ways to empower existing volunteer fire/rescue staff to work with career staff recognizing the response needs of the County, especially on weekday 'days'.
- D. Consider possibility of Fire Department and Rescue Squad funding changes from public donations.

Objective 2: Identify where and when existing emergency response times are habitually the longest and evaluate ways to lower (a) response times, (b) number of calls responded by mutual-aid and (c) number of unanswered calls resulting in 'self-response'.

Objective 3: Develop logical and consistent street addressing in areas where response locating is problematic. Research E-911 grant opportunities and using GIS tools, coordinate with US Postal Service and other County staff to develop consistent street addressing where response-location problems exist.

Objective 4: Coordinate with County staff (Building Inspector, Health Department) to more efficiently and quickly place building footprint and street address information into the Sheriff's Office Dispatch Center, as well as the County's developing Geographic Information System (GIS).

Objective 5: Investigate proffers for land acquisition for future police/fire/rescue stations against long-term growth trends, land use/development and future estimated response times.

Objective 6: Review radio communication inadequacies -- possibly in areas furthest from the three existing towers along the Route 60 corridor and the Route 288 repeater. These areas likely include the 'corners' of the County (Clayville, Tobaccoville, and Cartersville).

Objective 7: Coordinate co-location opportunities with existing cellular carriers to obtain tower antenna access to remove 'holes' of radio communication where they exist and where cellular towers are either presently available or planned construction.

Objective 8: Investigate the introduction of 'assigned patrol areas' by Sheriff's Deputies to respond to public safety needs and/or criminal activity.

Objective 9: Review the network of dry hydrants identifying where others may be needed to either supplement those in existence, replace those in existence, or placement where water access is lacking in areas of recent growth.

Objective 10: Evaluate, and if need be enhance, salary and benefit packages for Sheriff's Department staff in comparison with surrounding localities.

Facilities

Powhatan County Infrastructure Citizens Work Group
Revised: 10 October 2007

Goal: To ensure that Powhatan County has the capability to meet the present and future community facility needs.

Objective 1: Complete the second phase of the Powhatan County Facilities Study.

Objective 2: To undertake the development of a Master Community Facilities Plan (Phase II) to include county and school administration, fire, sheriff, recreational and library facilities.

Solid Waste Management

Powhatan County Infrastructure Citizens Work Group

Revised: 9 August 2007

Goal: Assure the proper disposal of all forms of solid waste generated in the County for the creation and maintenance of an attractive, litter-free, environmentally friendly and healthy community.

Objective 1: Provide facilities for the use of citizens for the disposal of household waste.

- A. Determine level of service of existing Convenience Center (CC) operated by the County as a member of the Central Virginia Waste Management Authority (CVWMA).
- B. Establish additional CC as determined by current users and population growth patterns.

Objective 2: Maximize recycling for reasons of environmental responsibility and to meet legislative mandates.

- A. Monitor current recycling records provided by CVWMA and establish goals to increase levels.
- B. Investigate placement of additional recycling bins in County or commercial locations.
- C. Increase educational programs, e.g. press, schools, Powhatan Anti-Litter Council, Virginia Cooperative Extension.

Objective 3: Maintain an attractive, healthy and litter-free locality.

- A. Continue to support and encourage the activities of the Powhatan Anti-Litter Council.
- B. Enforce Powhatan Ordinance Solid Waste, Sec. 66-37. Littering (3) relating to disposal of solid waste on private property.
- C. Enforce local and state ordinances related to roadway littering.
- D. Investigate means of remediating properties containing illegal dumps either by reclamation or refuse removal.
- E. Pursue alternative funding sources for abandoned trash sites.

Telecommunications Utilities

Powhatan County Infrastructure Citizens Work Group

Revised: 5 June 2007

Goal: To manage the development of an effective and efficient wireless communication infrastructure promoting public safety, economic development and fulfill the needs of our citizens.

Objective 1: To develop a “Needs Assessment” in conjunctions with individual telecommunications providers and staff.

Objective 2: To develop a “Telecommunication Tower Plan”.

Objective 3: To ensure that co-location opportunities are fully met before permitting new wireless communications towers.

Objective 4: To centralize and maintain a county-wide Telecommunication Tower inventory and users process, utilizing the future GIS system.

Objective 5: To ensure telecommunications towers and related facilities are compatible with surrounding land uses.

Objective 6: To promote public safety by ensuring telecommunications towers are property designed, constructed, modified and maintained meeting FCC and FAA minimum standards.

Objective 7: To maintain a uniform and comprehensive set of standards for development and installation of telecommunications towers and related facilities.

Objective 8: To ensure county standards for telecommunications towers reflects the desired preservation of the rural character of the county.

Technology – County Administration

Powhatan County Infrastructure Citizens Work Group

Revised: 19 July 2007

Goal 1: *Develop a “Technology Master Plan” integrating county agencies with appropriate access to information. Plan should recognize and incorporate all overlapping departmental tasks and interests.*

Objective 1: Establish a plan supporting the County's Mission, its Vision, Strengths, Weaknesses, any Needs Assessments, Integration of tasks, completion Strategies and Accountability of tasks.

Objective 2: Replace the current use of the IBM AS/400 and the records management system and begin migrating county records to Windows / PC-based platforms using secure data and networking standards as well as providing more flexible data formatting and accessibility where warranted.

Objective 3: Promote effective and efficient departmental tasking of assignments through the use of emerging technologies.

Objective 4: Develop a formal written Disaster Recovery Plan covering all critical departments including, but not limited to, backup procedures and a defined schedule of backups.

Objective 5: Evaluate the effectiveness of current archiving procedures by each department especially all critical departments. Update, formally document and make available to department heads archiving procedures and schedules.

Objective 6: Create an independent "Department Head of Technology" with sufficient staff to support all county agency's use of emerging technologies.

Objective 7: Develop an internal Technology Committee with members from each department to review new uses of technology for county agencies especially with an eye to reducing redundant procedures and sharing of pertinent files, documents and any other procedural byproducts used by multiple agencies.

Goal 2: *Develop "Technology Zones" throughout the county for business use.*

Objective 1: Develop specific areas in the county where new or current businesses can utilize internet wireless communications.

Objective 2: Continue working on providing expanded internet services to citizens by meeting with key management personal from current providers operating within the County.

Technology – Public Schools

Powhatan County Infrastructure Citizens Work Group

Revised: 10 October 2007

Please see section entitled "Public Schools".

BIBLIOGRAPHY

Revised: 10 October 2007



Water and Sewer Utilities

1. Reference to and reliance on professional expertise of Hanover County's Utility Master Plan and Hanover County Chief of Utility Operations and Infrastructure Citizens Work Group member David Van Gelder.

Public Schools

See collection of documents defined as Public Schools Appendix.

Emergency Services

1. Interviewed Floyd Green, Emergency Services Coordinator

Facilities

1. *Incomplete*

Solid Waste

For additional detail, review collection of documents defined as Solid Waste Appendix.

1. "Solid waste Management," Citizens Working Group (CWG) Infrastructure Group meeting September 14, 2006
2. Kurt L. Hilderbrand, Director of Facilities Powhatan County, Interview by Betty Handy, February 7, 2007.
3. Christopher K. Rapp, Director of Utilities/General Services, Powhatan County, Interview by Betty Handy, 2007.
4. Central Virginia Waste Management Authority (CVWMA), website.
5. Mr. David Ziletti, Chairman, Powhatan Anti-Litter Council, Interview by Betty Handy, 2007.
6. Powhatan County Chapter 66, Solid Waste
7. CVWMA disposal and recycling records, Powhatan County Convenience Center, 2002-2007.

Telecommunications Utilities

For additional detail, review map and spreadsheet displaying cell towers found in the county and included as an Appendix.

1. Reviewed telecommunication towers plan from over 40 counties; Henrico, Stafford, Culpeper, and New Kent Counties have new/updated plans.
2. Reviewed several EEE Consulting, Inc. recommendations to county on new towers installation.
3. Interviewed Floyd Green, Emergency Services Coordinator and Brandon Stidham, Planning Director and merged their tower lists.
4. Created cell tower map of Powhatan along with a detailed tower spreadsheet of attributes.

Technology – County Administration

1. Reviewed over 70 counties who had a website with a copy of their comprehensive plan on line.
2. No county has technology as part of there comprehensive plan. Some have C.I.P. references for equipment requests.
3. Interviewed Stephanie Davis and Greg Palmer on use of Technology in the county.
4. Reviewed several articles from FCC, and others on Technology use in rural and urban areas.
5. Contact was made with Comcast and Verizon to request there future plans on providing internet services to county.
6. Used my professional background as Director of Technology and Business Systems to develop long term goals and objectives for county.

Technology – Public Schools

1. Interviewed school administration staff on their use of technology in the schools and staff administration.
2. Two items added to the Public Schools Objectives, but otherwise the school system has a very good Technology Plan in place.

Powhatan County Infrastructure Citizens Work Group
Comprehensive Plan Review Report

BACKGROUND DOCUMENTATION

– Questions, Interview Notes, etc.

Revised: 10 October 2007



WATER & SEWER UTILITIES

Reliance on professional knowledge and judgment of Hanover County Utility Department Chief of Operations and Citizens Work Group member David Van Gelder.

PUBLIC SCHOOLS

Presentation made by Dr. Meara, Powhatan County School Superintendant, and staff was complete in terms of identifying goals and objectives of the Powhatan County Public School System.

EMERGENCY SERVICES

Intended audience: Chief Pat Schoeffel representing the County Fire Department; Mr. Drew King with the County Rescue Squad; and Lt. Greg Neal representing the County Sheriff's Department. Questions generated following interview with EMS Coordinator but not submitted to these contacts per time restrictions due to accelerated reporting schedule dictated by Comp Plan consultant and the County Board of Supervisors.

SHERIFF'S DEPARTMENT

1. What is the average response time for a Deputy Sheriff during (1) weekday daylight hours, (2) weekday evenings, (3) weekend days, and (4) weekend evenings?
2. Are there recognized 'standards' for response times in rural/suburban communities? I.e. Insurance companies or Police/Fire/Rescue fraternal organizations, etc.
3. Is the present size of the Sheriff's Department sufficient to provide acceptable coverage county-wide 24/7? How often are State Police or other jurisdictional law-enforcement personnel asked to ("mutual aid") respond?
4. What is the anticipated Sheriff's Department staffing needs in five years? ...in ten years?
5. Is the Sheriff's Department lacking any practical equipment needed for response or public interaction programs?
6. With the three towers and the Rt. 288 vicinity transmission-only repeater, is the present county-wide "communication coverage" sufficient? I.e. Clayville, Tobaccoville, and Cartersville.
7. Any other equipment or program needs not already discussed?

RESCUE SQUAD

1. What is the average response time for Rescue Squad personnel during (1) weekday daylight hours, (2) weekday evenings, (3) weekend days, and (4) weekend evenings?
2. How often are calls responded by mutual-aid companies? How often are calls not answered? I.e. Victim transported by non-rescue individuals?
3. Are there recognized 'standards' for response times in rural/suburban communities? I.e. Insurance companies or Police/Fire/Rescue fraternal organizations, etc.
4. Is this response consistent within all companies throughout the county? Do estimates exist for what the anticipated response time will be in five years? ...in ten years?
5. Is the present size of the Rescue Squad sufficient to provide acceptable coverage county-wide 24/7? What are the anticipated staffing needs in five years? ...in ten years?
6. Will this staffing expansion consist solely of volunteers or career (paid) staff? What plans exist for handling possible friction or resentment between volunteer and career staff? And what plans exist to handle possible reduction in donations with the possible introduction of career staff?
7. Are there any existing "Service Plans" (Powhatan County Comprehensive Plan 1998, pg. 115) presently in use and/or recently developed, or planned in the future?
8. Is the Rescue Squad lacking any practical equipment needed for response or public interaction programs? I.e. Vehicle extrication (Jaws-of-Life) tools, etc.
9. Any other equipment or program needs not already discussed?

FIRE DEPARTMENT

1. What is the average response time for Fire Department staff during (1) weekday daylight hours, (2) weekday evenings, (3) weekend days, and (4) weekend evenings? Is this response consistent within all five companies throughout the county?
2. Are there recognized 'standards' for response times in rural/suburban communities? I.e. Insurance companies or Police/Fire/Rescue fraternal organizations, etc.
3. Is the present size of the Fire Department sufficient to provide acceptable coverage county-wide 24/7? What is the anticipated Fire Department staffing needs in five years? ...in ten years?
4. Will this staffing expansion consist solely of volunteers or career (paid) staff? What plans exist for handling possible friction or resentment between volunteer and career staff? And what plans exist to handle possible reduction in donations with the possible introduction of career staff?
5. Considering the County's recent growth, does the present network of approximately 50 dry hydrants continue to be sufficient for the Department's water needs?
6. Are there any existing "Service Plans" (Powhatan County Comprehensive Plan 1998, pg. 115) presently in use and/or recently developed, or planned in the future?
7. Is the Fire Department lacking any practical equipment needed for response or public interaction programs? I.e. Thermal cameras, etc.
8. Any other equipment or program needs not already discussed?

EMERGENCY SERVICES COORDINATOR

Interview with Floyd Greene, EMS Coordinator, Powhatan County, 18 April 2007.

Staffing – Rescue:

1. *Staffing dictates response time.*
2. *Rescue Squad has 2 units of career or paid staff from 11am-5pm.*
3. *Three stations; main station in Village area, one on Huegunot Trail and Judes Ferry Road and another in Ballsville. No station is consistently staffed.*
4. *Introduction of career staffing alienates volunteer staff. Fear of reduction in volunteering and public donations.*
5. *Delicate balance of career and volunteer staffing presently exists.*
6. *Career staff under a staffing contract. Expiration date unknown.*

Staffing – Fire

1. *Because of recent poor response to a high-profile fire on US 60 near Cumberland County line, policy now is to dispatch two companies on a first response.*

General:

1. *Two acres proffered for new fire/rescue station on US 522 near Rt 711 intersection.*
2. *Numerous counties have mix of career/volunteer workforce and have problems with transition. "Organizational egos" sometimes inhibit transition.*

3. County averages 5 calls/week resulting in either late response (i.e. 45min), mutual aid response from adjoining locality or in the case of a 'rescue' response, individual drives themselves to the hospital.

Materials:

1. Comments made to indicate county emergency services are well-equipped with material needs.
2. County has in place plans to upgrade one fire vehicle per year, every year.

Communications:

1. Communication network shared between sheriffs, fire and rescue departments.
2. Present system went on-line in 2003. Three towers with repeaters located at:
 - a.) Mitchell Road behind the County Administrative Building.
 - b.) Anderson Highway in the western portion of the County.
 - c.) Judes Ferry Road beyond and across from the new high school.First is county-owned, remaining towers have spaced leased.
3. Inability to transmit (receive OK) from Rt 288 'corner' of county was resolved by placement of a receive-only repeater located on Huguenot Trail near Rt 288 and close to the river. Greatest communication needs found in the remaining 'corners' of the County: Ballsville, Moseley, Cartersville and Beumont.
4. Existing T1 maintenance costs are \$800/tower/month. Microwave technology resisted because of high introductory costs and East-West (high ground) terrain obstructions at Anderson Highway and Red Lane.

Observations:

1. Suggestion was made at the end of the interview that the volunteer fire/rescue staffing should be encouraged to resolve differences between volunteer and career staffing before County administration does it for them. In other words, empowering them to move forward.
2. Also Sal and Daniel discussed afterward that perhaps that County should be willing to finance worst-case scenario before proceeding further with introduction of career staffing. Meaning the County should recognize the possibility that additional volunteer drop-offs might occur with the introduction of paid staffing and that this could create a dangerous scenario leaving the citizens with no or little EMS response staff.

FACILITIES

Incomplete

SOLID WASTE

Questions formed following review of 1998 Powhatan County Comp Plan.

1. What is the Federal mandate regarding recycling and does Powhatan meet the regulation?
2. What is the current population of the county and how does that population relate to projections in the 1998 Comp Plan?
3. What are the waste industry (government?) figures of waste/household or waste/commercial operations?
4. Does the county collect revenue from construction waste brought to the station?
5. Does the county enforce the covered truck laws?
6. Does the county collect fees from commercial haulers who bring in waste from outside the county?
7. What is the total budget of the station?
8. Has the county studied other means of solid waste disposal, e.g. incineration and co-generation, cooperation with the prison, "green boxes."

TELECOMMUNICATION UTILITIES

CELL TOWERS

Responses from Brandon Stidham, Planning Director, Powhatan County

1. Do we have a Telecommunication Plan?

We do not have a formal Telecommunication Plan in either the Comprehensive Plan or other County document. The current Comprehensive Plan does contain a list of strategies on pp. 117-118 for addressing new tower requests.

2. Do we have an inventory of existing Telecommunication Towers sites?

With a tremendous amount of help from Infrastructure CWG members, we are currently in the process of improving our tower inventory data. Until now, the Planning Department and Emergency Management Department maintained separate tower inventory spreadsheets designed to meet the needs of the respective departments. The work product being assembled by the CWG members will provide the County with a valuable resource in both spreadsheet and mapping formats that all County departments, citizens, and communications providers may be able to use.

3. Who is responsible for maintaining the Tower Inventory Locations and what is it's paper process?

See response to above question. With a centralized inventory, Planning Staff will be able to add new towers as they are approved by the Board of Supervisors, indicate new collocations from building permit applications, and add new providers as information is obtained from the tower owners. Our future GIS coordinator can use this information to keep the mapping up-to-date.

4. Have we done a needs assessments for telecommunications coverage?

No.

5. Have you consider establishing a telecommunication committee made up of staff and telecommunication providers?

No, but it might be a good idea to consider.

6. How many carries are license in Powhatan?

I don't have that information. I am aware of Verizon Wireless, Sprint/Nextel, T-Mobile, Alltel, and Cingular/AT&T.

7. Do we have a plan to increase coverage in the county?

No.

8. Do we know how much coverage in the county we have from each provider?

No.

9. Do we request our telecom providers to submit a plan for their "build out" coverage for the county?

Recent CUPs for towers have included this condition: The Applicant shall provide a written statement about their expected plans for wireless communication facilities for the entire County over the next two years. This information shall be considered proprietary if requested by the Applicant, and shall be provided to Planning Staff prior to issuance of any building permit. Note that this condition is limited to tower applicants. Therefore, if a tower applicant is a tower construction company and a specific provider is not also included as an applicant, then we will only receive the plans for the tower construction company.

10. Do we do regional coordination when proposed tower are near county boundaries?.

No, and to my knowledge we have never been approached by an adjoining county to coordinate with their tower applications either.

11. Do we encourage co-location of antennas on existing tower structures?

Yes. One of the first things we ask a potential CUP applicant is whether they have thoroughly researched collocation opportunities.

12. Do we have a uniform and comprehensive set of Zoning Ordinance to support current tower installation ?

Yes – Article 21 of the Zoning Ordinance is a section dedicated to communication towers.

13. How do you make sure tower installations are compatible with the surrounding area?

Staff encourages the use of monopole towers without lighting (199' or less), although the Board of Supervisors has asked the two of the recent tower CUP applicants to increase the height of towers beyond 199'. Towers over this height must be lighted and typically have to be lattice-design structures. We also require tree preservation areas and additional plantings to help screen the base of the towers and discourage the use of security lighting.

14. Do we have any standards height limits for new towers?

Yes – see Article 21.

15. Do we have a safety policy related to tower installation?

No, aside from the Virginia Statewide Building Code.

16. How do we insure the F.A.A. and F.C.C. standards are met with new wireless facilities are installed?

We require information as part of the CUP application to verify whether certain aspects of FAA and FCC regulations have been addressed. Subsequent enforcement is the responsibility of those Federal agencies.

17. Do we encourage the use of county, state, and federal owned properties for new towers?

Yes – the Comprehensive Plan specifically supports towers that are constructed on public sites such as fire and rescue facilities.

18. What is the process for towers installations applications through completion?

If allowed “by-right” without a CUP (e.g., collocation), an applicant would file a building permit application that is also reviewed by the Planning Department for conformance with Article 21. If a CUP is required, the Applicant follows this procedure:

- 1. Pre-application meeting with Planning Staff.*
- 2. Application is filed by first Friday of month and assigned to a Planning Commission agenda two months later (e.g., May filing/July Commission meeting).*
- 3. Staff routes case documents to all reviewing agencies (VDOT, Monacan S&WCD, Health, Emergency Services, Schools, etc.) and EEE Consulting, the County’s tower review consultant.*
- 4. Staff develops a Staff Report with recommendations derived from agency comments, EEE’s recommendations, and our own interpretations of the request. A list of Standard and Special Conditions are included in Staff’s recommendations to control development of the tower and site.*
- 5. The Planning Commission and Board of Supervisors review the request through the typical CUP review process and can change the recommended conditions as needed.*

19. What type of fee’s are required and are they adequate?

We charge the CUP fee of \$500 + \$25/acre along with \$2,800 to cover EEE’s review of the request. The \$2800 fee is periodically adjusted to match EEE’s fee schedule.

TECHNOLOGY

Responses from Greg Palmer, Information Technology Specialist, Powhatan County.

COUNTY ADMINISTRATION

1. Have you developed a “Master Hardware Technology Plan” for the county agencies and administration support staff?

This year the Technology Improvement Plan was added as part of the CIP process. This plan pulls request for all General Government Operations into one master planning document, allowing the IT department to prioritize and coordinate requests from all departments into a logical plan.

2. Consider establishing a plan that covers the following...

- Mission and Vision Statement
- Strengths, weakness
- Needs assessments
- Goals covering: Integration, Professional Development, Connectivity, Applications, Accountability
- Objective & Strategy

3. Is your hardware integrated between county departments?

The recent deployment of our Voice over Internet Protocol system has made this possible. The VOIP system has tied all general government facilities together into one large network. Further enhancements to this new county wide network will be completed this summer allowing for sharing of network and internet resources. This will result in further cost savings by eliminating redundant services currently servicing each building separately.

4. Is your network sufficient for your present needs?

Internal networking inside each building is more than adequate for all current and expected future needs. All networking equipment is now capable of Layer 3 switching, Power over Ethernet, and Gigabit trunking between switches.

5. Is your county wide network compatible?

All individual network segments are now interconnected in a Wide Area Network (WAN). This allows sharing of data that does not require a large amount of bandwidth. We are currently exploring methods of increasing the WAN bandwidth for inclusion in the FY09-FY13 CIP process.

6. Do you have network security and filtering software?

Yes hardware firewalls are used at the point of entry of all internet connections. Currently selected buildings have web content filtering and spyware/adware blocking hardware. The upgrades this summer will centralize all internet traffic allowing filtering to be applied to all offices. Our current infrastructure prior to the VOIP system made filtering of smaller offices impractical given the expense involved. Anti-Virus filtering is done by two separate processes on all email accounts prior to delivery to the county employee. A third level of protection is also in place that continuously scans stored email for threats they may have been discovered by Symantec after the initial receipt of the email.

7. How often is it upgraded?

Virus, spyware, and adware definition are automatically updated on an hourly basis. Content filtering solutions are updated automatically on a daily basis.

8. Do you have sufficient hardware equipment and storage capacity?

Our current email server for County Administration is nearing capacity and is scheduled for replacement in FY08. This replacement will also integrate the Sheriff's Office email system with the County Administration system. The email systems will be on separate servers but will act as a back up for each other as well. The Sheriff's Office file sharing server will be integrated with their email server and the existing server used for SQL databases supporting their records management system as well as storage for the GIS system. The County Administration currently uses an IBM AS/400 for their records management system. This server is nearing capacity and a study is to be conducted soon on the replacing the system with a more modern and expandable solution. The AS/400 system uses proprietary software and hardware making integrating third party solutions, such as web interfaces for the public, very impractical due to the costs. Some of the individual add on features for the system to increase web accessibility would cost about half the cost of upgrading to a new system with even more features integrated would cost. For this reason it is not economical to continue investing in this outdated and proprietary technology.

9. What file backup procedures are in place? How often are these procedures reviewed?

Yes, full system backups are completed five days a week on major systems and verified as a part of the backup process.

10. What file archiving procedures exist?

There are currently no archiving procedures performed at the Information Technology level. Each department is responsible for maintaining their own archives in accordance with the records retention schedule available from the Library of Virginia.

11. Do you have a written Disaster Recovery Plan?

Currently no formal written document exists that covers all departments. However, plans are in place for critical departments, but are exempt from public disclosure for security reasons.

12. Have you developed a Master Software Plan for the county administrative support staff needs?

This plan is integrated with the Technology Improvement Plan that is conducted as a part of the annual CIP process. Planning for software beyond this five year plan is not practical as the technology changes daily. Hardware can be planned beyond five years as it is easier to forecast future storage and networking requirements.

13. What types of functions are supported by your software systems?

The majority of all internal functions are currently handled by software systems.

14. What types of new software functions are needed?

Greater interoperability between systems by moving from proprietary systems such as the AS/400 to open systems using SQL databases. This allows web and internal interfaces to be designed in house allowing for increased productivity while protecting data from being modified by other departments or via the internet.

15. Are your software versions current?

Operating systems and productivity suites, such as Microsoft Office, are updated with the replacement of computers and servers. This allows for the costs to be incorporated with the cost of the new computer as well as reducing installation time and costs by having the software pre-installed. Our current Technology Improvement plan calls for replacing 1/3 of the the computers annually. This puts us on a three year rotation schedule for all computers.

16. Is your software integrated between county administration, departments and staff?

Answered in previous questions. This ability to network between buildings has been implemented with the deployment of our VOIP system. The proposed Wireless Wide Area Network (WWAN) to allow greater bandwidth between buildings was not funded at this time and will need to be funded prior to allowing bandwidth intensive applications to be used between buildings. Using a WWAN allows us to deploy the increased bandwidth and makes it possible to reuse and expand the use of this technology as buildings are added or replaced as we move forward with the space study. Fiber and other technologies would require greater expense if building locations change or are added as a result of the study.

17. Is digital communication between departments acceptable for present needs?

The term digital communication is a broad term and can cover many different areas. With regards to digital voice communications, present needs are more than adequately met. Future enhancements to our VOIP system would allow for increased work productivity and quicker response to citizen inquiries. An example of enhancements include an Interactive Voice Response (IVR) system that could allow contractors to schedule building inspection requests through an automated system. This system would save time for the contract and for staff. The contractor would be able to enter or speak the information through the IVR system and it be automatically entered into the inspection scheduling system, allowing staff more time to deal with other issues or customers in their office. Currently a system is in place to request inspections through a voice mail system, but this provides the caller no confirmation that the inspection will be available on the day they requested and also requires staff to listen to the messages, right them down, and then enter them into the scheduling system. This example is also another feature that is not readily available in the AS/400 system and is cost prohibitive to implement, further warranting the need for a replacement RMS system.

18. Is their sufficient hardware and networking present for GIS applications? If not, are their upgrade plans readily available?

The LAN of each building is more than adequate for GIS implementation. The current WAN configuration allows for data to be replicated between buildings on a nightly basis, when bandwidth utilization is low from network users. All computers are acceptable for use with GIS and our current three year rotation schedule will allow for all computers to be replaced be for the full build out of the GIS system. For servers that will needed for the beginning of GIS implementation during FY08, it is expected that the current servers to be replaced by the County Administration and Sheriff's Department will retained and used for the storage of GIS data.

19. Have you established a central software and hardware purchasing function and procedure?

Yes, all software and hardware purchasing are done through the County's IT department with the exception of the library. VITA and state contracts are reviewed prior to purchasing items, however better pricing can often be obtained for local government when contacting the vendors directly. Purchasing from the vendor directly also provides a more efficient level of support for the purchase as you are able to deal with the vendor directly after the sale rather than having go through VITA for support. While VITA does provide services for local governments, their primary mission is to serve state agencies. Many support items from VITA are only available during normal business hours and this is not always practical in an IT environment when upgrades and maintenance take place after business hours so as not to interrupt daily business activities.

20. Are the County's current phone systems adequate? Do future wireless phone systems function plans exist?

Phone system question answered under digital communications. Wireless phones that operate off of in building Wi-Fi networks are currently deployed in some buildings. With regard to Cellular or PCS phone services, the county is currently formulating a plan for consolidating the different plans currently used by departments. The VOIP system also allows for key staff to be able to answer their office calls through their cellular phones as well, providing the ability to be reach via one number.

21. Is their acceptable communication, networking, data sharing between county administration and departmental staffs with emergency response staff? If not, are plans in existence for these upgrades?

There are plans in places, however details of these plans are exempt from public disclosure for security purposes.

22. Who supports the county's hardware and software technology?

Support for all departments with the exception of the library is managed and coordinated the Information Technology department which is a part of the Finance Department. There is also a technician in the Sheriff's Department which provides first level support for the day to day technology needs of their systems. The library currently uses a consultant to manage their networking and software needs. We are currently requesting that another position be added in July 2008, to provide first level support for all other departments. This position would also provide the necessary man power to provide support for the library and eliminating the expense of an outside consultant.

23. Have you consider using debit/credit cards in all departments financial transactions?

This option has been explored and is easily possible from a technology standpoint. The issue is expense and would be a decision that ultimately would have to be made by the Board of Supervisors with guidance from the Finance Director and Treasurer. Credit Card processing surcharges are approximately 2.5% of the total of each transaction. If for example on half of the \$28,907,389 in personal property taxes from the adopted FY07 budget were paid using a credit card, this would result in \$361,342 of additional operating expenses that must somehow be passed on to the taxpayer.

PUBLIC SCHOOLS (Technology)

Please see section entitled "Public Schools".