

Level of Service Standards & Policies for Public Facilities & Services

Adopted by Town Council on September 9, 2010

Comprehensive Plan Amendment – Appendix B

Introduction

The Town Council (TC) as the elected body for the Town may adopt Level of Service Standards (LOSS) for public facilities and services. In addition, the TC is responsible for directing and giving charge to Manager and individual Departments responsible for service provision. Individual Department ownership of the LOSS is a must to ensure necessary improvements are constructed at the appropriate time. LOSS and goals/policies are designed to articulate clearly the TC expectations of Departments responsible for service delivery with decisions related to staffing and the construction/improvement of public facilities. The location, size, and timing of needed improvements are directly related to the development patterns identified in the Comprehensive Plan. In several instances, individual Department's planning studies or analyses were used in developing the LOSS referenced in this document. This document does not describe the full range of facilities and services provided to the citizens of the Town of Colonial Beach since this would repeat much of the information contained in the Comprehensive Plan.

Specific areas addressed in this LOSS document include:

- ✓ Establishing and Maintaining Levels of Service
- ✓ Roadway Systems
- ✓ Transit
- ✓ Libraries
- ✓ Storm Water Quantity and Quality
- ✓ Parks and Recreation
- ✓ Solid Waste Collection and Disposal
- ✓ Public Safety
- ✓ Schools
- ✓ Water
- ✓ Sanitary Sewer
- ✓ Administration

AUTHORITY

Pursuant to Section 15-2-2223 of the Code of Virginia, Colonial Beach may adopt Level of Service Standards to assist in identifying which existing lands, facilities or services should be

extended, widened, removed, relocated, vacated, narrowed, abandoned, or changed in use as the case may be.

GOALS & POLICIES

ESTABLISHING AND MAINTAINING LEVELS OF SERVICE

The types of public facilities and services that are provided in a community often affect not only an individual's thoughts about the quality of life that the community offers, but can have a direct impact on economic development efforts. Towns, which maintain higher levels of service and facilities typically, foster a higher civic pride among their residents and a positive impression with those who visit Colonial Beach. Maintaining and improving Levels of Service (LOS) is a transparent goal that applies to each and every public facility and service that is identified in this document.

GOAL 1: ACCESS THE RESOURCES REQUIRED TO PROVIDE AN ACCEPTABLE LEVEL OF GOVERNMENT SERVICES

Policies to achieve this goal include:

- 1.1 All new development, including redevelopment, should construct necessary on-site infrastructure to serve the project in accordance with the Town's Development Standards.
- 1.2 When reviewing applications for re-zonings that are considered large scale development and which exceed the thresholds provided in Transportation Policy 2.23, the applicant should finance a Town-directed independent analysis by a credentialed industry source of the impacts of all affected Town's facilities and services, and provide mitigation as appropriate. The provision of local streets, sewer, water, drainage, and other needed infrastructure should be coordinated, in the most cost effective manner, between adjacent developments so as to reduce design, construction, and maintenance costs.
- 1.3 Public Infrastructure should be designed and constructed to meet ultimate capacity needs, pursuant to a Department's requirements for facilities and services, to ensure avoidance of costly retrofitting.
- 1.4 Utilize cost reimbursement agreements, where appropriate, and provide a credit to the pro rata share contribution when upgraded or oversized facilities are installed by a development and the cost of the facilities exceeds the development's responsibility.
- 1.5 Development should occur to maximize the use and efficiency of infrastructure facilities, conserve land consumption, and reduce storm water runoff.

- 1.6 Ensure that the Town's Proffer Guidelines are commensurate with the full and actual costs of providing facilities and services to include costs related to bonding.
- 1.7 Special Districts, Community Development Districts, and Public/Private Partnerships should be an integral growth management technique to pay for needed infrastructure improvements related to growth when financially feasible.
- 1.8 No adopted Level of Service Standards, (LOSS) , once achieved, regardless of facility and/or service, should be degraded by development and all existing LOS when below the adopted LOSS should be governed by the "maintain and improve" standard.

TRANSPORTATION

ROAD NETWORK

Principal modes of transportation within Town include vehicular, seasonal transit (Trolley), bicycle, and pedestrian. The secondary roadway system is one of the most extensive facilities provided that is directly affected by local land use decisions.

Modes designed to accommodate bicycle and pedestrian travel are addressed in the Transportation and Recreation elements of the Comprehensive Plan.

There are approximately 35-miles of public roads in Colonial Beach. Of that total, 2.85-miles are primary roads. There are 1.9 miles of roadways which are paper or undeveloped streets. There are 2.6 miles of roads that are under developed (non-paved). There are 32 miles of secondary or local roads within the Town. As of January 2010, the Primary Road segment includes McKinney Boulevard and Colonial Avenue in the Town. These roadways currently operate at Level of Service “B” or better; while Secondary Roads within the Town also operating at Level of Service “B” or better.

Transportation Level of Service Standards is defined as follows:

- A**= Free flow and unimpeded maneuverability
- B**= Free flow and maneuverability is slightly restricted
- C**= Stable Flow and maneuverability is noticeably restricted
- D**= Unstable Flow and maneuverability is severely restricted
- E**= Flow is extremely unstable and maneuverability is extremely poor
- F**= Forced stoppages and there is no maneuverability

GOAL 2: MAINTAIN, EXPAND, AND IMPROVE MOBILITY FOR RESIDENTS AND BUSINESSES TO TRAVEL SAFELY AND CONVENIENTLY THROUGHOUT THE TOWN.

Policies to achieve this goal include:

- 2.1 Achieve a “B” Daily Level of Service on all Town secondary roads.
- 2.2 Achieve a “C” Peak Hour Level of Service on all Town secondary roads.
- 2.3 Achieve a “B” Daily Level of Service on all primary road facilities.
- 2.4 Achieve a “C” Peak Hour Level of Service on all primary road facilities.
- 2.5 Where Preliminary Design & Engineering plans exist for roadway facilities and the required rights-of-way exceeds the Transportation Element’s recommended rights-of-way width, the PD&E recommended rights-of-way should take precedence.

- 2.6 A Traffic Impact Study (TIS) should be required for all re-zoning and conditional use applicants when one of the following events occurs: a) the peak hour trips generated are more than 75-99; or b) daily trips generated are between 500-749.
- 2.7 A Traffic Impact Analysis (TIA) should be required of all re-zoning and conditional use applicants when one of the following events occur: a) 100 or more peak hour trips are generated; or b) daily trips are generated are between 750-999.
- 2.8 A Regional Traffic Analysis (RTA) should be required of all re-zonings and special use applicants when one of the following events occurs: a) the peak hour trips generated are more than 200; or b) 1,000 daily trips are generated.
- 2.9 Design recommendations made in a TIA, TIS, or RTS should be in accordance with the geometric standards contained in the American Association of State Highway and Transportation Officials, "Geometric Design of Highways and Streets" or otherwise as proscribed by Virginia Department of Transportation (VDOT).
- 2.10 Large scale office and industrial developments requiring an RTA should project the number of Single Occupancy Vehicles (SOV) trips that would be generated by the development and an estimate of trip reductions that could be achieved with Transportation Demand Management (TDM).
- 2.11 Right-of-way dedication and on site related roadway improvements that are identified in a TIA, local ordinances, the comprehensive plan and permit requirements of VDOT should not be considered as a proffer that should receive credit against the proffer guidelines for transportation. Transportation improvements required by ordinance is in addition any VDOT requirements.
- 2.12 Road improvements designed to principally improve access to a development site such as signals, turn lanes, acceleration/deceleration lanes, median crossovers, and similar improvements should be considered on-site improvements and therefore should not be considered for credit against the Proffer Guidelines.
- 2.13 Off-site road improvements designed to provide additional capacity or correct a current backlogged condition should be considered as credit against the Proffer Guidelines.
- 2.14 Proffer statements that contain development with phasing schedules that project a 3-year or more build out horizon should file a Transportation System Management (TSM) Monitoring Report every year after the issuance of the first Occupancy Permit. Where the TSM Monitoring Report indicates a deviation of 15% or more trips than the TIA, TIS or RTA, additional mitigation to offset that portion of the trips which exceed 15% deviation should be incorporated into the Proffer Statement.

- 2.15 Unrestricted median crossovers on four lane divided or greater road facilities which permit turning movements in the opposite direction from the side in which the vehicle is exiting a site should not be permitted when such opening negatively affects the existing level of service on a roadway.
- 2.16 As a general rule, minimum spacing between median openings should be at least 400' with a desired minimum spacing of 800 feet or greater.
- 2.17 Slotted left turn lanes may only be used with median widths that are at a minimum of 24 feet.
- 2.18 As a general rule, the placement of new signals should occur at the intersection of public roads and not at driveway entries into residential and commercial development. An exception to this policy is the development of large scale residential, office, retail, or industrial developments that meet or exceed the following thresholds:

Land Use	Unit of Measurement	Acres
Office	75,000 square feet OR	5-acres
Residential	800+ units	N/A
Retail	100,000 square feet OR	10 acres
Industrial	1,500 parking spaces OR	15-acres

- 2.19 Large scale developments that exceed the thresholds defined in policy 2.23 requiring a rezoning should prepare and submit a Transportation Demand Management (TDM) Plan that will serve as commitments to an agreed upon list of TDM measures.
- 2.20 Traffic signals shall require a Traffic Signal Warrant Analysis performed in accordance with the procedures in the “Manual On Uniform Traffic Control Devices” before they are accepted as a proffered improvement.
- Large scale developments should consider TDM measures that reduce single occupancy vehicle (SOV) trips. Such measures may include but are not limited to: commuter matching service; provisions of vans for vanpooling; use of company vehicles for carpooling, preferential parking for car or van pools which may include close-in parking or covered parking facilities; extension of walkway systems beyond the work site to link with existing walkway systems; provision of bicycle racks, lockers and showers for employees who walk or bicycle to and from work; provision of information on alternative modes of travel; establishment of work-at-home program for employees; establishment of adjusted work hours at off-peak times of the day; parking incentives and disincentives; in-house cafeteria; incentives to encourage employees to live closer to work; and measures that reduce commute trips such as on-site day care, guaranteed ride home, or emergency taxi services.

- 2.21 All residential rezoning applications shall be required and by-right residential development is encouraged to provide internal golf cart/bicycle trails and shall be required to construct sidewalks across the frontage of the property to provide interconnectivity of sidewalks/trails through access easements at the property line to ensure future trail continuity.
- 2.22 VDOT, developers, and the Town, when applicable, should view new and expanded roadway improvements with a design philosophy that promotes Context Sensitive Design (CSD). For purposes of this policy CSD means to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. CSD is an approach that considers the total context within which a transportation improvement project will exist.
- 2.23 Achieve “C” as a Level of Service Standard for pedestrians based upon extent of sidewalk and pedestrian crosswalk coverage within a ¼ mile of residential development, neighborhood shopping, hotels, office buildings, and recreational activities.

Sidewalk Coverage	Level of Service					
	A	B	C	D	E	F
0-15%						X
16%-30%					X	
31%-45%				X		
46%-60%			X			
61%-75%		X				
76%+	X					

- 2.24 Interconnectivity of streets shall be required to reduce the number of access points along primary road ways as identified in the comprehensive plan. Additionally such street connections shall be required to provide lower local traffic volumes along primary roads and serve to disperse traffic.

STORMWATER FACILITIES

Natural Drainage Facilities

The Town of Colonial Beach and its immediate environs lie entirely within the Potomac River drainage basin. Nearby, the Route 3 corridor serves as the primary drainage divide between the Potomac and Rappahannock Rivers. Within the Town there are three distinct waterways that drain the urbanized areas of the Town. These are as follows: Goldman Creek, Wilkerson Creek, and Monroe Creek.

Monroe Creek is the largest of the three and eventually widens to form Monroe Bay. Goldman and Monroe creeks have extensive branching of secondary streams. These creeks are heavily fringed by marsh vegetation and wetland habitats. Wilkerson Creek feeds a forested marshland near Potomac Beach. The headwaters for all three creeks originate in the upland area west of Route 205.

Finally, there is a small enclosed pond found on Bluff Point. This pond serves to drain the adjacent properties.

4VAC50-60-90. Regional (watershed-wide) stormwater management plans.

This section enables localities to develop regional stormwater management plans. State agencies intending to develop large tracts of land such as campuses or prison compounds are encouraged to develop regional plans where practical.

The objective of a regional stormwater management plan is to address the stormwater management concerns in a given watershed with greater economy and efficiency by installing regional stormwater management facilities versus individual, site-specific facilities. The result will be fewer stormwater management facilities to design, build and maintain in the affected watershed. It is also anticipated that regional stormwater management facilities will not only help mitigate the impacts of new development, but may also provide for the remediation of erosion, flooding or water quality problems caused by existing development within the given watershed.

If developed, a regional plan shall, at a minimum, address the following:

1. The specific stormwater management issues within the targeted watersheds.
2. The technical criteria in [4VAC50-60-40](#) through [4VAC50-60-80](#) as needed based on subdivision 1 of this section.
3. The implications of any local comprehensive plans, zoning requirements, local ordinances pursuant to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act, and other planning documents.

4. Opportunities for financing a watershed plan through cost sharing with neighboring agencies or localities, implementation of regional stormwater utility fees, etc.
5. Maintenance of the selected stormwater management facilities.
6. Future expansion of the selected stormwater management facilities in the event that development exceeds the anticipated level.

Man-made Drainage Facilities

There are eight (8) man-made drainage facilities within the Town of Colonial Beach. These facilities lie entirely on private property and each property owner is required to maintain these facilities. These facilities are site specific and consist of structural and non-structural Best Management Practice (BMP) facilities. These drainage systems eventually flow into the Potomac River.

Date Constructed	Address	Type
March 06, 2009	400 Monroe Bay Ave	Bio-retention – Planting Plan
November 06, 2009	104 Hamilton Street	Home Grid Soil Stabilization System
March 05, 2008	2800 McKinney Blvd	Bio-retention Pond
June 20, 2008	1228 Bancroft Ave	Infiltration Trench/Roof System
August 05, 2005	205 Taylor Street	Infiltration Trench
August 08, 2008	301 Hamilton Street	Underground Drainage System
January 05, 2007	100 Longfellow Ave	Infiltration Trench
December 02, 2005	149 8 th Street	Infiltration Trench

A need exists to supplement site-specific best management practices with a more comprehensive approach thus providing the most effective strategy to accomplishing adequate flood protection within the Town while better managing isolated BMP’s and surface water management (SWM) ponds on private property.

Levels of Service for **Water Quantity** are defined as follows:

- LOS A** – (Superior) maximum water level below the tops of curbs and all traffic lanes open
- LOS B** – (Excellent) partial yard flooding and standing water on the shoulder of traffic lanes
- LOS C** – (Standard) yards flooded, first floor of buildings dry, and road flooded except for crown
- LOS D** – (Substandard) first floor of buildings flooded, water level up to six inches over the crown of road
- LOS E** – (Uncontrolled) essentially no flood protection

Levels of Service for **Water Quality** are defined as follows:

Level 5 – A typically high level of stormwater treatment – no water quality impacts

Level 4 – A superior level of stormwater treatment comprising a complete system of best management practices which improves the quality of stormwater runoff to exceed Virginia State Water Quality Standards prior to discharge to receiving waters

Level 3 – A standard of adequate level of stormwater treatment comprising a complement of BMP's which improves the quality of stormwater runoff to meet or exceed Virginia State Water Quality Standards prior to discharge to receiving waters

Level 2 – A substandard level of stormwater treatment consisting of a substantial system of BMP's, which improves the quality of stormwater runoff but may not meet Virginia State Water Quality Standards prior to discharge to receiving waters

Level 1 – An intermediate level of stormwater treatment consisting of a limited system of BMP's, which improves the quality of stormwater runoff but may not meet Virginia State Water Quality Standards prior to discharge to receiving waters

Level 0 – The lowest level of stormwater treatment comprising a system of few, if any, BMP's to improve the quality of stormwater runoff prior to discharge to receiving waters

GOAL 3: AVOID INCREASES IN EXISTING FLOOD LEVELS BY STORM EVENT AND IMPROVE THE OVERALL WATER QUALITY WITHIN THE TOWN.

Policies to achieve this goal include:

3.1.1 Site specific facilities with positive outfall, shall be designed, installed, and maintained in accordance with good engineering practices and the minimum standards of the Virginia Erosion and Sediment Control Law (§10.1-560 et seq. of the Code of Virginia) and regulations (4vac50-30) and the requirements of 4VAC50-60-40 through 4VAC50-60-90 of the Virginia Stormwater Management Regulations, including but not limited to water quality and quantity requirements.

3.1.2. Control measures contained in Part II of the Virginia Stormwater Management Regulations, 4VAC50-60-40 et seq., or on the Virginia BMP Clearinghouse may be utilized. Innovative or alternate control measures may be allowed by the department provided such measures effectively address water quality and quantity in accordance with the requirements of 4VAC50-60-40 through 4VAC50-60-90 and are not restricted by the Town of Colonial Beach.

3.2 The Town-wide quantity LOS standard by type of storm is as follows:

LOSS	Type of Storm Event			
	1YR	2YR	10YR	100YR
A				
B	X		X	
C				X

D			
E			

3.3 The quantity LOSS by drainage basin for 1 & 2-Year Storm Events is as follows:

Drainage Basin	Existing LOS	Adopted LOS
Goldman Creek	C	B
Wilkerson Creek	C	B
Monroe Creek	C	B

3.4 The quantity LOSS by drainage basin for a 10-Year Storm Event is as follows:

Drainage Basin	Existing LOS	Adopted LOS
Goldman Creek	C	B
Wilkerson Creek	C	B
Monroe Creek	C	B

3.5 The quantity LOSS by drainage basin for a 100-Year Storm Event is as follows:

Drainage Basin	Existing LOS	Adopted LOS
Goldman Creek	C	C
Wilkerson Creek	C	C
Monroe Creek	C	C

3.6 The quality LOSS by hydrologic basins is as follows:

Hydrologic Basin	Existing LOS	Adopted LOS
Potomac River	2	3

3.7 Master Drainage Plans for individual basins should be funded to perform the following:

- a. Confirm the current existing LOSS currently identified by basin;
- b. Refine the currently adopted LOSS identified by basin;
- c. Identify all drainage facilities which fall below adopted level of service standards;
- d. Costs associated with improving such facilities to meet minimum drainage level of service standards; and
- e. Funding sources for those improvements.

3.8 The Town should continue to monitor private developments to ensure that the stormwater facilities are adequately maintained and functioning in compliance with design requirements and the BMP Agreement recorded with the Clerk of the Court's Office.

3.9 Low Impact Development (LID) techniques should be required, to the maximum extent feasible, for all residential and commercial development.

3.10 Develop a town-wide watershed management plan top address stormwater management and protect and enhance water quality.

3.11 Revise zoning ordinances to create a Potomac River Overlay protection district.

PUBLIC SAFETY

Police Department

The Town of Colonial Beach Police Department operates from the main station located at the 903 McKinney Boulevard. The Police Department is organized into three primary divisions of responsibility. Administrative/Professional Standards, Field Operations, Criminal Investigations. In 2009, there were 12 authorized sworn positions distributed amongst the individual divisions. The breakdown is as follows. In the Administrative/Professional Standards Divisions, there are is one Command Officer. In the Field Operations Division, there are nine positions assigned to patrol duties, no positions assigned to the Schools Services Unit at this time due to budget cuts. These nine sworn positions handle calls for service, traffic enforcement, community policing, and proactive street patrols, for a total sworn strength in Field Operations of nine positions. The Field Division Command Officer also writes all of the grants and is the Evidence Custodian. In the Criminal Investigations Division, there are two full-time detective positions and no part-time detective positions. These personnel also handle the Warrants.

In an effort to explain these levels of staffing, the positions reported above are responsible for the following breakdown of duties.

In Administrative/Professional Standards Division, the one Command level officer is the positions that makeup the Police Command Staff. The Command Staff is comprised of the Chief of Police, the Field Operations Commander and the Investigations Commander. Evidence/Property Room, Crime Prevention, Recruitment and Hiring, and Background Investigations functions are all handled by these positions, as well as many other duties.

In the Field Operations Division, there are eight positions assigned to patrol squads, their function is day to day answering of emergency calls for service. The School Resource Officer is now assigned to patrol due to budget cuts. The eight positions are also assigned to traffic, perform accident investigation and traffic enforcement functions. Theses eight positions are also the positions that provide security at various events such as football games, school functions etc.

In the Criminal Investigations Division, the two full-time positions are all assigned to general property crimes, violent crimes, or narcotics crimes.

Through this breakdown of assignments, there are actually only eight (8) sworn Police Officers answering emergency calls.

Of the authorized sworn police officer positions, the State (599 Funds) partially reimburses the Town for the salaries of two (2) officers. The remaining positions are fully funded by the Town.

Response Time: Trends indicate that non-emergency call responses are taking longer each year, while a major focus has been placed on successfully reducing response times for emergency calls from 5.56 minutes in 2008 to 4.32 minutes in 2009. With the continued increases in population combined with location are likely to result in the need for additional officer's and/or staffing. The call volume for the Police Department has increased from 4,052 calls in 2008 to 4,498 calls in 2009 or an increase of 11%. As additional burdens of increased population, traffic congestion, and seasonal tourism events will most likely lead to increased call volume may increase response time of our officers.

GOAL 4: ENSURE A HIGHER LEVEL OF PUBLIC SAFETY PROTECTION BY THE POLICE DEPARTMENT FOR THE TOWN'S RESIDENTS, BUSINESSES, AND TOURISTS.

Policies to achieve this goal include:

4.1 Establish the following Level of Service Standards for public protection services:

- a. Maintain and improve upon a sworn police officer devoted to law enforcement duties to population ratio of 1 officer per 300 people (a national standard).
- b. Respond to 100% of emergency calls within 5.8 minutes of being dispatched.
- c. Maintain accreditation of the department(s).

Fire and Rescue Services

Fire and Rescue Services are provided in the Town through two (2) separate departments. These are the Colonial Beach Volunteer Fire Department and the Colonial Beach Volunteer Rescue Squad. These two (2) departments are under the direction of their own distinct leadership structures. Volunteer members provide both fire and rescue services to the Town and County 24/7 through the utilization of an in-station and tone response paging system. These departments have Mutual Aid Agreements with the adjoining Counties. These agreements benefit the citizens and businesses of all localities to ensure that the calls for service are responded to in a timely manner. These two (2) volunteer departments provide 24/7 fire and rescue services within the Town as well as to approximately one-third of the Westmoreland County's geographical area.

The Fire Department Building is located at 312 Colonial Avenue. The station is equipped with one (1) each of the following: tanker, ladder truck, engine, brush truck, utility truck, MSU truck, and fire boat. The Fire Department employs one (1) paid driver, Monday through Friday, 7:00 AM to 3:00 PM. The calls for service in 2009 were 523. First responder calls to assist the Rescue Squad were 326 calls or 62.3% of the total calls. Calls for fire services totaled 197 or 37.7% of total calls.

The Rescue Squad Building is located at 225 Dennison Street. This station is equipped with five (5) advanced life support (ALS) ground transport ambulances, one (1) reserve ALS unit,

two (2) response vehicles, one (1) golf cart ambulance transporter, one (1) 22-foot rescue boat, one (1) 12-foot aluminum boat (for creek and shallow water rescue) and one (1) personal water craft. Emergency medical services are provided, Monday to Friday, 6:00 AM to 6:00 PM by two (2) employees of Westmoreland County Department of Emergency Medical Services. Due to the large volume of calls and having the largest call volume in the County it is necessary for the volunteers to supplement the County's paid staff during their assigned hours. In 2009 the volunteers responded to 1,011 calls, with an average transport call lasting three (3) hours due to hospital proximity. Five hundred-fifty-five (555) of these calls were within Town limits. Calls for the first five months of 2010 have risen by 10% over the prior year.

Level of Service is evaluated through multiple means. The alpha measure of service is response time but response time is driven by several factors. The primary factors are station location, equipment availability and staffing levels and availability. The last two (2) can also be defined as station/unit capacity. The Town's target response times are six (6) minutes from time of dispatch to first on scene. These goals align closely with the National Fire Protection Association's (NFPA) response standards which are designed to reduce the chances of clinical brain death in emergency medical situations and/or to ensure timely intervention to extinguish or control a fire before it reaches its flashover capacity.

For long-term planning, the Town & County can be served by utilizing the factors of population and geography. The County currently has two (2) other stations serving a population of approximately 15,000; or one station for every 7,500 people (1:7,500). Town staff is recommending the adoption of 1 to 5,000 ratio for the Town for long-term planning purposes and for utilization in proffer guidelines. The County should continue to use a geographic goal of having all rural land area in the County within five (5) road miles of a fire and rescue station and all urban land area be within three (3) road miles of a station. The Insurance Services Office (ISO) evaluates localities on their geographic coverage of their stations because travel distance from a station to an incident location is a strong contributor to response times. ISO ratings range from a Class 1 to 10 with a Class 1 rating being the highest (best) and a 10 rating being the lowest rating (worst). The Town of Colonial Beach currently has ISO rating of 5. Both of these long-term planning factors indicate additional service capacity is a needed at both the Town and County levels.

To meet more immediate planning needs related to additional Career staff and/or equipment, staff recommends the use of call volume and station/unit capacity. Based on the current minimum equipment assignments and related staffing, a station capacity of 2,500 calls per year is being used by staff. By monitoring call volume against station capacity, can increase its response reliability.

GOAL 5: ENSURE ADEQUATE FIRE PROTECTION RESPONSE AND EMERGENCY MEDICAL SERVICES FOR THE TOWN'S RESIDENTS, BUSINESSES, AND TOURISTS.

Policies to achieve this goal include:

- 5.1 Establish the following Level of Service Standards for fire and emergency medical services:
- a. Respond to 90% of all fire and emergency medical service incidents within six (6) minutes of being dispatched when the incident is located in the Town.
 - b. Respond to 90% of all fire and emergency medical service incidents within eight (8) minutes of being dispatched when the incident is located outside of the Town.
 - c. Achieve a seven (7) minute average area wide response time for 90% of the emergency incidents.
 - d. Strive to raise the Town's ISO rating from 5 to 7 within the next seven (7) years.
- 5.2 Monitor, assess, and if applicable, recommend new response zones every two (2) years to align call volume with station/unit capacity in order to maximize the response reliability of every station.
- 5.3 Install a signal preemptive device on all traffic signals to ensure emergency vehicles have right-of-way established as approaching the signal.

COMMUNITY FACILITIES

LIBRARIES

Central Rappahannock Regional Library provides library services within Town of Colonial Beach. There is a single branch (Cooper) in Colonial Beach. The Town provides financial assistance for operations in the amount of approximately \$14,000.00 annually. Based upon Town population this represents a per capita contribution of \$3.76. Ultimately, based upon Town growth, the goal is to provide a per capita contribution of \$5.00 annually. There are 2,346 (or 63% of the Town's population) patrons of this branch who reside in Colonial Beach.

Other than janitorial services, the Town also provides maintenance of the branch facilities since the building is Town owned. The Town is not the sole or direct provider of library services. Additionally, Westmoreland County provides a financial contribution to the Central Rappahannock Regional Library, since this branch also serves the residents of the County.

The Headquarters Library for the Central Rappahannock Regional Library is located in Fredericksburg. The Cooper Branch is approximately 4,720 square feet in size. The square footage per capita is 1.27. The Cooper Branch has a collection 24,085 books. Through the Cooper Branch a patron has access to the entire collection of the Central Rappahannock Regional Library system via an intra-library transfer system. This represents 6.48 books per capita. The Library averages 100 circulations per day which equates to a daily per capita circulation of 37.19.

GOAL 6: PROVIDE ADEQUATE LIBRARY SERVICES TO MEET THE NEEDS OF CURRENT AND FUTURE PATRONS.

Policies to achieve this goal include:

6.1 Provide and maintain .6 square feet of library floor area per capita.

6.2 Provide and maintain a collection of 5 books per capita.

Parks & Recreation

Recreation facilities consisting of public parks and community centers are essential features that contribute to the overall quality of life in the Town of Colonial Beach. The Town has made a significant commitment to providing and enhancing the quality and availability of these facilities to meet the needs of its residents. The Town's parks and improved open space areas are one of the most visible and valued public amenities provided. The Town Commons/Stage is a good example of visibility and highly valued public amenity. Due to the importance of park and recreation facilities, the Town's Comprehensive Plan contains a Recreation/Parks element that specifically addresses those facilities and programs. The Element identifies various types of parks and recreational facilities that are needed as well as needed improvements at existing

facilities. In order to minimize redundancies, and maximize efficiencies, and reduce maintenance costs, parks should be collocated with schools whenever possible. Currently, the Town has approximately 11.4 acres of active and passive recreation/park areas for a population of 3,716. This represents 31% of the needed parkland based upon the proposed LOS standard of 10-acres of recreation land per 1,000 population support the current population. Using this standard the Town needs to acquire an additional 25.76 acres of active park land. The percent acreage deficiency is 69%. The facilities provided by the National and State landmark of Monroe Hall provide a compliment to the Town park system.

GOAL 7: MAINTAIN AND EXPAND THE SYSTEM OF PARKS AND OPEN SPACE SYSTEMS TO MEET THE NEEDS OF COLONIAL BEACH AS THE POPULATION INCREASES.

Policies to achieve this goal include:

- 7.1 Establish a separate parks and recreation department with programming that offers a wide range of activities to meet the needs of the residents of the Town of Colonial Beach.
- 7.2 Establish as a parkland level of service 10-acres of developed Town parkland and active school site acreage for each 1,000 Town residents with a goal of meeting 85% of the standard with parks and schools.
- 7.3 Link housing units, population, and the adopted level of service standard in determining the need for parkland dedication and the development of such parkland
- 7.4 Future development should pay for the development of parkland and facilities which are necessitated by the increased population.
- 7.5 Ensure the Proffer Guidelines include a formula that implements Policy 7.2.

SCHOOLS

The Town of Colonial Beach Public School System is a full service program for grades K-12. In addition, vocation education, programs for gifted students, special education, and alternative education opportunities are provided. The system consists of two schools: a single elementary schools grades K-7 and a single high school grades 8-12. School enrollment for the 2009-2010 school year was 619, an increase of 44 students, or 7.7% over the September 2008 enrollment of 575 students.

For 2009-2010 school years, elementary school enrollment was at 95% of capacity, and high school enrollment was at 63%. Issues that continue to be of utmost concern are: providing additional capacity within the existing physical facilities; meeting unfunded mandates by State and federal governments and ensuring new school programs maximize existing resources.

GOAL 8: ENSURE SCHOOL CAPACITY IS IN EQUILIBRIUM WITH THE EXPECTED INCREASE OF STUDENTS FROM RESIDENTIAL DEVELOPMENT.

Policies to achieve this goal include:

- 8.1 Ensure a timeliness standard that schools are scheduled and fully funded within the first three years of the Capital Improvements Program (CIP)
- 8.2 Expand permanent seat capacity at existing schools as the first response to student growth rather than construct new schools
- 8.3 The impacts to school facilities resulting from new residential development should be mitigated through the use of the Proffer System and conditions of approval.
- 8.4 The Town may consider reducing densities, phasing development over longer periods of time, or employing other appropriate strategies permitted by law that increase supply or decrease demand so as to avoid or reduce to acceptable levels the fiscal and physical impacts of the contemplated development on school facilities. .
- 8.5 Where feasible, any future new schools facilities should be located within or on the periphery of residential neighborhoods.
- 8.6 Student class sizes by type of school should not exceed the following thresholds:

Type of School	Class Size
Elementary	
Special Ed (self-contained)	8 VDOE formula
Pre-K Classrooms	18
Kindergarten Classrooms	24 VDOE formula
Grades 1-2 Classrooms	24 VDOE formula
Grades 3-5 Classrooms	25 VDOE formula
Grades 6 to 8 Classrooms	24 VDOE formula
High School	
Special Ed (self-contained)	8
English/Arts Classrooms	24 VDOE formula
Academic Classrooms	25 VDOE formula
Music, Health, Aux. Gym	30 VDOE formula
Main Gymnasium	60 VDOE formula
Vocational Labs	20 VDOE formula

8.7 The following permanent seat capacity and acreage size requirements by school types should apply:

School Type	Capacity	Acreage
Elementary	1 to 500	Not to exceed 10
High School	1 to 1,000	Not to exceed 20

8.8 The LOSS for schools is based upon the 100% enrollment to capacity levels based on permanent seats by type of school:

Type of School	Capacity
Elementary	Overall 95%
High School	Overall 63%

8.9 Where possible, seek to cluster schools together to take advantage of benefits derived from economies of scale such as shared facility or athletic field use.

8.10 Begin planning for new school facilities prior to the need for such facilities arise.

PUBLIC WORKS

SOLID WASTE

Currently, solid waste generated in the Town of Colonial Beach is disposed of at the Westmoreland County Transfer Station located at 350 Poorhouse Road.

The Town of Colonial Beach has made recycling efforts to reduce the waste stream loads to the landfill. Currently, the State requires a recycling rate of 25%.

GOAL 9: PROVIDE FOR EFFICIENT COLLECTION AND DISPOSAL OF SOLID WASTE WHILE MAINTAINING AN ADEQUATE WASTE DISPOSAL CAPACITY.

9.1 Establish as a LOSS for land-filled waste only. The daily generation rate of 2.5 pounds per day per person, which is to be used in designing landfill capacity.

9.2 Establish 25% as a recycling goal for residential and nonresidential waste stream. The Town will establish a recycling program for its offices and school system within 18-months of adoption of this addendum to the Comprehensive Plan.

WATER UTILITIES

The Town of Colonial Beach is the sole provider of water and sewer service within the Town.

The Town Water Utility System consists of: The Town utilizes four (4) deep wells to provide potable water. These deep wells provide for a permitted capacity of 1,282,400 gallons of water per day. Therefore, the Town has the *ability* to provide an average daily flow of 400 gallons of potable water per day to serve a population of 3206 - data from Preliminary Engineering Report (PER) prepared by Dewberry – revision date February 2006).

Policies to achieve this goal include:

11.1 Meet on a yearly average basis 100% of the days that the water utility is in full compliance with maximum contaminant levels and treatment techniques mandated by the National Primary Drinking Water Regulations.

11.2 Reduce water distribution system failures to less than 30 breaks per year through continued Capital Improvements including, but not limited to, water line and lateral replacement in areas identified by Dewberry PER and concurrent installation of all residential water meters throughout the Town.

Unplanned disruptions of water service per 1000 customers should be as follows:

Duration (hrs.)	Per 1000 customers
0-4 hours	<10
4-12 hours	<5
>12 hours	<2

11.3 In designing the system capacity, **Developers should meet** the following water **peak** demand flows.

Zoning District	Unit	Measurement
Residential	400	Gallons per day (gpd) per connection
Commercial	1600	Gallons per day (gpd) per connection
All other Development	Documented water demand projections	

11.4 The design operating pressure range for the Town of Colonial Beach should be between 45 pounds per square inch (psi) and 60 psi.

11.5 The Effective Finished Water Storage for the Town should equal the Required Storage by the Virginia Department Health.

11.6 Fire flow design standard is 500 gpm for two hours in a residential location and 1,000 gpm for two hours in a non-residential or commercial location.

11.7 Reduce on an annual basis the percentage of produced water that fails to reach customers and cannot be accounted for through authorized usages to no more than 15%.

11.8 Develop a town-wide water master plan.

11.9 Adopt a well-head protection overlay district in the zoning ordinance.

SANITARY SEWER SYSTEM

The Town of Colonial Beach Sanitary Sewer System consists of a recently upgraded wastewater treatment plant (WWTP) with a two million gallon (2 MGD) per day capacity. The new plant meets the new water quality standards and removes nitrogen/phosphorous concentrations from the wastewater. The WWTP has an advanced tertiary treatment process in the system. The WWTP has a Nitrogen and Phosphorous design concentration of less than 3mg/liter TN and 0.3 mg/liter TP.

Current Town standards assume an average dry weather demand flow of 200 gallons per connection per day. To provide for peak flows, this average flow is multiplied by a peaking factor (a value of 2.5). The total design flow is arrived at by adding to the peak design flow an allowance for Inflow and Infiltration (I / I) into the sewer system. Current Town standards

assume an I/I allowance of 50%. Consequently, a 300 gpd/connection accounts for variations in residential demands and the I & I additions and is used for sanitary sewer design. Currently, the Town is proceeding with remediation of two drainage areas that are major contributors to the I & I issues – as per flow tests already performed as recommended by Dewberry Preliminary Engineering Report for Sewer System Improvements (Phase 3).

GOAL 12: PROVIDE SAFE AND AFFORDABLE WASTEWATER TREATMENT TO THE CITIZENS OF THE TOWN OF COLONIAL BEACH WHILE PROTECTING THE ENVIRONMENT.

Policies to achieve this goal include:

- 12.1 Meet or exceed on a yearly basis 100% of the days that the wastewater treatment utility is in full compliance with the effluent quality standards contained in the Virginia Pollution Discharge Elimination System (VPDES) permits for our facility discharge.
- 12.2 Limit wastewater collection system capacity failures to less than 1 break per 30 miles of pipe annually.
- 12.3 A figure of 300 gallons per day per connection for residential demand should be used for designing the sanitary sewer system.
- 12.4 Develop a town-wide waste-water master plan.

MUNICIPAL ADMINISTRATION

MUNICIPAL BUILDING

As part of the 2009 Comprehensive Plan the Town conducted a space study needs analysis. From this analysis it was determined that a new municipal building to house all departmental personnel was needed. In the analysis consideration was given to expanding existing facilities however the costs of such expansions were more costly than constructing a new facility on Town owned land along Colonial Avenue. Also, before beginning any such construction program additional studies would need to be conducted to assess environmental impacts and possible reuse of other Town owned buildings.

GOAL 13: PROVIDE SAFE, AFFORDABLE, AND SUFFICIENT OFFICE SPACE FOR THE ADMINISTRATIVE FUNCTIONS OF THE TOWN OF COLONIAL BEACH AND PUBLIC MEETING FACILITIES.

Policies to achieve this goal include:

- 13.1 Use the CIP to phase in development costs associated with the new municipal building.
- 13.2 Conduct a Phase-1 environmental site analysis of the proposed municipal building.
- 13.3 Use the proffer policy guidelines in acquiring a portion of the financing necessary to construct the new municipal building.
- 13.4 Upgrade and install the necessary technological infrastructure needed to offer high speed internet access for all departments.

LOSS ADMINISTRATION

Establishing LOSS's is the first step towards defining what the community can afford and ensuring growth mitigates its impacts on deficient facilities and services. The second and most important step is monitoring existing LOSS and program planning future facilities and services to LOSS deficiencies in the Capital Improvements Program. Consequently, each Department responsible for a facility and/or service which has existing and adopted LOSS's should file a report annually to the Town Administration for submittal to the Town Council. Each annual report should elaborate on the progress related towards attaining the adopted LOSS and propose a new LOSS if the existing LOS meets or exceeds the adopted LOSS.
