
WILLIAMSBURG AREA TRANSIT AUTHORITY

TRANSIT DEVELOPMENT PLAN: FISCAL YEARS 2010-2015

Prepared for:



Prepared by:



Under Contract to:



September 2009

Table of Contents

1.0	OVERVIEW OF WILLIAMSBURG AREA TRANSIT AUTHORITY	1-1
1.1	TRANSIT HISTORY	1-1
1.2	GOVERNANCE AND ORGANIZATIONAL STRUCTURE	1-2
1.3	TRANSIT SERVICES PROVIDED AND AREAS SERVED	1-3
1.4	FARE STRUCTURE.....	1-11
1.5	VEHICLE FLEET	1-13
1.6	FACILITIES	1-14
1.7	TRANSIT SECURITY PROGRAM	1-14
1.8	PUBLIC OUTREACH	1-16
2.0	GOALS, OBJECTIVES AND STANDARDS	2-1
2.1	WATA VISION AND MISSION	2-1
2.2	TDP GOALS & OBJECTIVES	2-1
2.3	SERVICE PERFORMANCE STANDARDS	2-6
3.0	SERVICE AND SYSTEM EVALUATION	3-1
3.1	EXISTING SERVICE ANALYSIS	3-2
3.2	HISTORICAL PERFORMANCE EVALUATION	3-9
3.3	PEER ANALYSIS	3-11
3.4	ON-BOARD SURVEY FINDINGS	3-12
3.5	PUBLIC OUTREACH EFFORTS	3-16
3.6	FACILITY AND EQUIPMENT CHARACTERISTICS	3-19
3.7	TITLE VI PROGRAM AND FTA TRIENNIAL REVIEW	3-21
4.0	TRANSIT SERVICE AND FACILITY NEEDS ASSESSMENT	4-1
4.1	DEMOGRAPHIC ANALYSIS	4-1
4.2	SERVICE AND CAPITAL NEEDS.....	4-12
5.0	SERVICE AND FACILITY RECOMMENDATIONS	5-1
5.1	SERVICE RECOMMENDATIONS.....	5-1
5.2	CAPITAL RECOMMENDATIONS.....	5-3
6.0	CAPITAL IMPROVEMENT PROGRAM.....	6-1
6.1	VEHICLE REPLACEMENT PROGRAM	6-1
6.2	FACILITY IMPROVEMENT PROGRAM.....	6-2
7.0	FINANCIAL PLAN	7-1
7.1	OPERATING AND MAINTENANCE COSTS AND FUNDING SOURCES	7-1
7.2	VEHICLE PURCHASE COSTS AND FUNDING SOURCES.....	7-6
7.3	FACILITY IMPROVEMENT COSTS AND FUNDING SOURCES	7-8

8.0 TDP MONITORING AND EVALUATION 8-1

8.1 COORDINATION WITH OTHER PLANS AND PROGRAMS.....8-1

8.2 SERVICE PERFORMANCE MONITORING8-2

8.3 ANNUAL TDP MONITORING.....8-2

APPENDIX 1-A: WATA - FLEET INVENTORY

APPENDIX 3-A: PEER ANALYSIS TECHNICAL MEMORANDUM

APPENDIX 3-B: 2008 PASSENGER SURVEY

APPENDIX 3-C: TDP STAKEHOLDERS GROUP MEMBERS

APPENDIX 3-D: TITLE VI PROGRAM

APPENDIX 3-E: TRIENNIAL REVIEW DRAFT REPORT AND CLOSE-OUT LETTER

1.0 OVERVIEW OF WILLIAMSBURG AREA TRANSIT AUTHORITY

The Williamsburg area is located on the Virginia Peninsula between the York and James rivers, directly northwest of the City of Newport News. The area is located in the Hampton Roads region of Virginia, and is within the Virginia Beach Urbanized Area. Williamsburg is linked to the City of Newport News by I-64, US 60, SR 143 and the CSX Railroad.

The Greater Williamsburg region is best known for its historic and visitor attractions. Historic attractions include Colonial Williamsburg, Jamestown, Yorktown and the College of William and Mary, the second oldest institution of higher education in the U.S. with a student population of approximately 7,000. Visitor attractions include Busch Gardens and Water Country. These attractions and population growth trends (2.3% annual 2000-2005) within the region continues to support an economy based on hospitality and tourism and has fueled increased housing and retail.

Williamsburg Area Transit Authority provides fixed route and ADA paratransit service to James City County, the City of Williamsburg, York County, the College of William and Mary, and the Colonial Williamsburg Foundation. The population of these jurisdictions in 2000 was 116,397, according to the U.S. Census. By 2007 these jurisdictions had grown by 16% to 134,900 according to the U.S. Census American FactFinder. From 2007 to 2034, these jurisdictions are projected to grow by over 60% to 217,700 with employment of 120,800.

1.1 TRANSIT HISTORY

Williamsburg Area Transit Authority evolved from the James City County Transit Company, which was created in 1980 to provide public transportation to James City County residents. Over its history, the system has grown significantly to meet the needs not only of area residents, but also College of William and Mary faculty and students as well as seasonal tourists and temporary workers.

In 2003, the name was changed to Williamsburg Area Transport Company to evoke a regional focus. In March 2006, the state General Assembly granted permission to form a Regional Transit Authority between James City County (JCC), York County, the City of Williamsburg, the College of William and Mary (W&M), and the Colonial Williamsburg Foundation (CWF). The Williamsburg Area Transit Authority (WATA) was established in August 2008. The Counties of James City and York, the City of Williamsburg and Colonial Williamsburg have joined the Authority as members.

The local bus and ADA paratransit services continue to be directly operated under the name of Williamsburg Area Transport (WAT). Through an agreement with WATA, the CWF continues to

operate service around and throughout the historic Williamsburg area, as well as to and from historic Jamestown, Jamestown Settlement, and historic Yorktown.

Transit demand in the Williamsburg area is greatly influenced by the seasonal demands of the tourism, hospitality and retail industry and the academic calendar of W&M. WAT and CWF ridership peaks in the summer months, while W&M ridership is strongest September through April.

Significant service-oriented milestones achieved over the last decade include:

- Renovated the train station, now the Williamsburg Transportation Center, as a multi-modal facility serving Amtrak, intercity bus carriers, and WAT bus routes
- Replaced the bus fleet with heavy-duty, low-floor diesel and Compressed Natural Gas buses (for WAT and CWF routes)
- Construction of a shared operations and maintenance facility owned by CWF to serve the WAT and CWF fleet, with maintenance provided under contract by Penske Truck Leasing
- Implemented later hours, with service running until 10 p.m. in the summer and 8 p.m. the rest of the year
- Increased regional connection service levels between HRT and WAT
- Improved W&M service
- Established two new unofficial transfer hubs at New Town and Williamsburg Outlet Mall
- Increased Purple Line frequency by splitting it into two routes, each with hourly service
- Implemented the Tan Line along Mooretown Road to address medical and commercial development in York County
- Implemented the Surry Connection route
- Implemented Sunday service

1.2 GOVERNANCE AND ORGANIZATIONAL STRUCTURE

After WAT was granted permission to form a Regional Transit Authority in 2006, the process began to transition from a division of the James City County local government to an independent joint entity providing public transportation services. On August 28, 2008 at an organizational meeting, James City County, York County, and the City of Williamsburg approved a Cooperative Agreement for these jurisdictions to form a Regional Transit Authority and selected a Chairperson and Vice-Chair. Subsequently, through legislative authority, the CWF was extended an invitation to join the Authority with voting privileges and they accepted. As a political subdivision of the Commonwealth of Virginia, WATA is a qualified recipient of Federal Transit Administration (FTA) and State funds for regional transportation service.

Since August 2008, the WATA Board has made significant progress in transitioning to a Regional Transit Authority. For example, a CWF representative was appointed to the Board of Directors, a WATA/CWF bus service agreement was approved, a WATA compensation plan was adopted, a Procurement Plan was adopted, Sunday service was implemented, the all day pass program was extended, WATA assumed and amended the service agreement with W&M, and WATA's FY 2010 grant application was submitted to VRDPT.

The WATA Board consists of five Directors representing each local jurisdiction and CWF. Each is a staff member nominated by their respective organization. According to the WATA Bylaws, the composition of the Board of Directors is as follows:

- Two Directors from James City County
- One Director from York County
- One Director from the City of Williamsburg
- One Director from the Colonial Williamsburg Foundation

The Board of Directors meets the third Thursday of each month at 10:00 a.m. Meetings are held at the Williamsburg Municipal Building, third floor conference room, 401 Lafayette Street in downtown Williamsburg.

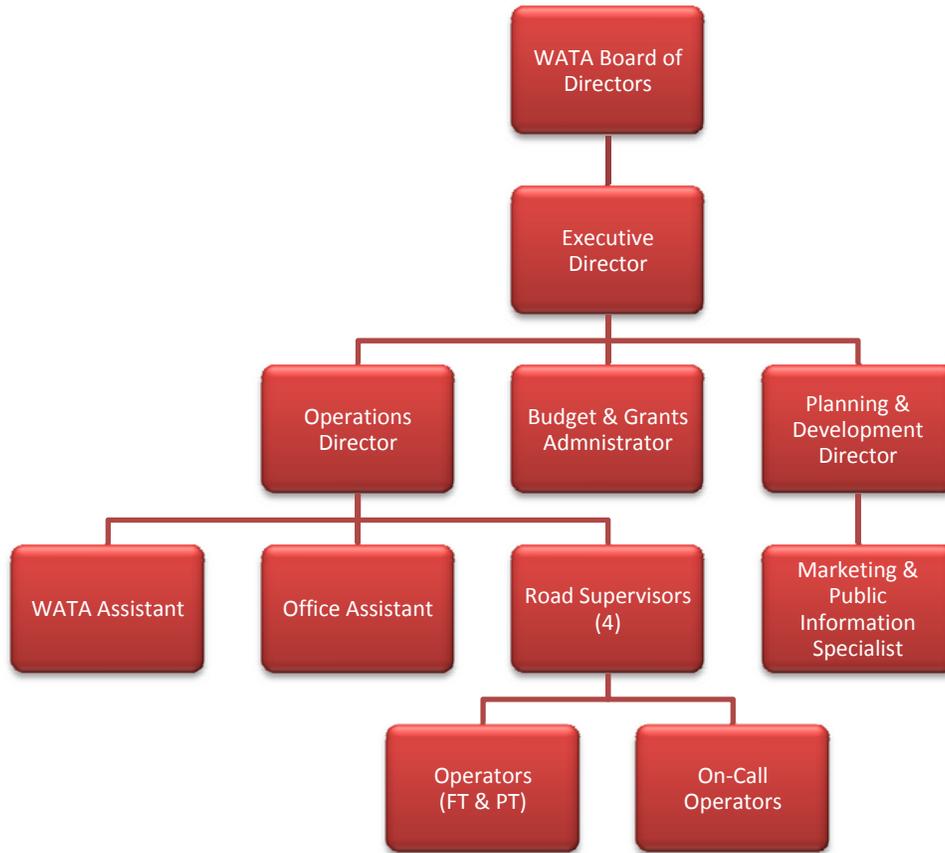
The Board employs a staff and determines employee compensation. The Executive Director has direct supervision of all the employees. Attorneys and auditors for the Authority are selected by and report directly to the Board. WATA employees are non-unionized. CWF is contracted service and not included as part of the WATA organizational chart. Figure 1-1 presents the organizational chart for the Authority's staff.

1.3 TRANSIT SERVICES PROVIDED AND AREAS SERVED

WATA directly operates transit service known as Williamsburg Area Transport (WAT). WAT service consists of a network of year-round fixed routes, a seasonal route from May to September only, and service to W&M from September to May only, as well as complementary paratransit service during all fixed route hours. Additionally, WAT operates a demonstration route between Surry County and the Williamsburg Transportation Center.

Most routes terminate at the Williamsburg Area Transportation Center, a multimodal center served by WAT, Amtrak, intercity buses, and taxis. Some routes terminate at either New Town, a mixed-use commercial/residential community or at the Williamsburg Outlet Mall providing improved services to growth occurring in the western part of James City County.

Figure 1-1: Williamsburg Area Transit Authority Organizational Structure



Under a bus services agreement with WATA, the CWF manages the operation of transit services to, from, and around the Historic Area of Williamsburg, along the Colonial National Parkway between the historic Jamestown, Colonial Williamsburg, and historic Yorktown, and within historic Jamestown. WAT and CWF cooperate in providing ADA paratransit service within, to, and from the Historic Area for employees, residents, and visitors.

Regional service connections are also provided. Service operated by WAT between Williamsburg and Surry County, via the Scotland Ferry, was implemented in late 2007. Connections to Hampton Roads Transit routes can be made at the Williamsburg Transportation Center and at Lee Hall. Figure 1-2 shows the existing WAT, CWF, HRT and other service in the Williamsburg area.

Directly Operated Fixed Route Service

WAT operates seven year-round fixed routes to the Greater Williamsburg Area on Monday through Saturday from 6:00 a.m. to 8:00 p.m. during off-peak months and 6:00 a.m. to 10:00 p.m. between Memorial Day and Labor Day. Sunday service is operated from 8:00 a.m. to 6:00 p.m. in the off-peak months and from 8:00 a.m. to 8:00 p.m. in the summer peak months. One

additional route (Yellow Line) operates only in the summer. Until April 2009, all of these routes operated at 60-minute frequencies. In response to bus overcrowding on WAT's highest ridership routes during the summer peak season, frequencies were improved in April from 60-minutes to 30-minutes on WAT's Blue, Tan, Gray and Orange lines. Thirty-minute service on these routes is operated from 10:00 a.m. to 6:00 p.m. on weekdays during the summer peak season.

Through an Agreement for Transportation Services, WAT also provides contractual transportation to the W&M when classes are in session (September to May). WAT operates a daytime route pattern (Green Line) and an evening pattern (Gold Line) serving the college from 7:00 a.m. to midnight on Sunday through Thursday and to 1:00 a.m. on Friday and Saturday. W&M service operates at a 30-minute frequency.

Each WAT fixed route is described below.

Blue Line

This route operates north from the Williamsburg Transportation Center to the Williamsburg Outlet Center, primarily via Richmond Road.

Gray Line

The Gray Line operates from the Williamsburg Transportation Center south to Lee Hall, where it provides a connection to HRT Route 116. The Gray Line primarily operates on Pocahontas Trail with a deviation into the Village Shops at Kingsmill.

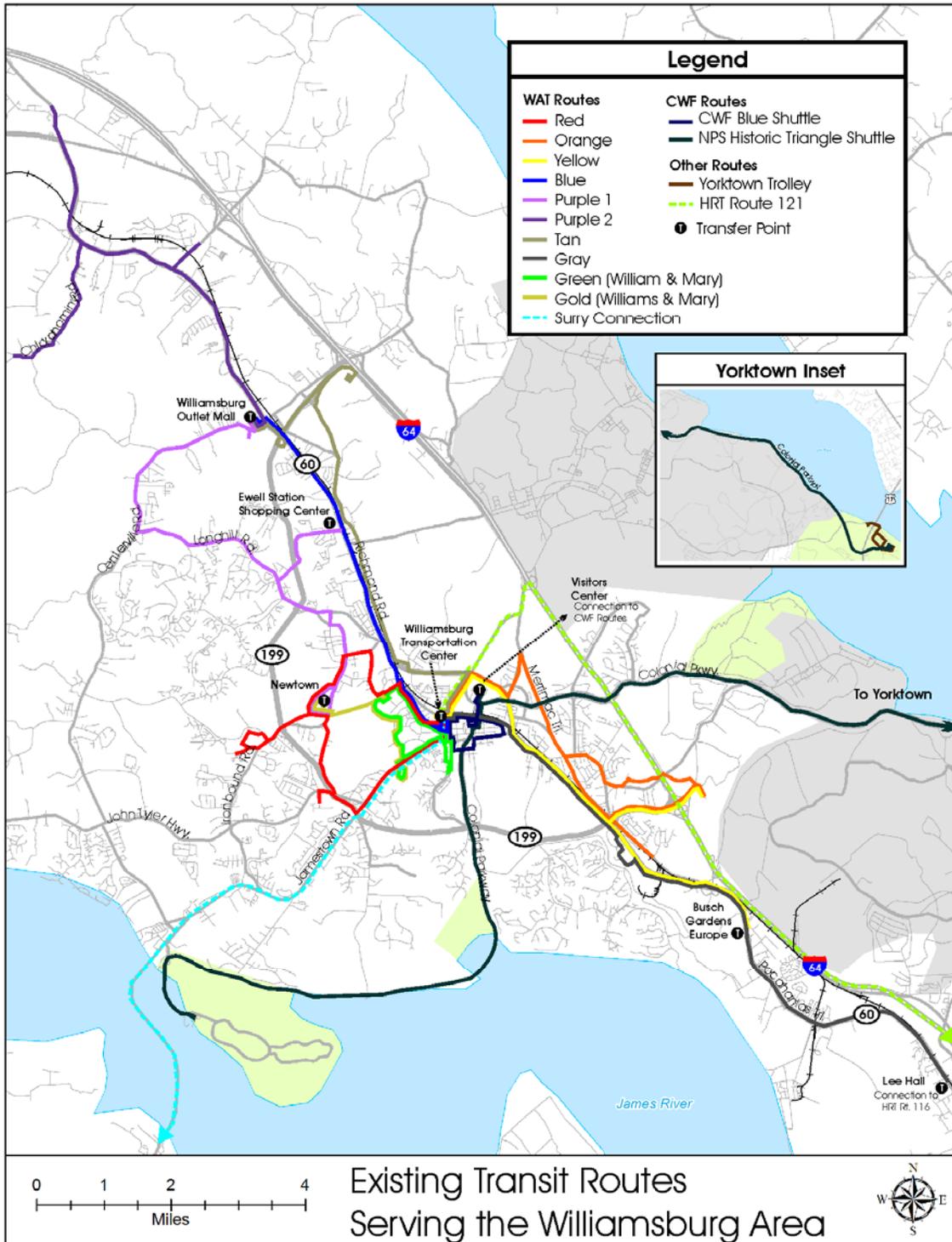
Orange Line

The Orange Line travels from the Williamsburg Transportation Center to Tam-O-Shanter Boulevard. Its alignment is north on Henry Street, east on Bypass Road where it serves the Colonial Williamsburg Visitor Center, north on Capitol Landing Road, south on Merrimac Trail to Tam-O-Shanter Boulevard. Return trips travel on east on Hwy. 199 from Merrimac Trail to the Marquis Shopping Center, and west on Penniman Road to return to Merrimac Trail.

Purple 1 Line

This route operates between New Town and the Williamsburg Outlet Mall. This route generally operates north on Ironbound Road from New Town, west on Longhill Road and northeast on Centerville Road to the Williamsburg Outlet Mall. Northbound trips make a deviation eastbound on Olde Towne Road to Ewell Station Shopping Center from Longhill Road.

Figure 1-2: Existing Williamsburg Area Fixed Routes



Purple 2 Line

This route operates between Stonehouse Commerce Park and the Williamsburg Outlet Mall. From the Williamsburg Outlet Mall, this route travels north on Richmond Road (Highway 60) to Stonehouse Commerce Park on Barhamsville Road (Highway 30). Northbound trips make a deviation eastbound on Croaker Road to the Williamsburg Regional Library. Southbound trips make a deviation westbound on Chickahominy Road.

Red Line

The Red Line travels in a counterclockwise loop from the Williamsburg Transportation Center with its mid-point at Steeplechase Apartments. From the Williamsburg Transportation Center, westbound trips travel north on Richmond Road, west on Monticello Avenue, north on Treyburn Drive, west on Ironbound Road, south on Ironbound Road, west on Watford Lane, south on New Town Avenue, and west on Monticello Avenue to Windsor Meade, Monticello Marketplace and Steeplechase Apartments.

Return trips travel west on Monticello Avenue to the James City County Courthouse, and continue south on Strawberry Plains Road. The route deviates west on John Tyler Highway to Riverside Medical Center and returns to travel south via Highway 199, east on Jamestown Road (Highway 31) and north on N. Boundary Street to the Williamsburg Transportation Center.

Tan Line

This route travels between the Williamsburg Transportation Center and the Williamsburg Outlet Mall. From the Williamsburg Transportation Center, the Tan Line travels north on Henry Street, west on Bypass Road, north on Mooretown Road, east on Rochambeau Drive to the Great Wolf Lodge, returns west on Highway 199, and continues north on Richmond Road (Highway 60) to the Williamsburg Outlet Mall. Return trips travel east on Lightfoot Road and south on Mooretown Road with a stop at Sentara Regional Hospital.

Yellow Line

This tourism-based seasonal route operates from Memorial Day to Labor Day and provides service between the Williamsburg Transportation Center, the Colonial Williamsburg Visitor Center, Busch Gardens Europe and Water Country USA. From the Williamsburg Transportation Center, this route travels north on Henry Street, east on Bypass Road, south on Page Street, southeast on York Street, south on Pocahontas Trail to Busch Gardens Europe, north on Pocahontas Trail, and east on Highway 199 to Water Country USA. Return trips travel west on Highway 199, south on Pocahontas Trail to Busch Gardens, and north on Pocahontas Trail (Highway 60) to return to Colonial Williamsburg and the Williamsburg Transportation Center.

Green Line

The Green Line provides service to W&M with two route patterns – one in the daytime (Green) and a second in the evening (Gold). The Green Line operates until 5:00 p.m. and travels in a counter clockwise loop from the Monticello Shopping Center. Its alignment is west on Monticello Avenue, and south on Compton Drive and Campus Drive through the college campus. The route then travels southwest on Jamestown Road to the Ludwell Residences, northeast on Jamestown Road, south on Boundary Street to the William and Mary Law School, north on Henry Street, west on Francis Street and north on Richmond Road to Monticello Shopping Center.

The Gold Line operates from 5:00 p.m. until 12:00 a.m. on Sunday through Thursday, and until 1:00 a.m. on Friday and Saturday. This route travels between New Town, the School of Education parking lots, the Commons Dining Hall, and the Ludwell Residences via Monticello Avenue, Compton Drive, Campus Drive and Jamestown Road.

Routes meeting every 30 or 60 minutes at the Williamsburg Transportation Center:

- Gray Line - To Newport News (Lee Hall)
- Blue Line - To Williamsburg Outlet Mall
- Yellow Line - To Water Country USA / Busch Gardens
- Red Line - To Monticello Marketplace
- Orange Line - To Tam-O-Shanter Boulevard
- Tan Line - To Williamsburg Outlet Mall

Two additional routes that serve the Williamsburg Transportation Center are the Surry Connection and HRT Route 121.

Other transfer points include the Williamsburg Outlet Mall and New Town. Four routes meet at the Williamsburg Outlet Mall with timed transfers:

- Purple Line 1 – To New Town
- Purple Line 2 – To Stonehouse Commerce Park
- Blue Line – To Williamsburg Transportation Center
- Tan Line – To Williamsburg Transportation Center

Three routes meet at New Town:

- Red Line – Mid-route stop between Williamsburg Transportation Center and Steeplechase Apartments
- Purple Line 1 – To Williamsburg Outlet Mall
- Gold Line – To Ludwell Residences

Surry Connection

WATA partners with Surry County to operate the Surry Connection between the Williamsburg Transportation Center and the Town of Surry, via the Jamestown - Scotland Ferry crossing the James River. From the Williamsburg Transportation Center, the Surry Connection bus makes a few stops in Williamsburg along Jamestown Road and continues to the Jamestown - Scotland Ferry. After crossing the James River on the ferry, it continues along Rt. 31 to the Town of Surry with stops at Surry Village, Lebanon Village, Surry County Community Center and Smith Park. The bus then returns to the ferry landing, stopping at the VDOT Park & Ride at Rt. 31 and Rt. 637 (Pleasant Point Road) before boarding the ferry for the return trip to the Williamsburg Transportation Center.

The Surry Connection operates on Monday through Friday. The schedule for this route is dependent on meeting the ferry. The route operates every three or four hours throughout the day, beginning at 5:15 a.m. at the ferry and ending at 7:39 p.m. in the fall, winter, and spring and at 9:39 p.m. in the summer (June 14 through Labor Day).

Purchased Transportation Fixed Route Service

CWF leases WATA buses to operate public transportation serving America's Historic Triangle – Jamestown, Colonial Williamsburg, and Yorktown. CWF must uphold the requirements of Federal and State funding and operates under the auspices of the WATA Board. CWF operates one shuttle route in Colonial Williamsburg, which operates much more frequently than the WAT routes, with frequency varying with the level of visitation to meet peak demands.

In addition, CWF provides seasonal service during the months of March through October from Yorktown to Colonial Williamsburg and from Jamestown to Colonial Williamsburg via the Colonial Parkway and within the Jamestown historic area in cooperation with the National Park Service (NPS). Shuttle service is also provided by York County within historic Yorktown. The terminus for all of these routes is the Colonial Williamsburg Visitor Center where connections can be made.

Colonial Williamsburg Shuttle

This shuttle route serves the Colonial Williamsburg attractions from 9:00 a.m. until 10:00 p.m. daily, operating in a clockwise loop around Historic Colonial Williamsburg. From the Colonial Williamsburg Visitor Center, the Blue Line travels via Colonial Parkway to the Palace Shuttle Stop. This route travels east on Lafayette Street, south on Water Street, west on Francis Street, south on England Street, west on Newport Avenue, north on N. Henry Street, and west on Lafayette Street to the Palace Shuttle Stop and the Colonial Williamsburg Visitor Center.

Historic Triangle Shuttle

In conjunction with the NPS, CWF operates two seasonal routes every daily that begin at the Colonial Williamsburg Visitors Center and travel to Jamestown and Yorktown. These routes operate along Colonial Parkway. Both of these routes leave the Colonial Williamsburg Visitor Center on the half-hour from 9:00 a.m. to 3:00 p.m. Return service departs from Jamestown or Yorktown every half-hour from 9:30 a.m. to 4:00 p.m., with final departures in the afternoon at 5:15 p.m.

- The Jamestown Route makes stops at Historic Jamestowne and the Jamestown Settlement before returning to Colonial Williamsburg.
- The Yorktown Route makes stops at the Yorktown Battlefield and Yorktown Victory Center before returning to Colonial Williamsburg.

Jamestown Area Shuttle

The Jamestown Area Shuttle provides seasonal service every 10-15 minutes via a loop between the Historic Jamestowne Visitor Center and Glasshouse, the Jamestown Settlement, and the Neck of Land parking area along Colonial Parkway. It operates daily during tourist season from 9:00 a.m. to 5:00 p.m.

Yorktown Trolley

The Yorktown Trolley service is provided by York County with a replica trolley bus leased from WATA. It operates from 10:00 a.m. until 6:00 p.m. during the summer months. Visitors arriving in Yorktown on the Historic Triangle Shuttle can transfer to the Yorktown Trolley to reach the various attractions in the historic village.

The trolley travels between the Yorktown Victory Center and Yorktown Battlefield Visitor Center along Water Street, Matthews Street, Historic Main Street and Ballard Street. The trolley stops at nine locations approximately every 20 to 25 minutes, and connects to the Historic Triangle Shuttle at both ends.

Paratransit Service

WAT offers door-to-door paratransit service for mentally or physically disabled passengers within a ¼ mile corridor of fixed routes. Service must be scheduled one day in advance. Paratransit service is provided during all fixed route hours.

CWF provides paratransit service within the Historic Area on a same-day request basis for visitors to the Colonial Williamsburg Visitors Center. For ADA-certified residents or visitors traveling between WAT's service area and the Historic Area, WAT provides door-to-door service so passengers do not need to transfer to a CWF vehicle.

Other Area Service Providers

Two Hampton Roads Transit (HRT) routes connect to WAT routes and provide service between the Williamsburg service area and Newport News. Connecting HRT routes support the growing need for regional employee connections both to and from Williamsburg.

HRT Route 116

Route 116 provides hourly service from 6:00 a.m. until 12:25 a.m. on Monday through Saturday, and 6:00 a.m. until 7:25 p.m. on Sunday between Lee Hall and Patrick Henry Mall.

At the top of the hour, from Lee Hall this route travels south on Warwick Boulevard, east on Bland Boulevard, south on Chatham and Habersham Drive, east on Wal-Mart Way, south on Jefferson and east on Mall Parkway to Patrick Henry Mall. HRT On Call service is provided for Lees Mill Drive and Charles Street. The route returns to Lee Hall north on Jefferson Avenue, west on Wal-Mart Way, north on Habersham and Chatham Drive, east on Bland Boulevard, north on Jefferson Avenue, west on Fort Eustis Boulevard and north on Warwick Boulevard to Lee Hall. At the bottom of the hour this route operates in the reverse direction from Lee Hall to Patrick Henry Mall and back. That is, it operates south on Jefferson Avenue and north on Warwick Boulevard.

HRT Route 121

Route 121 currently provides two a.m. round trips and two p.m. round trips on weekdays between the Williamsburg Transportation Center, Patrick Henry Mall and the Newport News Transportation Center in downtown. From the Williamsburg Transportation Center, this route travels north on Highway 132 and south on I-64 to Patrick Henry Mall. The route continues south on I-64 and southwest on I-664 to the Newport News Transportation Center.

1.4 FARE STRUCTURE

The one-way base fare for WAT is \$1.25 per one way trip, and \$.25 to transfer to another line, for a maximum of \$1.50 for a one-way trip. Passengers age 60 or older and/or disabled passengers with a Medicare card can ride the fixed routes at a reduced fare of \$0.50. College of William & Mary students with a school ID, middle school and high school students with a school ID who reside within the WAT service area, as well as children under the age of six traveling with an adult who do not occupy a seat ride for free. The fare for paratransit service for those unable to use accessible fixed-route bus service because of mental or physical challenges is \$2.00 one-way and \$4.00 round trip. The fare on the Surry Connection is \$1.50 one-way and \$3.00 round trip. Table 1-1 outlines WAT's fare structure.

WAT currently offers an All Day pass at a fare of \$1.50. The WATA Board of Directors recently voted to extend the All Day Pass program from May 1, 2009 until September 30, 2009. The All Day Pass Program began several years ago to encourage visitor, shopper, and employee usage. The All Day Pass allows unlimited boarding during the course of a day, improved boarding time, and enables the bus to leave the stop in a timelier manner. In addition, fare box maintenance repairs are reduced and the fare counting demands on both driver and administration are reduced.

WAT intends to implement a rider pass program to supplement options available under the current fare structure, which could include multi-ride tickets, weekly passes, and monthly passes. The pass program is proposed to be implemented in two phases in 2009 and 2010.

**Table 1-1
WAT Fare Structure**

	Fare
Base Fare	\$1.25
Seniors and Persons with Disabilities	\$0.50
Children (Under 6 Years with an Adult)	Free
William & Mary Students with Student ID	Free
Local Middle & High School Students with Student ID	Free
Transfer to Other WAT Routes	\$0.25
One-Day Pass	\$1.50
Paratransit One-Way Trip	\$2.00
Paratransit Round Trip	\$4.00
Surry Connection One-Way Trip	\$1.50
Surry Connection Round Trip	\$3.00

Colonial Williamsburg Hotel guests, Colonial Williamsburg admission ticket holders, and WAT transfer holders may use the Colonial Williamsburg Shuttle at no additional charge. Otherwise, the fare structure outlined in Table 1-2 applies. The Historic Triangle Shuttle and Jamestown Shuttle are provided as a free service through the NPS. The Yorktown Trolley is also a free service.

**Table 1-2
Colonial Williamsburg Foundation Fare Structure
Colonial Williamsburg Shuttle**

	Fare
Base Fare:	
One Day Shuttle Pass	\$2.00
One Week Shuttle Pass	\$4.00
Seniors and Persons with Disabilities:	
One Day Shuttle Pass	\$1.00
One Week Shuttle Pass	\$2.00
Children (Under 6 Years with an Adult)	Free
Colonial Williamsburg Hotel Guests	Free
Colonial Williamsburg Admission Ticket Holders	Free
WAT Transfer Holders	Free
Transfer to WAT Routes	\$0.25

1.5 VEHICLE FLEET

As of May 2008, WATA had a fleet of 44 vehicles, thirty-six Heavy-duty fixed route buses, three demand response buses, two small fixed route buses and two small operational support buses for contingency purposes. The fixed route and demand response fleet is fully ADA accessible and includes:

- 20 low-floor diesel buses with bike racks (25 or 30 seated capacity) for directly operated service
- 5 body-on-chassis vehicles (14 seated capacity) for directly operated service
- 16 low-floor compressed natural gas (CNG) buses, some with bike racks (40 seated capacity) for purchased transportation
- 1 diesel replica trolley bus (25 seated capacity) for purchased transportation
- 2 operational support vehicles

Two body-on-chassis vehicles are in contingency status to support driver relief and times of extreme traffic congestion. They are an integral part of the region's emergency plan, as discussed in Section 1.7. WATA has three vehicles for administrative/operations staff support that are not used in general public service. The demand response fleet is fully ADA accessible and includes three body-on-chassis vehicles. Appendix 1-A presents WATA's fleet inventory as of May 2008.

In May 2008, WATA had a spare ratio larger than FTA's 20% spare allowance. By April 2009, with the implementation of additional service, WATA's peak vehicle requirements will grow to 37

fixed route and 3 demand response vehicles, within FTA's allowable 20% spare ratio. This spare ratio is expected to further decrease as WAT continues to phase in service improvements.

1.6 FACILITIES

WATA currently does not directly own any of its facilities, but leases space at two facilities. The first is with CWF for the regional bus operations and maintenance facility at 7239 Pocahontas Trail, Williamsburg. WATA also leases space for bus transfers from the City of Williamsburg at the Williamsburg Area Transportation Center, 468 North Boundary Street, Williamsburg.

Transfer locations and shelters are located throughout the WAT service area. Table 1-3 provides a detailed listing of WAT bus shelters.

1.7 TRANSIT SECURITY PROGRAM

WAT is included in the James City County Community Service Emergency Plan which defines roles and responsibilities for transit personnel. WAT personnel have participated in the following safety and security training over the past three years:

- System Security Awareness for Transit Employees (NTI);
- National Incident Management System (FEMA);
- Virginia Operations Plan Exercise;
- Pandemic Influenza-Tabletop;
- Evacuation Planning & Disaster Recovery Regional Emergency Management Technical Advisory Committee; and
- Connecting Communities Public Transportation Emergency Preparedness Workshop (NTI).

WAT has a contingency fleet of two body-on-chassis vehicles that are part of the regional emergency plan due to the service area being within a 10 mile radius of a nuclear power plant and in the hurricane corridor of Hampton Roads.

**Table 1-3
Bus Shelter Inventory**

<u>Bus Stop Location</u>	<u>Acquisition</u>	<u>Cost</u>	<u>Funding Source</u>	<u>Condition</u>
Burnt Ordinary Apartments Route 60, Bus Line -Purple 2 James City County	1 March-00	\$6,935	Federal STP Urban (80%)	Fair
Williamsburg Outlet Mall Route 60, Bus Line - Purple 2 James City County	2 March-00	\$6,785	Federal STP Urban (80%)	Good
Prime Outlets Route 60, Bus Line - Blue James City County	3 March-00	\$7,463	Federal STP Urban (80%)	Good
Williamsburg Pottery ,Route 60, Bus Line - Purple 2 James City County	4 June-95	\$11,624	County Funds (100%)	Good
Ironbound Square Gate Ironbound Road, Bus Line - Purple 1 James City County	5 March-00	\$6,185	Federal STP Urban (80%)	Fair
JCC Human Services, Olde Towne Road, Bus Line - Purple 1 James City County	6 March-00	\$6,185	Federal STP Urban (80%)	Good
People's Place (Disabled Workshop), Industrial Blvd. York County	7 March-00	\$6,185	Federal STP Urban (80%)	Good
Williamsburg/JCC Community Center Ashbury Road, Bus Line - Purple 1 James City County	8 March-00	\$6,185	Federal STP Urban (80%)	Good
Village of Woodshire Apartments, Merimac Trail Bus Line - Orange City of Williamsburg	9 June-01	\$6,851	Federal STP Urban (80%)	Fair
Colonial Towne Townhouses, Merrimac Trail Bus Line - Orange City of Williamsburg	10 June-01	\$6,862	Federal STP Urban (80%)	Good
Colonial Towne Apartments 327 Merrimac Trail, Bus Line -Orange Williamsburg	11 June-01	\$6,862	Federal STP Urban (80%)	Good
900 Capital Landing Road, Parkway Drive Bus Line - Orange Williamsburg	12 June-01	\$6,851	Federal STP Urban (80%)	Good
New Hope Rd./ Richmond Rd. Bus Line - Blue Williamsburg	13 June-01	\$6,862	Federal STP Urban (80%)	Good
1624 Richmond Rd. (Motel 6) , Bus Line - Blue Williamsburg	14 June-01	\$6,862	Federal STP Urban (80%)	Good
Colonial Heritage, Across from Pottery Bus Line - Purple 2 James City County	15 October-02	N/A	Proffer by US Homes (100%)	Good
Williamsburg Shopping Ctr., Richmond Rd. Bus Line - Blue, Williamsburg	16 September-03	\$3,317	Federal STP Urban (80%)	Good
W & M Law School Bus Line - Green College of William and Mary	17 March-04	\$10,212	Federal STP Urban (80%)	Excellent
Windsor Meade Shopping Center, Bus Line-Red James City County	18 March-06	N/A	Proffer by Developer	Excellent
Wal -Mart Distribution Center, Rt. 60, Bus Line - Gray James City County	19 March-06	\$6,415	Federal STP Urban (80%)	Excellent
Country Village Mobile Park, Rt. 60 Bus Line - Gray James City County	20 March-07	\$6,415	Federal STP Urban (80%)	Excellent
Farm Fresh, Merrimac Trail Bus Line - Gray James City County	21 May-07	\$6,415	Federal STP Urban (80%)	Excellent
Colonial Services Board, Rt. 143 Bus Line - Orange James City County	22 May-06	\$6,415	Federal STP Urban (80%)	Excellent
International Village, Capital Landing Road Bus Line - Orange, Williamsburg	23 May-06	\$6,415	Federal STP Urban (80%)	Excellent
James York Plaza, Rt. 143 Bus Line -Orange Williamsburg	24 June-06	\$6,415	Federal STP Urban (80%)	Excellent
Ewell Station, Ewell Station Center, Bus Line -Blue James City County	25 May-07	N/A	Proffer (100%)	Excellent
K-Mart, K-Mart Center, Bus Line - Tan York County	26 July-07	\$6,415	Federal STP Urban (80%)	Excellent
Anvil Camp Ground, Mooretown Road, Bus Line -Tan York County	27 June-06	\$6,415	Federal STP Urban (80%)	Excellent
Clarion, Richmond Rd., Bus Line - Gray James City County	28 August-07	\$6,415	Federal STP Urban (80%)	Excellent
Longhill Grove Apts., Longhill Rd., Bus Line - Purple 1 James City County	29 May-06	\$6,415	Federal STP Urban (80%)	Excellent

Additional security measures being taken by WATA include installing surveillance cameras on fixed route buses, as well as purchasing surveillance cameras and an access card entry system for the WATA administrative facility. WATA recently received \$350,000 of funding in 2009 for a Global Positioning System (GPS)/Automated Vehicle Locator (AVL) System, which will provide safety and security for passengers and drivers by allowing quick location of vehicles and faster response to security incidents and accidents.

1.8 PUBLIC OUTREACH

Public outreach is conducted and documented via public hearings when a major service change is proposed. As part of the WATA bylaws, an advisory committee of no less than five citizens will be formed with representatives from the private sector, the disabled community, a student from the College of William and Mary, and a person 19 years old or younger. Additionally, at least one person living or working in each of the member local jurisdiction will be appointed as well as a representative of the NPS and one at-large representative. The formation of this committee is planned for 2009.

Additionally, WATA is involved and participates in the public involvement procedure process for the Hampton Roads Regional Planning Commission, the MPO for the region. This process includes a wide variety of activities (kiosks for public comments, speakers bureau, civic league involvement etc.) geared toward providing a multitude of opportunities for citizens, transit users and community stakeholders to provide their input into the transportation planning process. WATA relies on the MPO's public participation process to satisfy its public participation requirements for its Program of Projects in the region's Transportation Improvement Plan. Representatives from WATA attend the MPO's public meetings and listening sessions to answer any questions regarding WATA and its proposed transit projects.

2.0 GOALS, OBJECTIVES AND STANDARDS

This chapter presents the Williamsburg Area Transit Authority (WATA) vision and mission, identifies the goals and objectives for the Transit Development Plan (TDP), and establishes a set of performance standards for the transit system.

2.1 WATA VISION AND MISSION

In May 2009, WATA defined its vision and mission as part of its 2009-2010 Strategic Plan, as follows:

Vision

Williamsburg Area Transit Authority will become the transportation option of choice for people who live, work, and visit in the Williamsburg Area.

Mission

To provide safe, efficient, and accessible public transit to residents and visitors in the Williamsburg Area.

2.2 TDP GOALS & OBJECTIVES

WATA's 2009-2010 Strategic Plan also developed goals and strategies in support of the vision and mission intended to guide WATA's actions in the current fiscal year. Building on the 2009-2010 Strategic Plan, this section presents goals and objectives for the five-year TDP. Near-term Goals 1 through 3 and associated objectives are consistent with the Strategic Plan, some of which have been augmented with specific action steps. Goals 4 through 7 were developed in coordination with WATA and are recommended to support the five-year TDP.

Goal 1 – Expand and WATA transit service to meet customer and community needs

Objective 1.1 – Evaluate, and where financially feasible, implement recommendations identified in the 2008 Passenger Profile conducted by the KFH Group for WATA

Objective 1.2 – Implement rider pass program to supplement daily and weekly pass options

Objective 1.3 – Evaluate current route system to determine if opportunities exist for system design improvements, to include increased frequency of service, and implement improvements if funding allows

- Investigate additional frequency improvements beyond those implemented in April 2009

- Investigate new regional service opportunities from outlying areas such as Southside Hampton Roads, Cities of Newport News, Hampton and Smithfield, as well as New Kent County
- Investigate the need and potential for other service opportunities such as express service, carpools, and vanpools from park & ride lots

Objective 1.4 - Implement a retail trolley service to link the Merchants Square, New Town and High Street commercial developments

Objective 1.5 - Expand use of technology to provide current transit service information and create greater awareness of WATA services

- Take advantage of local government access channels and internet capabilities
- Implement a Global Positioning System (GPS)/Automated Vehicle Locator (AVL) System
- Evaluate the use of GPS-based passenger information systems, such as NextBus, to provide accurate vehicle arrival/departure information and real-time maps to passengers

Objective 1.6 - Work with the College of William and Mary to develop and implement programs to increase the use of transit by William & Mary students

Objective 1.7 - Work with the Colonial Williamsburg Foundation and the National Park Service to explore and recommend future funding sources for the Historic Triangle Shuttle Service beyond FY2010

Goal 2 – Complete the transition of the regional transit system into the Williamsburg Area Transit Authority to provide effective and efficient public transit service in the Williamsburg Area

Objective 2.1 - Create an advisory committee to provide community input on WATA services and operations.

Objective 2.2 - Develop and implement a transit development plan as required to apply for additional State funding.

Objective 2.3 - Develop and recommend routing concept plans to the planning staffs of each of the WATA members and conduct public meetings for input on concept plans

Objective 2.4 - Conduct a facilities and equipment needs study for WATA operations

Objective 2.5 - Develop an information technology system implementation plan for inclusion in the Virginia Department of Rail and Public Transportation Six-year Capital Plan and WATA Twenty Year Capital Plan

Objective 2.6 - Investigate and evaluate the opportunity to create sponsorships to generate additional revenue for the WATA system

Objective 2.7 - Produce and publish various WATA policy and procedures manuals in order to finalize the creation of the Williamsburg Area Transit Authority organization

Objective 2.7 - Investigate and make recommendations on transit fare structure for fiscal years 2010 and 2011

Objective 2.7 - Complete the transition of the Human Resources, informational technology, publications, and procurement management functions to WATA

Goal 3 – Promote and implement green practices that reduce greenhouse emissions and mitigate traffic congestion

Objective 3.1 - Evaluate, and where financially possible, implement the use of green vehicles and facilities

- Update vehicle replacement program considering the next generation of environmentally friendly vehicles (i.e. Electric/Diesel Hybrid) on an annual basis

Objective 3.2 - Create and implement a public awareness campaign to promote the environmental benefits of using public transit

- Provide an overview of transit benefits on WATA website
- Place public service announcements and promotional advertisements in newspapers (in English and Spanish)
- Sponsor promotional events, such as an annual Clean Commute Day offering free transit rides

Objective 3.3 - Seek opportunities to partner with local and regional organizations to promote multimodal transportation in the Williamsburg Area

- Proactively seek opportunities to present an overview of the services provided and planned by WATA to key stakeholders and community groups
- Develop a comprehensive mailing list of community associations and clubs

- Expand the distribution of general system information and route maps and schedules, such as to visitors and employees in cooperation with public and private stakeholders
- Enhance WATA's participation in the TRAFFIX regional transportation demand management (TDM) program, which promotes alternatives to driving alone such as carpooling and vanpooling
- Continue to coordinate and support bicycle and pedestrian improvements with member jurisdictions and the Hampton Roads Transportation Planning Organization (HRTPO)
- Continue to work with human service stakeholders and agencies that are addressing growth in aging adults needing transportation

Goal 4 – Improve the customer's transit experience, integrating technology where applicable

Objective 1.4 – Distribute user-friendly schedule and system information in public places throughout the service area for residents and visitors

- Increase the number of locations where system maps and schedules are displayed
- Continue to improve user-friendliness of service information, such as bi-lingual (English and Spanish) system maps and schedules

Objective 2.5 – Expand the passenger shelter program

- Add new shelters annually in areas where utilization is projected to be highest (subject to funding availability and ability to successfully negotiate with property owners)

Goal 5 – Develop and maintain an on-going performance monitoring program as identified in Section 2.3 of this chapter

Objective 5.1 - Record and monitor monthly transit operations statistics and compile monthly report.

Objective 5.2 - Review and assess system performance on a quarterly basis to determine if any corrective measures should be considered

Goal 6 – Improve coordination between transportation, land use, and economic development activities

Objective 6.1 – Continue coordination with local, regional and statewide plans for the future provision of public transit serving the Williamsburg Region

- Review relevant local, regional and Statewide plans as they are prepared and provide comments as appropriate
- Implement circulator or local routes serving new transit-supportive developments
- Identify opportunities to educate the development community on the economic benefits of transit amenities in mixed-use developments

Objective 6.2 – Support land development regulations that encourage transit-supportive development

- Work with county and city staffs to pursue revisions to Land Development Regulations that are more conducive to transit use

Objective 6.3 – Support incentives for developers and major employers to promote public transportation

- Discuss opportunities with county and city staffs to provide impact fee credits to developers who are offering transit amenities and to transit-supportive development in general

Objective 6.4 – Support improved connectivity of sidewalks and bicycle facilities along existing and future public transit corridors

- Evaluate the availability of sidewalk and bicycle facilities at major bus stops
- Submit sidewalk, crosswalk, and bicycle facility priorities to the HRTPO for consideration in its Regional Transportation Plan and funding opportunities in the Transportation Improvement Program

Goal 7 – Continue to provide a safe and secure transit system

Objective 7.1 – Ensure WATA has the necessary tools to address system security issues and emergencies

- Continue to pursue technology improvements on buses and facilities to increase safety and security for WATA employees and customers
- Continue to participate in the region’s emergency plan and provide opportunities for staff to participate in safety and security training programs

2.3 SERVICE PERFORMANCE STANDARDS

While WATA utilizes best practices daily and monthly Board of Directors meetings include reports from the Executive Director, such as monthly ridership and revenue, WATA does not currently have defined performance standards. This TDP recommends implementing several performance standards to measure the efficiency and effectiveness of WATA’s transit service.

Performance standards guide the decision making process by revealing underperforming routes, as well as routes that could support additional service. Effective performance standards require complete and consistent data collection. Ideally, performance measures would be collected and calculated on a route-level basis and be reported separately for weekday, Saturday and Sunday service. Currently, WATA collects data on a route-level basis monthly, but does not have the capability at this time to distinguish ridership between weekday, Saturday or Sunday due to limitations of its current farebox system. WATA will be procuring an Automated Fare/Passenger Collection Software that will allow for the addition of service performance standards in the near future. .

This TDP work effort has identified several recommended performance standards based on a review of WATA’s 2008 monthly ridership activity reporting to NTD at the system-wide basis for WAT directly operated service. Due to the highly seasonal nature of WAT fixed-route ridership, different performance measures are recommended for peak season (April through September) versus off-peak season.

Ridership Service Productivity Measures

Ridership Service Productivity Measures evaluate the effectiveness of the service. Recommended measures for WAT fixed-route service are based on monthly system-wide averages of passengers per revenue hour and passengers per revenue mile in the peak and off-peak seasons. Corrective measures should be investigated if, during the peak or off-peak season, these measures fall below the levels identified for three months in a row.

Passengers per Revenue Hour – Directly Operated Fixed Route

The ratio of passengers per revenue hour is an industry wide standard measure of effectiveness. When hours of service are increased, this measure reveals the effectiveness of those changes. WAT monthly system-wide fixed-route service should maintain levels equivalent to or higher than the following standards:

Peak season	23.0
Off-peak season	14.0

Passengers per Revenue Mile – Directly Operated Fixed Route

Passengers per Revenue Mile relates to the effectiveness of the service based on passenger demand versus passenger supplied. WAT monthly system-wide fixed-route service should maintain levels equivalent to or higher than the following standards:

Peak season	1.3
Off-peak season	0.9

Cost Effectiveness Measures

Cost effectiveness measures reveal the efficiency and effectiveness of transit service as it relates to operating expenses. Changes in these measures indicate if a change in cost or demand is having a negative or positive impact on the service. The recommended cost-effectiveness measures for WAT directly operated service are the fixed-route farebox recovery ratio, the fixed-route direct operating expenses per passenger trip, and the demand response direct operating expenses per passenger trip. Corrective measures should be investigated if, during the peak or off-peak season, these measures fall below the levels identified for three months in a row.

Farebox Recovery Ratio – Directly Operated Fixed Route

The farebox recovery ratio measures the farebox revenues as a percentage of operating expenses. A decrease in the farebox recovery ratio over an extended period of time warrants corrective measures. In 2008, the Farebox Recovery Ratio was 14 percent. WAT monthly system-wide fixed-route service should maintain levels equivalent to or higher than the following standards:

Peak season	13%
Off-peak season	11%

Direct Operating Expenses per Passenger Trip –Directly Operated Fixed Route

This measure reveals the cost effectiveness of the service based on the direct operating costs (i.e., exclusive of indirect administrative operating expenses) per passenger trip. Changes in the ratio reveal the impact of operating costs on the level of service provided to WATA customers. WAT monthly system-wide fixed-route service should maintain levels equivalent to or lower than the following standards:

Peak season: \$2.80

Off-peak season: \$3.70

Direct Operating Expenses per Passenger Trip – Directly Operated Demand Response

In addition to fixed route, tracking direct operating expenses (i.e., exclusive of indirect administrative operating expenses) per passenger trip for demand response service provides a cost effectiveness measure for WATA’s paratransit service. The demand for paratransit service does not fluctuate significantly based on the peak and off-peak seasons; thus, a single standard was established for application year-round. WAT monthly system-wide demand response service should maintain levels equivalent to or lower than the following year-round standard:

Year-round: \$36.00

3.0 SERVICE AND SYSTEM EVALUATION

As previously noted in Chapter 1 of this TDP, WATA directly operates transit service known as Williamsburg Area Transport (WAT). WAT service consists of a network of year-round fixed routes, a seasonal route from May to September only, and service to College of William and Mary from September to May only, as well as complementary paratransit service during all fixed route hours. Additionally, WAT operates a demonstration route between Surry County and the Williamsburg Transportation Center.

Under a bus services agreement with WATA, the Colonial Williamsburg Foundation (CWF) manages the operation of transit services to, from, and around the Historic Area of Williamsburg, along the Colonial National Parkway between the historic Jamestown, Colonial Williamsburg, and historic Yorktown, and within historic Jamestown. WAT and CWF cooperate in providing ADA paratransit service within, to, and from the Historic Area for employees, residents, and visitors.

WATA operates seven year-round fixed routes to the Greater Williamsburg Area on Monday through Saturday from 6:00 a.m. to 8:00 p.m. during off-peak months and 6:00 a.m. to 10:00 p.m. between Memorial Day and Labor Day. Sunday service is operated from 8:00 a.m. to 6:00 p.m. during the off-peak months and from 8:00 a.m. to 8:00 p.m. during the summer peak months. One additional route (Yellow Line) operates only in the summer. Route descriptions were previously provided in Chapter 1 of this TDP.

Sunday service was implemented in November 2008; therefore, ridership data prior to the start of Sunday Service only includes Monday through Saturday. Also, WATA does not currently track ridership by day of the week. Therefore, it is currently not possible to differentiate ridership levels between weekday, Saturday, and Sunday.

When W&M is in session (September to May), WAT operates a daytime route pattern (Green Line) and an evening pattern (Gold Line) serving the college from 7:00 a.m. to midnight Sunday through Thursday and until 1:00 a.m. on Friday and Saturday. W&M service operates at a 30-minute frequency.

Until April 2009, other WAT routes operated at 60-minute frequencies. The frequency of the Blue, Tan, Gray and Orange routes was improved to 30 minutes beginning April 6, 2009, coinciding with the beginning of WATA's peak season. However, the existing ridership data represents ridership at 60 minute frequencies, as it is for calendar year 2008.

Under contract to WATA, CWF operates one shuttle route year-round in Colonial Williamsburg, with frequency varying with the level of visitation to meet peak demands. Purchased

transportation is also provided seasonally during the months of March through October from Yorktown to Colonial Williamsburg and from Jamestown to Colonial Williamsburg via the Colonial Parkway. The terminus for all of these routes is the Colonial Williamsburg Visitor Center where connections can be made with both the Orange and Yellow WAT routes. Shuttle service is also provided within the Jamestown historic area in cooperation with the National Park Service (NPS) and within the Yorktown historic area in cooperation with York County.

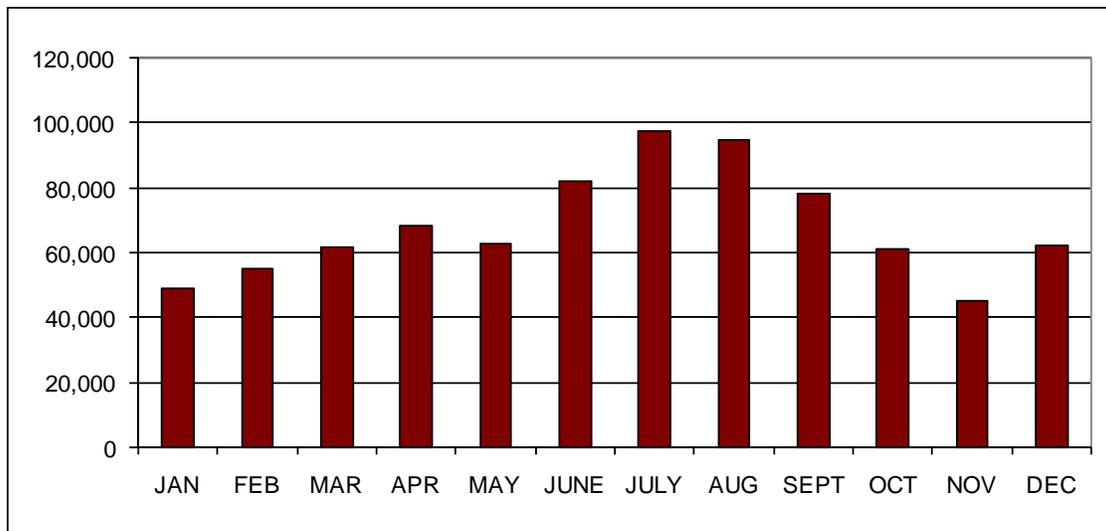
3.1 EXISTING SERVICE ANALYSIS

The following is an analysis of existing ridership for WATA fixed route and paratransit service. This analysis uses ridership data collected in calendar year 2008 and reported to the National Transit Database

Directly Operated Ridership

WAT’s fixed route ridership is seasonal and changes based on the time of year. Figure 3-1 and Table 3-1 display the total monthly ridership for WAT fixed route and ADA ridership. WAT’s ridership is heaviest during the summer peak months. Some of the increase in WAT ridership in December 2008 is due to the addition of Sunday Service, which was implemented in mid-November 2008.

Figure 3-1: Monthly WAT Fixed Route and ADA Ridership – 2008



In 2007, WAT’s total ridership, including ADA, was 726,963. This increased to 830,911 in 2008, which is a 13 percent increase. ADA ridership remained relatively stable between 2007 and 2008.

**Table 3-1
Monthly WAT Fixed Route and ADA Ridership – 2008**

ROUTE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
Blue	10,277	11,088	12,345	13,305	15,058	18,556	24,562	20,637	16,512	11,724	9,087	12,456	175,607
Orange	6,917	8,753	11,070	13,443	12,749	16,796	18,610	16,306	13,745	9,561	6,586	9,422	143,958
Gray	7,232	8,567	8,974	9,325	10,041	13,203	14,513	14,284	12,207	9,282	6,185	8,396	122,209
Purple 1 & 2	7,389	4,529	9,063	8,161	8,731	10,760	11,795	12,767	10,505	11,097	8,464	8,496	111,757
Red	6,384	6,528	7,493	7,599	6,663	8,005	8,856	10,222	9,589	7,255	4,145	8,004	90,743
Tan	5,212	5,997	5,876	7,995	6,314	10,287	11,834	11,397	8,171	5,302	5,210	7,089	90,684
W&M	4,941	9,042	6,464	7,769	1,720	0	0	1,208	5,760	6,243	4,718	6,817	54,682
Yellow	0	0	0	0	786	3,835	6,188	7,224	627	0	0	0	18,660
Surry County	89	50	148	154	183	243	273	254	288	319	289	347	2,637
Unallocated	0	0	0	0	0	0	135	0	0	3	74	923	1,135
ADA	443	443	350	445	286	216	460	466	509	526	423	470	5,037
Total	48,884	54,997	61,783	68,196	62,531	81,901	97,226	94,765	77,913	61,312	45,181	62,420	817,109

WAT Fixed Routes

Figure 3-3 displays the total ridership in 2008 for each of the fixed routes. The unallocated ridership is the result of a GFI issue that is currently being reviewed. The Blue Route was the most productive route in 2008 with 21 percent of the ridership. This is followed by the Orange and Gray routes. In the summer months, the Tan Line had higher ridership than the Red Line. Figure 3-4 shows the monthly ridership by route. Additional details regarding WAT’s seasonal routes and the Surry Connection is provided in the sections that follow.

Figure 3-1: Total WAT Fixed Route Ridership by Route-2008

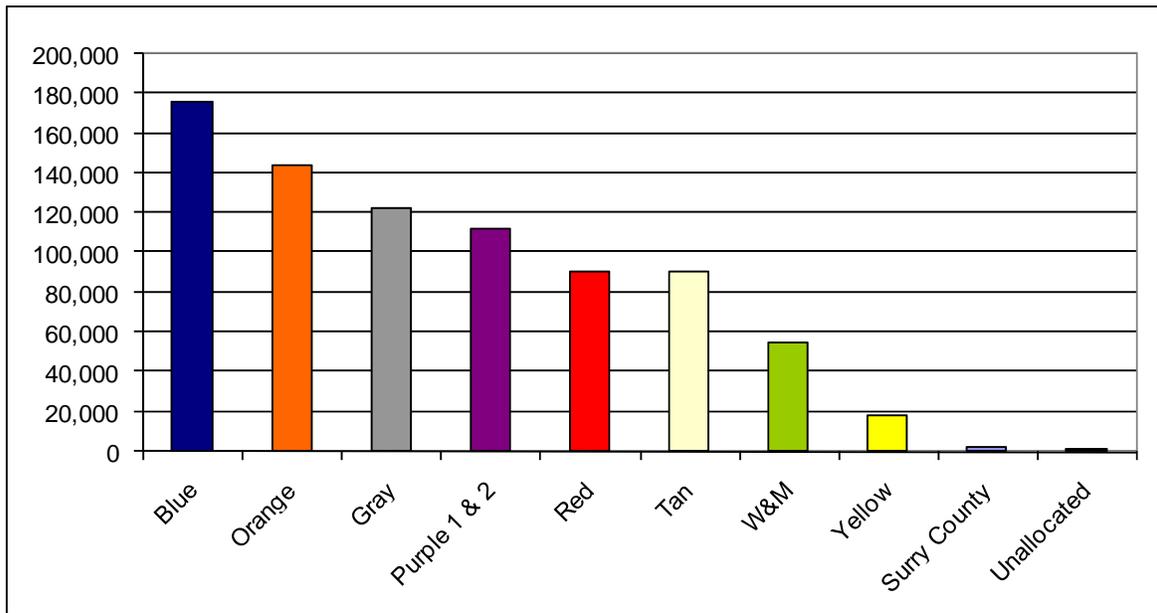
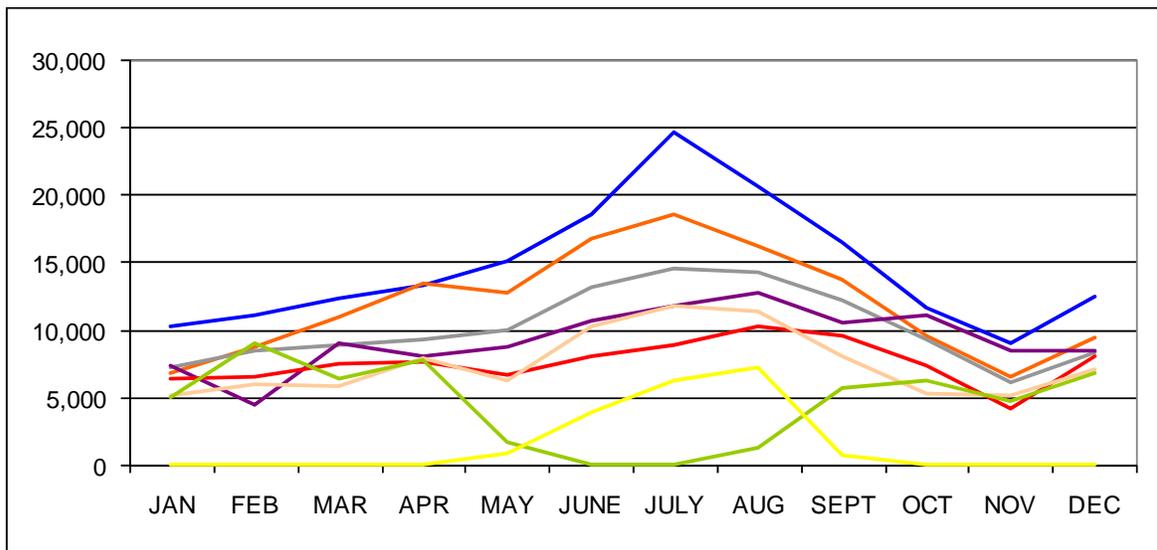


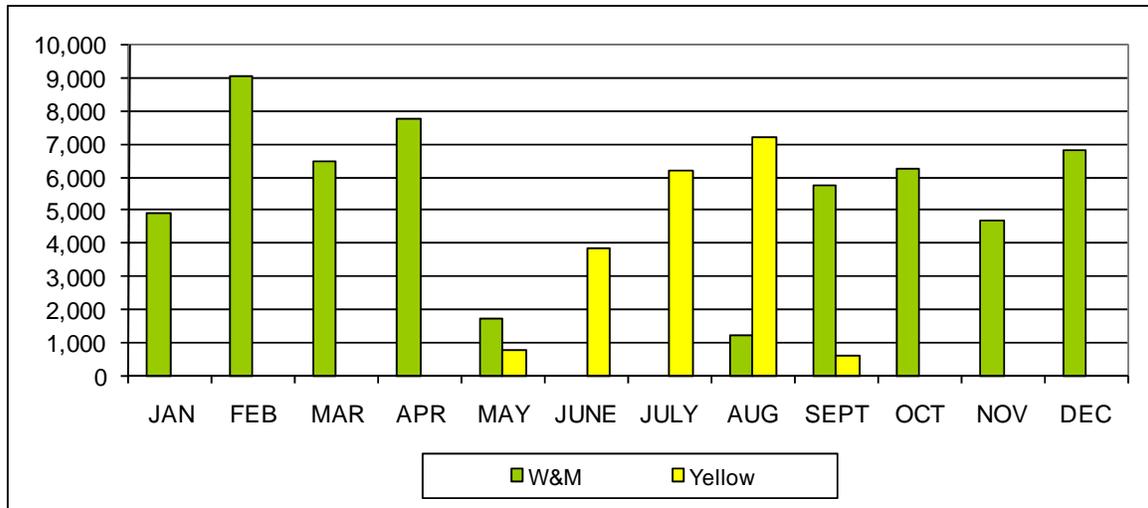
Figure 3-2: Monthly WAT Fixed Route Ridership by Route-2008



Seasonal Routes

WATA’s seasonal routes are the Green/Gold Line, which serves the College of William and Mary (W&M) from September through May, and the Yellow Line, which serves major tourist destinations during the summer months. Figure 3-5 displays monthly ridership for the Green/Gold and the Yellow Line in 2008. Green/Gold ridership is relatively steady when W&M students are in session, with declines in service corresponding with winter, fall, and spring breaks. February had the highest Green/Gold ridership, most likely due to increased usage during the colder winter months. The Yellow Line, which serves the tourist attractions during the summer months, fills in the ridership gaps left by the absence of W&M students. Ridership is heaviest on this route during the month of August.

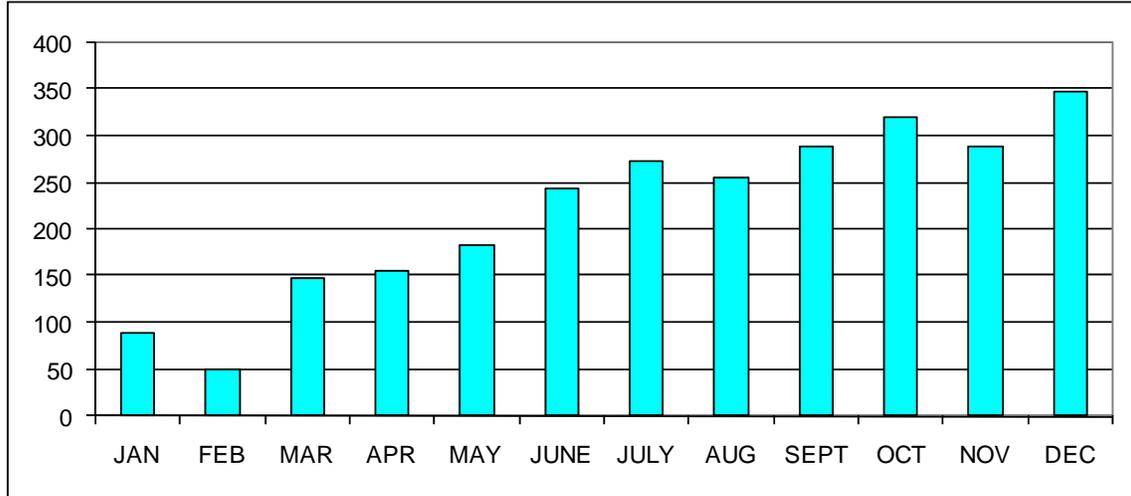
Figure 3-3: Green/Gold and Yellow Lines Monthly Ridership – 2008



Surry Connection

The Surry Connection is a regional route that was implemented in October 2007 with service Monday through Friday between Williamsburg and Surry County via the Scotland Ferry. The schedule for this route is dependent on meeting the ferry. The route operates every three or four hours throughout the day, beginning at 5:15 a.m. at the ferry and ending at 7:39 p.m. in the fall, winter, and spring and at 9:39 p.m. in the summer (June 14 through Labor Day). While ridership on this route is low, it did steadily increase throughout 2008, from 87 riders in December 2007 to 347 riders in December 2008.

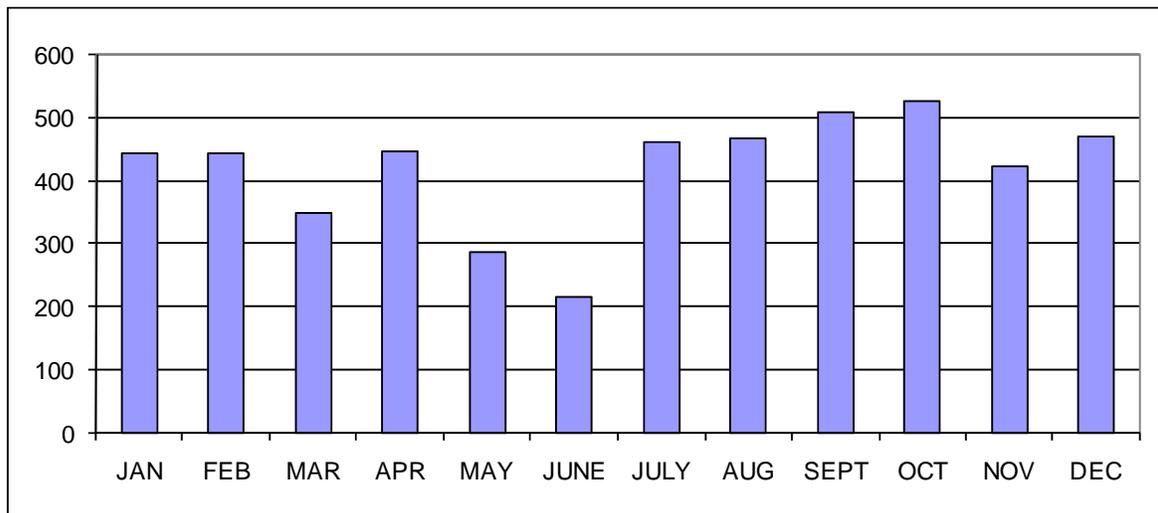
Figure 3-4: Surry Connection Monthly Ridership – 2008



ADA Paratransit

WAT provides ADA paratransit service within a ¾ mile radius of fixed route services, as well as to and from the Colonial Williamsburg Historic Area during regular fixed route service hours. Figure 3-7 displays the monthly ridership for WAT ADA service. Ridership is relatively steady throughout the year, although it showed a decline in ridership during the months of May and June 2008.

Figure 3-5: WAT ADA Monthly Ridership – 2008



WAT Fare Utilization

WAT provided passenger trips by fare type based on the regular adult fare, discount fares paid by Senior and Medicare riders and student free-fares, which include W&M students on any route and middle/high school students, and all day passes. Figure 3-8 shows the percentage of the total WAT fixed route ridership (excluding ADA) for January through December 2008 for each of the following fare categories:

- W&M students riding on the Green/Gold Route
- W&M students riding on all other WAT routes
- Middle and high school students
- Seniors or Medicare card holders
- All day passes

Ten percent of the trips were made by seniors or Medicare card holders paying the discounted \$0.50 fare. Trips taken by W&M students total 12 percent of passenger trips (seven percent on the Green/Gold Line, and an additional five percent on other WAT routes). Trips taken by middle school and high school students made up seven percent of the total passenger trips.

The majority of trips (71 percent) were made by passengers who either paid the full adult fare of \$1.25 per trip or used an all day pass. According to WATA's data, 38 percent of passengers used an all day pass over the course the year. However, the all day pass data from the first three months of 2008 is suspect, as it is extremely low compared to all other months. Without these three months, those using an all day pass increases to 47 percent and those paying the base fare drops to 26 percent.

Figure 3-6: Annual Ridership by Fare Category - 2008

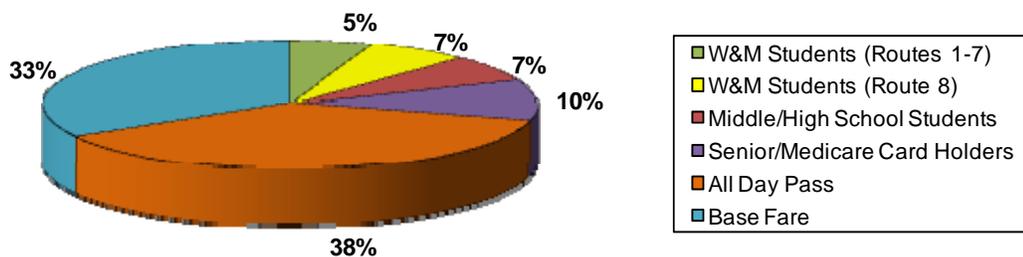
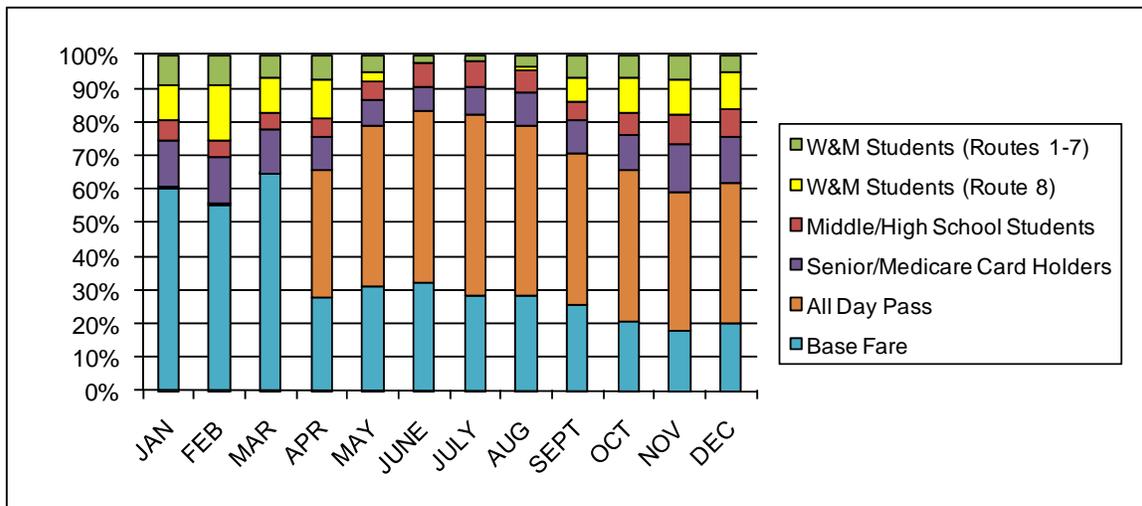


Figure 3-9 shows the monthly ridership by each fare category based its percentage of total monthly ridership. Senior and Medicare ridership remains relatively steady throughout the year,

with a slight decrease during the months of May and June. Ridership by middle/high school students is highest during the summer months of June, July, and August. There was also a slight increase in this fare category during December 2008. As expected, W&M ridership is lowest during the summer months, when the Green/Gold Line is not operating. It is important to note that freshmen and sophomore students at W&M are not allowed to have a vehicle on campus. As previously noted, the extremely low all day pass ridership from the first three months of 2008 is suspect.

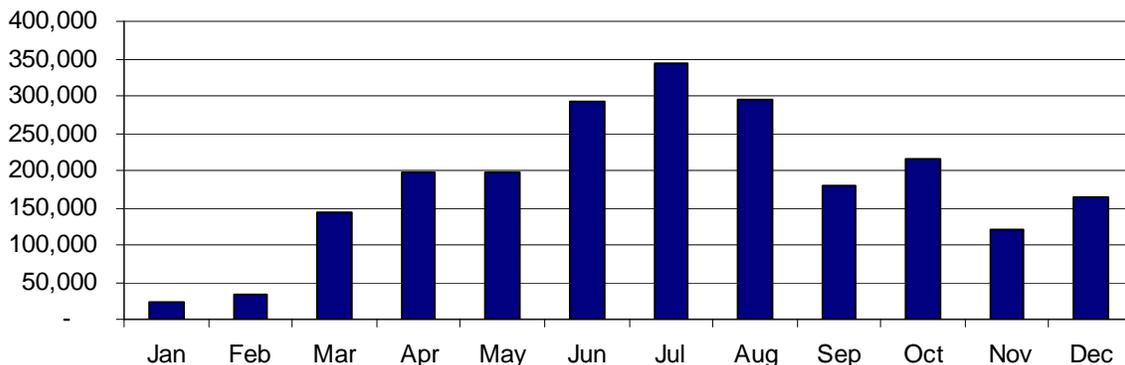
Figure 3-7: Monthly Ridership by Percentage of Fare Category - 2008



Purchased Transportation Ridership

Purchased transportation routes include the Colonial Williamsburg Shuttle, the Historic Triangle Shuttle, the Jamestown Area Shuttle, and the Yorktown Trolley. These routes are operated under contract to WATA using buses owned by WATA. Figure 3-10 displays the total monthly ridership in 2008 for purchased transportation routes. Corresponding with the peak tourist season, the summer months of June, July, and August have the highest ridership, with a peak of 344,554 riders in July.

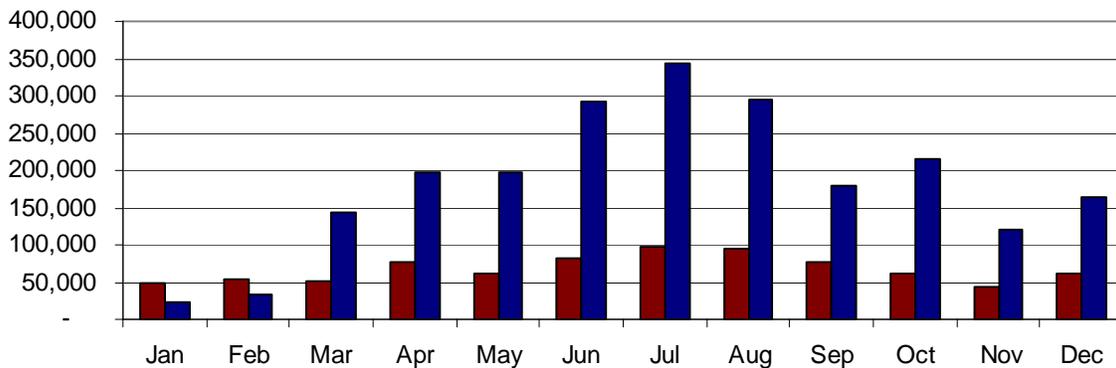
Figure 3-8: Purchased Transportation Monthly Ridership – 2008



Total WATA Ridership

Figure 3-11 presents the total monthly ridership in 2008 for WAT's directly operated fixed route and ADA service as compared to the purchased transportation. With the exception of January and February, purchased transportation ridership is 60 to 70 percent higher than WAT ridership. WAT's ridership peaks in July as well, with nearly 100,000 riders.

Figure 3-9: Directly Operated & Purchased Transportation Monthly Ridership – 2008



3.2 HISTORICAL PERFORMANCE EVALUATION

National Transit Database (NTD) information was collected for the past five years (FY2003-FY2007) to determine the pertinent ridership, service effectiveness, and cost effectiveness trends. WATA's Fiscal Year is July through June. WATA began reporting data for Historic Triangle transit service in 2006 as purchased transportation. This section describes three performance evaluation measures, passengers per revenue hour, operating costs per passenger trip, and operating cost per revenue hour.

Service Effectiveness

The ratio of passengers per revenue hour reveals how effectively the service is provided. Table 3-2 shows the annual ridership and revenue miles listed in the NTD for 2003 through 2007. These figures do not factor for inflation. The jump in fixed route passengers per hour from approximately 15 passengers per hour in 2005 to more than 46 passengers per hour in 2006 is due to the addition of the CWF routes to the NTD reports. Demand response has remained relatively steady, as it is predominately associated with the directly operated WAT routes.

**Table 3-2
Service Effectiveness**

Year	Passenger Trips		Revenue Hours		Pass./Rev. Hour	
	MB	DR	MB	DR	MB	DR
2003	354,940	5,767	31,482	3,729	11.27	1.55
2004	511,655	6,293	31,796	3,938	16.09	1.60
2005	520,488	6,939	35,016	4,088	14.86	1.70
2006*	2,760,989	6,405	59,666	3,819	46.27	1.68
2007	3,016,576	5,139	63,346	3,254	47.62	1.58

* Base year for WATA, merger of CWF and WAT

Cost Effectiveness

The ratio of operating costs per passenger trip displays how cost effectively the agency is providing the service. From 2003 to 2004, WATA service saw a 30 percent improvement in the cost per passenger trip from \$3.56 to \$2.49, as shown in Table 3-3. The 62 percent improvement in this ratio from 2005 to 2006 is due to the addition of CWF service to NTD reporting. Demand response cost effectiveness also improved from 2003 to 2004, but has declined each year since then. Between 2006 and 2007 cost effectiveness for both fixed route and demand response service declined significantly, which can only be partially attributed to inflation.

**Table 3-3
Cost Effectiveness**

Year	Passenger Trips		O&M Costs		O&M/Pass. Trip	
	MB	DR	MB	DR	MB	DR
2003	354,940	5,767	\$1,262,902	\$192,461	\$3.56	\$33.37
2004	511,655	6,293	\$1,271,815	\$159,302	\$2.49	\$25.31
2005	520,488	6,939	\$1,453,691	\$177,269	\$2.79	\$25.55
2006*	2,760,989	6,405	\$2,920,082	\$214,346	\$1.06	\$33.47
2007	3,016,576	5,139	\$3,725,526	\$206,477	\$1.24	\$40.18

* Base year for WATA, merger of CWF and WAT

Service Efficiency

The ratio of operating cost per revenue hour provides an overview of how efficiently the service is operated. Again, these numbers do not consider inflation. Table 3-4 displays WATA's service efficiency for 2003 to 2007. From 2003 to 2005, this ratio remained steady for fixed route service. Unlike the other two performance evaluation measures, however, service efficiency for fixed route service declined significantly from 2005 to 2006 with the addition of CWF service and again in 2007. Demand response service efficiency also declined significantly from 2005 through 2007.

**Table 3-4
Service Efficiency**

Year	O&M Costs		Revenue-Hours		O&M/Rev. Hour	
	MB	DR	MB	DR	MB	DR
2003	\$1,262,902	\$192,461	31,482	3,729	\$40.12	\$51.61
2004	\$1,271,815	\$159,302	31,796	3,938	\$40.00	\$40.45
2005	\$1,453,691	\$177,269	35,016	4,088	\$41.52	\$43.36
2006*	\$2,920,082	\$214,346	59,666	3,819	\$48.94	\$56.13
2007	\$3,725,526	\$206,477	63,346	3,254	\$58.81	\$63.45

3.3 PEER ANALYSIS

The peer analysis provides performance measures compared across five peer systems for which WATA can use to gauge where deficiencies may occur and improvements could be warranted. A detailed peer analysis technical memorandum is included as Appendix 3-A.

While it is difficult to factor in the unique nature of Williamsburg’s tourism industry, location, student population, and the tourism-based service provided under WATA by the CWF, five peer systems have been identified and used that best replicate WATA service. These peer systems include Greater Lynchburg Transit Company (GLTC), Fredericksburg Regional Transit (FRED), Charlottesville Transit Service (CTS); Annapolis Transit, and Harrisonburg Department of Public Transportation (HDPT).

The challenge with comparing WATA service to the peers systems is the CWF routes that serve the historic tourist areas. This has been reported to the NTD as purchased transportation since FY2006, after WATA purchased vehicles for CWF using FTA funds. None of the peer systems have both purchased transportation and directly operated service. Key findings from this analysis are presented below.

- *Vehicle Utilization:* WATA is the outlier for the fixed route number of vehicles available, with 36 compared to the peer average of 28. WATA has 24 percent more fixed route vehicles available than the peer average; however, the CWF vehicles are included in this number. WATA is the lowest among the peers for revenue hours per peak vehicle and only 83 percent of the peer average for revenue miles per peak vehicle. Again, the CWF purchased transportation routes are included in these ratios.
- *Service Supplied:* WATA has higher than average revenue hours and miles per service area population. This is likely due to the higher ridership on the CWF routes as well as the tourist, temporary workers, and student population which is not factored into the service area population. Yet, WATA’s revenue miles and hours per service area square mile are lower than the peer average. With the second largest service area among the peers, this may indicate portions of the service area are underserved, such as the Jamestown Road corridor identified as a service expansion need in passenger surveys.

- *Service Productivity:* WATA has higher than average number passenger trips per service area population, which again reflects the CWF routes, as well as the transient population of tourist, temporary workers, and students that are not factored into the service area population. Additionally, WATA has a higher number of passenger trips per revenue hour and revenue mile. This is indicative of the CWF routes that primarily serve tourists in the historic area. The addition of later service, Sunday service, and proposed frequency increases may alter these results in future NTD reports.
- *Cost Efficiency:* WATA's operating cost per passenger trip is lower than the peer average; however, the operating cost per revenue hour is higher. The operating cost per revenue mile is close to the average. The lower cost per passenger trip likely reflects the high ridership on CWF routes. WATA's recent addition of Sunday service and later hours along with the ability to efficiently add this service will impact the results of the cost efficiency measures in future NTD reports.
- *Revenue Vehicle Maintenance Performance:* WATA has the youngest fleet among the peers, and as such has the fewest number revenue vehicle failures per 1,000 miles.
- *Farebox Revenues:* Accounting strictly for fares, WATA has a lower than average farebox recovery rate at 11 percent. The peer average is 20 percent. The farebox recovery ratio would be higher if payment in lieu of fares from W&M were included in this category.
- *Source of O&M Funds:* In FY 2007, WATA was heavily reliant on local funds for O&M (nearly 50 percent). WATA received less federal funds than the average for O&M and equal to the average from state funding. O&M funding is identified as one of the biggest challenges WATA faces moving forward.
- *Source of Capital Funds:* In FY 2007, WATA received 92 percent of its capital funding from federal sources and eight percent from local sources. WATA did not receive any state funding for capital. As grants expire and WATA service expands, capital funding may become a challenge in the future.

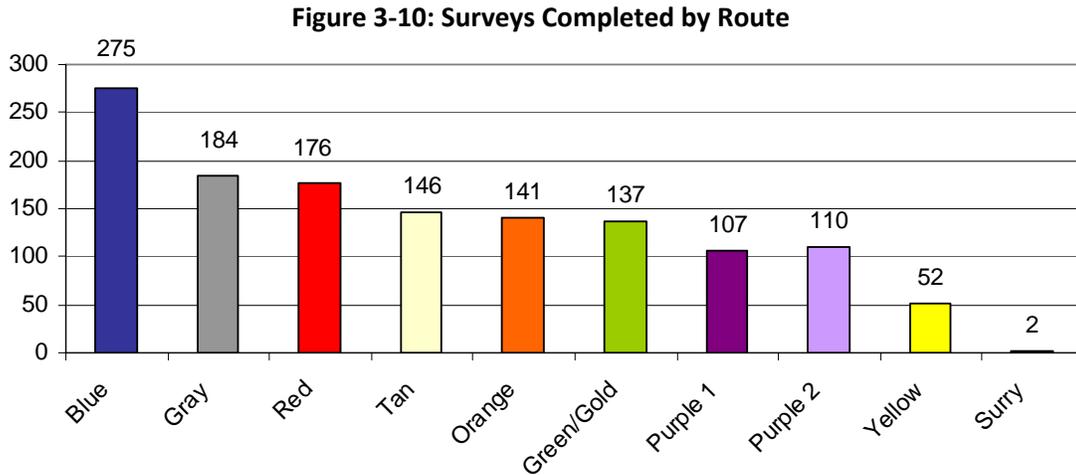
3.4 ON-BOARD SURVEY FINDINGS

A survey of WAT riders, referred to as the 2008 Passenger Profile, was conducted in April and July of 2008 by KFH Group, as part of a technical planning study. Because the survey is recent, it falls within the time period of this TDP and meets the Virginia DRPT requirements. Future TDPs may require a new survey to be conducted. This section summarizes the results of the KFH survey effort. A discussion of the full ridership data is provided in Appendix 3-B. A copy of the survey instrument is also included in the appendix, as well as KFH's detailed rider profile for the April and July survey.

Surveys Completed

KFH conducted a passenger survey during April 24-26, 2008 in order to capture the opinions of students from W&M, as well as from July 24-26 to capture the tourist and visiting workers population. These surveys were conducted on a Thursday through Saturday. A total of 1,300

surveys were completed, which includes 724 surveys in April and 576 in July. KFH gave the survey a confidence level of 95 percent, plus or minus 5 percent. Figure 3-12 shows the response rate by route for the April and July surveys. Note that the two seasonal routes were only surveyed once, with the Green/Gold route surveyed in April and the Yellow Route surveyed in July.



Surveys Results by Category

Results of the April and July 2008 surveys are summarized below. Results are presented for each of the question categories.

Survey Demographics

As part of the survey, demographic questions via multiple choice answers were asked in order to gauge who rides WAT service. These questions included:

- 1) Are you Male/Female?
- 2) Do you have a car?
- 3) How do you classify yourself?
 - African American
 - Asian American
 - Caucasian
 - Hispanic/Latino
 - Native American
 - Other
- 4) Indicate your age group.
- 5) What is your current employment status?
- 6) What is your total annual household income from all sources?

The KFH survey results indicate that off peak riders include local residents and W&M students, while peak riders include local residents, visiting workers, and tourists. Riders were racially diverse, and 51 percent were female. Seventy-eight percent of the riders have no car. Responses to employment questions reveal that 44 percent of the riders are employed full-time and 15 percent were employed part-time. As expected, July surveys reveal a higher employment rate, reflecting the visiting workers population and the absence of W&M students. Among the respondents, 63 percent reported household incomes of \$25,000 or less. Additionally, responses came from passengers who ride the system at least 3-4 days per week.

Residency

The July survey included residency status with 37 percent of the respondents being residents of James City County. Another 20 percent were residents of City of Williamsburg, 15 percent were temporary workers, 12 percent were visitors to the region, nine percent were City of Newport News residents, and six percent were from York County.

Origins and Destinations

The KFH survey asked respondents the location where they boarded the bus (origin) and the destination. The results of the surveys for April, July, and the two months combined are shown in Table 3-5.

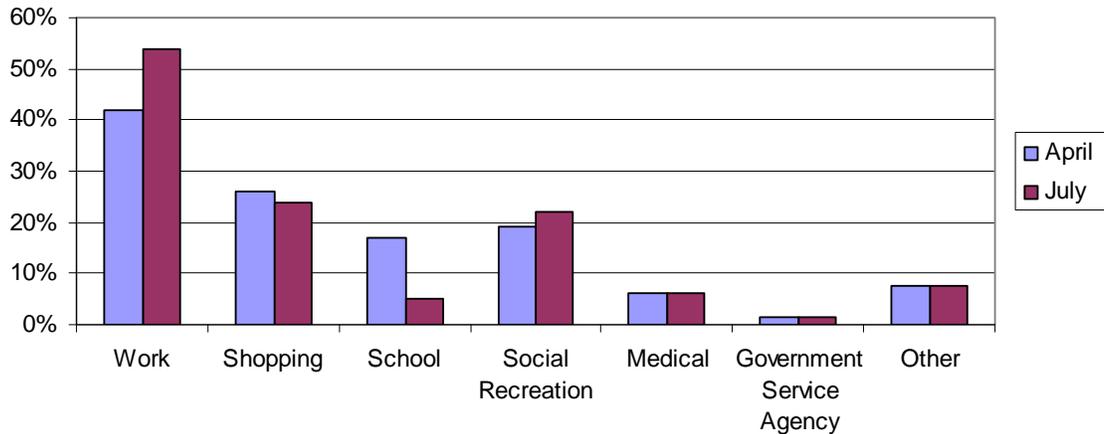
**Table 3-5
Origins & Destinations**

O&D	April	July	Combined
Williamsburg	43%	49%	36%
James City County	40%	36%	44%
York County	13%	12%	14%
Newport News	4%	3%	6%
Total	100%	100%	100%

Trip Purpose

Survey respondents were asked the purpose of their trip. Figure 3-13 displays the results from the April and July survey. Work was the predominant trip purpose in both months, but was a significantly larger percentage in July. Shopping and social/recreation were also prevalent in both months. As expected, school trips were much higher in April when W&M was in session.

Figure 3-11: Trip Purpose



Customer Satisfaction

Respondents were asked to rate their satisfaction with WAT services in various areas. One question listed predefined areas where respondents ranked the answer based on level of satisfaction. Others were open ended questions, where respondents could write in what they liked best and least about the service. The categories with the highest responses to the predefined questions ranked as follows (from highest to lowest):

April

- Cost
- Cleanliness of the buses
- Driver courtesy
- Safety and security

July

- Driver courtesy
- Cleanliness of the buses
- Safety and security
- Cost

Among the passengers who filled in the open ended question—what they liked best about the service—April respondents responded price, driver courtesy, availability of service, and convenience. July respondents cited driver courtesy, price, availability of service, and on-time performance. Both April and July passenger responded that they would like to see improvements to Sunday service, better on-time performance, more hours and days of service, and more frequent service.

Finally, respondents were asked to list the top three geographical areas where they would like to see service if WAT were to expand service. The five most requested geographic areas were:

- Jamestown Road Corridor
- Newport News
- Marquis Shopping Center
- Richmond
- Yorktown

Summary of Results

The KFH survey summarized that WAT is generally used for daily trips and riders appreciate the service that is available. The fare is considered affordable and drivers are courteous. The April survey captured the student population, but did not gather a large sample of visitors. The July survey captured 62 visitor surveys. The survey also concluded that riders need Sunday service and evening service to accommodate hospitality jobs that have seven-day-a-week employment. On-time performance, frequency of service and service to the Jamestown area were identified as improvements needed to make the service better. It is important to note that WATA has implemented service changes addressing many of the deficiencies listed in the survey, such as Sunday service, later service, on-time performance, and service to Marquis Shopping Center. Additionally, further improvements are pending, such as better frequency of service and a proposed Jamestown Road route.

3.5 PUBLIC OUTREACH EFFORTS

For the TDP process, WATA staff formed a TDP Stakeholders Group to determine the level of support for transit within the community, discuss and receive input on existing services and any changes to service or route structure, and determine what real or perceived shortcomings prevent potential riders from using WATA services. The diverse membership of the Stakeholders Group included representatives from the hospitality and tourism sector, the historic areas, local jurisdictions, the development community, area schools and universities, advocacy groups for senior, disabled and disadvantaged citizens, and WATA bus operators. See Appendix 3-C for the list of TDP Stakeholders Group members. Two meetings of the group were held to receive input.

The first meeting of the TDP Stakeholders Group was held on March 19, 2009. The purpose of the meeting was to introduce the TDP and generate discussion regarding the level of support for transit, perceptions regarding existing services, and needs for modifications to service. Stakeholders were initially asked why they were attending the stakeholders meeting and what they wanted out of the Williamsburg area transit system. Responses were varied and included the following:

- Connections to New Town mixed use area;
- Transportation for workers and hospitality employees;
- Accessible service for senior citizens;
- One unified system;
- Access to Historical Sites;
- Transit as part of a livable community;
- Access to youth home in York County;
- Reduce commute time;
- Service to new Thomas Nelson Community College campus on Centerville Road;

- Continued service to Surry County via the Surry Connection;
- Service to Jamestown High School;
- Access for disabled citizens;
- More transit access to Busch Gardens;
- Provide alternative forms of transportation;
- Allows citizens to age in place; and
- Support Workforce Development Programs by providing access to transit.

Stakeholders were also asked their thoughts about the level of support for transit in Williamsburg. Responses included the following:

- Citizens will choose transit when gas prices are high; however, they are likely to return to their personal vehicles when prices go down.
- Visitors to the area reveal a positive attitude toward the service provided.
- Seasonal workers use both the WAT and CWF routes.
- Students often request better service hours and more frequent service.
- Many residents must travel a long distance to the nearest bus stop, which reveals a potential for Park and Rides.

Stakeholders also provided input about the shortcomings for transit in the Greater Williamsburg Area. The responses included the following:

- Community resistance to bus stop placement occurs;
- Travel time on the routes can be long;
- Bus stop locations are far from origins and destinations;
- The schedules and maps are not user-friendly;
- The system does not directly link origins and destinations, requiring transfers at the transportation center;
- The service hours do not correspond with employee work hours;
- Access to funding to provide the service requested is limited – one suggestion was to work with local employers; and
- Citizens have real and perceived safety concerns at bus stops and shelters.

Finally, stakeholders were asked their opinion about the existing service. Several comments were made, including:

- There is a need for accessible collateral for visitors and employees with easy to read schedules and maps;
- The consensus on the newly implemented Sunday service is positive;
- There is a need for Park and Rides throughout the service area to provide better access to the system;

- There is a desire for more frequent service and one-seat rides to the HRT transfer point at Patrick Henry Mall in Newport News.
- Buses provide a public safety benefit by being visible on the street, but also create a negative impact after the last bus leaves when citizens become stranded;
- The need for later service was strongly expressed, whereas, earlier service was identified as needed, yet to a lesser degree than later service;
- The group felt the fare is good, as is the all day pass. The suggestion for a monthly pass with added incentives was made. Others commented about the need for elementary students to receive free fares, similar to the junior and senior high school students;
- The group expressed that a promotional campaign, such as a ride-free day, would benefit the transit service by encouraging citizens who do not normally ride to try out the system; and
- Citizens who depend on transit as their sole source of transportation need better access to transit.

The second meeting of the TDP Stakeholders Group was held on June 17, 2009. The purpose of the meeting was to provide an overview of the tasks completed since the group's March meeting and to receive feedback on the proposed service recommendations. Comments and questions included the following:

- There is a need to provide transit service to the battered women's shelter located within the WATA service area.
- WATA should emphasize and promote the general public's awareness of the CWF transit service routes, including the ability to make connections between the WAT and CWF routes at the Williamsburg Visitors Center. A system map and schedules showing both WAT and CWF routes was suggested.
- A question was raised regarding the term "service need." It was suggested that the proposed Williamsburg Trolley route is more of a "want" than a "need," and that the two should be distinguished.
- The TDP should be made available to the TDP Stakeholders Group.
- TDP objectives should be prioritized for implementation in the short-term versus the long-term.
- A thorough review of current route efficiency and effectiveness to assist in future decision-making was suggested, such as through a Comprehensive Operations Analysis (COA).
- There is a need for partnerships and better use of the region's vehicles to provide for better coordinated Human Services Transportation.

- Service does not operate late enough during the evenings, particularly to meet the needs of workers. It was suggested that service during the summer peak months be extended until midnight and to 10:00 p.m. during the off-peak months.

3.6 FACILITY AND EQUIPMENT CHARACTERISTICS

Facilities

As described in Chapter 1, WATA does not directly own any of its facilities, but leases space for both its transfer point at the Williamsburg Transportation Center and its bus operations and maintenance facility

WATA pays annual hub transport fees to the City of Williamsburg for the use of the Williamsburg Area Transportation Center, 468 North Boundary Street, Williamsburg. It is the region's only multi-modal transportation center, serving rail (Amtrak), intra-city bus (e.g., Greyhound), public transit (WAT), taxi services, bicyclists and pedestrians.

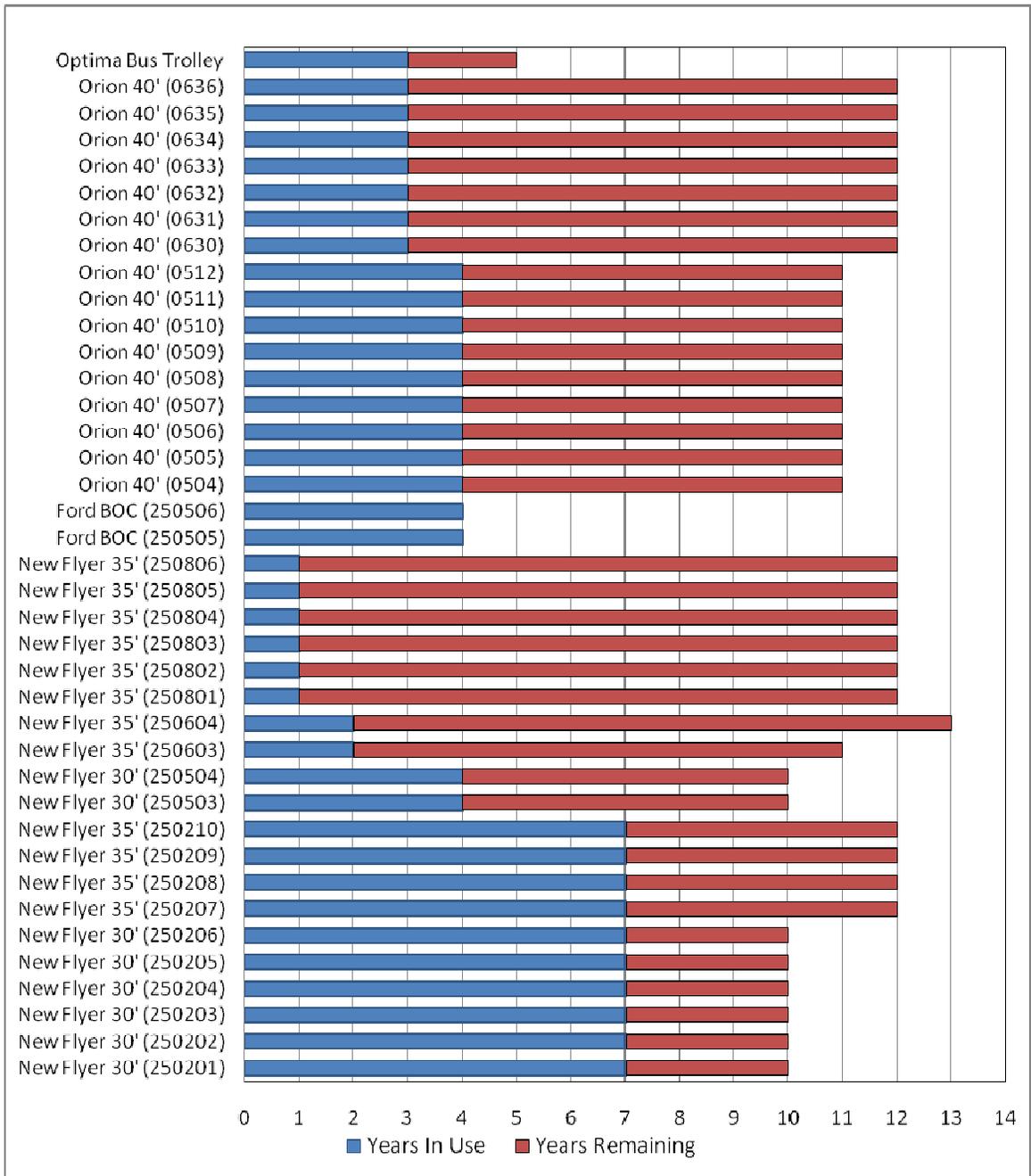
WATA also leases space from the CWF for the Regional Bus Facility at 7239 Pocahontas Trail, Williamsburg. This operations and maintenance facility shared by WAT and CWF includes office space, bus parking and a bus maintenance garage. Transit vehicles are dispatched from, stored and maintained at this location. Contract maintenance of the vehicles is provided by Penske Truck Leasing. WATA is in the process of selecting a consultant to look at the feasibility of owning its own garage and relocating its administrative offices to a new customer service facility.

Fleet

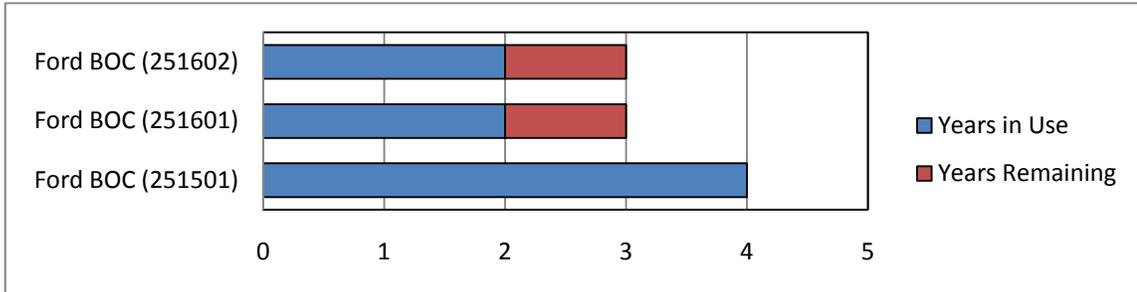
As of May 2008, WATA had a fleet of 44 vehicles, thirty-six heavy-duty fixed route buses, three demand response buses, two small fixed route buses, and two small operational support buses for contingency purposes. The fixed route and demand response fleet is described in Chapter 1. In 2009, the average age of the WATA fleet is four years old. Figure 3-14 shows the fixed route fleet useful life and years remaining. The New Flyer buses are used for WAT service, while the Orion buses are used for CWF service.

Two fixed route vehicles are due for replacement in 2009—these are body-on-chassis vehicles purchased in 2005 with a four-year life expectancy. The three demand response routes are also due for replacement soon, as shown in Figure 3-15.

**Figure 3-12:
Fixed Route Revenue Fleet Inventory
Useful Life and Years Remaining
(As of May 2008)**



**Figure 3-13:
Demand Response Route Revenue Fleet Inventory
Useful Life and Years Remaining
(As of May 2008)**



3.7 TITLE VI PROGRAM AND FTA TRIENNIAL REVIEW

Title VI Program

WATA's current Title VI program was endorsed and approved by the WATA Board of Directors on July 16, 2009 and submitted to FTA on July 24, 2009. It can be found in Appendix 3-D.

Triennial Review

FTA completed a Triennial Review of WATA in October 2008. FTA focused on WATA's compliance in 23 areas. Of those, no deficiencies were found with the FTA requirements in 17 areas. WATA has since corrected the deficiencies found in six areas. On March 10, 2009, FTA issued a letter closing out the last finding and the review as well. Table 3-6 displays the deficiencies identified in the triennial review and the date each was closed. A full copy of FTA's draft Triennial Review report and the recent close-out letter can be found in Appendix 3-E.

**Table 3-6
FTA Triennial Review Summary of Deficiencies and Corrective Actions**

Review Area	Deficiencies	Corrective Action	Date Closed
4. Satisfactory Continuing Control	03 – Inadequate equipment records	Include Grant Number in equipment records	9/25/2008
	05 – Inventory results not reconciled to equipment records	Provide evidence that Inventory results have been reconciled to equipment record	9/25/2008
5. Maintenance	01 – No vehicle maintenance plan	WAT must submit a new maintenance plan.	1/15/2009
6. Procurement	33 – Deficiencies in written procurement policies and procedures	Provide evidence to the TRO III that policies and procedures have been established that meet federal standards.	1/15/2009
7. Disadvantaged Business Enterprise	12 – No TVM certification	Will provide evidence to FTA TRO III that it will obtain TVM certifications from any and all current successful bidders for FTA funded rolling stock	10/27/2008
12. Title VI	10 – Title VI public notification deficiencies	Provide a plan and timeline for developing and disseminating a notification to the public of their rights under Title VI.	9/29/2008
15. ADA	05 – Limits or capacity constraints on ADA Complementary Paratransit service	Must establish system to determine if there is a capacity issue	1/15/2009
	06 – Inadequate tracking of trip denials	WAT must provide to the Region III Office evidence that trip denials are being properly tracked	1/15/2009
	08- Training not adequate	Training Plan to Region	2/11/2009

4.0 TRANSIT SERVICE AND FACILITY NEEDS ASSESSMENT

This chapter identifies potential service and facility needs for the WATA service area. Service and facility needs are identified based on the evaluation conducted in previous chapters of this TDP, stakeholder meetings and demographic analysis. The demographic analysis identifies growth patterns and the propensity to use transit based on population, household and employment densities from the HRTPO Socioeconomic Data. This is followed by proposed service improvements, new route concepts and facility recommendations. Cost estimates and policy implications are included for each proposed need. Chapter 5 follows with service and facility improvements recommended for implementation during the time period of this TDP.

4.1 DEMOGRAPHIC ANALYSIS

Using data from the HRPDC/HRTPO publication "Hampton Roads 2000 and 2034 Socioeconomic Data by TAZ", May 2008, publication #T08-03, year 2015 population, household and employment totals were estimated using linear regression. TAZs in or near WAT's current service area are displayed in Figure 4-1. As shown in this figure, the total population in this area is projected to increase from 80,002 in 2000 to 118,424 in 2015. Employment is projected to increase from 63,510 to 83,627. The households in this area are projected to increase 55 percent from 29,914 in 2000 to 46,345 in 2015. These numbers do not include all areas that feed into Williamsburg, such as the City of Yorktown, Surry County and New Kent County.

These demographic forecasts reflect the following projected changes between 2005 and 2015:

- Population: + 38,422 (48% increase)
- Employment: + 20,117 (32% increase)

Figure 4-2 displays the percent change in population by TAZ. While a few TAZs did not display population in 2000, none are projected to be zero in 2015. Additionally, none of the TAZs are projected to lose population in 2015. TAZs with significant population growth include the TAZ north of Hwy. 199 and west of I-64, near the future campus of Thomas Nelson Community College. The TAZ south of Airport Road that includes Waller Mill Park also displays a significant increase in population for 2015. These two TAZs also display the greatest percentage of change in households for 2015, as shown in Figure 4-3.

Changes in employment from 2000 and 2015 are displayed in Figure 4-4. Like population and households, no TAZ is projected to lose population. TAZs that displayed no employment in 2000, but are projected to have employment in 2015 include the area north of 199 and west of Hwy 60, where a medical complex is proposed. Other areas with notable employment increases include areas south around Kings Mills on the Gray Line as well as areas around Croaker Road north of I-64.

Figure 4-1: Service Area TAZs

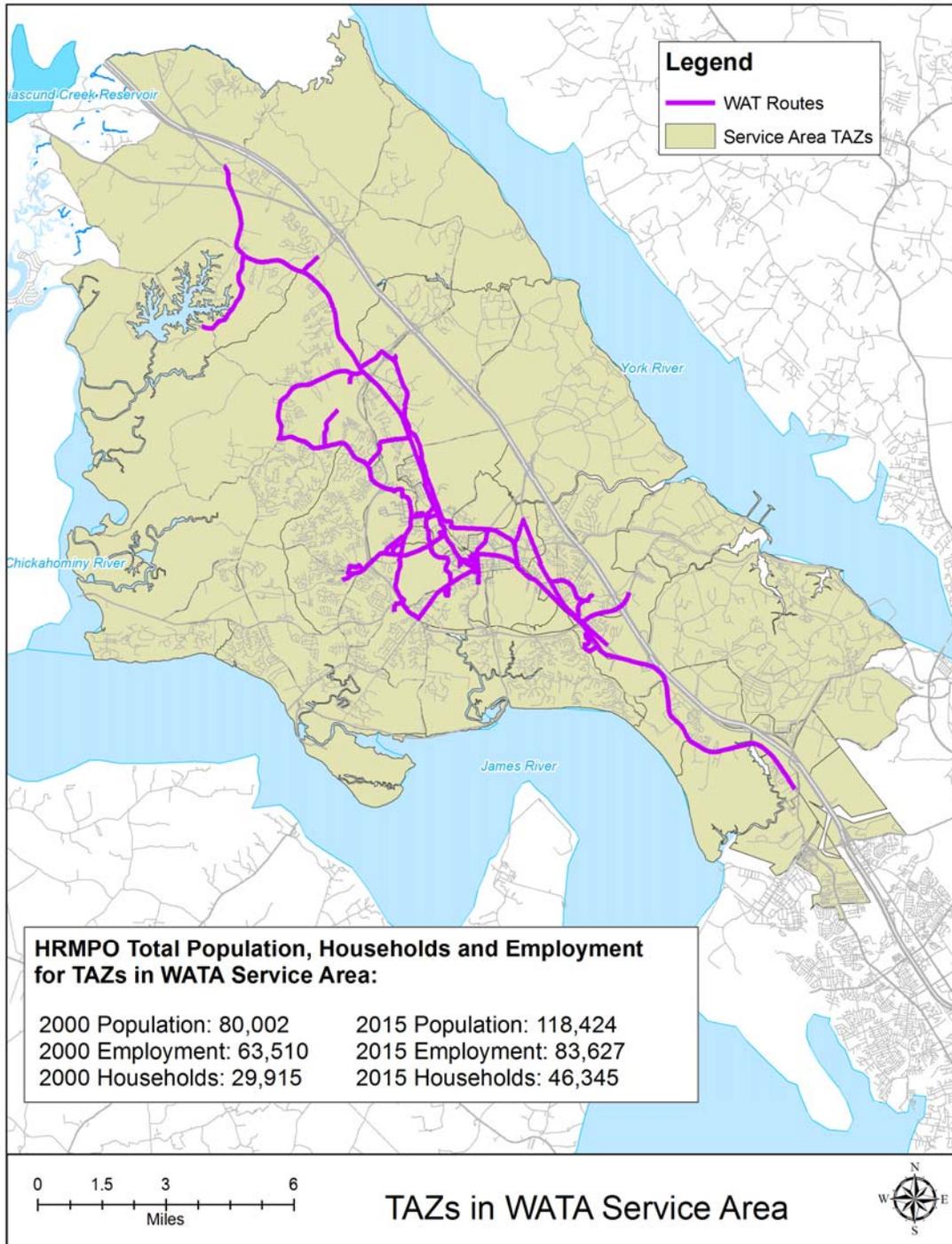


Figure 4-2: Percent Change in Population (2000 to 2015)

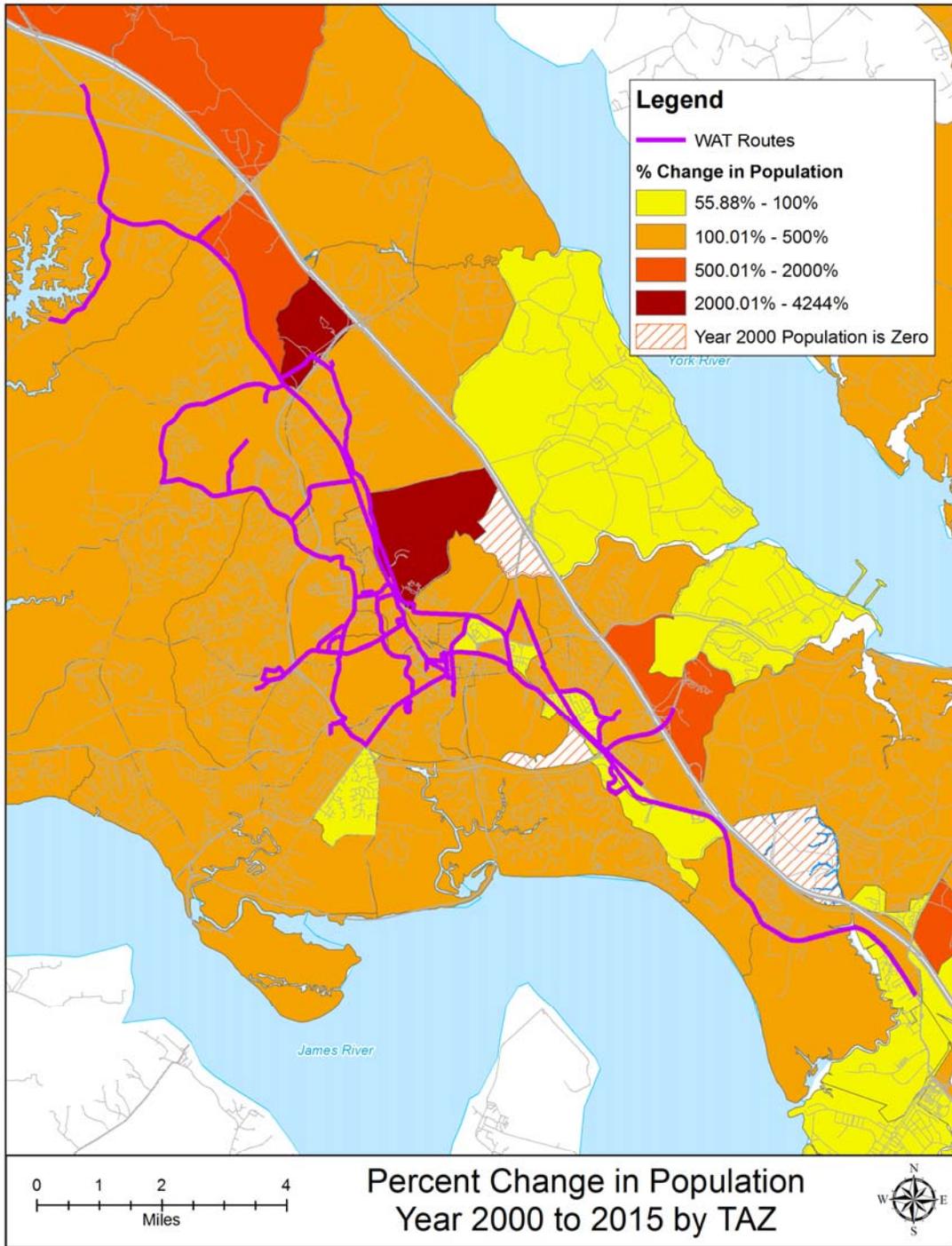


Figure 4-3: Percent Change in Households (2000 to 2015)

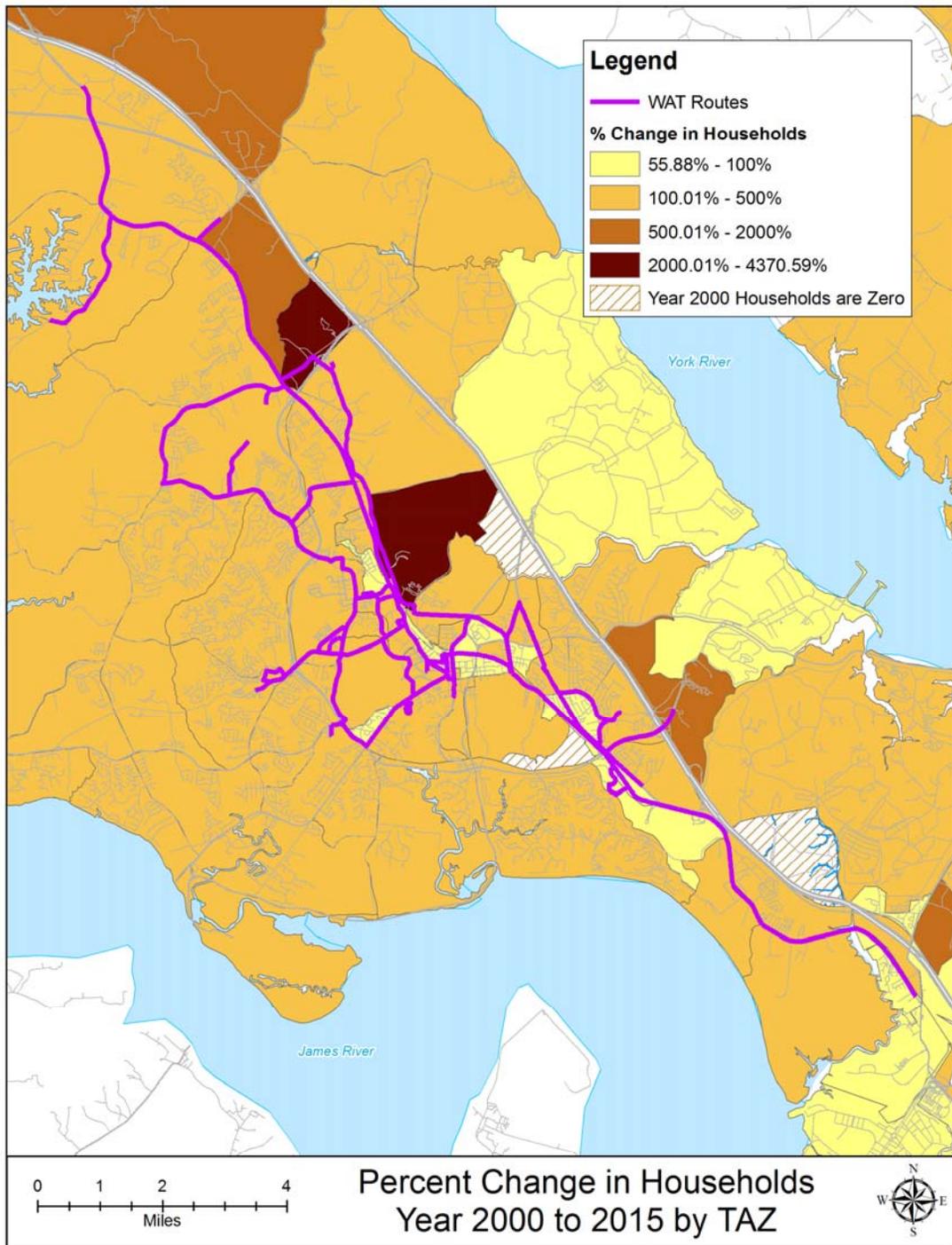
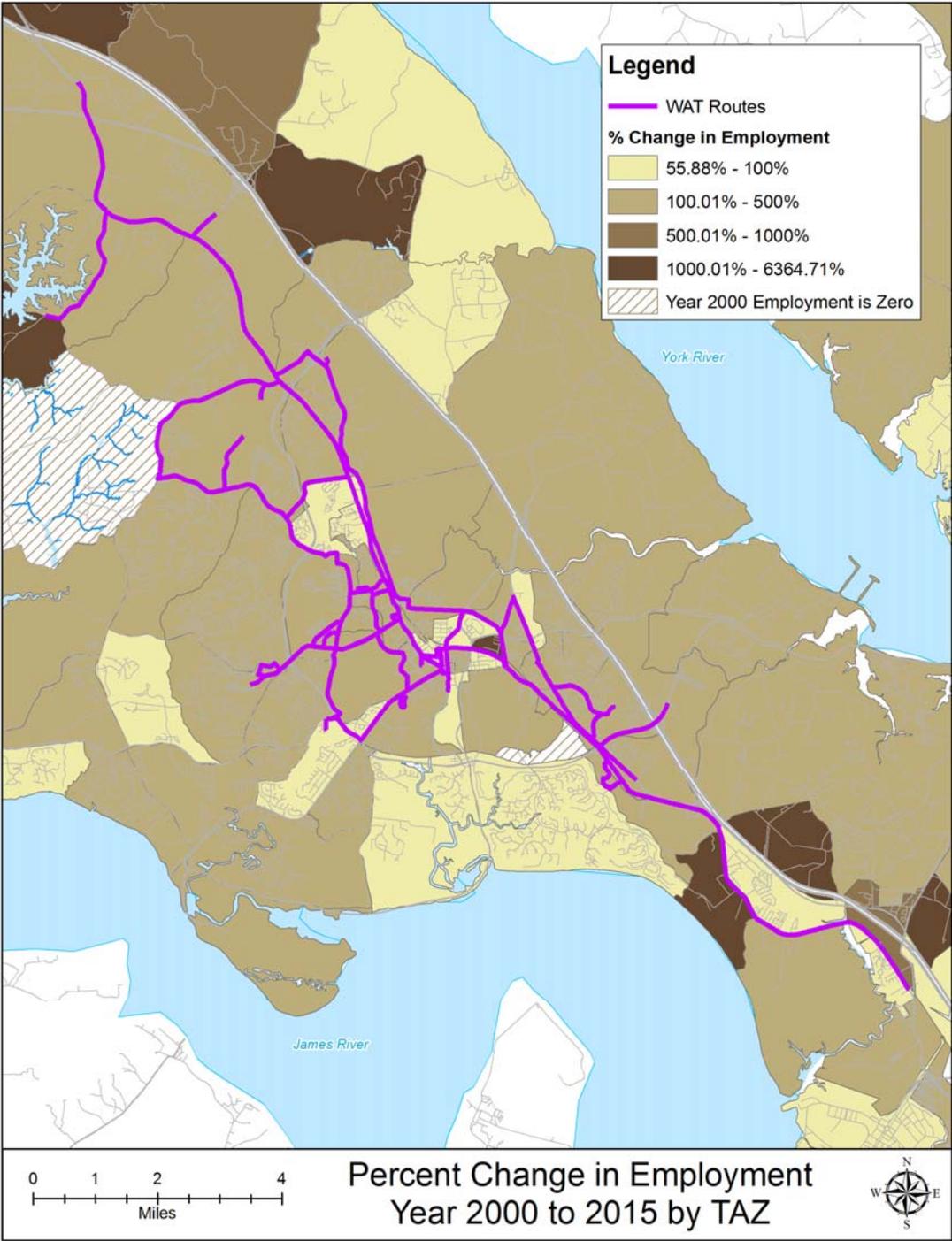


Figure 4-4: Percent Change in Employment (2000 to 2015)



Propensity for Transit

For mass transit to be successful there needs to be “mass” or density. Fixed-route transit services are generally successful in areas with high household and employment densities. Thus, one means of identifying the need for transit is to identify areas that have attained at least the minimum densities, or thresholds, sufficient to be supportive of fixed route transit service.

Using density thresholds, transit propensity is estimated for 2000 and 2015 using household and employment data for each Transportation Analysis Zone (TAZ). This data is from the HRPDC/HRMPO publication "Hampton Roads 2000 and 2034 Socioeconomic Data by TAZ", May 2008, publication #T08-03. Linear regression is used to estimate 2015 data. The methodology for this approach is derived from the Transit Cooperative Research Program's (TCRP) *Transit Capacity and Quality of Service Manual – 2nd edition* (2003), which identifies a density of three households per acre and/or four jobs per acre as the thresholds to qualify as a transit-supportive environment.

Household Density

Household densities of three households per acre signify an area with the propensity to use transit. In 2000, there were no TAZs in the Williamsburg area that met this threshold. Low density development continues to be a challenge for WATA service planning. In 2015, household densities of three households per acre are projected around the High Street development, as well as around Capitol Landing and Merrimac Trail. Densities greater than three households per acre begin to appear south of Lee Hall in Newport News along Highway 60. By 2034, these areas are projected to have over four households per acre. Additionally, western portions of the service area begin to show increased household densities in 2015, along with the area south of Olde Towne Road. The New Town development likely contributes to these densities. The household density of the New Town development is skewed by the large size of the TAZ, as it is located in a TAZ that includes Eastern Shore Hospital, and thus does not graphically display the true density found in this development. Figures 4-5 and 4-6 display the household density for 2000 and 2015.

Employment Density

The areas with the greatest propensity for transit in 2000, based on employment of four employees per acre or higher, include downtown Williamsburg and the historic district, as well as along the corridor of Richmond Road south of Airport Road and Pocahontas Trail to Kingsmill Road. This continues to be the trend in 2015, with increased employment found in the area along Capitol Landing Road and Merrimac Trail, which had an employment of 3.2 employees per acre in 2000 and is projected to have 4.17 in 2015. This area is currently served by the Orange Line. Additionally, the area north of Highway 199 and east of Quarterpath Road had no employment in 2000 and is projected to have 6.6 employees per acre in 2015 with 14.9 employees per acre in 2034. This area is not currently served by transit. The New Town development does not graphically show a significant increase in employment; however, this is

likely due to the size of the TAZ, which includes Eastern State Hospital for a total of 1,210 acres in the TAZ. The HRMPO data reveals employment per acre at 2.29 in 2000, 2.99 in 2015 and 3.88 in 2034 for this TAZ. This is likely higher for the New Town development. Figures 4-7 and 4-8 display employment per acre by TAZ for 2000 and 2015.

Population Density

Population Density for 2000 and 2015 are shown in Figures 4-9 and 4-10. The areas with population of six people or higher, include downtown Williamsburg and the historic district. This continues to be the trend in 2015, with six or more people displayed in the High Street Area. Increased population densities are also shown in the northern parts of the service area, which are currently served by the purple line.

Transit Dependent

Other indicators for transit usage are those that identify groups of population that would be more likely to use transit out of necessity; such as households with no access to a vehicle. Additionally, Title VI regulation requires transit providers to serve disadvantaged populations. WATA completed a Title VI map in 2008, as shown in Figure 4-11. As shown on the map, disadvantaged populations (including moderate income housing and Hispanic populations) located within the primary service area are served by transit. Populations of moderate income households located to the north and northwest are currently not served by transit.

Figure 4-5: Household Density – 2000

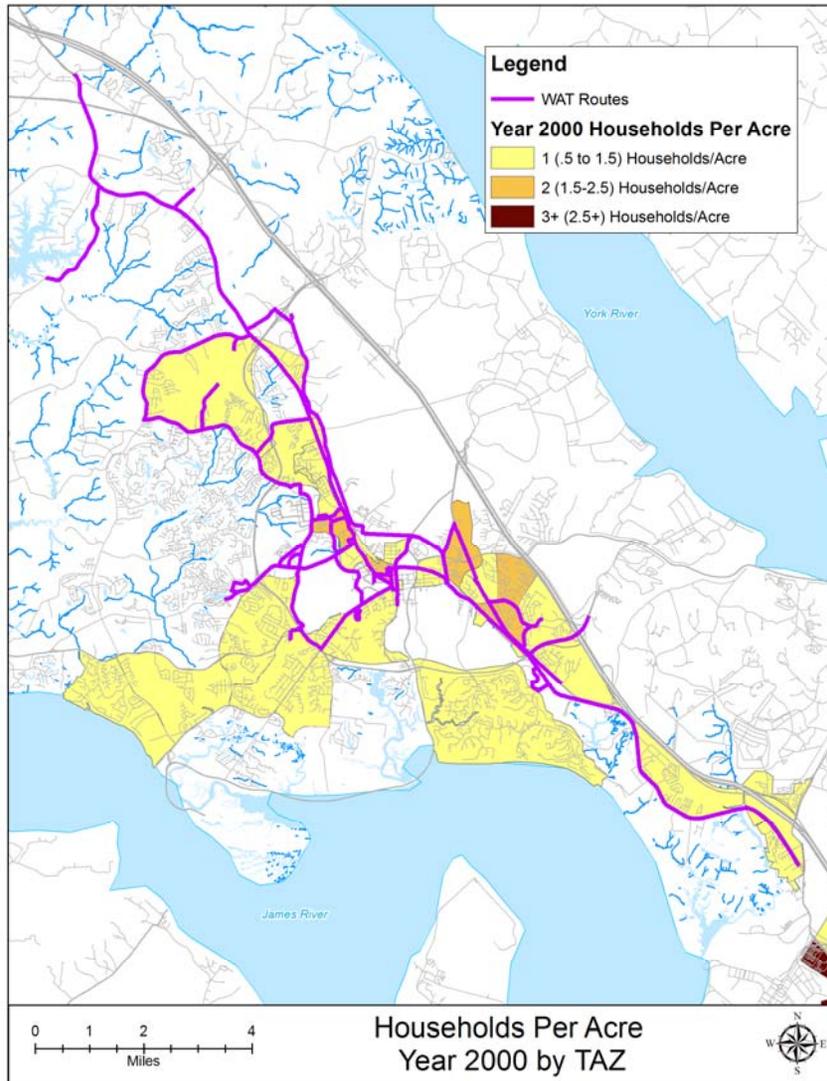


Figure 4-6: Household Density - 2015

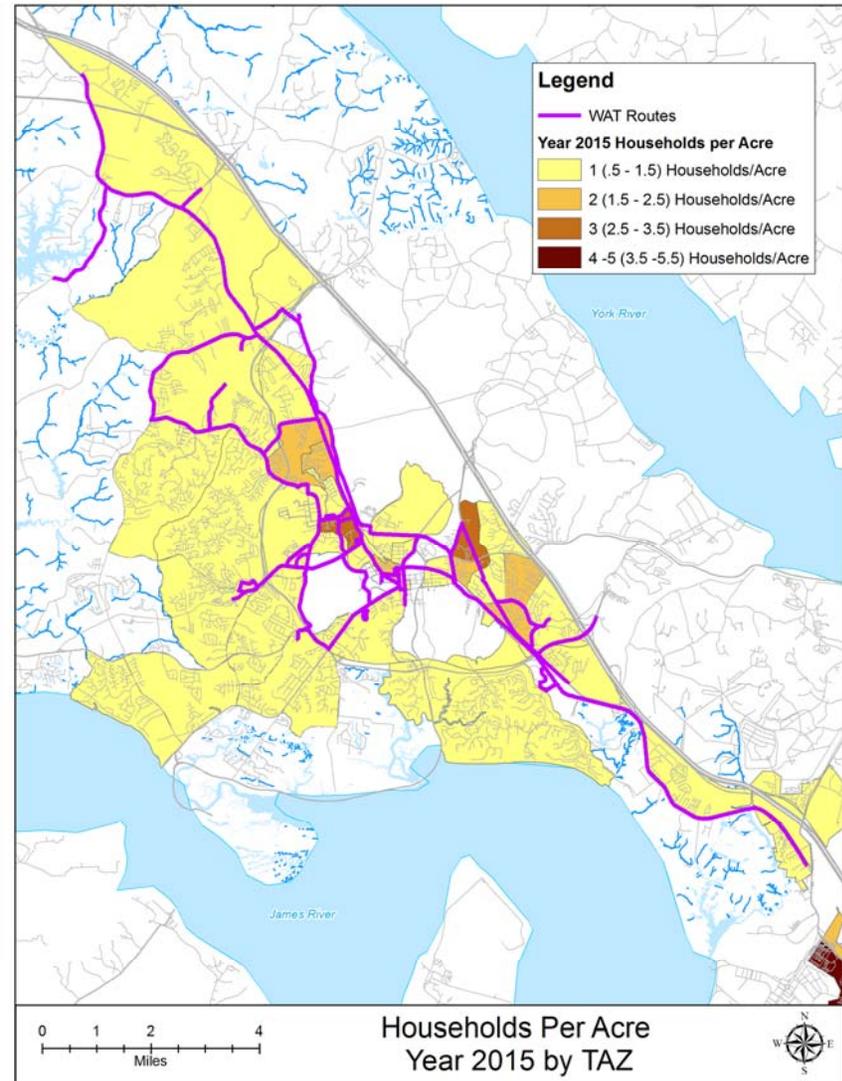


Figure 4-7: Employment Density – 2000

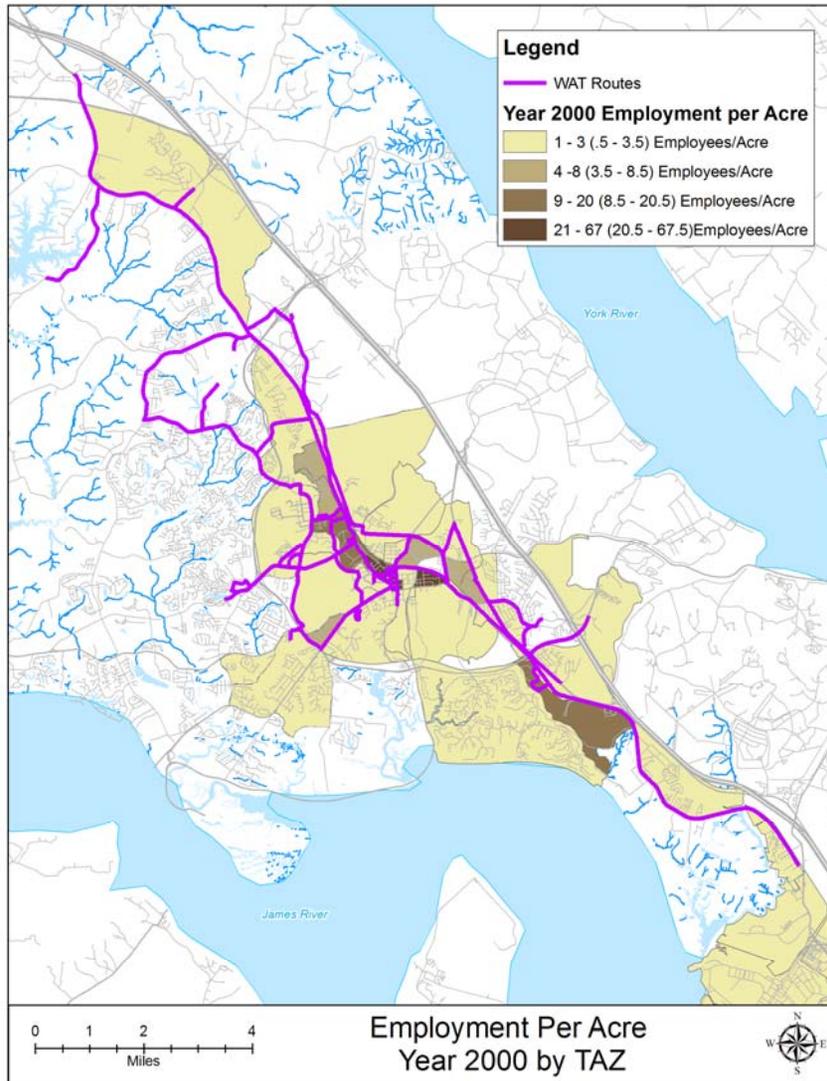


Figure 4-8: Employment Density - 2015

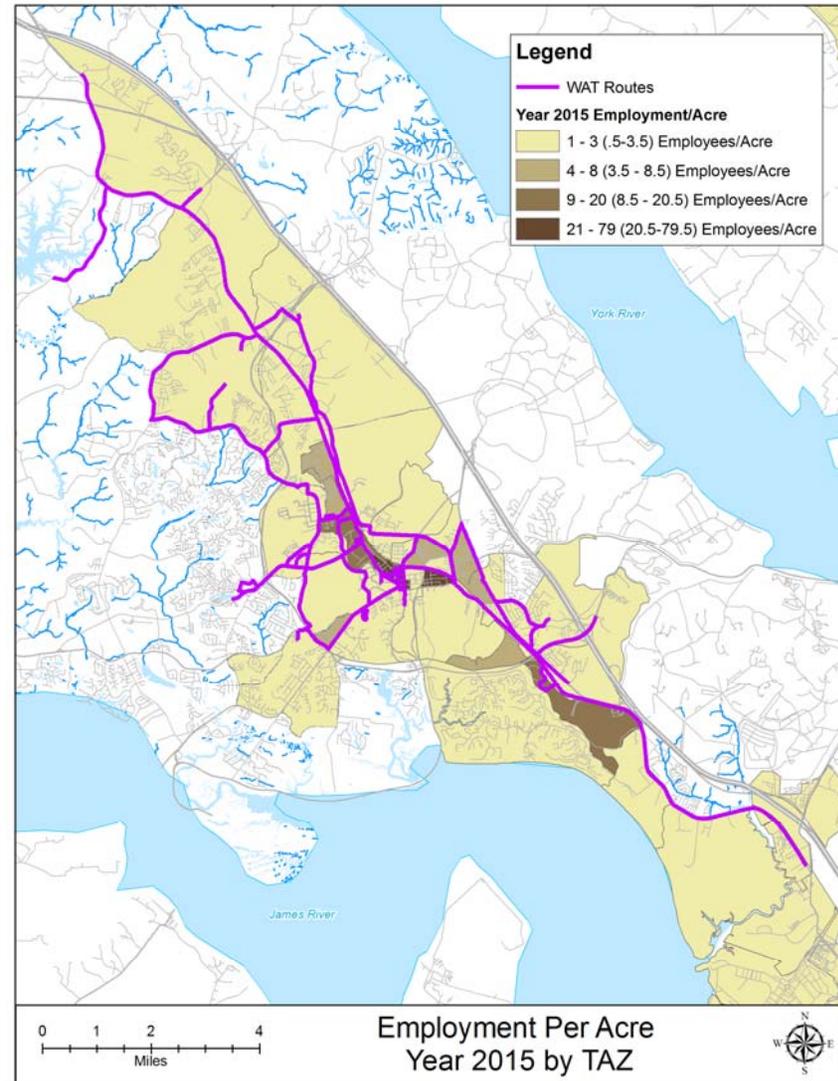


Figure 4-9: Population Density – 2000

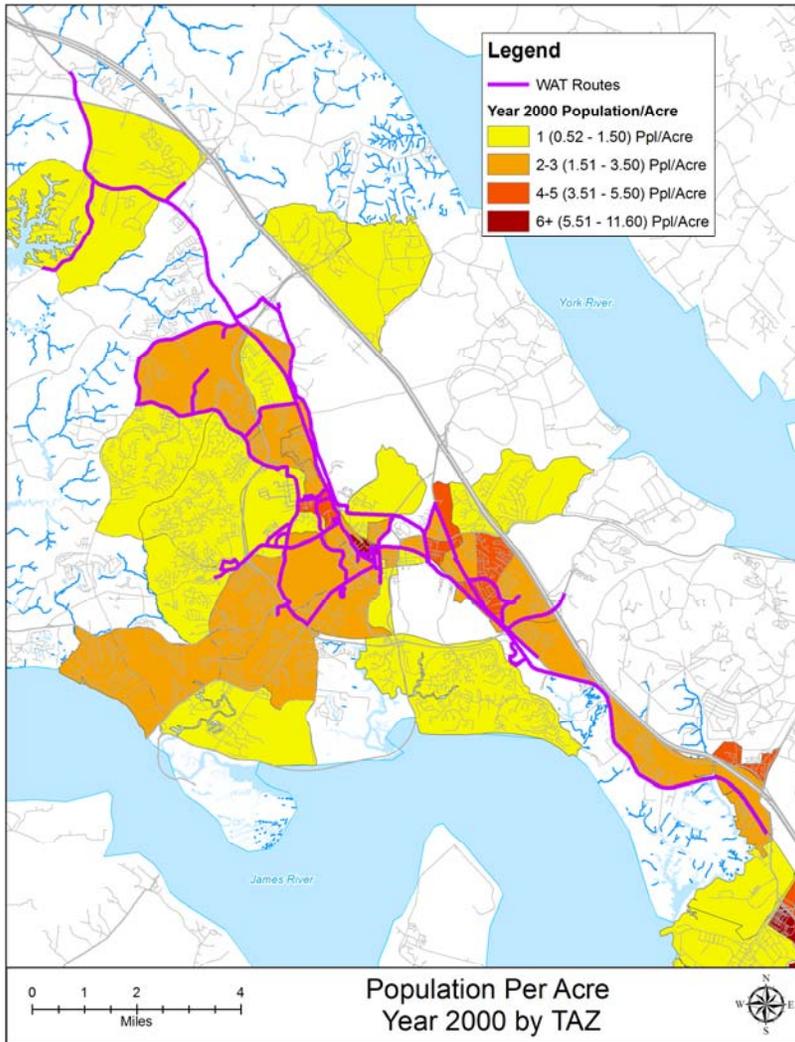


Figure 4-10: Population Density - 2015

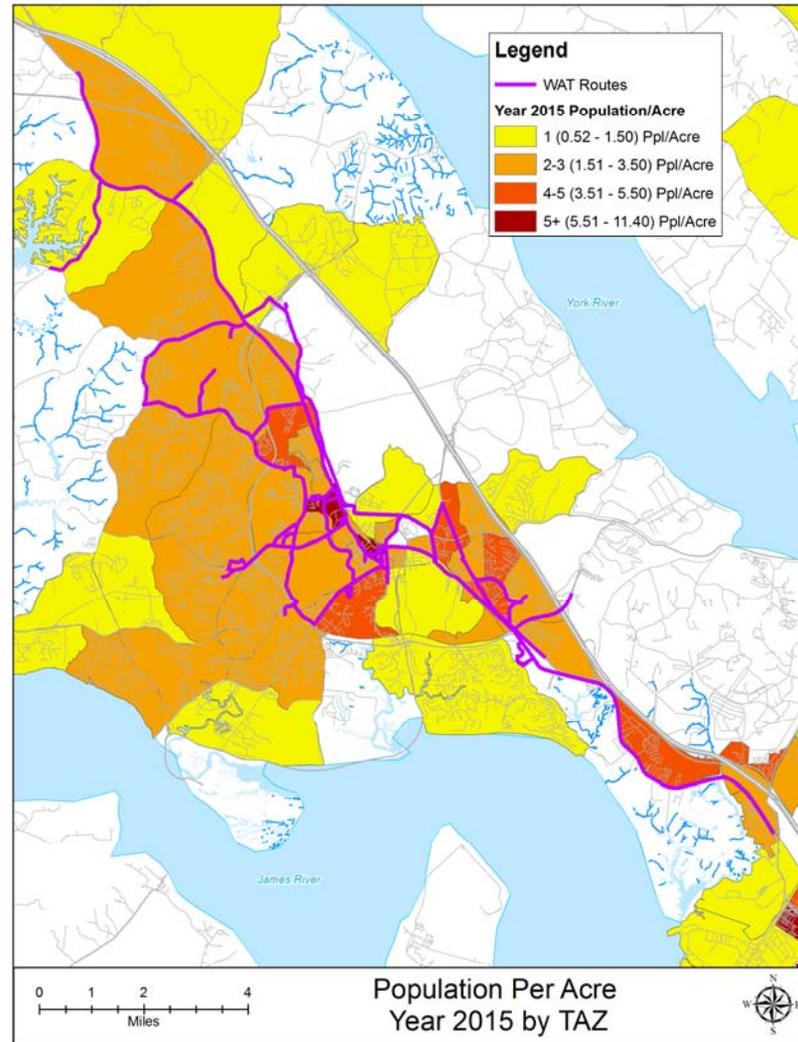
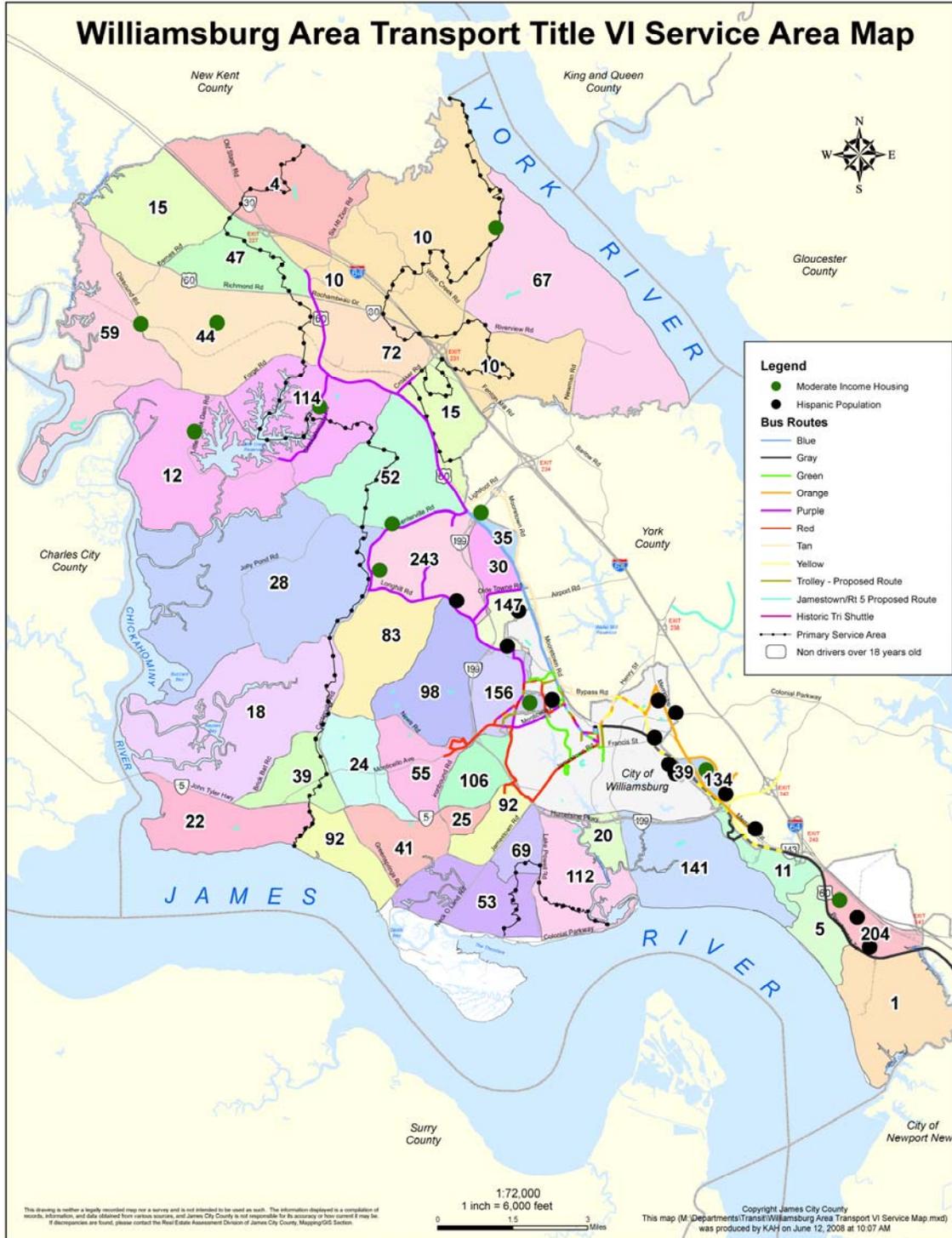


Figure 4-11: Title VI Service Area



4.2 SERVICE AND CAPITAL NEEDS

The TDP up to this point has included an analysis of existing ridership, service and cost characteristics, a peer agency review and results from the 2008 survey of WATA's riders. The consultant also met with WATA staff, attended and presented at the March and June WATA Board of Directors meetings, and presented at and facilitated the two meetings in March and June of WATA's TDP Stakeholders Group to solicit input regarding service and capital needs. Conclusions drawn from these TDP work tasks and input received from the TDP Stakeholders Group have been used to determine the following *potential* service and facility needs.

Service Needs

In response to passenger surveys conducted in 2008, WATA has implemented several improvements to its existing service, including the addition of Sunday service, later service and increased frequencies from 60 minutes to 30 minutes on the Blue, Tan, Orange and Gray Lines.

1. **New Local Route Concepts:** WATA commissioned a study in 2008 by the KFH Group which identified three new route concepts. Figures 4-12 through 4-14 display the proposed routes. Each of the routes are described below:

Williamsburg Trolley: This route is planned to begin operation in October 2009 using replica trolley buses. The purpose of the Williamsburg Trolley route is to provide a new, inexpensive, and fun way to travel to Williamsburg's favorite destinations. It will operate in a loop connecting Merchants Square, the Williamsburg Shopping Center, and the transit-oriented mixed-use developments of High Street and New Town, with stops near W&M. This service addresses the need for more frequent service in parts of the service area that have higher employment and household densities. It also provides an option for tourists to travel between Market Square, hotels, and New Town, which was identified as a need in the stakeholders' meeting. The target audience of the Williamsburg Trolley includes visitors, students and staff of William & Mary, and local residents, particularly those living in New Town or High Street.

The base fare for the Williamsburg Trolley will be only \$0.50, with half fares for seniors and persons with disabilities (\$0.25). As with all routes, children under six years, W&M students, and local middle and high school students will be able to ride free.

From the Williamsburg Transportation Center, this route is proposed to generally travel west on Scotland Street, northwest on Richmond Road, west through High Street, north on Treyburn Drive, west on Ironbound Road, and south on Ironbound Road to New Town. In New Town, the route will loop through New Town's commercial area, including a stop at the WAT transfer point. On the return trip, the

route will serve the Market Square area before completing its round trip at the transit center.

This route is proposed to operate every 30 minutes seven days a week. Initially, it will be operated from 3:00 p.m. until 10:00 p.m. Monday through Thursday, from 3:00 p.m. until 11:00 p.m. on Saturday, and from 12:00 p.m. to 8:00 p.m. on Sunday. As ridership demand grows, its hours are expected to be extended to start service earlier in the day.

- **Jamestown Route:** The Jamestown Route is proposed to provide transit service to the Jamestown Route 5 corridor, which was frequently cited on passenger surveys as a needed geographic expansion. The Jamestown Route would provide service to an area of the county that is not currently served by transit. Stakeholder discussions expressed the desire to provide service to this area, particularly to Jamestown High School and other social service providers in the area that are not currently served.

This route would operate from the New Town transfer center, travel east on Monticello Avenue, southeast on Strawberry Plains Road, and southwest on Jamestown Road. From the intersection of Jamestown Road and Ironbound Road, it is assumed the route would in a loop via Ironbound Road, Hwy. 5 to Jamestown High School, Greensprings Road to Jamestown Settlement, and Jamestown Road.

This route is proposed to operate initially every 60 minutes Monday through Saturday from 6:00 a.m. until 8:00 p.m. As demand dictates, Monday through Saturday service could be extended in the summer peak season and Sunday service added to correspond with WAT's existing route schedules.

- **Quarterpath Route:** This route is designed to provide service to James City County's governmental complex, the proposed "Quarterpath at Williamsburg" development, and to provide additional service to the Marquis Shopping Center. This route would provide transit to social service providers that do not currently have access to WAT routes. It would also provide service to the "Quarterpath at Williamsburg" development, including the recently approved Doctors Hospital of Williamsburg (DHW). This area is also identified as a future transit supportive area in the Hampton Roads Transit Vision Plan.

The current route concept proposes the route would operate from the Williamsburg Transportation Center south on Henry Street and east on Highway 199, where it would turn south on Mounts Bay Road to the James City County governmental complex and continue east on Highway 199 to McLaws Circle. The route would continue east on Highway 199 to the Marquis Shopping Center. The route alignment will be modified in cooperation with DHW and Quarterpath developers as specific site plans are developed.

Figure 4-12: Proposed Williamsburg Trolley

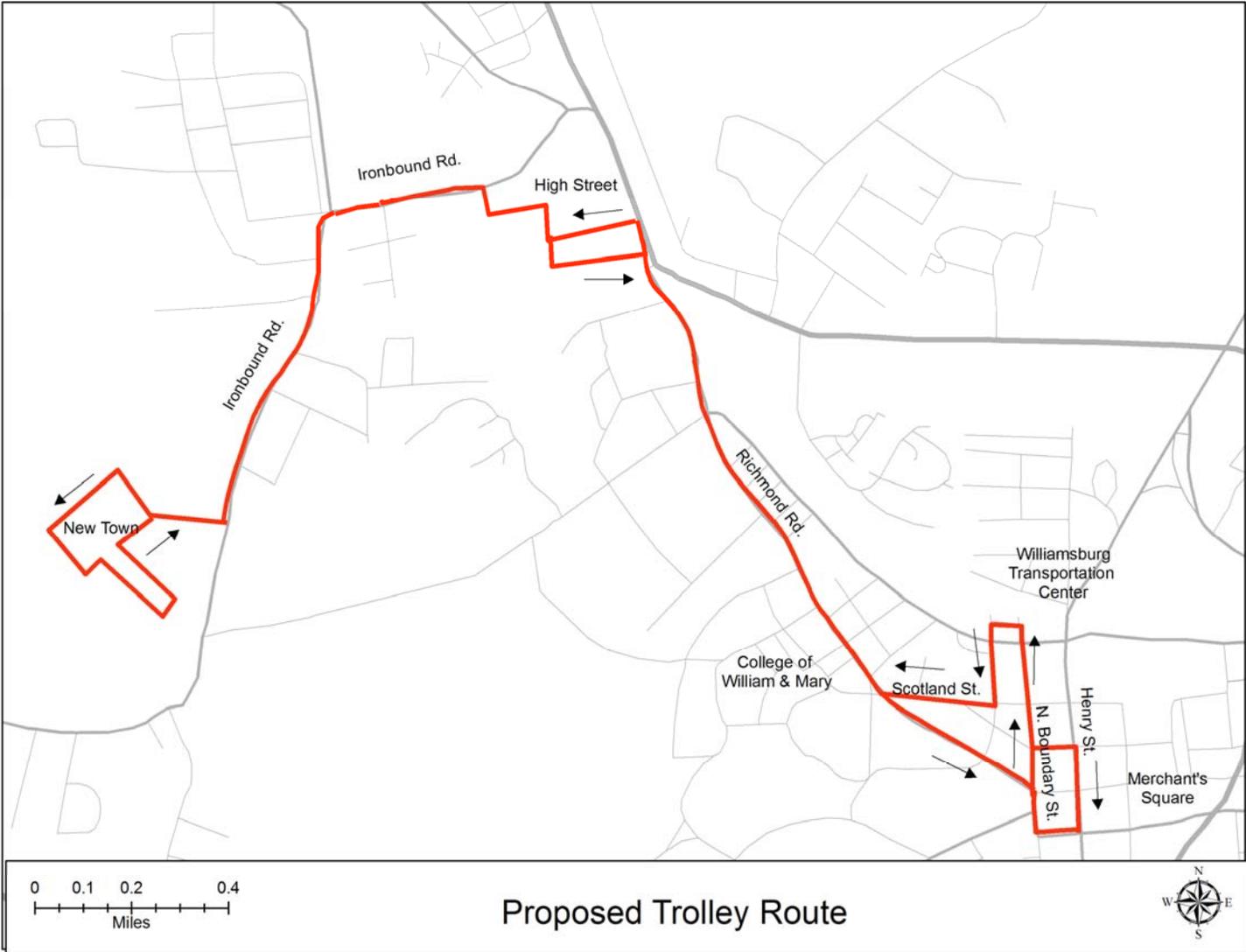
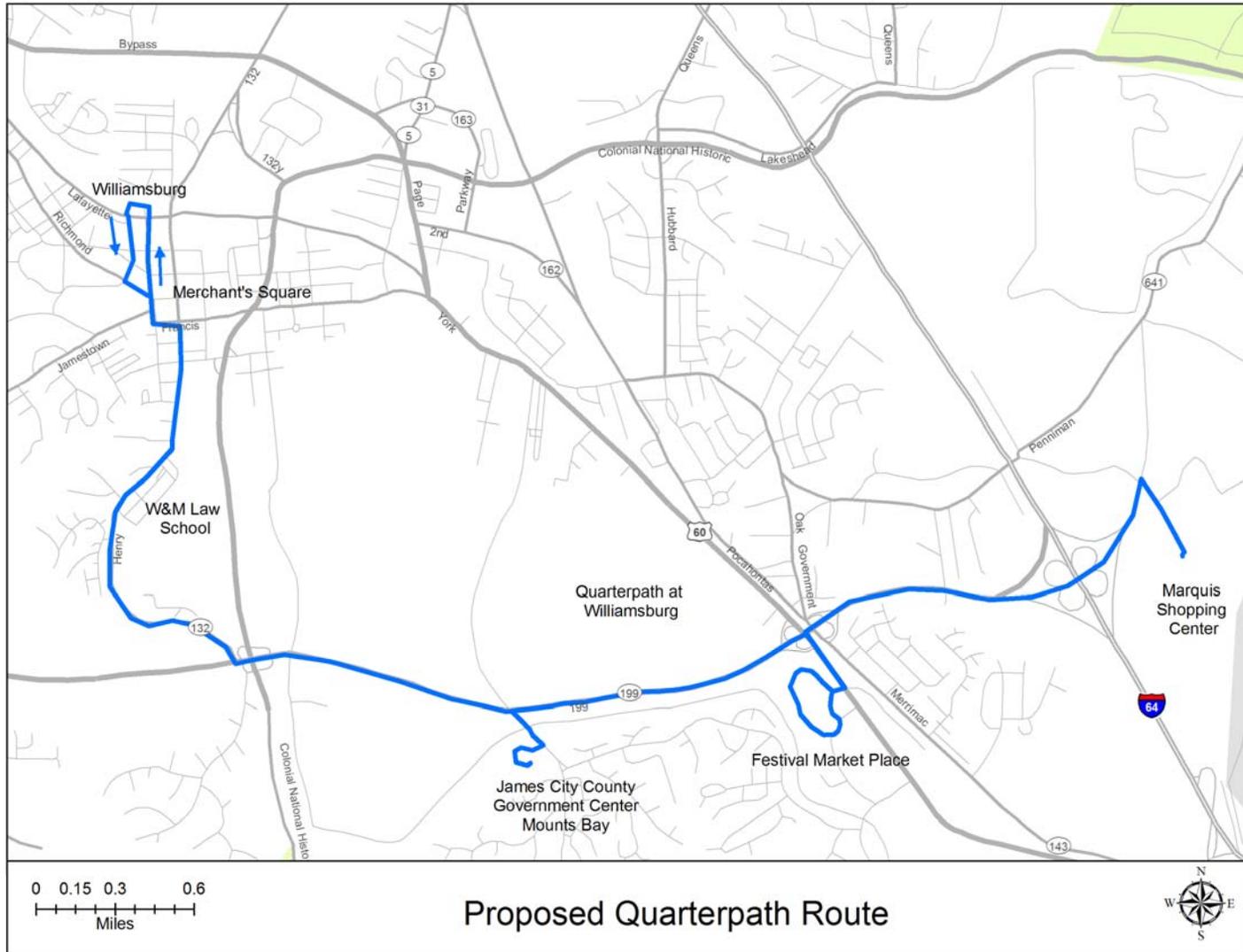


Figure 4-14: Proposed Quarterpath Route



The Quarterpath Route is proposed to operate initially every 60 minutes Monday through Saturday from 6:00 a.m. until 8:00 p.m. As demand dictates, Monday through Saturday service could be extended in the summer peak season and Sunday service added to correspond with WAT's existing route schedules.

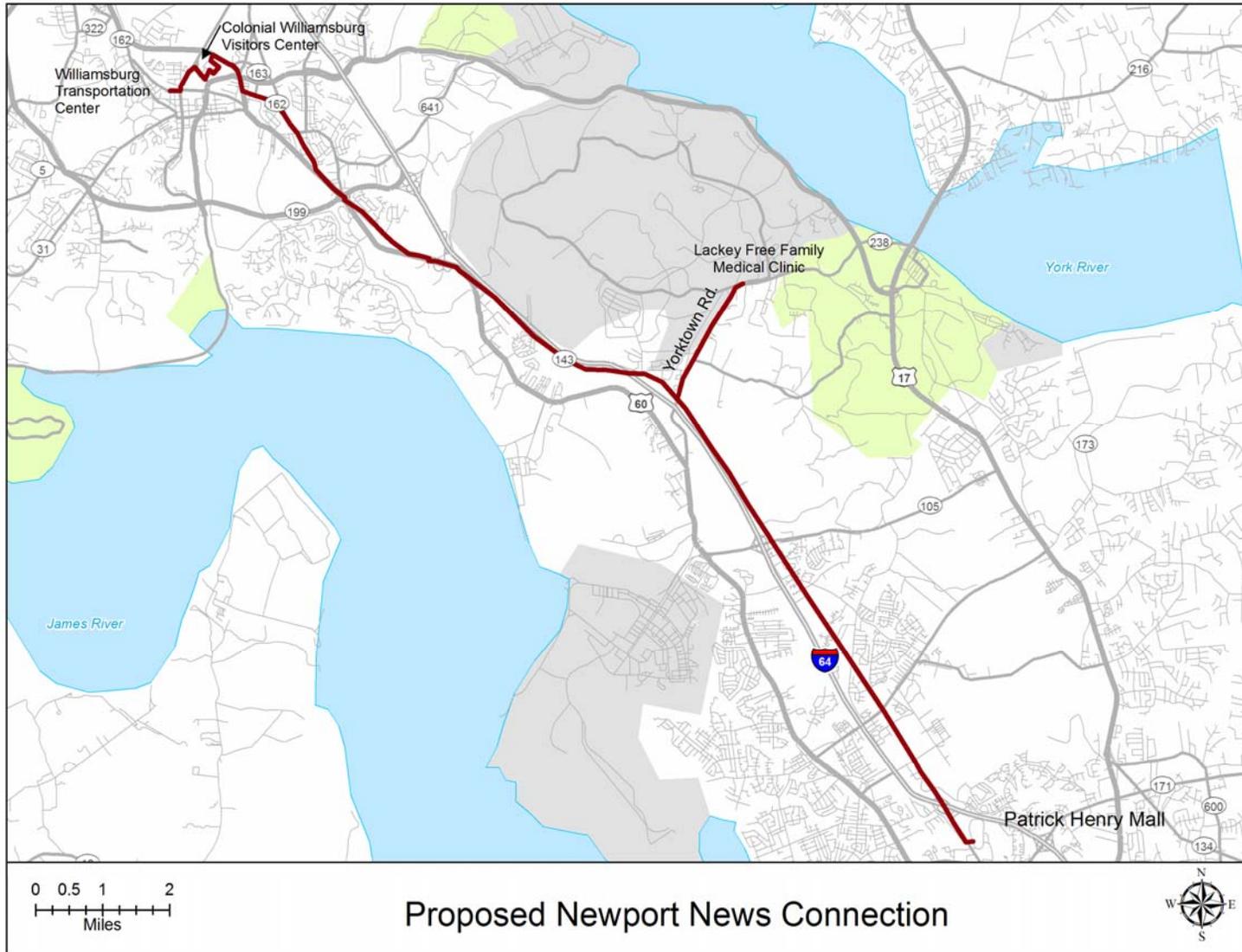
2. **Proposed New Regional Express Routes:** Stakeholder meetings and passenger surveys reveal a need for express regional routes to connect Williamsburg to other places in the region, such as Newport News. Williamsburg imports a large portion of its employment, especially in the hospitality and tourism sector. Figures 4-15 and 4-16 display the two proposed routes described below.

- **Newport News Connection:** Hampton Roads Transit (HRT) Route 121 currently provides limited express service between the Williamsburg Transportation Center and the Newport News Transportation Center, with a stop at HRT's transfer point at Patrick Henry Mall. Route 121 currently makes two round trips during the a.m. peak and two round trips during the p.m. peak hours. A more frequent option (every 30 or 60 minutes seven days a week) is from the Williamsburg Transportation Center to Patrick Henry Mall via the Gray Line and HRT Route 116, which requires a transfer at Lee Hall. Stakeholder meetings and passenger surveys reveal the desire for more frequent direct service (i.e., without the need to transfer between WAT and HRT at Lee Hall) between the Williamsburg Transportation Center and Patrick Henry Mall in Newport News.

Additionally, Yorktown was identified during the 2008 passenger survey as one of the top five geographical areas where riders would like to see service expansion. While Historic Yorktown is currently served by the Historic Triangle Shuttle from March through October, requests have also been made to serve the Lackey Free Clinic located west of Yorktown in the Lackey community. The clinic provides medical services to the economically and medically disadvantaged in the evenings.

To address these needs, an additional regional route is proposed to operate from the Williamsburg Transportation Center to the HRT transfer point at Patrick Henry Mall via Hwy. 143, with one mid-route stop at the Lackey Free Clinic on Yorktown Road. The proposed alignment from the Williamsburg Transportation Center is north on Henry Street, southeast on Pocahontas Bypass, south on Page Street, west on 2nd Street and southeast on Merrimac Trail/Hwy. 143. It would make a mid-route deviation northeast on Yorktown Road to the Lackey Free Clinic before continuing on Jefferson Avenue/Hwy. 143 to the Patrick Henry Mall transfer point.

Figure 4-15: Proposed Newport News Connection



The Newport News Connection Route is proposed to operate Monday through Sunday the same hours as WAT's core existing routes. That is, it would operate Monday through Saturday from 6:00 a.m. until 8:00 p.m. during the off-peak season and until 10:00 p.m. during the summer peak season. On Sunday, it would operate from 8:00 a.m. until 6:00 p.m. during the off-peak season and until 8:00 p.m. during the summer peak season.

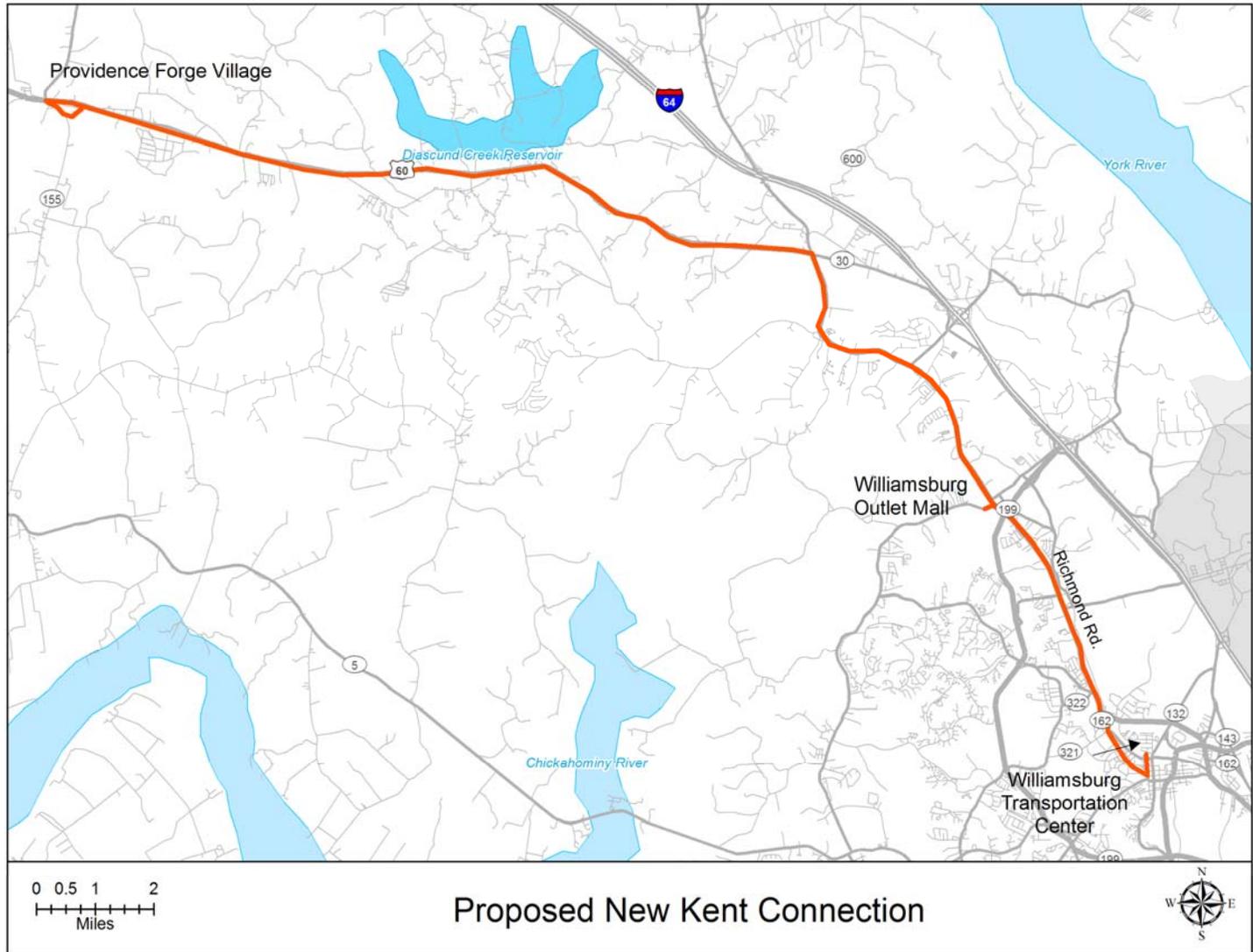
- **New Kent Connection:** New Kent County is located between Williamsburg and Richmond. Projected growth in the county, particularly in the Providence Forge Village area at the intersection of Hwy. 155 and Hwy. 60, has prompted interest in providing a regional connection for New Kent residents traveling to Williamsburg.

The New Kent Connection route is proposed to operate via Hwy. 60 between the Williamsburg Transportation Center and Providence Forge Village. From the transportation center, the route would operate non-stop on Richmond Road/Hwy. 60 to a mid-route stop at the Williamsburg Outlet Mall transfer point. It would then continue west on Hwy. 60 (Richmond Road and Barhamsville Road) to a proposed park and ride lot in Providence Forge Village at Hwy. 155. Use of this park and ride lot could be shared with a commuter bus route from Providence Forge Village to downtown Richmond proposed in the *Richmond Regional Mass Transit Study*, completed in May 2008.

This route is proposed to operate Monday through Friday from 6:00 a.m. until 8:00 p.m. (10:00 p.m. during summer peak season). This route could operate initially every two hours, with its frequency improved to every 60 minutes as warranted by demand.

3. **Later Service:** Passenger and stakeholder feedback identified a need for later service to accommodate the hospitality workers' schedules. In 2008, WAT extended its operating hours until 8:00 p.m. during off-peak season and 10:00 p.m. during peak season. Extending service hours until 10 p.m. during off-peak season and midnight during peak season would accommodate the need for even later service. It is recommended that later hours be considered for the Gray, Blue, Orange, Purple 1, Purple 2, Red, Yellow and Tan Lines, as well as the Williamsburg Trolley.
4. **Frequency Improvements (Select Routes):** Increased frequencies for the Blue, Tan, Orange and Gray Line were implemented on April 6, 2009 to meet ridership demands during Williamsburg's summer peak season. These routes now operate every 30 minutes from 10:00 a.m. until 6:00 p.m. and every 60 minutes the remaining service hours. Ridership trends indicate the need to maintain 30-minute service year-round on the Blue Line and Gray Line. As demand on the Tan Line and Orange Line is more seasonal, it is assumed service frequencies will drop back to 60-minutes in the off-peak season.

Figure 4-16: Proposed New Kent Connection



Depending on the success of these routes, additional frequency improvements may be warranted sometime in the future with the Red Line, Purple 1 Line, and Purple 2 Line to allow better connections. As mentioned in Chapter 3 of this TDP, the highest transfer activity during the April survey occurred between the Blue Line and the Purple 2 Line. High transfer activity with the Blue Line also occurs between Purple 1 and Red Lines, as well as between the Orange and Red Lines. In July, the highest transfer activity occurred between the Purple 1 and Blue Lines. Frequency improvements in the peak hours on these routes would accommodate transfer demands between these routes and the Blue Line.

The Surry Connection is a regional route that was implemented in October 2007 with Monday through Friday service to Surry County via the Scotland Ferry. This service provides three a.m. trips and three p.m. trips, and is dependent on the ferry schedule. This route currently operates very limited service with one bus approximately every 3 hours. The TDP Stakeholders have requested more frequent service on this route. This could be accomplished by adding a bus to improve its frequency to every 1½ hours.

5. **Comprehensive Operations Analysis:** As outlined earlier in this TDP, the Williamsburg area is a high growth area in terms of both population and employment, with diverse transit markets and a high demand for improved transit services. However, the operating resources for system expansion are much more constrained. A Comprehensive Operations Analysis (COA) is recommended to ascertain where transit services are being utilized or underutilized and identify areas for reinvestment. The study would include public outreach and a full stop-level and trip-level ridecheck survey to provide up-to-date ridership data and support recommendations for service modifications. It would be designed to evaluate the success of recent service improvements, optimize the fixed-route network, and define a controlled, cost-effective means of service expansion. Ideally, it would be conducted after the Williamsburg Trolley has been in revenue service for at least a year.
6. **Long Range Service Needs:** The following service needs have generally been identified for consideration beyond FY 2015.
 - **Intercity Passenger Rail Service:** Passenger rail service between Richmond, Williamsburg, and Newport News along the CSX corridor has been the subject of extensive study over the last several years by DRPT, as well as the Hampton Roads and Richmond metropolitan planning organizations. DRPT's *Richmond/Hampton Roads Passenger Rail Project* is currently underway, and includes five alternatives serving Williamsburg ranging from the current two daily round trips to nine daily round trips. Alternatives under study are shown in Figure 4-17.

Concurrently, the HRTPO has been developing a *Transit Vision Plan for Hampton Roads*, which includes the CSX corridor from the Lightfoot area in the vicinity of the Williamsburg Outlet Mall to downtown Newport News. The short-range implementation plan from 2010-2015, which falls within the time frame of this TDP,

- **Other Future Regional Connections:** In addition to improving connections between Williamsburg and Newport News, Surry County, and New Kent County as described above, the Workforce Development Project Best Practices Study recommends WATA should explore additional opportunities to improve or implement routes extending into Hampton, Charles City, and Gloucester County to help expand labor pool access to the greater Williamsburg area. Gloucester, Charles City, and New Kent are included in the 12-county area served by Bay Transit. WATA should coordinate with Bay Transit to ensure appropriate linkages with Bay Transit services are made.

Capital Needs

This section summarizes major capital needs, including vehicles, facilities, and equipment, identified for the TDP.

1. **Revenue Vehicle Replacement/Expansion:** Chapter 3 of this TDP presented an inventory of WATA's revenue and support vehicle fleet. The revenue fleet is a mix of heavy-duty buses, BOC vehicles primarily used for demand response service, and a medium-duty replica trolley bus. As these vehicles reach the end of their prescribed life span, replacements must be procured to ensure safe, reliable service. Anticipated revenue vehicle replacement requirements during the TDP time period are outlined in the paragraphs below and summarized in Table 4-1. Should
 - **Replica Trolley Buses:** WATA currently owns one medium-duty replica trolley bus that is used for the Yorktown Trolley service. In FY 2011, the Yorktown Trolley vehicle will have reached the end of its five-year useful life and will be due for replacement. It is proposed that this trolley be replaced with a heavy-duty trolley bus with a longer life span. As the Yorktown Trolley currently operates without a spare vehicle, an additional heavy-duty trolley bus should also be procured as a spare in FY 2011.
 - **Body-on-Chassis Vehicles:** WATA currently has five body-on-chassis (BOC) vehicles used to operate ADA paratransit service and fixed route service and two additional BOC vehicles in its contingency fleet. All seven are at or near the end of their useful lives. WATA has secured ARRA funding to replace three of these in FY 2010. The remaining four are proposed for replacement in FY 2011.
 - **Heavy-Duty 30-Foot and 35-Foot Transit Buses:** During the TDP time period, the 12 30-foot and 35-foot New Flyer buses that were placed into service in 2002 and 2005 will have reached the end of their life cycle. These buses will need to be replaced. For this purchase, there is also a desire to order environmentally-friendly hybrid-electric buses.

Should any of the suggested service expansion proposals be implemented, additional buses will need to be purchased beyond those identified above.

**Table 4-1
Revenue Vehicle Replacement/Expansion Schedule**

Year	Replacement Vehicles
FY 2009	n/a
FY 2010	3 Body-On-Chassis Vehicles
FY 2011	4 Body-On-Chassis Vehicles 2 Heavy-Duty Replica Trolleys
FY 2012	6 30-foot Heavy-Duty Buses
FY 2013	n/a
FY 2014	3 Body-On-Chassis Vehicles 4 35-Foot Heavy-Duty Buses
FY 2015	2 30-foot Heavy-Duty Buses 4 Body-On-Chassis Vehicles

* Future standard bus fleet assumed to be hybrid-electric

2. **Support Vehicles:** WATA currently has two Ford Escapes and one Dodge Caravan that are used for WATA administrative and operational support functions. These will be due for replacement during the TDP time period. Three additional support vehicles are anticipated to be needed as WATA service is expanded.

3. **Operations/Maintenance Facility:** As described in Chapter 3 of this TDP, WATA currently leases its operations and maintenance (O&M) facility. Annual lease costs must be included in the TDP.

 At the same time, WATA is evaluating ownership and management of their O&M facility versus leasing and contracting maintenance, using Section 5304 planning funds. Proposals for a Facility Feasibility Study are due to WATA on June 16, 2009. Funding for design, engineering, and construction of a new O&M facility, should it be determined to be feasible, has the support of DRPT for future capital funding.

4. **Transportation Center:** As described in Chapter 3 of this TDP, WATA currently pays an annual hub transport fee for space at the Williamsburg Transportation Center where buses meet and passenger transfers take place. Annual lease costs must be included in the TDP. These costs are reported in WATA's operations budget.

5. **Administration/Customer Service Center:** WATA has identified a need and is pursuing options to lease additional office space to accommodate administrative support as well as a customer service center with a transit store (Pass Sales/Information Kiosk), potentially in New Town near the WAT bus transfer point.

6. **GPS/AVL Tracking Equipment:** Automatic vehicle location (AVL) is a computer-based vehicle tracking system. For transit, the actual real-time position of each vehicle is determined and relayed to a control center. A GPS-based Automatic Vehicle Location (AVL) will increase WATA's capability to monitor information on vehicle position and operational status.
7. **Automated Fare/Passenger Collection Software:** This upgraded software technology will allow WATA to improve customer experience with the introduction of a multiple pass program (e.g., Daily, Weekly, Monthly) and the reporting of passenger use for local, state and federal reports.
8. **Bus Shelters:** Stakeholder and staff meetings identify the need for more bus shelters at bus stops to provide a safe place for passengers to wait for transit. This is also identified as one of the Goals and Objectives in Chapter 2 of this TDP. Currently, WAT has an inventory of 29 bus shelters, with most in good to excellent condition. As stated in the Goals and Objectives, WAT has a need to add new shelters annually in areas where utilization is projected to be highest.
9. **Bus Stop Signage:** The upgrade of WATA's bus stop signs is needed to better meet federal Americans with Disabilities (ADA) and Limited English Proficiency (LEP) requirements.
10. **Automated Data Processing (ADP) Hardware and Software:** A need for Automated Data Processing software has been identified to support WATA's start-up of an Automated Vehicle Locator (AVL) system.

4.3 FUNDING REQUIREMENTS

Potential costs were identified for the service and capital needs identified above. Potential funding requirements for service expansion are based on the following assumptions:

- Phase 1 of the new Williamsburg Trolley service is estimated to require 5,800 annual revenue hours. Phase 2 is estimated to require an additional 1,800 revenue hours annually. Two peak vehicles are required for this proposed route.
- Phase 1 of the new Jamestown Route is estimated to require 4,300 hours annually. Phase 2 is estimated to require an additional 800 revenue hours annually. One peak vehicle is required for this proposed route.
- Phase 1 of the new Quarterpath Route is estimated to require 4,300 hours annually. Phase 2 is estimated to require an additional 800 revenue hours annually. One peak vehicle is required for this proposed route.
- The proposed Newport News Connection is estimated to require 10,200 hours annually and two peak vehicles.
- Phase 1 of the proposed New Kent Connection is estimated to require 3,800 hours annually and one peak vehicle. Phase 2 is estimated to require an additional 3,800 revenue hours annually and an additional peak vehicle.

- Providing later evening service for select routes on weekdays and Saturdays until 10 p.m. during the off-peak season and until 12 a.m. during the peak summer season, and on Sundays until 8 p.m. during the off-peak season and until 10 p.m. during the peak season, would require an additional 6,700 hours annually. No additional peak vehicles would be required.
- Improving the frequency of the existing Surry Connection route from every 3 hours to every 1½ hours is estimated to require an additional 4,100 hours annually and one additional peak vehicle.
- Improving the frequency of select routes on weekdays during the summer peak season and peak hours to 30 minutes is estimated to require an additional 1,800 annual revenue hours. For three routes, three additional peak vehicles would be required.

Table 4-2 identifies operating cost estimates for the service improvements described in the preceding paragraphs. Annualized service hours and peak vehicle requirements have been calculated using a combination of field observations, GIS mapping and average travel speeds for existing WATA services on similar corridors. The operating statistics model takes into account WATA's unique route schedules to annualize revenue hours, such as variations between the off-peak and peak seasons and W&M service. An hourly rate of \$60.34 has been applied to all fixed-route services, based on actual operating data for FY 2009.

Table 4-3 identifies the estimated capital costs for vehicle replacement/expansion, facilities, and equipment described in the preceding paragraphs. Like the operating cost estimates, these estimates are in FY 2009 dollars.

Table 4-2
TDP Service Needs
Estimated Annual Operating and Maintenance Costs
(in FY 2009 dollars)

Service Improvement	Span and Frequency	Peak Vehicles Required	Estimated Annual Hours	Estimated Annual Operating Cost
New Fixed Route Service				
• Williamsburg Trolley - Ph. 1	Daily 30-minute service from 10 AM to 6 PM	2	5,800	\$ 350,000
• Williamsburg Trolley - Ph. 2	Extend operating hours: • M-Sat. from 10 AM to 8 PM off-peak/10 PM peak • Sun. from 10 AM to 8 PM off-peak/10 PM peak	2	7,600	\$ 458,600
• Jamestown Route - Ph. 1	M-Sat. 60-minute service from 6 AM to 8 PM	1	4,300	\$ 259,500
• Jamestown Route - Ph. 2	Extend operating hours: • M-Sat. from 6 AM to 8 PM off-peak/10 PM peak • Sun. from 8 AM to 6 PM off-peak/8 PM peak	1	5,100	\$ 307,700
• Quarterpath Route - Ph. 1	M-Sat. 60-minute service from 6 AM to 8 PM	1	4,300	\$ 259,500
• Quarterpath Route - Ph. 2	Extend operating hours: • M-Sat. from 6 AM to 8 PM off-peak/10 PM peak • Sun. from 8 AM to 6 PM off-peak/8 PM peak	1	5,100	\$ 307,700
New Regional Service				
• Newport News Connection	60-minute service: • M-Sat. from 6 AM to 8 PM off-peak/10 PM peak • Sun. from 8 AM to 6 PM off-peak/8 PM peak	1	10,200	\$ 615,500
• New Kent Connection - Ph. 1	120-minute service: • M-F from 6 AM to 8 PM off-peak/10 PM peak	1	3,800	\$ 229,300
• New Kent Connection - Ph. 2	Improve frequency to 60-minutes	1	7,600	\$ 458,600
Later Evening Service				
• Gray, Blue, Orange, Purple 1, Purple 2, Red, Yellow, Tan, & Williamsburg Trolley	Extend operating hours: • M-Sat. until 10 PM off-peak/12 AM peak • Sun. until 8 PM off-peak/10 PM peak	0	6,700	\$ 404,300
Frequency Improvements				
• Surry Connection	Improve frequency to 90-minutes	1	4,100	\$ 247,400
• Red, Purple 1, & Purple 2	Improve M-F peak frequency to 30-minutes	3	1,800	\$ 108,600

Table 4-3
TDP Capital Needs
Estimated Capital Costs
(in FY 2009 dollars)

Capital Item	Number Required	Unit Cost	Total Cost
Replacement Vehicles			
30' Heavy Duty Bus	8	\$ 530,000	\$ 4,240,000
35' Heavy Duty Bus	4	\$ 535,000	\$ 2,140,000
Body-On-Chassis Bus	14	\$ 65,000	\$ 910,000
Heavy Duty Trolley Bus	1	\$ 345,000	\$ 345,000
Admin./Operation Support Vehicles	5	\$ 28,000	\$ 140,000
Expansion Vehicles			
30' Heavy Duty Bus	2	\$ 530,000	\$ 1,060,000
35' Heavy Duty Bus	6	\$ 535,000	\$ 3,210,000
Body-On-Chassis Bus	4	\$ 65,000	\$ 260,000
Light Duty Trolley Bus	3	\$ 175,000	\$ 525,000
Heavy Duty Trolley Bus	4	\$ 345,000	\$ 1,380,000
Admin./Operation Support Vehicles	3	\$ 28,000	\$ 84,000
Facility Leases			
Transportation Center	6 years	\$ 75,000	\$ 450,000
O&M Facility	6 years	\$ 31,000	\$ 186,000
Admin./Customer Service Facility	6 years	\$ 47,000	\$ 282,000
Permanent O&M Facility			
Engineering & Design			\$ 1,000,000
Construction			\$ 10,000,000
Passenger Amenities			
Transit Enhancements			\$ 50,900
Bus Shelters			\$ 104,000
Bus Stop Sign Replacements			\$ 190,000
Bike Rack Replacements			\$ 102,000
Equipment and Parts			
Rebuild Bus Engines and Replace Transmissions			\$ 506,000
Purchase Spare Parts			\$ 270,000
GPS/AVL System			\$ 350,000
Automated Fare/Passenger Collection Software			\$ 150,000
ADP Computer System and Software Upgrades			\$ 28,000
Surveillance Equipment			\$ 45,000

5.0 SERVICE AND FACILITY RECOMMENDATIONS

This chapter identifies the cost-feasible service and capital needs that are recommended for inclusion in the TDP time period. An unconstrained list of potential service and capital needs were identified in the prior chapter of this TDP. Recommended improvements presented in this chapter are financially constrained, based on anticipated funding availability during the TDP time period.

5.1 SERVICE RECOMMENDATIONS

Chapter 4 of this TDP identified the following potential service improvements for consideration over the TDP's time period:

- New Williamsburg Trolley Route
- New Jamestown Route
- New Quarterpath Route
- Expanded Regional Service to Newport News
- Regional Service to New Kent County
- Later Evening Service (Select Routes)
- Frequency Improvements (Select Routes)

As the peer analysis notes, in FY 2008 WATA covered about 46% of O&M costs through local government funding. Another 28% came from other sources and fares collected. The remaining 27% was funded through federal (9%) and state (18%) funding programs. Future state funding levels for operations support are presumed to remain flat at this point, with the State having recently enacted funding cuts. Local funding levels have also been held flat in recent years, despite Williamsburg's growing economy.

The WATA Board of Directors has made implementation of the Williamsburg Trolley in FY 2010 part of its strategic plan for 2009-2010. The Strategic Plans also includes the evaluation and implementation of recommendations from the 2008 Passenger Profile and opportunities for system design improvements, such as increased frequencies, where financially and operationally possible.

WATA has been able to leverage federal funding sources through the HRTPO, such as Congestion Mitigation and Air Quality (CMAQ) and flexible Surface Transportation Program (STP) funds, and state funding sources through DRPT, to make significant service improvements and plan for future facility improvements. Given Williamsburg's high growth rate compared to the rest of the Hampton Roads region, WATA is now receiving a larger portion of the region's Section 5307 funds.

The outlook for Section 5307 funds in the out-years of TDP is also positive, as the 2010 U.S. Census is anticipated to show significant growth in Williamsburg. WATA will also benefit from additional Section 5307 funding coming to the region after Norfolk's light rail transit line starts revenue service. In addition, the state is actively pursuing passenger rail service in the CSX corridor from Richmond, through Williamsburg, to Newport News. While not certain, both of these factors could lead to additional funding opportunities for expansion of the WATA system.

In the short-term, however, there is a growing recognition at the WATA staff and Board level that expansion of the system and continued operations of those services will require additional funding at the local level, whether through fare structure changes, increased contributions by the local governments, or innovate funding sources such as public-private partnerships.

Recognizing the cost savings of pooled procurement, the financially-constrained service plan intends to implement service improvements concurrent with the purchase of similarly sized replacement vehicles. Taking into account all these considerations, the following service recommendations are recommended for programming during the TDP time period:

FY 2010

- Phase 1 implementation of the Williamsburg Trolley

FY 2011

- Phase 2 implementation of the Williamsburg Trolley
- Phase 1 implementation of the Jamestown Route
- Phase 1 implementation of the Quarterpath Route
- Completion of a Comprehensive Operations Analysis (COA)

FY 2012

- Phase 2 implementation of the Jamestown Route
- Phase 2 implementation of the Quarterpath Route

FY 2013

- Implementation of the Newport News Connection

FY 2014

- None

FY 2015

- None

5.2 CAPITAL RECOMMENDATIONS

Capital recommendations for FY 2010 through FY 2015 are listed below. It should be noted that three light-duty replica trolley buses are currently in production using FY 2009 funds, and will be used for the start-up of the Williamsburg Trolley in FY 2010.

FY 2009 funds from the American Recovery and Reinvestment Act (ARRA) were approved by the HRTPO in May 2009 and included in the region's Transportation Improvement Program (TIP). While these ARRA funds are programmed in FY 2009 of the region's TIP, the funds were not expended by the end of the fiscal year and have been rolled forward to FY 2010 in the TDP.

ARRA funds will be used for the following capital items:

- GPS-based AVL tracking system: \$350,000
- Automated fare/passenger collection software: \$150,000
- Bus shelters: \$80,000
- Transit enhancements: \$12,592
- Three body-on-chassis replacement vehicles: \$195,000

State special projects funding is being used in FY 2010 to study the feasibility of WATA building and owning an operations and maintenance facility, rather than continuing to lease space. As a placeholder pending the results of the study, the TDP includes funding for engineering and design of a permanent O&M facility in FY 2011-2012 and for construction beginning in FY 2014. Construction costs have been estimated at a total of \$10 million, to be spread over two years.

FY2010

- Replacement Vehicles:
 - 3 Body-on-Chassis Vehicles (ARRA Funding)
- GPS/AVL Tracking System (ARRA Funding)
- Bus Shelters (ARRA)
- Automated Fare/Passenger Collection Software (ARRA Funding)
- Transportation Center Hub Transport Fees
- Current Bus O&M Facility Lease Payment
- Administration/Customer Service Facility Lease Payment
- Transit Enhancements
- Replacement of Bus Stop Signage
- ADP Computer System and Software Upgrades
- Rebuild Bus Engines and Replace Transmissions
- Purchase Spare Parts

FY2011

- Replacement Vehicles:
 - 1 Heavy-Duty Replica Trolley Bus
 - 4 Body-on-Chassis Vehicles
 - 2 Administration/Operations Support Vehicles
- Expansion Vehicles:
 - 1 Heavy-Duty Replica Trolley Bus
 - 3 Body-on-Chassis Vehicles
 - 3 Administration/Operations Support Vehicles
- Transportation Center Hub Transport Fees
- Current Bus O&M Facility Lease Payment
- Administration/Customer Service Facility Lease Payment
- Design and Engineering of Bus O&M Facility
- Transit Enhancements
- Replacement of Bus Stop Signage
- Rebuild Bus Engines and Replace Transmissions
- Purchase Spare Parts
- Replace Bike Racks on Buses
- Purchase Surveillance Equipment

FY2012

- Replacement Vehicles:
 - 6 Heavy-Duty 30-Foot Buses
 - 1 Administration/Operations Support Vehicle
- Transportation Center Hub Transport Fees
- Current Bus O&M Facility Lease Payment
- Administration/Customer Service Facility Lease Payment
- Design and Engineering of Bus O&M Facility
- Transit Enhancements
- Rebuild Bus Engines and Replace Transmissions
- Purchase Spare Parts

FY2013

- Transportation Center Hub Transport Fees
- Current Bus O&M Facility Lease Payment10 Bus Shelters (ARRA)
- Bus Shelters
- Administration/Customer Service Facility Lease Payment
- Design and Engineering of Bus O&M Facility
- Transit Enhancements
- Rebuild Bus Engines and Replace Transmissions
- Purchase Spare Parts

FY2014

- Replacement Vehicles:
 - 4 Heavy-Duty 35-Foot Buses
 - 3 Body-on-Chassis Vehicles
- Expansion Vehicles:
 - 1 Heavy-Duty 35-Foot Bus
 - 3 Heavy-Duty Replica Trolley Buses
- Transportation Center Hub Transport Fees
- Current Bus O&M Facility Lease Payment
- Administration/Customer Service Facility Lease Payment
- Construction of Bus O&M Facility
- Transit Enhancements
- Rebuild Bus Engines and Replace Transmissions
- Purchase Spare Parts
- Replace of Bus Stop Signage
- Purchase Surveillance Equipment

FY2015

- Replacement Vehicles:
 - 2 Heavy-Duty 30-Foot Buses
 - 4 Body-on-Chassis Vehicles
 - 2 Administration/Operations Support Vehicles
- Expansion Vehicles:
 - 3 Body-on-Chassis Vehicles
 - 3 Administration/Operations Support Vehicles
- Transportation Center Hub Transport Fees
- Current Bus O&M Facility Lease Payment
- Administration/Customer Service Facility Lease Payment
- Construction of Bus O&M Facility
- Transit Enhancements
- Rebuild Bus Engines and Replace Transmissions
- Purchase Spare Parts
- Replace Bus Stop Signage
- Replace Bike Racks on Buses

6.0 CAPITAL IMPROVEMENT PROGRAM

This chapter of the TDP describes major capital programs (vehicles, facilities and equipment) required to carry out the operations and services set forth in the TDP service and facility recommendations that were presented in the prior chapter. Many of these capital purchases are dependent on sequencing and must occur either prior or following another capital improvement item. Those occurrences are described in the following paragraphs when applicable.

6.1 VEHICLE REPLACEMENT PROGRAM

As was noted in prior chapters of this TDP, WATA presently operates a mixed fleet of 30-foot heavy-duty buses (8 units), 35-foot heavy-duty buses (12 units), and BOC vehicles (7 units). WATA's revenue fleet also includes 40-foot heavy-duty buses (16 units) and one replica trolley bus operated by CWF and York County in the historic areas. The fleet also includes three non-revenue support vehicles. The 36 heavy-duty buses range in model years from 2002 through 2008, while the BOC vehicles range in model years from 2001 through 2006. The replica trolley bus is a 2006 model, and the support vehicles are 2005 and 2007 models. The following paragraphs and Table 6-1 identify WATA's vehicle replacement program through FY 2015 for the financially-constrained TDP.

As noted in prior chapters, WATA is currently procuring three light-duty replica trolley buses for the new Williamsburg Trolley route. To expedite the procurement, WATA has received permission from the Des Moines Regional Transit Authority to purchase the buses through an option for specialty vehicles in an existing contract. As these vehicles have a recommended product life of five years, it is anticipated that these trolley buses will require replacement themselves in FY 2014.

WATA plans to replace these light-duty trolleys with heavy-duty trolleys with a ten-year life. Similarly, WATA plans to replace the model year 2006 medium-duty trolley with a heavy-duty trolley, as well as purchase one expansion trolley to serve as a spare, in FY 2011.

As part of the ARRA economic stimulus package, WATA was granted three replacement BOC vehicles. With a four-year recommended life, it is anticipated that these vehicles will require replacement themselves in FY 2014. With a recommended product life of four years, the two 2006 model year BOC vehicles will be eligible for retirement/replacement in FY 2011. Their replacement, along with the replacement of the two 2001 and 2002 model year BOC vehicles used in contingency and the purchase of three expansion BOC vehicles, is recommended in FY 2011 to complement the planned Jamestown and Quarterpath routes. At the end of the TDP time period, these seven BOC vehicles are anticipated to require replacement in FY 2015.

The administration/operations support vehicles also have recommended product lives of four years. Therefore, the two replacement and three expansion support vehicles are anticipated to require replacement in FY 2015.

With a recommended product life of ten years, the 2002 model year 30-foot buses are recommended for replacement in FY 2012. Similarly, the 2002 model year 35-foot buses, with a recommended life of 12 years, will be eligible for replacement in 2014. Their replacement is recommended in FY 2014. The planned regional route between Williamsburg and Newport News assumes the use of 35-foot buses. Two new buses plus one spare would be required in FY 2013 to operate this route. The buses planned for purchase are hybrid-electric which create much lower environmental impacts. As buses are phased out of service in future years, WATA plans to replace its entire fleet with clean-power technology.

6.2 FACILITY IMPROVEMENT PROGRAM

Prior chapters discussed WATA's leases at the existing Williamsburg Transportation Center and regional bus O&M facility, as well as WATA's plans to lease space for an administration/customer service center. The planned administration/customer service center will house administrative staff, as well as a customer service center with a transit store (Pass Sales/Information Kiosk). WATA is currently evaluating potential locations for the facility.

A major emphasis for WATA over the TDP time period is the examination of and potential for owning its own bus O&M facility. Section 5304 funding matched by the state and local governments totaling \$200,000 is allocated to this study. As stated in the Request for Proposals, the facility feasibility study will include the following elements:

- Provide a cost analysis of the current lease versus WATA buying or building its own facility, to include the identification of land parcels within the service area zoned for such purpose
- Determine land needs, facility size, and configuration adequate for the next 50 years
- Evaluate contractual maintenance support versus providing own maintenance support
- Establish a financial plan to determine local, state, and federal resources and timelines to buy or build a facility.

Should the feasibility study conclude that WATA should pursue its own facility, this TDP includes placeholders for design and engineering in the amount of \$1 million from FY 2011 to 2012. For construction, a placeholder amount of \$10 million has been identified, with \$4 million in FY 2014 and \$6 million in FY 2105.

**Table 6-1
WATA Vehicle Replacement Program**

Vehicle Type	Useful Life	Current Fleet	Vehicle Procurements						
			FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Medium Duty Bus	5								
30' Heavy Duty Bus	10	8				6			2
35' Heavy Duty Bus	12	12						4	
40' Heavy Duty Bus	12	16							
Body-On-Chassis	5	7		3	4			3	4
Light Duty Trolley	5								
Medium Duty Trolley	5	1							
Heavy Duty Trolley	10				1				
Admin./Operation Support Vehicles	5	3			2	1			2
Total Vehicles		47	0	3	7	7	0	7	8

Expansion Vehicles and Their Replacement Schedule

Vehicle Type	Useful Life	Current Fleet	Vehicle Procurements						
			FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Medium Duty Bus	5	n/a							
30' Heavy Duty Bus	10	n/a							
35' Heavy Duty Bus	12	n/a					3	1	
40' Heavy Duty Bus	12	n/a							
Body-On-Chassis	5	n/a			3				3
Light Duty Trolley	5	n/a	3						
Medium Duty Trolley	5	n/a							
Heavy Duty Trolley	10	n/a			1			3	
Admin./Operation Support Vehicles	5	n/a			3				3
Total Vehicles		n/a	3	0	7	0	3	4	6

**Table 6-1
WATA Vehicle Replacement Program (Cont.)**

Total Vehicles

Vehicle Type	Useful Life	Current Fleet	Vehicle Procurements						
			FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Medium Duty Bus	5	-							
30' Heavy Duty Bus	10	8				6			2
35' Heavy Duty Bus	12	12					3	5	
40' Heavy Duty Bus	12	16							
Body-On-Chassis	5	7		3	7			3	7
Light Duty Trolley	5	-	3						
Medium Duty Trolley	5	1							
Heavy Duty Trolley	10	-			2			3	
Admin./Operation Support Vehicles	5	3			5	1			5
Total Vehicles		47	3	3	14	7	3	11	14

Notes:

1. Future standard buses assumed to be hybrids.
2. 40-foot buses are CNG fueled and operated by CWF.
3. Replace medium duty trolley with 1 heavy duty trolley and 1 expansion heavy duty trolley in FY 2011.
4. Replace light duty trolleys in FY 2009 with 3 heavy duty trolleys in FY 2014.
5. Increase admin./operation support vehicles by 3 in FY 2011.

7.0 FINANCIAL PLAN

The financial plan is a principal objective of the TDP. It is in this chapter that an agency demonstrates its ability to provide a sustainable level of service over the TDP time period, including the rehabilitation and replacement of capital assets. This chapter identifies potential funding sources for annual operating and maintenance costs, funding requirements and funding sources for bus purchases, and funding requirements for other capital improvements.

7.1 OPERATING AND MAINTENANCE COSTS AND FUNDING SOURCES

WATA's FY 2009 final operating budget was \$7,609,526. This includes costs for operations, maintenance, and administration. A significant portion of the operating budget is for CWF expenses, totaling \$2,179,131 in FY 2009. WATA acts as the pass-through agency for CWF's expenses. Thus, the CWF provides the revenues equivalent to what is necessary to operate their services, but they are shown on WATA's books, as CWF is a member of the authority.

WATA's FY 2010 operating budget as approved in February 2009 is \$7,554,155, with \$1,789,235 of the total for CWF expenses. Thus, the amount actually available for WATA operations is \$5,767,920. The approved FY 2010 budget was based on preliminary assumptions regarding state operating assistance and will be adjusted to reflect approved state funding levels. FY 2010 revenue figures for state assistance that are presented in this table differ slightly from those presented in WATA's approved budget due to the use of more current figures from the State's Six-Year Improvement Program (approved in June 2009).

Additionally, WATA received \$821,583 in capital funds from the American Recovery and Reinvestment Act (ARRA) for preventive maintenance and operations that are not yet included in WATA's approved budget for FY 2010. Contract repairs and services, parts, radio maintenance, and cleaning contracts are all chargeable to preventive maintenance, which is part of the operating budget. These funds were programmed in the region's TIP on May 20, 2009, shortly before the end of FY 2009. Revenues and expenses for these vehicles have been rolled forward into FY 2010 and FY 2011 of this TDP, with half of the funds assumed to be expended in each of the years.

It is important to note that the funds allocated in WATA's operating budget have exceeded actual expenses in recent years, mostly due to lower than projected maintenance costs for fixed-route service. WATA has thus been able to accrue federal revenues for use in subsequent years.

Transit-related revenues in WATA's operating budget come from the following sources:

- Federal assistance (includes FTA Section 5303, 5304, 5307, and 5311, CMAQ, and ARRA funds for preventive maintenance and operations)
- State assistance (includes State Operating Assistance and New transit service starts)
- Local contributions from the City of Williamsburg, James City County, and York County
- Local contributions through partnerships with the City of Newport News and Surry County
- Other contributions through agreements with W&M and CWF
- Other miscellaneous revenue sources (e.g., fuel rebates and advertising)
- Farebox revenues

Table 7-1 presents the TDP's financial plan for transit operations, and begins with FY 2009 costs and funding sources as the base year, adjusted for actual costs and, to a lesser extent, revenues. Projected costs for FY 2009 are based on actual expenses incurred for the first 11 months of the fiscal year (July through May) and estimated costs for June. Revenues, however, reflect the actual FY 2009 budget rather than actual revenue collections. Once federal funds are included in an approved grant, they can be carried forward to later years. Thus, it is anticipated that FY 2009 revenues will exceed costs by approximately \$2 million. Costs and revenues for FY 2010 through FY 2015 were projected in the same fashion.

Key expense and revenue assumptions utilized in the TDP financial plan for operations and maintenance (Table 7-1) are as follows:

- Annual O&M costs during the TDP time period are estimated to grow from \$5.8 million in FY 2010 to just nearly \$9 million by FY 2015. This increase includes a five percent per year inflation factor that assumes increases in labor costs, benefits, fuel/lubricants and other direct operating costs that are subject to inflationary impacts. This plan also assumes service expansion projects as outlined in Chapter 5 of this TDP.
- Section 5303, 5307, and 5311 federal operating funding allocated annually by HRTPO is projected to increase by five percent per year through the TDP's six-year period, consistent with the region's FY 2009 - FY 2012 TIP.
- State formula assistance grants for public transportation operating expenses are awarded on the basis of the total annual amount of state funds available expressed as a percentage of the total annual amount of transit operating expenses, subject to a cap of 95% of eligible expenditures. Eligible expenditures are defined as costs of administration, fuel, tires, and maintenance parts and supplies (payroll costs of mechanics and drivers are excluded).

**Table 7-1
WATA Financial Plan for Operations and Maintenance**

TDP Financial Plan for: Service O&M Costs	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Annual Service-Hours							
WAT Fixed Route	41,984	47,800	58,200	59,800	69,900	69,900	69,900
WAT Paratransit	4,409	4,400	4,400	4,400	4,400	4,400	4,400
Colonial Williamsburg Fixed Route	31,822	31,800	31,800	31,800	31,800	31,800	31,800
Total Transit Service-Hours	78,215	84,000	94,400	96,000	106,100	106,100	106,100
Projected Costs							
O&M Facility Feasibility Study	\$ 280	\$ 199,720	\$ -	\$ -	\$ -	\$ -	\$ -
Comprehensive Operations Analysis	\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -
Hub Transport Fees (Transportation Center)	\$ 75,000	\$ 75,000	\$ 84,000	\$ 88,000	\$ 92,000	\$ 97,000	\$ 101,000
WAT Administration	\$ 366,064	\$ 507,829	\$ 533,200	\$ 559,900	\$ 587,900	\$ 617,300	\$ 648,200
WAT Fixed Route O&M Expenses							
Base Service from Previous Year	\$ 2,533,315	\$ 2,660,000	\$ 3,178,900	\$ 4,064,300	\$ 4,384,900	\$ 5,382,000	\$ 5,651,100
New Service	\$ -	\$ 367,500	\$ 691,900	\$ 111,800	\$ 740,800	\$ -	\$ -
WAT Paratransit O&M Expenses	\$ 213,396	\$ 224,100	\$ 235,300	\$ 247,100	\$ 259,500	\$ 272,500	\$ 286,100
CWF Expenses	\$ 2,179,131	\$ 1,786,200	\$ 1,875,500	\$ 1,969,300	\$ 2,067,800	\$ 2,171,200	\$ 2,279,800
Total Projected O&M Costs	\$ 5,367,185	\$ 5,820,349	\$ 6,798,800	\$ 7,040,400	\$ 8,132,900	\$ 8,540,000	\$ 8,966,200

**Table 7-1
WATA Financial Plan for Operations and Maintenance (Cont.)**

TDP Financial Plan for: Service O&M Costs	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Anticipated Funding Sources							
Federal							
FTA	\$ 728,575	\$ 937,655	\$ 816,750	\$ 857,638	\$ 900,589	\$ 945,634	\$ 993,001
ARRA	\$ -	\$ 410,792	\$ 410,792	\$ -	\$ -	\$ -	\$ -
STP	\$ 60,000	\$ -	\$ 67,200	\$ 70,400	\$ 73,600	\$ 77,600	\$ 80,800
CMAQ	\$ 1,597,465	\$ 1,690,669	\$ 1,227,600	\$ -	\$ -	\$ -	\$ -
State							
Formula Assistance Funds (Less CW)	\$ 775,624	\$ 659,154	\$ 669,581	\$ 686,969	\$ 799,563	\$ 819,741	\$ 840,557
New Transit Service Starts	\$ -	\$ 140,000	\$ 140,000	\$ 140,000	\$ -	\$ -	\$ -
State Match Funds		\$ 500,389	\$ 315,300	\$ 8,800	\$ 9,200	\$ 9,700	\$ 10,100
Other	\$ 2,489,661	\$ 2,168,235	\$ 2,276,700	\$ 2,390,600	\$ 2,585,100	\$ 2,713,700	\$ 2,848,600
Newport News/Surry County	\$ 37,000	\$ 62,000	\$ 65,100	\$ 68,400	\$ 71,800	\$ 75,400	\$ 79,200
College of William and Mary (Contract Services)	\$ 229,530	\$ 231,000	\$ 242,600	\$ 254,700	\$ 267,400	\$ 280,800	\$ 294,800
Colonial Williamsburg Foundation (CWF)	\$ 2,179,131	\$ 1,786,235	\$ 1,875,500	\$ 1,969,300	\$ 2,067,800	\$ 2,171,200	\$ 2,279,800
Miscellaneous (Fuel Rebates, Advertising)	\$ 44,000	\$ 89,000	\$ 93,500	\$ 98,200	\$ 103,100	\$ 108,300	\$ 113,700
Public-Private Partnerships	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$ 78,000	\$ 81,100
Farebox Revenues	\$ 327,625	\$ 446,358	\$ 632,141	\$ 682,382	\$ 834,126	\$ 877,457	\$ 920,789
Local Contributions	\$ 975,234	\$ 977,736	\$ 1,142,198	\$ 1,182,787	\$ 1,366,327	\$ 1,434,720	\$ 2,152,457
Total Projected Operating Revenues	\$ 7,370,550	\$ 7,930,987	\$ 8,013,562	\$ 6,028,376	\$ 6,577,705	\$ 6,888,252	\$ 7,856,403
Balance Including Revenue Accruals	\$ 2,003,365	\$ 4,114,002	\$ 5,328,765	\$ 4,316,740	\$ 2,761,546	\$ 1,109,798	\$ 0

- Projections for state operating assistance, as identified in the TDP financial plan, have been provided for planning purposes and may fluctuate up or down based on the aforementioned parameters. These funds are projected to increase by the following amounts:
 - From FY 2010 to FY 2011: 1.77 percent
 - From FY 2011 to FY 2012: 2.90 percent
 - From FY 2012 to FY 2013: 3.5 percent
 - From FY 2013 to FY 2014: 3.16 percent
 - From FY 2014 to FY 2015: 3.16 percent

- The TPD also includes revenue sources for the start-up of new service that expire after three years of operations, CMAQ and new transit service starts. WATA is using CMAQ demonstration funds for its recent addition of Sunday service and improved frequencies during peak periods, at a ratio of 80 percent federal and 20 percent state. This grant funding will be exhausted during FY 2011. Similarly, DRPT has approved new transit service starts funding beginning in FY 2010 for the Williamsburg Trolley. Once a grantee has been awarded such a grant, renewal of the grant for the second and third year at the same level as was awarded in the first year can be anticipated. The funding for new transit service starts is 50 percent state and 50 percent local and is assumed to continue through FY 2012. The source for these funds is the agency's state operating assistance funds (i.e., it is a subcategory of the state operating assistance). Consistent with a conservative outlook, no new CMAQ or new transit service starts funding is assumed beyond what is already in place.

- Local funding through the City of Williamsburg, James City County, and York County is assumed to increase proportional to WATA's O&M costs over the time frame of the TDP. Local funding from these partners accounts for 16.8% of WATA's FY 2010 projected O&M costs. This percentage is assumed to remain constant throughout the TDP time period, with the exception of FY 2015, when a larger contribution is projected to be needed.

- Other revenues from CWF, W&M, Newport News, and Surry County and from miscellaneous sources are assumed to grow by five percent per year with inflation. A new source of other funding is also assumed beginning in FY 2013 after the Williamsburg Trolley has been in operation for three years and the new transit service starts demonstration funding has ended. It is assumed that the three major shopping and mixed-use developments served by the trolley, New Town, High Street, and Merchants Square, who will benefit from the ridership produced, will each begin contributing \$25,000 towards the operation of the trolley, growing by five percent per year in subsequent years.

- Farebox revenues are assumed to increase as new services are introduced and draw new riders. In FY 2010 and 2011, the implementation of new, less highly discounted pass options (e.g., weekly, monthly) is assumed, as opposed to the current \$1.50 all day pass. These changes are assumed to result in a significant increase in fixed route farebox recovery ratios from the current 12.7 percent to 16.1 percent by FY 2011 and remaining at that percentage through FY 2015. Similarly, ADA paratransit farebox recovery ratios are also assumed to grow from the current 2.7 percent to 3.4 percent by FY 2012.

Using the assumptions presented above, while costs increase each year, revenues are projected to grow until FY 2011 and then drop from \$8.0 million to \$6.0 million in FY 2012, and then beginning to grow again through FY 2015. As previously discussed, this drop occurs after the third and final year of the CMAQ funds for Sunday service and increased frequencies. Similarly, the new transit service starts funding for the Williamsburg Trolley will end after FY 2012. However, revenue accruals combined with incremental farebox and local and other revenue source increases are assumed to carry WATA through FY 2014. This leaves the balance of the O&M cost burden to be absorbed by local sources, requiring a 50 percent increase in FY 2015 compared to the more modest increases in prior years.

7.2 VEHICLE PURCHASE COSTS AND FUNDING SOURCES

As noted in Chapter 6 of this TDP, vehicle purchases during the TDP time period consist of both replacement and expansion vehicles. WATA is currently procuring three light-duty replica trolley buses for the new Williamsburg Trolley route with FY 2009 funds. The bus purchases planned for the FY 2010 – 2015 include a mix of 30-foot and 35-foot heavy-duty buses, BOC vehicles, heavy-duty replica trolley buses, and administration/operations support vehicles. Unit prices in FY 2009 dollars for each of these vehicles are presented in Chapter 3. For purposes of this TDP, vehicle costs have been assumed to increase an average five percent per year. Table 7-2 presents the TDP financial plan for funding bus purchases through the TDP six-year time period.

A total of 32 vehicles have been identified for replacements during the TDP time period, consisting of 30-foot heavy duty buses, BOC vehicles, and administrative/ operations support vehicles. As noted earlier, WATA's desires to replace its diesel buses with environmentally-friendly hybrid-electric buses.

The service expansion recommendations will require 20 new vehicles during the TDP time frame in addition to the three trolley buses currently being procured. BOC vehicles are recommended for the Jamestown and Quarterpath routes proposed to begin operations in FY 2011. Since these are five-year vehicles, they are assumed to be eligible for replacement in FY 2015. The heavy duty trolley in FY 2011 will be purchased as a spare for the Yorktown Trolley concurrent with the replacement of the current Yorktown trolley bus. The three additional heavy-duty trolley buses scheduled in FY 2014 will be replacing the light-duty trolley buses being purchased now for the Williamsburg Trolley.

**Table 7-2
WATA Financial Plan for Vehicle Replacement and Expansion**

TDP Financial Plan for: Fleet Replacement and Expansion							
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Number of Vehicles							
Replacement	0	3	7	7	0	7	8
Expansion	3	0	7	0	3	4	6
Total Vehicles	3	3	14	7	3	11	14
Vehicle Costs							
Replacement	\$ -	\$ 195,000	\$ 724,000	\$ 3,716,000	\$ -	\$ 2,985,000	\$ 1,846,000
Expansion	\$ 525,000	\$ -	\$ 683,000	\$ -	\$ 1,953,000	\$ 1,320,000	\$ 375,000
Total Projected Vehicle Costs	\$ 525,000	\$ 195,000	\$ 1,407,000	\$ 3,716,000	\$ 1,953,000	\$ 4,305,000	\$ 2,221,000
Anticipated Funding Sources							
Federal	\$ 420,000	\$ 195,000	\$ 1,125,600	\$ 2,972,800	\$ 1,562,400	\$ 3,444,000	\$ 1,776,800
State	\$ 84,000	\$ -	\$ 140,700	\$ 371,600	\$ 195,300	\$ 430,500	\$ 222,100
Local	\$ 21,000	\$ -	\$ 140,700	\$ 371,600	\$ 195,300	\$ 430,500	\$ 222,100
Total Vehicle Revenues	\$ 525,000	\$ 195,000	\$ 1,407,000	\$ 3,716,000	\$ 1,953,000	\$ 4,305,000	\$ 2,221,000

The purchase of three 35-foot heavy-duty buses associated with the start-up of the Newport News Connection is proposed for FY 2013. Finally, three additional support vehicles are recommended in FY 2011, following the start-up of the Williamsburg Trolley and concurrent with the start-up of the Jamestown and Quarterpath routes.

Three BOC vehicles are to be purchased in FY 2010 with ARRA funds. WATA received \$195,000 for these vehicles in late FY 2009. All remaining buses are assumed to be purchased through FHWA's Surface Transportation Program (STP) and flexed to FTA's Section 5307 program, with 80% funding provided by the federal government. The remaining 20% is funded by state and local funding sources. This TDP assumes a 10% match by DRPT, with WATA funding the remaining 10%.

7.3 FACILITY IMPROVEMENT COSTS AND FUNDING SOURCES

Finally, this TDP has identified the need for a variety of capital improvements throughout the system as outlined in Chapters 5 and 6. Table 7-3 outlines the assumed annual funding over the TDP time frame.

WATA received \$580,000 in ARRA capital funds for the purchase of a GPS/AVL tracking system, bus shelters, and automated fare/passenger collection software. These funds and expenses have been rolled forward into FY 2010 of this TDP.

Like bus purchases, the remainder of the capital improvements assumes 80% STP funding to be flexed to FTA's Section 5307 program. The remaining 20% is funded by state and local funding sources. As in past years, this TDP assumes the state and local portions to be split evenly with 10% funding by DRPT and 10% by WATA.

Facility needs include funding for annual leases at the regional O&M facility and the new administration/customer service center. The major facility improvement being considered during the time frame of the TDP is the engineering, design, and construction of a WATA-owned O&M facility.

Passenger amenity improvements include transit enhancements (e.g., landscaping and other scenic beautification, public art, pedestrian and bicycle access, etc.), bus signage, and bike rack replacements. Other purchases scheduled over the life of the TDP are for mid-life bus maintenance, spare parts, computer hardware and software, and surveillance equipment.

Table 7-3
WATA Financial Plan for Facilities, Equipment, and Other Capital

TDP Financial Plan for:							
Facility, Equipment, and Other Capital	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Projected Facility, Equipment, and Other Capital Improvements							
Transit Enhancements	\$ 4,410	\$ 17,592	\$ 5,300	\$ 5,500	\$ 5,800	\$ 6,000	\$ 6,300
Lease of Current O&M Facility	\$ 48,000	\$ 50,000	\$ 35,000	\$ 38,000	\$ 40,000	\$ 42,000	\$ 45,000
Lease of Customer Service Center	\$ 100,000	\$ 60,000	\$ 53,000	\$ 56,000	\$ 60,000	\$ 63,000	\$ 67,000
Purchase Radios	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Route Identification	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fare Collection Equipment	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CWF - CNG Generators and Pads	\$ 1,329,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GPS/AVL Tracking Equipment	\$ -	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -
Automated Fare/Passenger Collection Software	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -
Bus Shelters	\$ -	\$ 80,000	\$ -	\$ -	\$ 25,000	\$ -	\$ -
Replacement of Bus Stop Signage	\$ -	\$ 30,000	\$ 6,000	\$ -	\$ -	\$ 64,000	\$ 76,000
ADP Computer System and Software Upgrades	\$ -	\$ 85,000	\$ -	\$ -	\$ -	\$ -	\$ -
Rebuild Bus Engines and Replace Transmissions	\$ -	\$ 110,000	\$ 111,000	\$ 126,000	\$ 132,000	\$ 56,000	\$ 59,000
Purchase Spare Parts	\$ -	\$ 150,000	\$ 55,000	\$ 60,000	\$ 65,000	\$ 70,000	\$ 75,000
Bike Rack Replacements	\$ -	\$ -	\$ 48,000	\$ -	\$ -	\$ -	\$ 81,000
Surveillance Equipment	\$ -	\$ -	\$ 21,000	\$ -	\$ -	\$ 32,000	\$ -
Engineering & Design of Bus O&M Facility	\$ -	\$ -	\$ 250,000	\$ 750,000	\$ -	\$ -	\$ -
Construct Bus O&M Facility	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000,000	\$ 6,000,000
Total Projected Capital Expenses	\$ 1,881,410	\$ 1,082,592	\$ 584,300	\$ 1,035,500	\$ 327,800	\$ 4,333,000	\$ 6,409,300
Anticipated Funding Sources							
Federal	\$ 1,770,928	\$ 896,592	\$ 467,400	\$ 828,400	\$ 262,200	\$ 3,466,400	\$ 5,127,400
State	\$ 87,680	\$ 144,700	\$ 57,900	\$ 103,000	\$ 32,200	\$ 432,700	\$ 640,300
Local	\$ 22,802	\$ 41,300	\$ 59,000	\$ 104,100	\$ 33,400	\$ 433,900	\$ 641,600
Total Other Capital Revenues	\$ 1,881,410	\$ 1,082,592	\$ 584,300	\$ 1,035,500	\$ 327,800	\$ 4,333,000	\$ 6,409,300

8.0 TDP MONITORING AND EVALUATION

This TDP has presented a comprehensive evaluation of service and cost characteristics for WATA. Key elements that have been addressed in this TDP effort include:

- Development of goals, objectives and performance standards that are to guide further development of WATA's services;
- A detailed evaluation of existing service characteristics, with identification of system strengths and weaknesses;
- A peer agency review that compares WATA's service and financial characteristics to other similar-sized systems;
- Results from a 2008 rider survey that identified existing rider satisfaction with existing services, and improvements that are desired by riders;
- A listing of potential service and facility improvements, for consideration in the TDP;
- Recommended service and facility improvements for inclusion in the TDP, with improvements identified by year; and
- Funding requirements and potential funding sources for recommended service and facility improvements.

This TDP reflects an initial step in future service and facility improvements for WATA. It will be important to coordinate closely with other transportation and land use planning efforts, to continue to monitor service performance, and to provide DRPT with annual updates regarding implementation of TDP service and facility improvements.

8.1 COORDINATION WITH OTHER PLANS AND PROGRAMS

WATA is represented by its Executive Director on the Board of the HRTPO, as well as by its Director of Planning and Development on HRTPO committees. The most recent Long-Range Transportation Plan (LRP) has a horizon year of 2030 and was adopted in 2007. The HRTPO is currently developing 2034 LRP with a completion deadline of February 2012. The HRTPO intends to make amendments to the 2030 LRP to address funding source issues and a Virginia Supreme Court ruling regarding Hampton Roads and Northern Virginia transportation authorities while concurrently working on the 2034 LRP. Amendments to the 2030 LRP may afford the opportunity to add new projects recommended in this TDP and into the LRP's short-range element, the TIP. Of particular interest to WATA is the potential opening of the full selection process for CMAQ and RSTP projects later this year. The inclusion of CMAQ and RSTP projects consistent with TDP recommendations is a critical step towards implementation.

It will also be important to incorporate TDP findings into Comprehensive Plan Updates for the City of Williamsburg, James City County, and York County. A number of goals and objectives from the TDP should be reviewed and incorporated in these Comprehensive Plans.

8.2 SERVICE PERFORMANCE MONITORING

This TDP has identified specific system-wide service performance measures to ensure WAT's existing performance characteristics do not degrade substantially. Corrective measures are to be taken if these monitoring efforts identify service performance degradation (e.g., through route alignment adjustments, headway and/or span of service adjustments).

While WATA utilizes best practices daily and monthly Board of Directors meetings include reports from the Executive Director, such as monthly ridership and revenue, WATA does not currently have defined performance standards. This TDP recommends implementing the performance standards identified in Chapter 2 to measure the efficiency and effectiveness of WATA's transit service on at least a quarterly basis.

8.3 ANNUAL TDP MONITORING

The DRPT will require submittal of an annual letter that provides updates to the contents of this TDP. Recommended contents of this "TDP Update" letter include:

- A summary of ridership trends for the past 12 months
- A description of TDP goals and objectives that have been advanced over the past 12 months.
- A list of improvements (service and facility) that have been implemented in the past 12 months, including identification of those that were identified in this TDP.
- An update to the TDP's list of recommended service and facility improvements (e.g., identify service or facility improvements that are being shifted to a new year, being eliminated, and/or being added). This update of recommended improvements should be extended one more fiscal year to maintain a six year planning period.
- A summary of current year costs and funding sources
- Updates to the financial plan tables presented in Chapter 7 of this TDP. These tables should be extended one more fiscal year to maintain a six-year planning period.

APPENDICES

Appendix 1-A: WATA - Fleet Inventory

Motor Bus, Demand Response, Support, and Contingency Vehicles As of May 2008

Vehicle Description	VIN	License Plate	Special Features	Seated Capacity	Acquisition	FTA Percentage & Total Cost	FTA Life Yrs.	Depreciated Value	Lifetime Miles	Replacement	Condition
Motor Bus (Directly Operated)											
2002 New Flyer 30' (250201) diesel	5FYD2TU1824023814	49488L	Ramp, bike rack	25	Jul-02	80% \$270,055	10	135,030	277,997	2012	Good
2002 New Flyer 30' (250202) diesel	5FYD2TU1X24023815	49487I	Ramp, bike rack	25	Jul-02	80% \$270,055	10	135,030	289,781	2012	Good
2002 New Flyer 30' (250203) diesel	5FYD2TU112U023816	49491L	Ramp, bike rack	25	Jul-02	80% \$270,055	10	135,030	274,315	2012	Good
2002 New Flyer 30' (250204) diesel	5FYD2TU132U023817	49485L	Ramp, bike rack	25	Jul-02	80% \$270,055	10	135,030	273,630	2012	Good
2002 New Flyer 30' (250205) diesel	5FYD2TU152U023818	49492L	Ramp, bike rack	25	Jul-02	80% \$270,055	10	135,030	307,460	2012	Good
2002 New Flyer 30' (250206) diesel	5FYD2TU172U023819	49497L	Ramp, bike rack	25	Jul-02	80% \$270,055	10	135,030	299,962	2012	Good
2002 New Flyer 35' (250207) diesel	5FYD2GV182U023947	49496L	Ramp, bike rack	30	Jul-02	80% \$270,315	12	157,685	354,559	2014	Good
2002 New Flyer 35' (250208) diesel	5FYD2GV1X2U023948	49490L	Ramp, bike rack	30	Jul-02	80% \$270,315	12	157,685	302,046	2014	Good
2002 New Flyer 35' (250209) diesel	5FYD2GV112U023949	49489L	Ramp, bike rack	30	Jul-02	80% \$270,315	12	157,685	272,131	2014	Good
2002 New Flyer 35' (250210) diesel	5FYD2GV182U023950	49495L	Ramp, bike rack	30	Jul-02	80% \$270,315	12	157,685	213,152	2014	Good
2005 New Flyer 30' (250503) diesel	5FYD4VV135C027641	129301L	Ramp, bike rack	25	Apr-05	80% \$279,253	10	223,465	174,256	2015	Very Good
2005 New Flyer 30' (250504) diesel	5FYD4VV155C027642	123650L	Ramp, bike rack	25	Apr-05	80% \$279,253	10	223,465	129,556	2015	Very Good
2006 New Flyer 35' (250603)	5FYD4KV1X7C032157	141356L	Ramp, bike rack	30	Jul-07	80% \$298,579	12	298,579	16,116	2018	Excellent
2006 New Flyer 35' (250604)	5FYD4KV117C032158	141357L	Ramp, bike rack	30	Jul-07	80% \$298,579	12	298,579	32,995	2020	Excellent
2008 New Flyer 35' (250801)	5FYD4KV138C032910		Ramp, bike rack	30	Mar-08	80% \$316,672	12	1,727	1,722	2020	Excellent
2008 New Flyer 35' (250802)	5FYD4KV158C032911		Ramp, bike rack	30	Mar-08	80% \$316,672	12	1,615	1,615	2020	Excellent
2008 New Flyer 35' (250803)	5FYD4KV178C032912		Ramp, bike rack	30	Mar-08	80% \$316,672	12	1,595	1,595	2020	Excellent
2008 New Flyer 35' (250804)	5FYD4KV198C032913		Ramp, bike rack	30	Mar-08	80% \$316,672	12	1,706	1,706	2020	Excellent
2008 New Flyer 35' (250805)	5FYD4KV108C032914		Ramp, bike rack	30	Mar-08	80% \$316,672	12	1,609	1,609	2020	Excellent
2008 New Flyer 35' (250806)	5FYD4KV128C032915		Ramp, bike rack	30	Mar-08	80% \$316,672	12	1,612	1,612	2020	Excellent
2005 Ford Diesel BOC E350 (250505)	1FDWE35P45HB39524	130856L	Lift	14	Sep-05	\$50,158	4	37,617	42,852	2009	Fair
2005 Ford Diesel BOC E350 (250506)	1FDWE35P65HB39525	130857L	Lift	14	Sep-05	\$50,158	4	37,617	28,350	2009	Fair

WATA - Fleet Inventory
Motor Bus, Demand Response, Support, and Contingency Vehicles
As of May 2008
(Continued)

Vehicle Description	VIN	License Plate	Special Features	Seated Capacity	Acquisition	FTA Percentage & Total Cost	FTA Life Yrs.	Depreciated Value	Lifetime Miles	Replacement	Condition
Motor Bus (Purchased Transportation)											
2004 ORION 40' (0504) CNG	1VHGH3L2046701358	122997L	Ramp	40	Mar-05	\$316,672	12	237,501	31,085	2016	Very Good
2004 ORION 40' (0505) CNG	1VHGH3L2146701434	122996L	Ramp	40	Mar-05	\$316,672	12	237,501	38,903	2016	Very Good
2004 ORION 40' (0506) CNG	1VHGH3L2X46701433	123631L	Ramp	40	Mar-05	\$316,672	12	237,501	41,265	2016	Very Good
2004 ORION 40' (0507) CNG	1VHGH3L2946701441	123643L	Ramp	40	Mar-05	\$316,672	12	237,501	37,501	2016	Very Good
2004 ORION 40' (0508) CNG	1VHGH3L2546701436	123632L	Ramp	40	Mar-05	\$316,672	12	237,501	35,245	2016	Very Good
2004 ORION 40' (0509) CNG	1VHGH3L2746701437	123640L	Ramp	40	Mar-05	\$316,672	12	237,501	31,472	2016	Very Good
2004 ORION 40' (0510) CNG	1VHGH3L2746701440	123642L	Ramp	40	Mar-05	\$316,672	12	237,501	39,251	2016	Very Good
2004 ORION 40' (0511) CNG	1VHGH3L2046701439	123641L	Ramp	40	Mar-05	\$316,672	12	237,501	36,708	2016	Very Good
2004 ORION 40' (0512) CNG	1VHGH3L2246701443	123630L	Ramp	40	Mar-05	\$316,672	12	237,501	42,544	2016	Very Good
2006 ORION 40' (0630) CNG	1VHGH3L2366702393	129012L	Ramp, bike rack	40	Sep-06	\$375,000	12	3,437,501	23,027	2018	Excellent
2006 ORION 40' (0631) CNG	1VHGH3L2X66702388	129011L	Ramp, bike rack	40	Sep-06	\$375,000	12	343,750	18,077	2018	Excellent
2006 ORION 40' (0632) CNG	1VHGH3L2766702395	129014L	Ramp, bike rack	40	Sep-06	\$375,000	12	343,750	23,407	2018	Excellent
2006 ORION 40' (0633) CNG	1VHGH3L2666702386	129009L	Ramp, bike rack	40	Sep-06	\$375,000	12	343,750	17,333	2018	Excellent
2006 ORION 40' (0634) CNG	1VHGH3L2966702396	129015L	Ramp, bike rack	40	Sep-06	\$375,000	12	343,750	21,017	2018	Excellent
2006 ORION 40' (0635) CNG	1VHGH3L2866702387	129010L	Ramp, bike rack	40	Sep-06	\$375,000	12	343,750	20,827	2018	Excellent
2006 ORION 40' (0636) CNG	1VHGH3L2566702394	129013L	Ramp, bike rack	40	Sep-06	\$375,000	12	343,750	19,955	2018	Excellent
2006 Optima Bus Trolley diesel model AH - 28	1Z9S2HSS16W216330	130893L	Lift	25	Jun-06	\$276,722	5	221,376	15,115	2011	Good
Demand Response (ADA -251)											
2005 Ford Diesel BOC E350 (251501)	1FDWE35P85HB39526	130854L	Lift	14	Sep-05	\$50,158	4	25,079	29,169	2009	
2006 Ford Diesel BOC (251601)	1FDWE35P16DA89268	114727L	Lift	14	Feb-07	\$52,037	4	26,019		2010	Fair
2006 Ford Diesel BOC (251602)	1FDWE35P56DA92514	114728L	Lift	14	Feb-07	\$52,037	4	26,019		2010	Fair

Appendix 1-A
WATA - Fleet Inventory
Motor Bus (Directly Operated & Purchased), Demand Response, Support, and Contingency Vehicles
As of May 2008
(Continued)

Vehicle Description	VIN	License Plate	Special Features	Seated Capacity	Acquisition	FTA Percentage & Total Cost	FTA Life Yrs.	Depreciated Value	Lifetime Miles	Replacement	Condition
Operational Support Vehicles											
2005 Ford Escape Gas (250501)	1FMY493155KB31450	122975L		5	Mar-05	\$20,000	4	10,000		2009	Good
2005 Ford Escape Gas/Electric (250502)	1FMCU96H15KC95135	122993L		5	Mar-05	\$28,000	4	14,000		2009	Good
2007 Dodge Caravan (250701)	108GP24E67B230069	136396L		7	Jun-07	\$17,000	4	17,000		2011	Excellent
Contingency Fleet											
2001 Ford Diesel BOC E450 (251102)	1FDXE45F61HB77719	49464L	Lift	20	Sep-01	\$57,885	Contingency*	0	117,898	2006	Fair
2002 Ford Diesel BOC E450 (251201)	1FDXE45F92HA54594	111757L	Lift	14	Jul-02	\$57,564	Contingency*	0	124,716	2007	Fair

* Contingency Vehicles above integral part of regional emergency plan with WAT service area within 10 mile radius of Nuclear Power Plant and in vulnerable hurricane corridor of Hampton Roads. When not in emergency, supports driver relief and times of extreme traffic congestion

Appendix 3-A: Peer Analysis Technical Memorandum

1.0 Overview of the Peer Analysis Process

A peer analysis provides the opportunity to compare performance characteristics among transit agencies of a similar size. Transit agencies report such information to the Federal Transit Administration (FTA), which records the information annually in the National Transit Database (NTD). Agencies have strict requirements with regards to the manner in which cost and service characteristics are reported to the NTD. Thus, the NTD provides a consistent set of measurable data that can be used in a peer systems analysis. At the time of this peer analysis, data for FY2007 was available for all of the peer systems. Therefore, all of the information provided in this peer analysis uses FY2007 numbers.

While a peer analysis based on NTD data provides operational service and financial information, it is important to keep in mind other aspects of service quality that are not reported in the NTD, such as passenger satisfaction, vehicle cleanliness and comfort, schedule adherence and route connectivity. It is also important to keep in mind unique operating and financial characteristics that may be associated with a particular transit agency. For example, the Williamsburg Area Transit Authority (WATA) is rather unique in that it operates Williamsburg Area Transport (WAT) fixed route service that is directly operated, as well as Colonial Williamsburg Foundation (CWF) service that is purchased transportation.

The NTD is the only comprehensive source of validated operating and financial data reported by transit systems nationwide. This database is updated annually with information submitted by each transit system. The FTA reviews and confirms the accuracy of the information received and publishes a final report after a reporting transit system successfully responds to all comments and inquiries. The NTD is used by the FTA and other federal, state, and local agencies as a resource to help guide public investment decisions, shape public policy, and develop planning initiatives. The NTD reports various standard measures of performance that allow decision makers and other stakeholders to determine the efficiency and effectiveness of transit services on a local, regional, and national basis.

1.1 TECHNICAL MEMORANDUM CONTENTS

The remainder of this technical memorandum contains the following:

- Section 2 describes the process used to select the WATA peer transit systems;
- Section 3 provides an overview of the peer system's service area characteristics, services provided, fares, revenue hours and miles, passenger trips and operating and capital budgets for WATA and the peer systems;
- Section 4 provides a detailed comparison of specific service productivity measures, which focus on: vehicle utilization, service supply, service productivity, cost efficiency and vehicle maintenance performance;
- Section 5 summarizes financials, highlighting the revenue sources used by WATA and its peers to fund O&M and capital costs; and
- Section 6 summarizes the key findings of the peer analysis.

2.0 Peer Selection Process

This peer analysis identifies peer systems that have similar operational size, service area, and demographics. While the peer analysis does not capture all of the unique characteristics found in Williamsburg, it does provide a basis for comparison to evaluate the performance of the system. A multi-step selection process is used to determine primary and secondary screening criteria. Primary screening criteria includes the service area size in square miles, service area population, service area density, peak vehicles (bus and demand response), revenue miles (bus and demand response), and revenue hours (bus and demand response). In addition to the primary screening criteria, a second level of screening identifies unique characteristics of Williamsburg that may be applied to the peers. These criteria include a Mid-Atlantic location, a college located in the service area with a comparable student population, and tourism/hospitality as a major sector of the economy.

In addition to WATA's directly operated service-WAT, WATA reports the CWF routes, which operate in the historic area, as purchased transportation to the NTD. These routes are included in the criteria totals for WATA. This is unique to all of the peer systems analyzed, and thus, makes direct comparisons difficult. The unique tourism and temporary worker focus of these routes skew the results.

Numerous transit systems were reviewed to determine the best peer group for WATA. For this analysis, systems within Virginia were included to the greatest extent possible in order to capture the unique political climate for transit in the state. In addition to four Virginia systems, Annapolis (MD) included in the final peer list as it provides the best tourism comparison, and is similar to Williamsburg in that it is part of a larger urbanized area (UZA). Cities with transit systems that were identified as potential peers but not chosen for the final analysis include Myrtle Beach (SC), Asheville (NC), Wilmington (NC), Bangor (ME), Roanoke (VA), Morgantown (WV), Altoona (PA), and Williamsport (PA). The results of the final peer selection are displayed in Table 2.1.

Table 2.1: Final Peer List

Agency Name	City	Service Area Population	Service Area Size (Sq. Miles)	Peak Vehicles		
				Total	Bus	DR
Greater Lynchburg Transit Company (GLTC)	Lynchburg, VA	80,846	72	29	25	4
Fredericksburg Regional Transit (FRED)	Fredericksburg, VA	113,716	242	17	17	n/a
Charlottesville Transit Service (CTS)	Charlottesville, VA	81,449	38	44	28	16
Annapolis Transit (AT)	Annapolis, MD	90,000	100	25	25	n/a
Harrisonburg Department of Public Transportation (HDPT)	Harrisonburg, VA	45,261	17	24	18	6

3.0 Peer System Overview

The following is a general overview of the peer system characteristics. This includes the service area characteristics, services provided, fares for each of the peer systems, revenue hours and miles, passenger trips and FY2007 O&M and capital budgets. Further comparisons of ridership, revenue miles, revenue hours and operating and capital budgets are provided in Sections 4 – Service Productivity Comparisons and Section 5 – Financial Analysis.

3.1 SERVICE AREA CHARACTERISTICS

As discussed in Section 2.0, five peers were identified for the WATA peer review, Greater Lynchburg Transit Company (GLTC), Fredericksburg Regional Transit (FRED), Charlottesville Transit Service (CTS), Annapolis Transit, and Harrisonburg Department of Public Transportation (HDPT). Four of the systems are in Virginia and one (Annapolis Transit) is located in Maryland.

WATA's service area population is 69 percent of the peer average, and the service area square miles is 154 percent of the peer average. The smaller population and larger service area result in a population density that is only 27 percent of the peer average. It is important to note that population figures for all five peers and WATA are from the 2000 Census. Thus, the figure of 57,000 people for Williamsburg does not depict the current population of the service area. New census data from the 2010 census will provide a better estimate of population and densities, as the Williamsburg area continues to show strong growth trends. Table 3.1 displays the population, square miles, and density for the service areas in 2000.

Table 3.1: Service Area Characteristics in 2000

City	Population	Square Miles	Population Density
Lynchburg, VA	80,846	72	1,123
Fredericksburg, VA	113,716	242	470
Charlottesville, VA	81,449	38	2,143
Annapolis, MD	90,000	100	900
Harrisonburg, VA	45,261	17	2,662
Peer Average	82,254	94	1,460
Williamsburg, VA	57,000	144	396

All of the peer systems are located in communities with major universities. Table 3.2 displays the universities and student population for the peer systems. The College of William & Mary (W&M) student population is 55 percent of the peer average, with the University of Virginia (UVA), Liberty University, and James Madison University (JMU) student populations in excess of 17,000.

Table 3.2: Peer System Universities

City	Name	Student Population
Lynchburg, VA	Liberty University	19,000
Fredericksburg, VA	Mary Washington	4,800
Charlottesville, VA	University of Virginia	18,000
Annapolis, MD	U.S. Naval Academy	4,400
Harrisonburg, VA	James Madison University	17,000
Peer Average		12,640
Williamsburg, VA	College of William & Mary	7,000

3.2 SERVICES PROVIDED

The following lists the service hours for the peer systems as of March 2009. Most of the peers provide service on Sunday, with the exception of FRED as well as HDPT when JMU is out of session.

- GLTC – Lynchburg, VA
Monday – Saturday: 6:00 a.m. – 9:30 p.m.
Sunday: 6:00 a.m. – 5:30 p.m.
- FRED – Fredericksburg, VA
Monday – Friday: 7:30 a.m. – 8:30 p.m.
- CTS – Charlottesville, VA
Monday – Saturday: 6:15 a.m. – 12:00 a.m.
Sunday: 7:45 a.m. – 5:45 p.m.
- Annapolis Transit – MD
Monday – Saturday: 5:30 a.m. – 10:00 p.m.
Sunday: 8:00 a.m. – 7:00 p.m.
- HDPT - Harrisonburg, VA
JMU In Session:
Monday – Thursday: 6:30 a.m. – 12:00 a.m.
Friday: 6:30 a.m. – 3:00 a.m.
Saturday: 8:30 a.m. – 3:00 a.m.
Sunday: 11 a.m. – Midnight
JMU Out of Session:
Monday – Friday: 6:30 a.m. – 7:00 p.m.
Saturday: 6:30 a.m. – 6:00 p.m.
- WATA – Williamsburg, VA
Monday – Saturday:
Peak Summer Season: 6:00 a.m. – 10:00 p.m.
Off-Peak Season: 6:00 a.m. – 8:00 p.m.:
Sunday: 8:00 a.m. – 6:00 p.m.
(Hours for WAT service)

3.3 FARES

The following Table 3.3 shows the fares for the peer systems and WATA’s directly operated service. GLTC has the highest fare at \$1.50 and FRED has the lowest at \$0.25. Most of the peers provided some form of pass program, with the exception of HDPT.

Table 3.3: Peer System Fares

City	Agency	Adult Fare	Children	Seniors/ Disabled	Students	Demand Response	Passes
Lynchburg, VA	GLTC	\$1.50	Under 45 Inches: Free	\$0.75	n/a	\$3.00	Monthly Pass: \$40.00; Day Pass: \$5.00; 7 Day Pass: 15.00, 10-ride ticket: \$12.50
Fredericksburg, VA	FRED	\$0.25 \$1.00 for VRE feeder routes	Under 3: Free	n/a	Mary Washington: Prepaid	n/a	Monthly Pass: \$15.00; MediCorp Health System: Prepaid
Charlottesville, VA	CTS	\$0.75	5 & Under: Free	\$0.35	n/a	Free	40 Ride - \$21.00; 10 rides: \$6.00
Annapolis, MD	Annapolis Transit	\$1.00 \$1.00 per zone for commuter routes	n/a	\$0.50	\$0.50	\$2.00	Summer Youth Pass: \$25.00; 10 Ride Punch Card: \$9.50; Day Pass: \$2.50; Monthly Pass: \$50; Quarterly Pass \$120; Annual Pass \$400; 100 tokens: \$50.00; "Free Fare Zone" downtown
Harrisonburg, VA	HDPT	\$1.00	n/a	\$0.50	Non JMU: \$0.50 Grade 12: Free JMU: Free	\$2.00	n/a
Williamsburg, VA	WATA	\$1.25	6 & Under: Free	\$0.50	W&M: Prepaid MS and HS: Free	\$2.00	All day pass: \$1.50

3.4 REVENUE HOURS AND MILES

Revenue Hours and Revenue Miles contributed to the peer selection process in order to create an average of systems with similar levels of service to assess productivity measures fairly. While the fixed route averages were comparable for fixed route (or bus) revenue hours and miles, paratransit (or demand response) revenue miles and hours varied wildly among the peers. Annapolis Transit is meeting its paratransit service requirements by offering route deviation service within ¼ mile of fixed routes at a premium fare, while FRED offers route deviation service within ¾ mile of fixed routes at the regular fare. WATA’s revenue hours and miles include both the directly operated WAT service and CWF purchased transportation.

Revenue Hours

WATA’s fixed route (bus) revenue hours are on par with the peer average at 63,346 compared to 63,530 for the peer average, as shown in Table 3.4. GLTC has the highest revenue hours and HDPT has the lowest, with differences greater than 30 percent of the average. Annapolis Transit’s revenue hours are similar to WATA. It is, however, important to note that CWF revenue hours make up nearly half of WATA’s bus revenue hours.

Demand response among the peers is variable, with CTS raising the average and Annapolis Transit and FRED providing route deviation service instead of demand response service.

Table 3.4: Revenue Hours

Agency	Total	Bus	Demand Response
GLTC- Lynchburg, VA	91,228	85,063	6,165
FRED- Fredericksburg, VA	51,186	51,186	n/a
CTS- Charlottesville, VA	96,295	74,089	22,206
Annapolis Transit- Annapolis, MD	63,722	63,722	n/a
HDPT- Harrisonburg, VA	52,048	43,588	8,460
Peer Average	70,896	63,530	12,277
WATA- Williamsburg, VA	66,600	63,346	3,254

Revenue Miles

Table 3.5 shows that most of the peers fall within nine percent of the average for fixed route revenue miles, with GLTC being 28 percent higher and HDPT 47 percent lower. WATA is four percent higher than the peer average for revenue miles, at 847,469 compared to 814,945 revenue miles. It is, however, important to note that CWF revenue miles make up approximately 40 percent of WATA’s bus revenue miles.

Again, demand response revenue miles range from 20 percent of the average to 222 percent of the average among those peers that reported.

Table 3.5: Revenue Miles

Agency	Total	Bus	Demand Response
GLTC- Lynchburg, VA	1,142,377	1,045,899	96,478
FRED- Fredericksburg, VA	889,839	889,839	n/a
CTS- Charlottesville, VA	1,313,957	835,196	478,761
Annapolis Transit- Annapolis, MD	875,534	875,534	n/a
HDPT- Harrisonburg, VA	500,908	428,255	72,653
Peer Average	944,523	814,945	215,964
WATA- Williamsburg, VA	889,977	847,469	42,508

3.5 PASSENGER TRIPS

Table 3.6 shows the total, fixed route, and demand response passenger trips for each of the peer systems. WATA has more passenger trips at 3,021,715 or 234 percent of the peer average of 1,289,399. For comparison, FRED is 28 percent of the peer average. The remainder of the peers falls within 114 percent and 123 percent of the peer average for total passenger trips. Fixed route trips are similar, with WATA providing 238 percent of the peer average and FRED providing only 29 percent. The remaining peers fall between 115 percent and 121 percent of the fixed route peer average. As previously mentioned, purchased transportation trips for CWF routes are included in this total. CWF trips make up approximately three-quarters of WATA's total bus passenger trips.

For demand response, WATA is significantly lower than the peers that provide demand response service, at 13 percent of the peer average. CTS is at the upper range at 202 percent of the demand response peer average.

Table 3.6: Passenger Trips

	Total	Bus	Demand Response
GLTC- Lynchburg, VA	1,468,215	1,453,585	14,630
FRED- Fredericksburg, VA	361,838	361,838	n/a
CTS- Charlottesville, VA	1,590,120	1,512,049	78,071
Annapolis Transit- Annapolis, MD	1,534,503	1,534,503	n/a
HDPT- Harrisonburg, VA	1,492,318	1,468,943	23,375
Peer Average	1,289,399	1,266,184	38,692
WATA- Williamsburg, VA	3,021,715	3,016,576	5,139

3.6 OPERATING AND CAPITAL BUDGETS

The following Tables 3.7 and 3.8 display the operating and capital budgets in FY2007 for WATA and the peer systems. Further detail on these tables is provided in Section 5.0 of this technical memorandum. WATA's FY2007 total operating and maintenance funds were 102 percent of the

peer average at \$4,055,427 compared to \$3,969,672. Capital funding for WATA was higher than the peer average at \$3,278,621 compared to \$1,782,384, or 184 percent. Local and federal funding sources provided the bulk of these funds.

As previously mentioned, it is important to note that CWF purchased transportation is included in the operating and capital funds for WATA. In FY2007, CWF's operating funds would have been a significant portion of WATA's total operating funds. It also appears likely that funding for CWF capital purchases, such as seven Orion buses acquired in September 2006, would have predominated the need for WATA capital funds in FY2007.

Table 3.7: 2007 Peer Operating Funds by Source

Agency	Fares	Local	State	Federal	Other	Total
GLTC- Lynchburg, VA	\$822,186	\$1,286,055	\$785,480	\$1,828,598	\$129,288	\$4,851,607
FRED- Fredericksburg, VA	\$54,963	\$565,819	\$491,026	\$1,306,294	\$73,228	\$2,491,330
CTS- Charlottesville, VA	\$539,321	\$2,330,905	\$1,057,578	\$1,551,726	\$19,549	\$5,499,079
Annapolis Transit- MD	\$787,043	\$2,155,465	\$650,908	\$623,538	\$196,644	\$4,413,598
HDPT- Harrisonburg, VA	\$1,069,788	\$375,971	\$438,759	\$677,665	\$30,564	\$2,592,747
Peer Average	\$654,660	\$1,342,843	\$ 684,750	\$1,197,564	\$89,855	\$3,969,672
WATA- Williamsburg, VA	\$398,991	\$1,855,463	\$714,916	\$ 383,346	\$703,011	\$4,055,727

Table 3.8: Peer Capital Funds by Source

Agency	Local	State	Federal	Other	Total
GLTC- Lynchburg, VA	\$129,798	\$65,467	\$781,060	-	\$976,325
FRED- Fredericksburg, VA	\$383,431	\$193,839	\$2,161,413	-	\$2,738,683
CTS- Charlottesville, VA	\$64,862	\$404,647	\$3,517,244	-	\$3,986,753
Annapolis Transit- Annapolis, MD	\$98,407	\$98,407	\$627,569	-	\$824,383
HDPT- Harrisonburg, VA	\$86,398	\$51,898	\$247,481	-	\$385,777
Peer Average	\$152,579	\$162,852	\$1,466,953	-	\$1,782,384
WATA- Williamsburg, VA	\$266,322	\$1,725	\$3,010,574	-	\$3,278,621

4.0 Service Productivity

This section provides service productivity measures with factors including:

- Vehicle utilization, including the number of fleet and peak vehicles and revenue hours and miles per peak vehicle;
- Service supplied, which includes revenue miles and revenue hours per capita and revenue miles and hours per service area square mile;
- Service effectiveness, including passengers per revenue mile and passengers per revenue hour;
- Cost efficiency, which includes operating cost per passenger trip, revenue hour and revenue mile; and
- Vehicle maintenance performance, such as revenue vehicle failures and labor hours for inspection and maintenance.

4.1 VEHICLE UTILIZATION

Vehicle utilization is a productivity measure based on the total number of revenue hours and revenue miles per peak vehicle. This measure assesses the peers' ability to efficiently use the vehicles available to provide service.

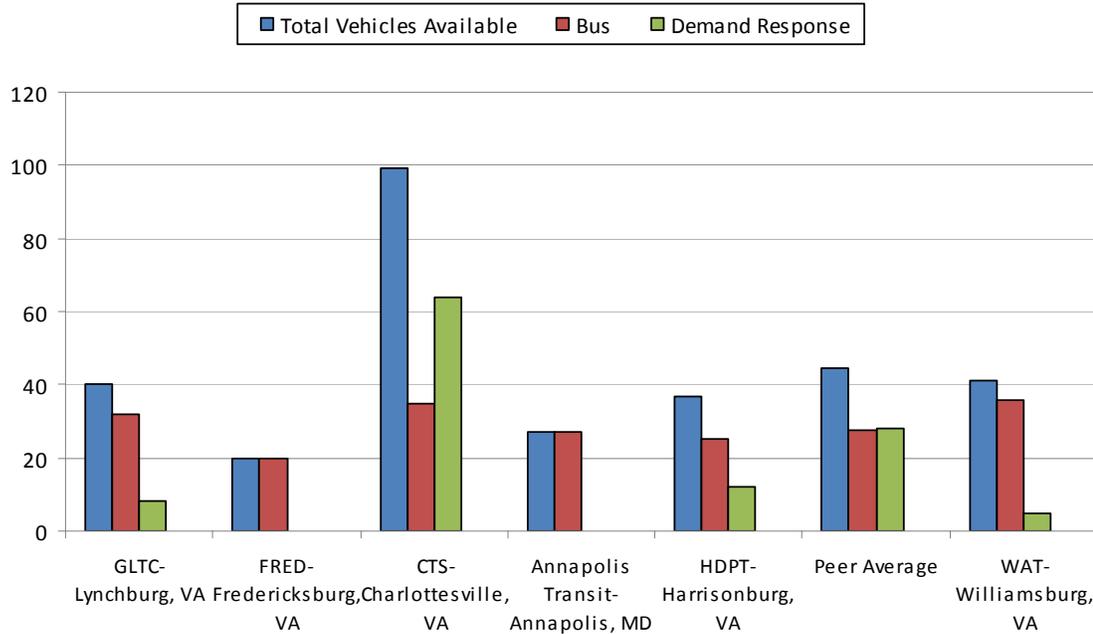
Vehicles Available

Figure 4.1 displays the vehicles available for use by WATA and its peers. This includes fixed route and demand response vehicles used in maximum service plus spares.

The peer average total number of vehicles available for maximum service is 45. WATA falls within eight percent of this average with 41 compared to 45. However, WATA is the outlier for the fixed route average, with 29 percent more vehicles available at 36 compared to 28. Nearly half of these vehicles are used for the CWF purchased transportation.

Demand response vehicles skew the average with CTS reporting 64 vehicles available, compared to WATA's five. GLTC demand response and fixed route totals are similar to WATA. As previously noted, FRED and Annapolis Transit satisfy their paratransit requirements by providing route deviation service, and therefore do not report demand response vehicles.

Figure 4.1: Vehicles Available



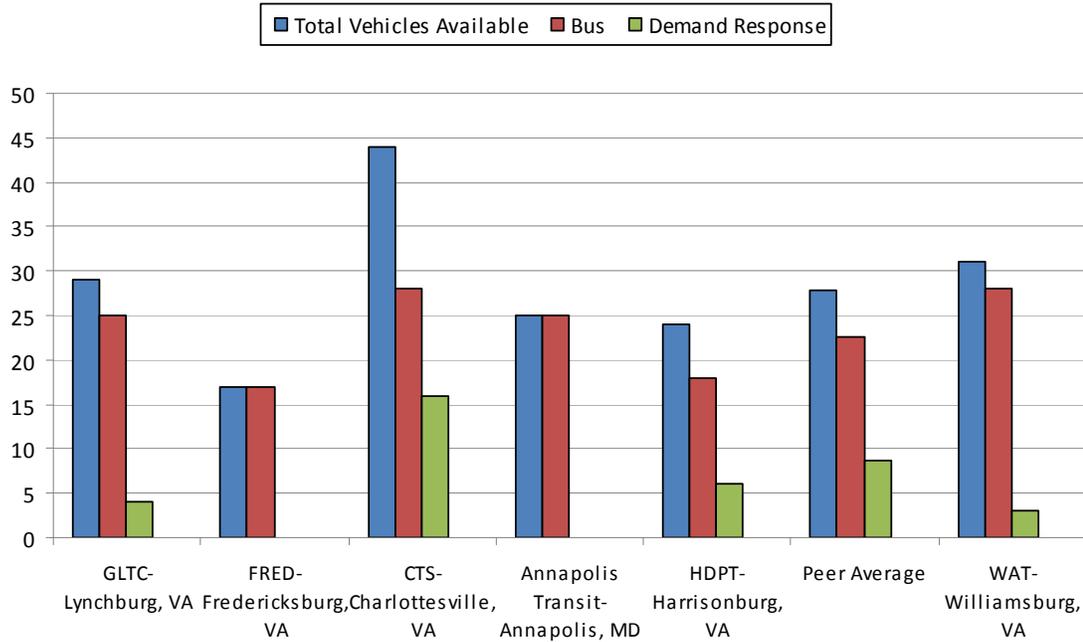
Peak Vehicles

The number of peak vehicles available is used to calculate vehicle utilization as it reflects the maximum number of buses used during the heaviest levels of service. Figure 4.2 displays the vehicles operated in maximum service by WATA and its peers.

WATA uses 24 percent more fixed route peak vehicles than the system average, the same number as CTS. FRED has the lowest with only 75 percent of the average fixed route vehicles operated in maximum service. Again, this includes 16 vehicles for CWF purchased transportation vehicles which raises the total.

The demand response average is skewed by CTS. However, WATA and GLTC have a comparable number of demand response vehicles.

Figure 4.2: Peak Vehicles Available



Revenue Hours per Peak Vehicle

The ratio of revenue hours per peak vehicle compares the number of revenue hours the peer systems operate their peak vehicles. The peer average for fixed route service is 2,806 revenue hours per peak vehicle as shown in Figure 4.3. WATA is the lowest among the peers at 2,262 or 81 percent of the average. However, this could be the result of the CWF service included in these numbers. HDPT is similar with 2,422 or 86 percent of the average and GLTC is the highest with 3,403 peak vehicles per revenue hour for fixed route service or 121 percent. The remainder of the peers falls within ten percent of the fixed route average.

Systems that reported demand response all fall within seven percent of the average of 1,446, with the exception of WATA, which had 1,085 or 75 percent of the average.

Revenue Miles per Peak Vehicle

Revenue miles per peak vehicle also measures how efficiently vehicles are used based on the number of revenue miles reported. The peer average for fixed route service is 36,564, as shown in Figure 4.4. WATA's fixed route revenue miles per peak vehicle are 30,267 or 83 percent of the average. This is similar to CTS which is 82 percent of the average. HDPT is the lowest with 23,792 or 65 percent of the fixed route average and FRED is the highest at 52,343 or 143 percent of the peer average.

Demand response ranges from 55 percent to 136 percent of the 22,050 average revenue miles per peak vehicle. WATA is 64 percent of the average at 14,169.

Figure 4.3: Revenue Hours per Peak Vehicle

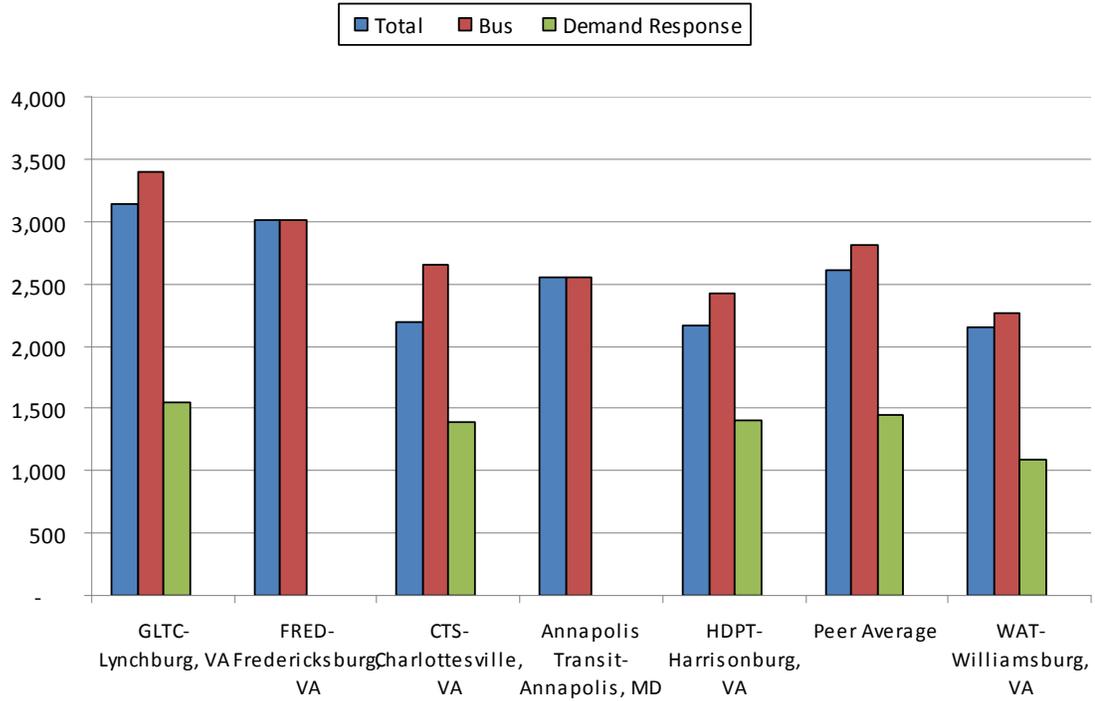
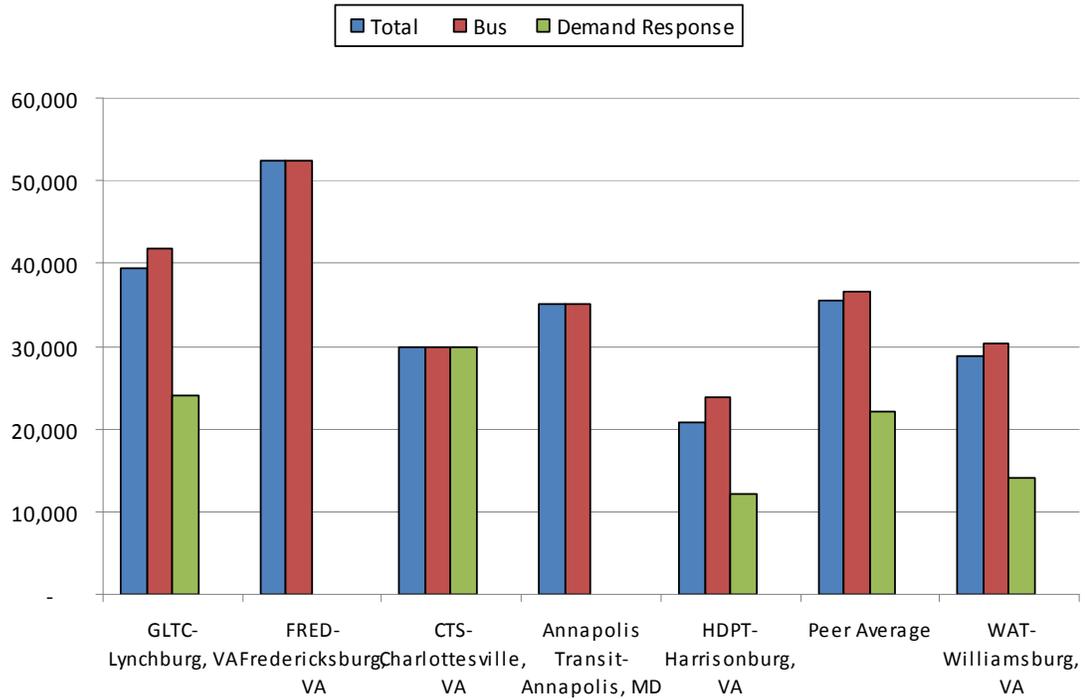


Figure 4.4: Revenue Miles per Peak Vehicle



4.2 SERVICE SUPPLIED

Measures of service supplied include ratios of revenue hours and miles per service area population (or per capita) and square miles of service. The average service area population among the peers is 82,254 people. WATA's service area is 69 percent of the average at 57,000. Harrisonburg has the smallest population at 55 percent of the average and Fredericksburg has the highest at 138 percent of the average. It is important to note that population figures are from the 2000 Census. WATA has 144 square miles of service area, which is 154 percent of the peer average at 94. Harrisonburg has the smallest service area square mileage at 18 percent of the average, and Fredericksburg has 258 percent more square miles of service area than the peer average. Table 4.1 displays the service area population and square miles of service area among the peers.

Table 4.1: Service Measures

Agency	Service Area Population Total	Square Miles of Service Area
GLTC- Lynchburg, VA	80,846	72
FRED- Fredericksburg, VA	113,716	242
CTS- Charlottesville, VA	81,449	38
Annapolis Transit- Annapolis, MD	90,000	100
HDPT- Harrisonburg, VA	45,261	17
Peer Average	82,254	94
WATA- Williamsburg, VA	57,000	144

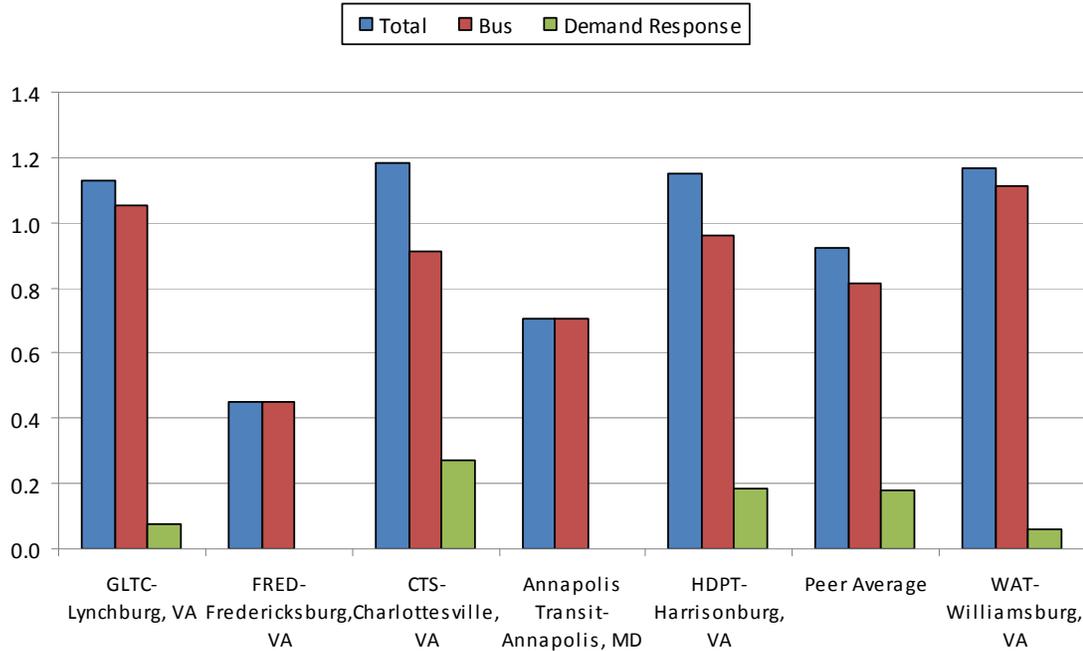
Revenue Hours per Service Area Population

The ratio of revenue hours per service area population provides a measure of how effectively the service hours are supplied to the citizens in the community. The peer average for fixed route and demand response combined is 0.92. The peer average for fixed route is 0.82 and demand response is 0.18. WATA's total revenue hours per service area population for both fixed route and demand response is 1.17, which is 126 percent of the average. This is similar to HDPT, CTS, and GLTC at 124 percent, 128 percent, and 122 percent. FRED is 49 percent of the average and Annapolis is 77 percent of the average. WATA's fixed route revenue hours per service area population is 1.11, or 136 percent of the average. This is the highest among the peers, with FRED providing the fewest hours of service per capita at 55 percent.

It is important to note that several of WATA's routes are tourism and W&M student oriented. This is not calculated in the service population, and may account for the higher than average number. Also, the CWF purchased transportation revenue hours are included in the ratio. GLTC is 129 percent of the average and has a large student base of riders.

WATA is the lowest among the peers for demand response at 0.06 or 32 percent of the average. As expected, CTS has the highest ratio for demand response at 153 percent of the average. Figure 4.5 shows the total, fixed route, and demand response revenue hours per service area population for all of the peers.

Figure 4.5: Revenue Hours per Service Area Population

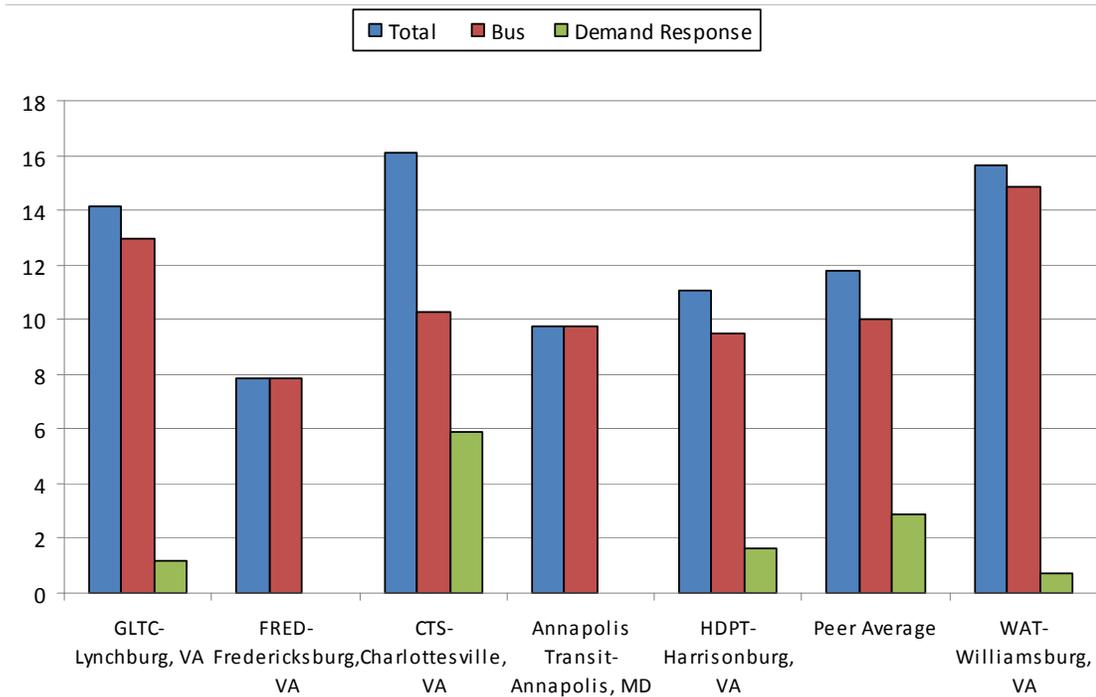


Revenue Miles per Service Area Population

This ratio also reveals how effectively the service is supplied to citizens throughout the service area. The peer average for fixed route and demand response revenue miles per service area population is 11.78. WATA is 15.61 or 133 percent of the average. CTS is 137 percent of the total peer average and GLTC is 120 percent of the total peer average. WATA’s fixed route revenue miles per service area population is 148 percent higher than the peer average, at 14.87 compared to 10.04. Again this may be attributed to the transient nature of the population with students and tourists being a large component of riders, and the purchased transportation revenue miles being included in the ratio. GLTC is second highest at 129 percent of the average and FRED is the lowest at 66 percent of the average.

WATA has the lowest revenue miles per service area population for demand response at 0.75 compared to 2.89, or 26 percent of the average. CTS is twice the average at 203 percent. The other two Virginia peers that reported demand response are GLTC with 41 percent of the average and HDPT with 56 percent of the average. Figure 4.6 shows the revenue miles per service area population for all of the peers.

Figure 4.6: Revenue Miles per Service Area Population



Revenue Hours per Service Area Square Mile

This ratio reveals how effectively the service is provided throughout the service area. WATA’s total revenue hours per square miles of service are 462.5 compared to the peer average of 1,542.3. This is 30 percent of the average. HDPT has the highest ratio for fixed route and demand response combined at 199 percent of the average, and FRED has the lowest at 14 percent of the average. WATA’s fixed route service provides 439.9 revenue hours per square mile of service area, which is 34 percent of the average. FRED is 16 percent of the average and HDPT is 196 percent of the average. Again, the CWF routes impact this ratio. Figure 4.7 displays the revenue hours per service area square mile for all of the peer systems.

Revenue Miles per Service Area Square Mile

The ratio of revenue miles per service area square mile is another common measure of how effectively service is supplied to the service area. The total peer average for this measure is 18,468.3 revenue miles per square mile of service. WATA’s total is 6,180.4 or 33 percent of the average. CTS is the highest at 187 percent of the average and FRED is the lowest at 20 percent of the average. WATA’s fixed route service provides 40 percent of the peer average for revenue miles per square mile of service area, at 5,885.2 compared to 14,825.8. HDPT provides the most with 170 percent of the peer average; however, its service area is reported as 17 square miles, the smallest in the peer group. FRED is the lowest at 25 percent for fixed route, and has the largest service area at 242 square miles.

Demand response among the peers is variable with the peer average at 6,070.9. WATA is 295.2 or five percent of the peer average and CTS is 208 percent of the average. WATA’s lower than average ratio of revenue miles per square mile of service area is indicative of the larger service

area and lower densities, which require longer distances to serve the population. Figure 4.8 shows the revenue miles per square mile of service for the peer systems.

Figure 4.7: Revenue Hours per Service Area Square Mile

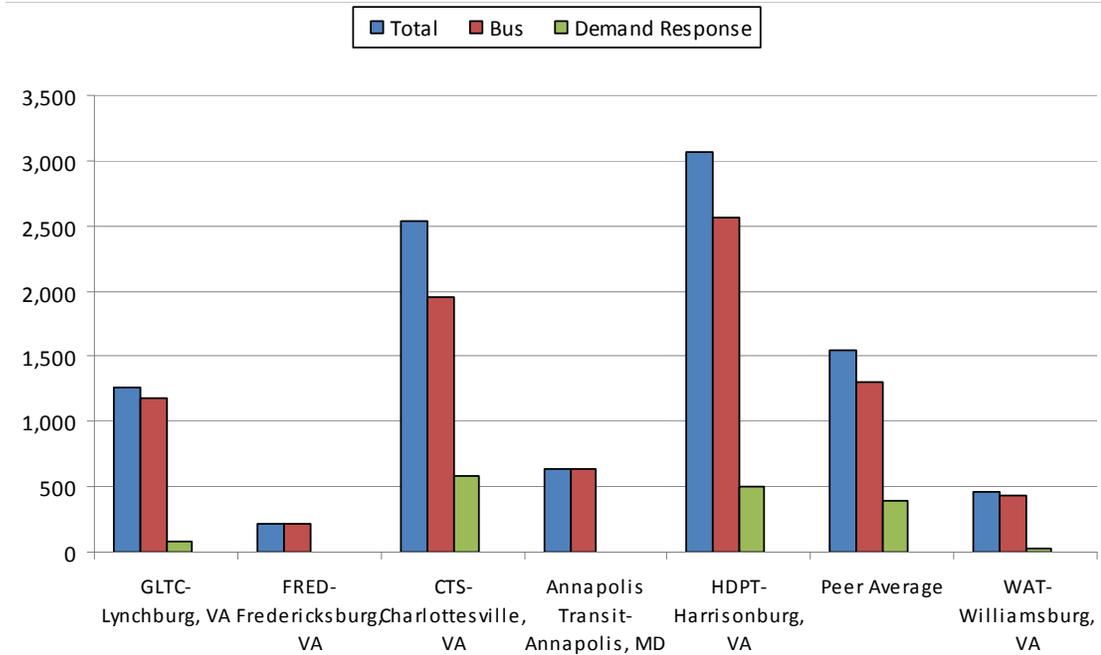
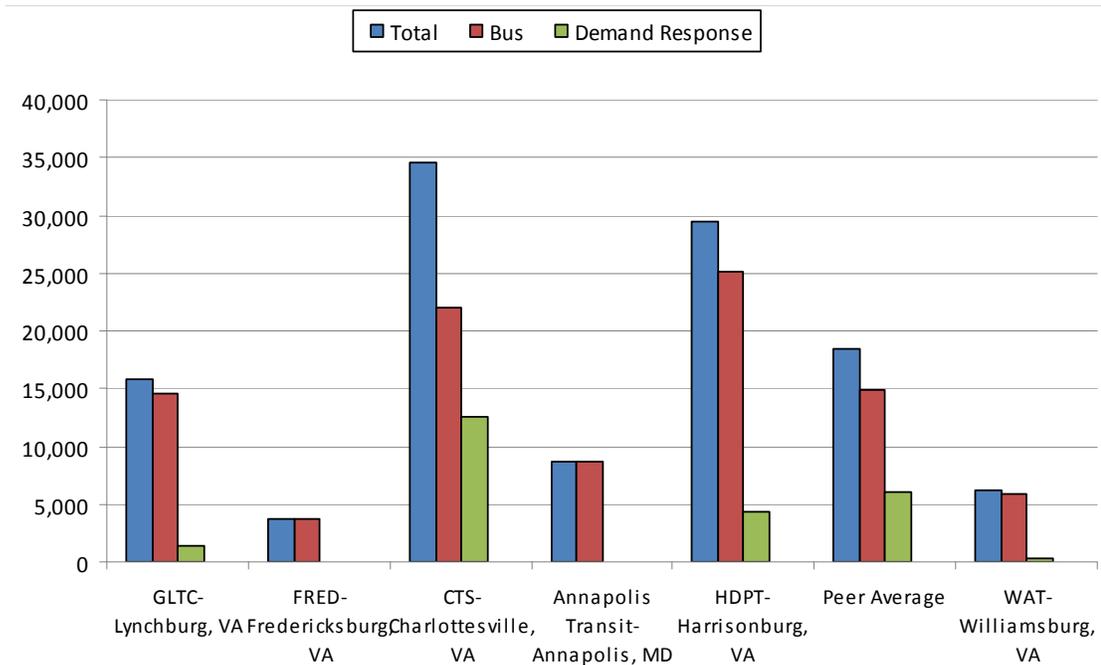


Figure 4.8: Revenue Miles per Service Area Square Mile



4.3 SERVICE PRODUCTIVITY

Service productivity measures how effectively the service is transporting passengers relative to the level of service. These ratios include passenger trips per service area population, passenger trips per revenue hour and passenger trips per revenue mile. As previously discussed, WATA provides directly operated local service and purchased transportation service for the historic areas. Both are included in these ratios.

Passenger Trips per Service Area Population

This measure reveals how many passenger trips occur in relation to the size of the population. WATA is higher than the peer average of 18.18 for total and 17.85 for fixed route and all of the peers at 53.01 and 52.92, respectively. This is 292 percent higher than the total and 297 percent higher than the fixed route peer average. This is likely related to the level of passenger trips that are tourism or student related, as well as the CWF purchased transportation passengers trips that are included in the ratio, whose riders are largely tourists and temporary workers.

Demand response is lower than the peer average, at .09 compared to .55. This is 16 percent of the peer average for demand response. Figure 4.9 displays the passenger trips per service area population for all of the peer system.

Passenger Trips per Revenue Hour

This measure reveals how much of the service is consumed based on the hours of service provided. WATA's passenger trips per revenue hour are more than twice the peer average for total and fixed route service at 45 compared to 18 total passenger trips per revenue hour (245 percent) and 48 compared to 20 fixed route passenger trips per revenue hour (233 percent). CWF routes directly impact this ratio.

WATA and GLTC have the same demand response passenger trips per revenue hour, with CTS being the upper end at four. Figure 4.10 displays the passenger trips per revenue hour for all of the peer systems.

Passenger Trips per Revenue Mile

This measure compares the effectiveness of the service based on the amount of service consumed per miles of service provided. Again, WATA is more than twice the average in this category for total and fixed route passenger trips. WATA's total passenger trips per revenue mile are 3.40 or 222 percent of the peer average of 1.53. Fixed route passenger trips per revenue hour for WATA are 3.56 or 202 percent of the peer average of 1.76. HDPT is similar with 195 percent of the peer average for both categories and FRED is the lowest at 27 percent of the total peer average and 23 percent of the fixed route peer average. As mentioned, the CWF purchased transportation is included in this ratio.

WATA has 57 percent of the peer average for demand response at 0.12 compared to 0.21. HDPT is the highest for demand response with 0.32 passenger trips per revenue mile. Figure 4.11 displays the passenger trips per revenue mile for all of the peer systems.

Figure 4.9: Passenger Trips per Service Area Population

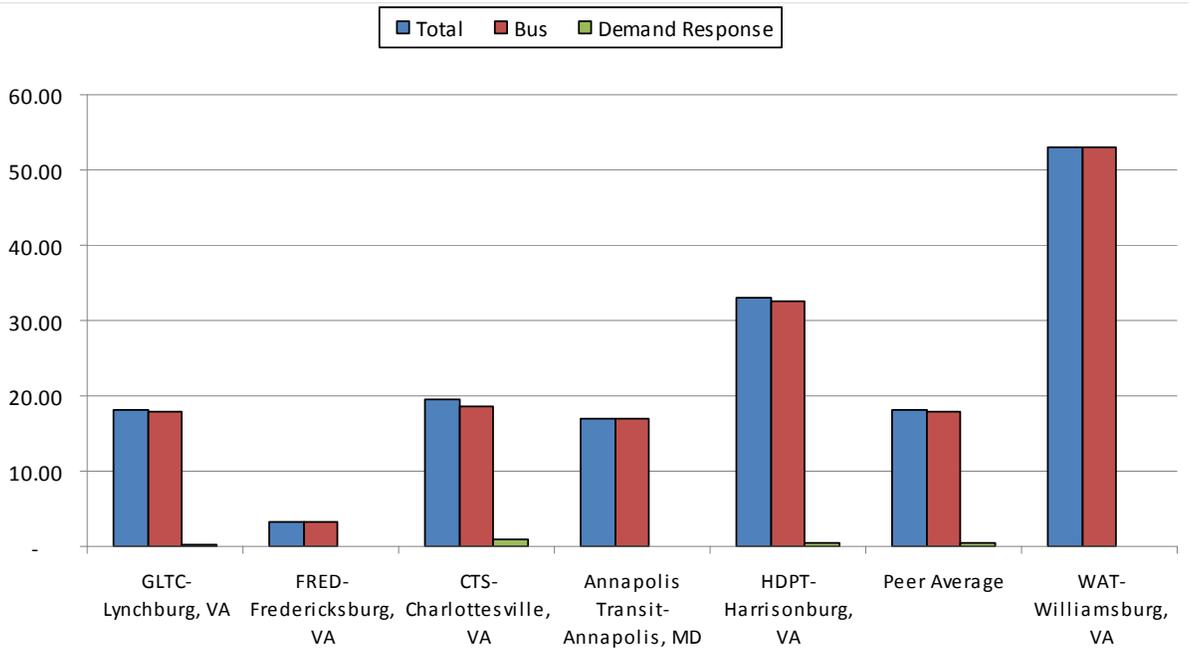


Figure 4.10: Passenger Trips per Revenue Hour

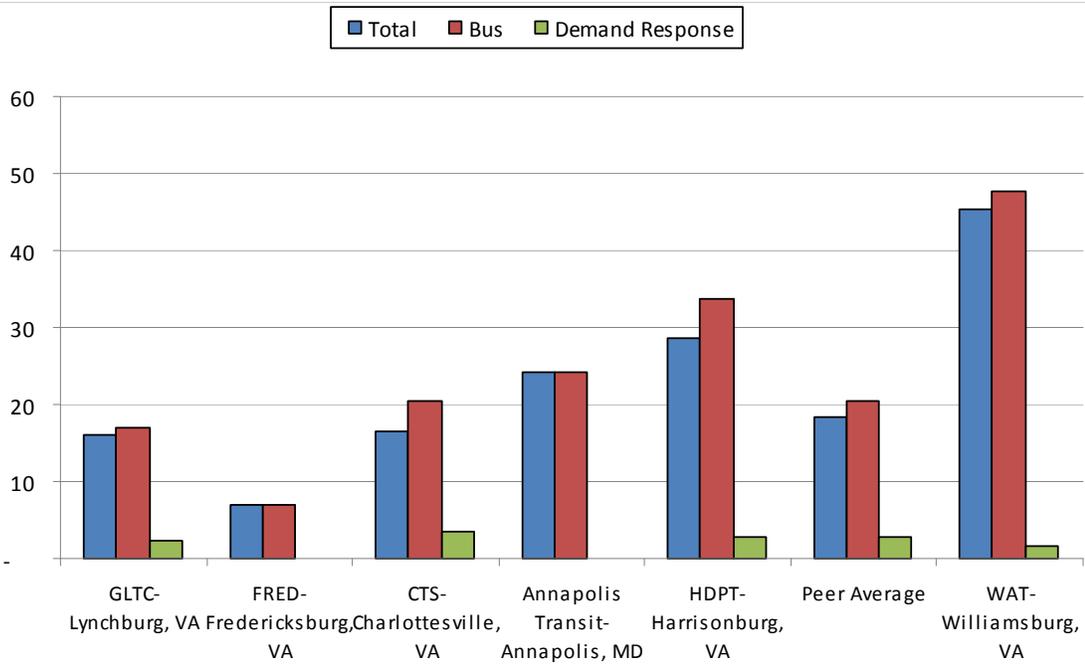
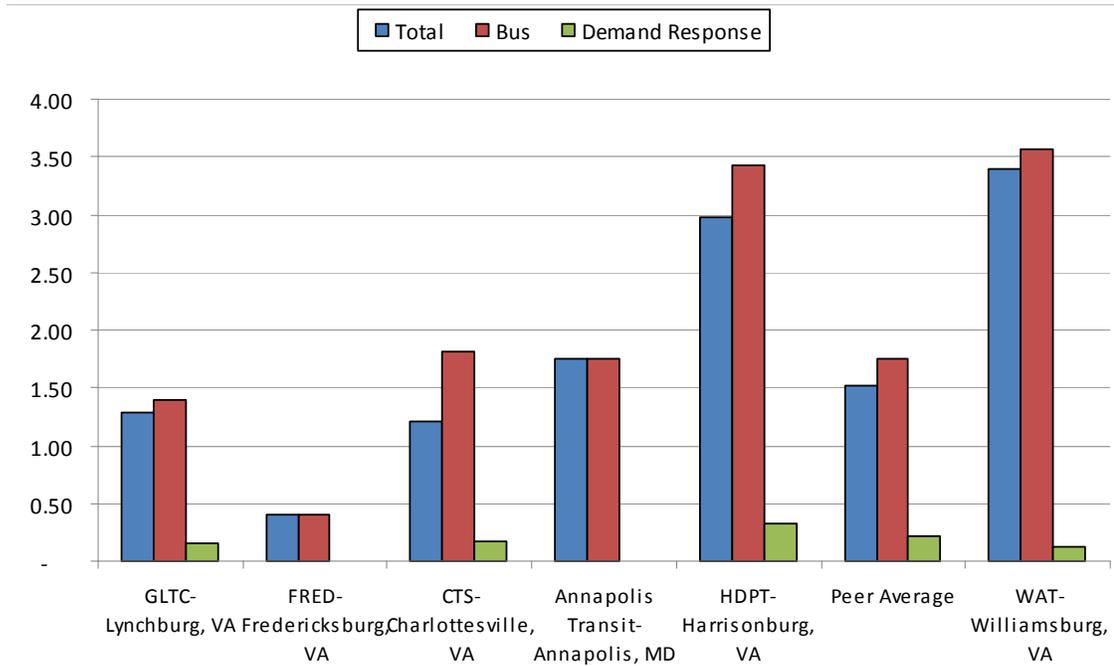


Figure 4.11: Passenger Trips per Revenue Mile



4.4 COST EFFICIENCY

Cost efficiency ratios compare the agencies' ability to operate efficiently based on operating costs per passenger trip, revenue hour, and revenue mile. In comparing the direct operating cost among the peers, WATA is on par with the peer average for total and fixed route operating cost. However, it is important to note that CWF purchased transportation is included in the operating costs for WATA.

WATA's demand response operating costs are 32 percent lower than the peer average, which is skewed by CTS at 188 percent of the average. Table 4.2 displays the operating costs for each of the peer agencies.

Table 4.2: Operating Costs

Agency	Total	Bus	Demand Response
GLTC- Lynchburg, VA	\$4,851,609	\$4,598,371	\$253,238
FRED- Fredericksburg, VA	\$2,396,950	\$2,396,950	n/a
CTS- Charlottesville, VA	\$5,687,897	\$4,468,551	\$1,219,346
Annapolis Transit- Annapolis, MD	\$4,413,598	\$4,413,598	n/a
HDPT- Harrisonburg, VA	\$2,592,747	\$2,123,947	\$468,800
Peer Average	\$3,988,560	\$3,600,283	\$647,128
WATA- Williamsburg, VA	\$3,932,003	\$3,725,526	\$206,477

Operating Cost per Passenger Trip

The ratio of operating cost per passenger trip is a measure of efficiency based on how much one passenger trip costs the transit agency. WATA's total operating cost per passenger trip for both bus and demand response is \$1.30, which is lower than the average of \$3.62, or 36 percent of the average. WATA's fixed route operating cost per passenger trip is also 36 percent of the peer average at \$1.24 compared to \$3.41, respectively. Some of this efficiency is attributable to the high ridership on CWF routes. HDPT is the second lowest at 48 percent total and 42 percent for fixed route. FRED has the highest operating cost per passenger trip for total and fixed route at 183 percent and 194 percent of the peer average.

WATA's demand response cost per passenger trip is 227 percent of the peer average at \$40.18 per trip compared to \$17.66 per trip. This is the highest among the peers, with CTS being the lowest at \$15.62. Figure 4.12 shows the operating cost per passenger trip for all of the peer systems.

Operating Cost per Revenue Hour

The operating cost per revenue hour ratio measures the cost to operate each hour of service. For total and fixed route service, most of the peers fall within ten percent of the average. WATA is 106 percent of the average for total operating cost per revenue hour at \$59.04 compared to the peer average of \$55.63, and 105 percent of the peer average for fixed route at \$58.81 compared to \$55.84. The outliers are FRED, which is 84 percent of the average and Annapolis, which is 125 percent and 124 percent of the peer average for total and fixed route cost per revenue hour.

Again, WATA has a higher operating cost per revenue hour for demand response at \$63.45, which is 126 percent of the peer average of \$50.47. GLTC has the lowest cost per revenue hour for demand response, with 81 percent of the average. Figure 4.13 shows the operating cost per revenue hour for each of the peer systems.

Operating Cost per Revenue Mile

Another common cost efficiency measure is operating cost per revenue mile, which compares the operating cost to operate one revenue mile of service across the peers. The peer average for total operating costs per revenue miles is \$4.30; fixed route is \$4.49 and demand response is \$2.32. WATA is close to the peer average for total and fixed route at \$4.42 and \$4.40 respectively, which is 103 percent and 98 percent of the peer average. FRED has the lowest for both total and fixed route at 63 percent and 60 percent of the peer average. HDPT's total operating cost per revenue mile is the highest at 120 percent of the peer average; however, CTS has the highest operating cost per revenue hour for fixed route service, at 119 percent of the average.

WATA's operating cost per revenue mile for demand response is 209 percent of the average, at \$4.86. HDPT's cost per revenue mile for demand response is 278 percent of the peer average, with the remaining two peers falling within ten to 13 percent of the peer average. Figure 4.14 compares the operating cost per revenue among the peer systems.

Figure 4.12: Operating Cost per Passenger Trip

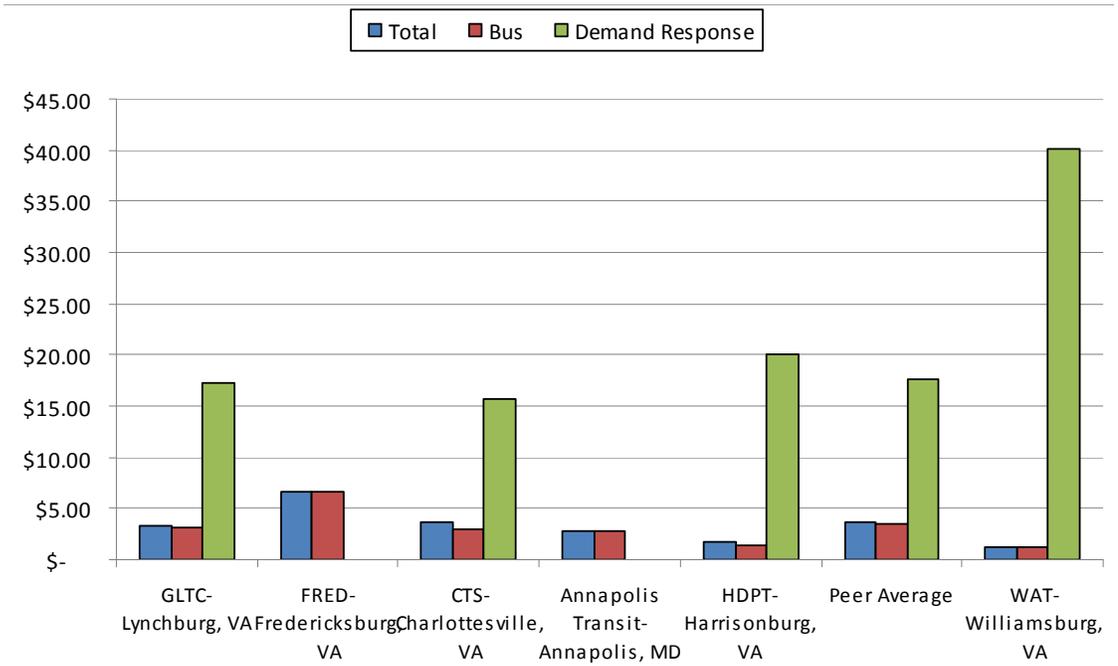


Figure 4.13: Operating Cost per Revenue Hour

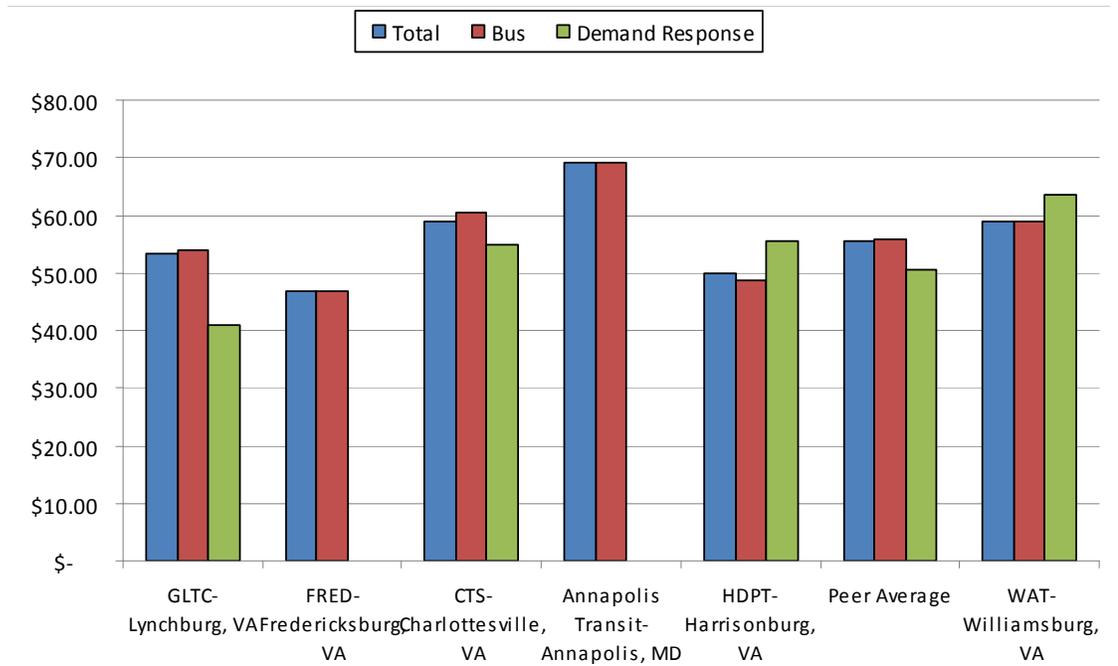
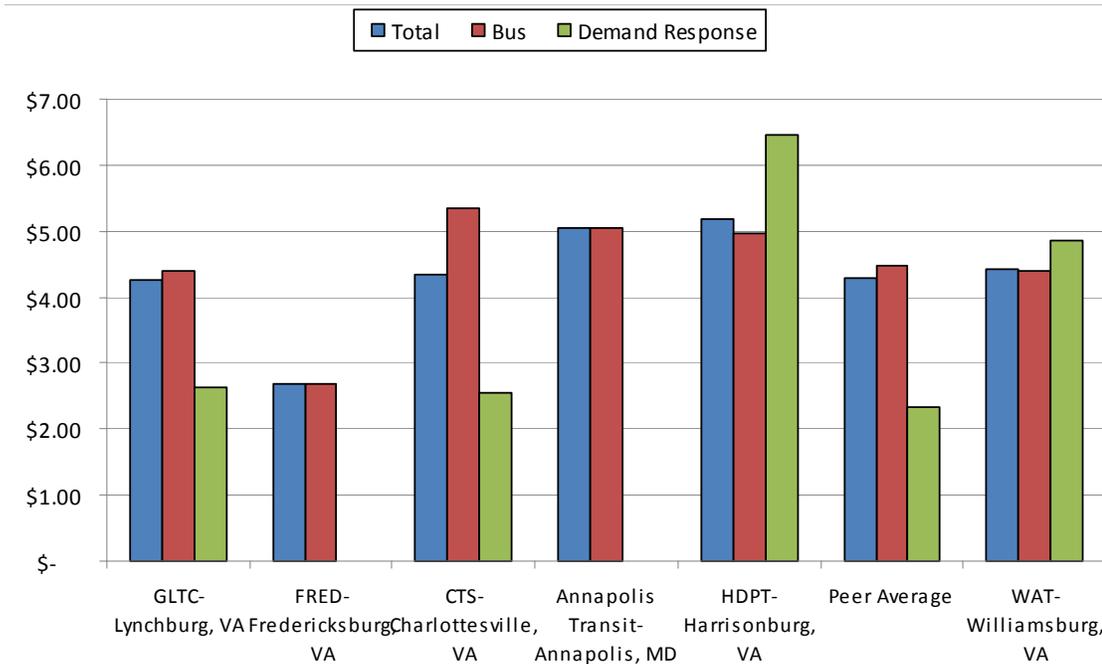


Figure 4.14: Operating Cost per Revenue Mile



4.5 REVENUE VEHICLE MAINTENANCE PERFORMANCE

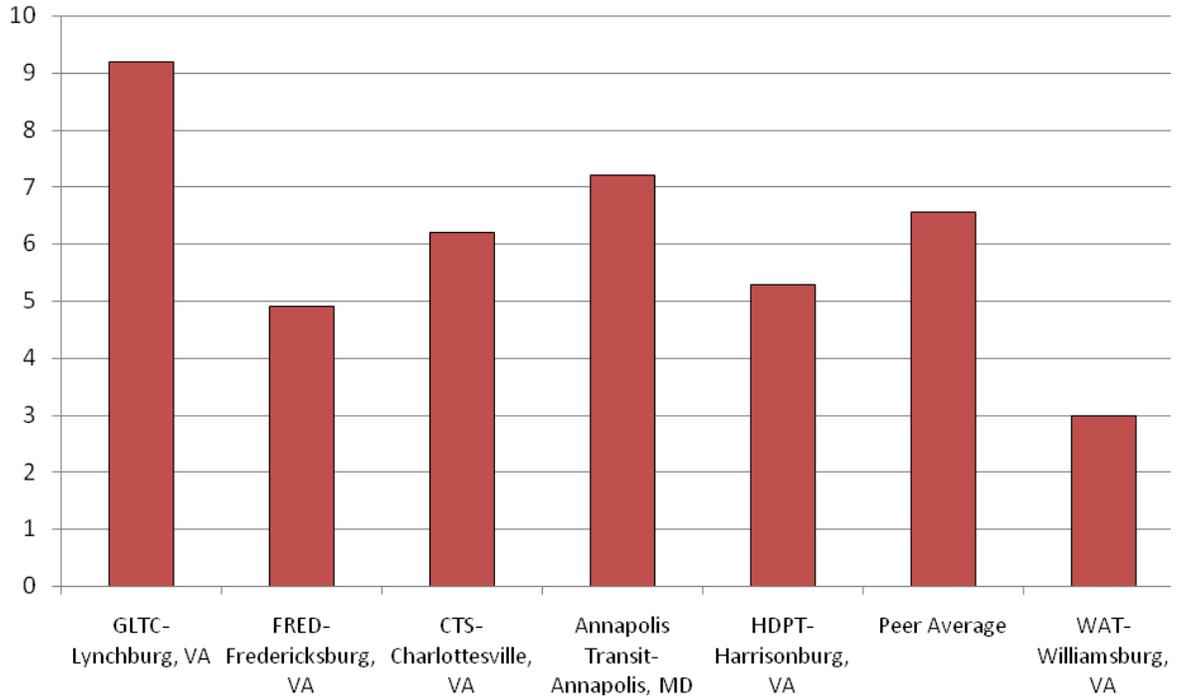
Revenue vehicle maintenance performance measures include revenue vehicle failures per 1,000 miles and the labor hours for inspection and maintenance per 1,000 miles. Revenue vehicle failures include major mechanical failures that prevent the vehicle from continuing revenue service. This can include failures with brakes, doors, engine cooling systems, steering and front axle, rear axle and suspension, and torque converters, etc. Minor vehicle failures generally do not prevent the vehicle from continuing revenue service, such as malfunctions with fareboxes, wheelchair lifts, and air conditioning systems, etc.

Revenue vehicle failures are only reported for fixed route service. Maintenance performance indicators are difficult to compare across systems as different variables can impact the results, such as the individual agencies' policies and procedures for taking a vehicle out of service.

Average Vehicle Age

The average vehicle age of the transit system can influence the amount of maintenance required; thus, it is important to note the variation in the peer systems average vehicle age. WATA has the youngest fixed route bus fleet among the peers with an average vehicle age of three years. This is 46 percent of the average fixed route age of the fleet at 6.6. GLTC has the oldest fixed route fleet at 140 percent of the peer average. Figure 4.15 displays the average vehicle age for the peer system fixed route fleets.

Figure 4.15: Average Fixed Route Vehicle Age



Revenue Vehicle Failures

The total number of revenue vehicle failure for the peer systems are displayed in Table 4.3 below. As expected, GLTC has the highest number of revenue vehicle failures, at 431 percent of the peer average and has the oldest fixed route fleet. WATA reported nine revenue vehicle failures, which is two percent of the peer average. This is likely due to WATA having the youngest fleet among the peers.

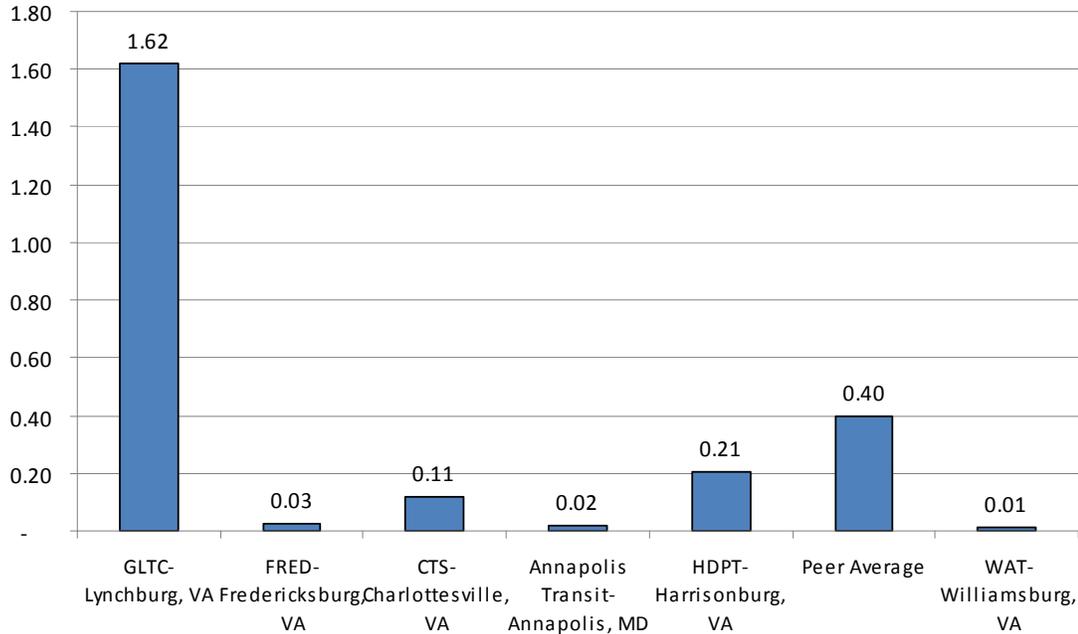
Table 4.3: Revenue Vehicle Failures

Agency	Total
GLTC- Lynchburg, VA	1,849
FRED- Fredericksburg, VA	23
CTS- Charlottesville, VA	151
Annapolis Transit- Annapolis, MD	16
HDPT- Harrisonburg, VA	104
Peer Average	429
WATA- Williamsburg, VA	9

Revenue Vehicle Failures per 1,000 miles

The ratio of revenue vehicle failures per 1,000 miles balances the scale in order to compare the peer systems. WATA has 0.01 revenue vehicle failures per 1,000 miles, which is 5 percent of the peer average of 0.40. GLTC has by far the highest at 1.62 vehicle failures per 1,000 revenue miles. This reveals that the young age of WATA’s fleet reduces the costs involved with vehicle maintenance. Figure 4.16 shows the revenue vehicle failures per 1,000 miles for all of the peer systems.

Figure 4.16: Revenue Vehicle Failures per 1,000 Miles



Labor Hours per 1,000 Miles

The ratio of labor hours per 1,000 miles is another measure of maintenance performance. WATA did not report labor hours in the NTD for this measure. However, the peer average is 7.65, with GLTC skewing the average with a high number of 15.24. Table 4.4 shows the labor hour for inspection and maintenance per 1,000 miles for the peer systems.

Table 4.4: Labor Hours for Inspection & Maintenance per 1,000 miles

Agency	Total
GLTC- Lynchburg, VA	15.24
FRED- Fredericksburg, VA	2.47
CTS- Charlottesville, VA	7.63
Annapolis Transit- Annapolis, MD	7.25
HDPT- Harrisonburg, VA	5.68
Peer Average	7.65
WATA- Williamsburg, VA	n/a

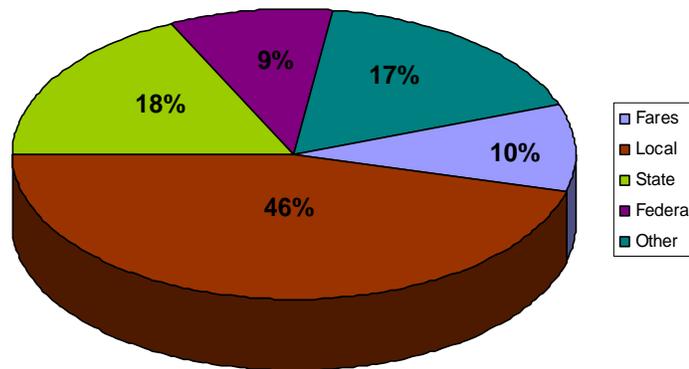
5.0 Financial Analysis

This section highlights the revenue sources used by WATA and its peers to fund operating and maintenance (O&M) and capital costs. It is important to note that the data utilized for the following analysis provides an indication of the range of funding sources used by WATA and the peer transit systems for only FY2007. While levels and sources of funding used for O&M tend to be relatively consistent from year to year, annual capital funding levels and sources can vary significantly. Additionally, the CWF purchased transportation service is unique to all of the peer systems.

5.1 FUNDING SOURCES USED FOR O&M

Figure 5.1 shows the key revenue sources for WATA's O&M funds. Almost half (46 percent) of WATA's O&M funding comes from local funds. Eighteen percent comes from state funds and 17 percent from fares. Federal funds make up nine percent of the O&M funding.

Figure 5.1: WATA O&M Funding by Major Source



The total level of O&M funding for WATA and its peer systems are displayed in Figures 5.2 and 5.3. In 2007, WATA received a total of \$4,055,727 in O&M funding, which is similar to the peer average; however, 46 percent came from local funds, as shown in Figure 5.3, which is higher than the average of 34 percent; and the second highest after Annapolis Transit. Additionally, WATA received the lowest percentage of federal funds at nine percent, compared to the peer average of 30 percent.

Other funding sources made up a significant percentage of WATA's O&M funding at 17 percent. This includes payment in lieu of fares from W&M and CWF operating funds.

Figure 5.2: Operating & Maintenance Funding Sources

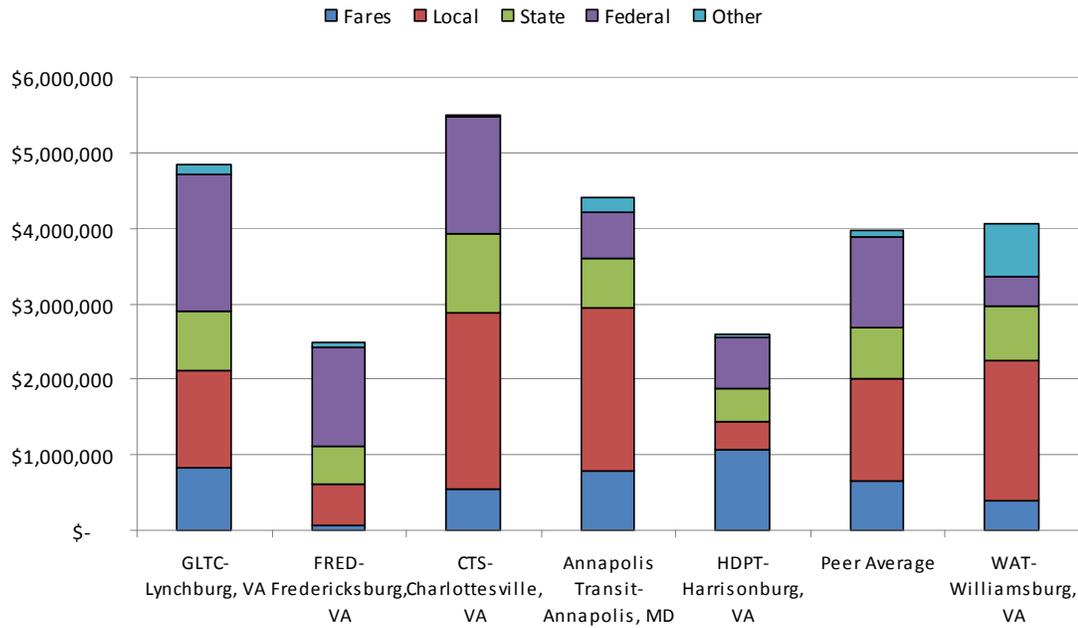
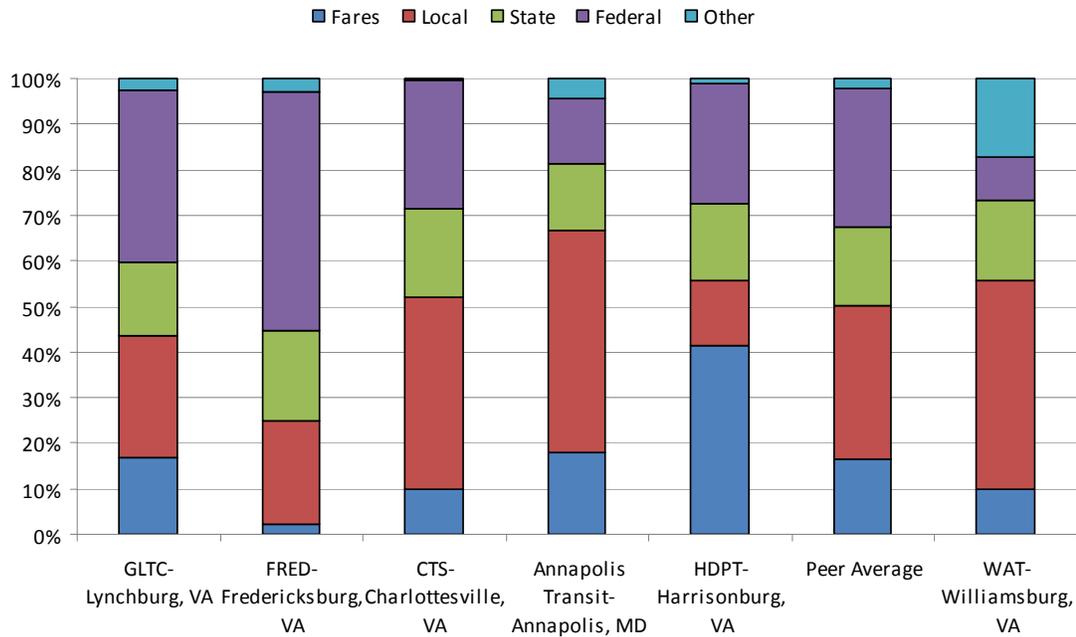


Figure 5.3: Percentage of Operating & Maintenance Funding Sources



Fixed Route Farebox Revenue for O&M

As revealed in Table 5.1, WATA received \$398,991 of fare revenue in FY2007. This is 62 percent of the peer average of \$646,834. HDPT received the most fare revenue, which was 159 percent of the peer average.

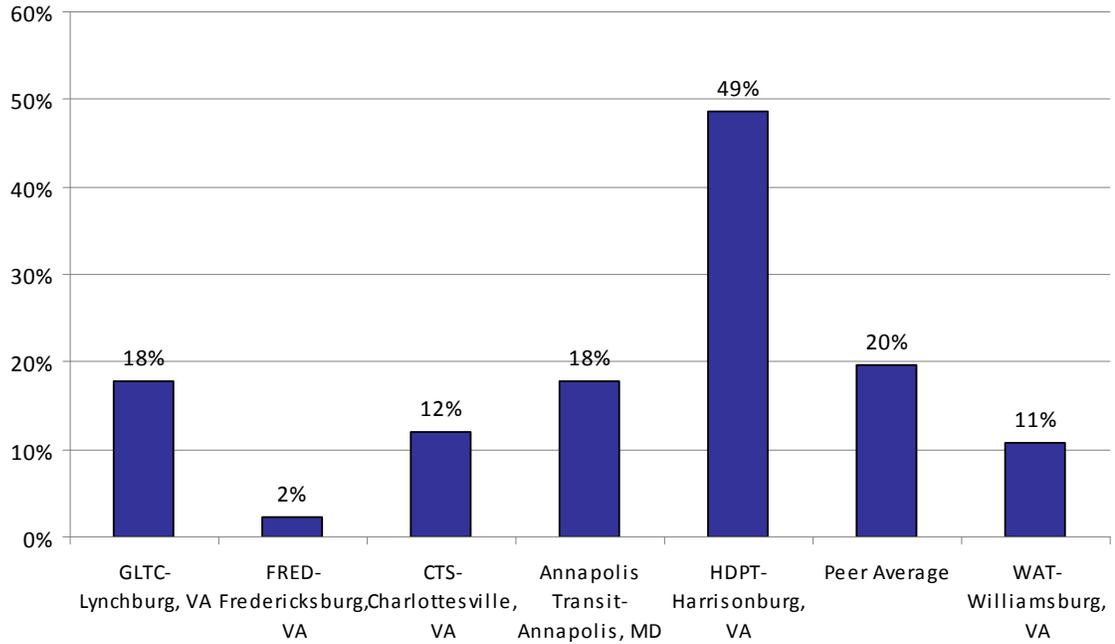
Table 5.1: Bus Fare Revenue

Agency	Bus
GLTC- Lynchburg, VA	\$822,186
FRED- Fredericksburg, VA	\$54,963
CTS- Charlottesville, VA	\$539,321
Annapolis Transit- Annapolis, MD	\$787,043
HDPT- Harrisonburg, VA	\$1,030,655
Peer Average	\$646,834
WATA- Williamsburg, VA	\$398,991

The extent to which fares cover O&M costs is referred to as the farebox recovery rate. WATA's farebox recovery rate is 11 percent, which is lower than the peer average of 20 percent. However, WATA not only receives fares from the farebox, it also receives payment in lieu of fares from W&M for the Green/Gold Line. WATA reports this revenue under the "Other Sources" category.

HDPT has the highest farebox recovery rate at 49 percent, with FRED displaying the lowest at two percent, as shown in Figure 5.4. As of March 2009, FRED has a fare of \$0.25, which is the lowest among the peers as well as the lowest farebox recovery rate in FY2007. As a side note, FRED is now contemplating doubling its basic fare to \$0.50 per boarding. HDPT had the highest farebox recovery rate of 49 percent, with a fare of \$1.00. However, JMU provides funding for campus service, and it is possible those funds may be reported under "Fares" instead of the "Other Sources" category.

Figure 5.4: Bus O&M Funding from Fares



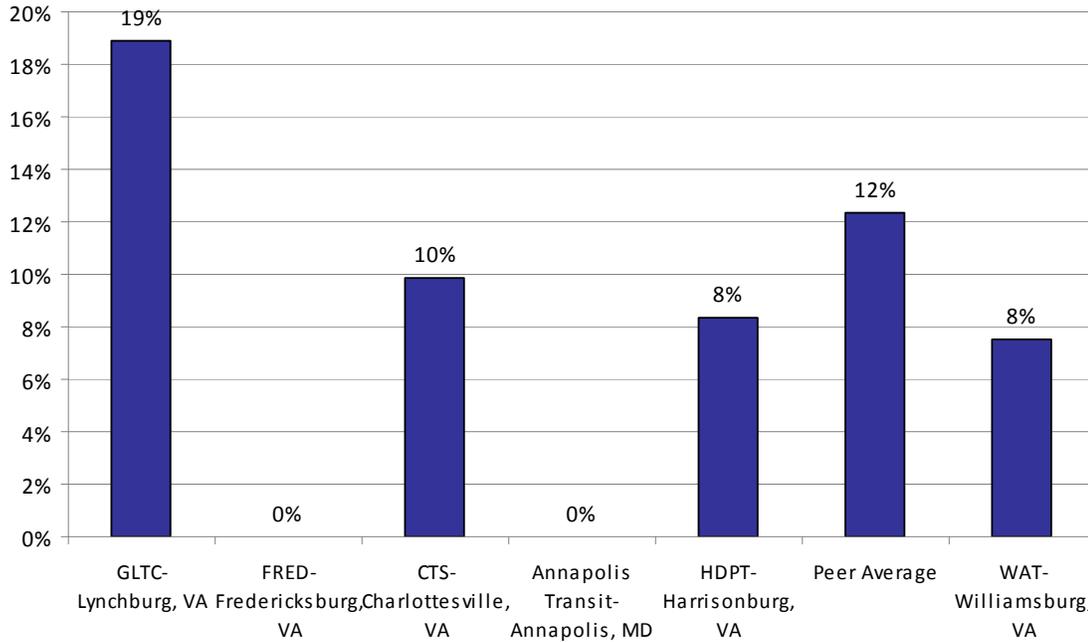
Demand Response Farebox Revenue for O&M

The farebox revenue for demand response is shown in Table 5.2. WATA collected \$15,508 from demand response fares in FY2007. This is 22 percent of the peer average. WATA’s farebox recovery rate for demand response was eight percent. This is lower than the peer average of 12 percent. GLTC had the highest farebox recovery rate at 19 percent, as shown in Figure 5.6.

Table 5.2: Demand Response Fare Revenue

Agency	Demand Response
GLTC- Lynchburg, VA	\$47,862
FRED- Fredericksburg, VA	n/a
CTS- Charlottesville, VA	\$120,131
Annapolis Transit- Annapolis, MD	n/a
HDPT- Harrisonburg, VA	\$39,133
<i>Peer Average</i>	\$69,042
WATA- Williamsburg, VA	\$15,508

Figure 5.6: Demand Response O&M Funding From Fares



Federal Sources for O&M

As shown in Figure 5.7, ten percent of WATA’s O&M funds came from federal sources in FY2007. This is lower than the peer average of 35 percent. FRED received the highest amount of federal funds for O&M at 54 percent. It is assumed that only FTA funds were included in this federal amount; the National Park Service also provides federal funding towards some of the CWF routes.

State Sources for O&M

The percentage of state sources of funds used for O&M is displayed in Figure 5.8 for WATA and the peer systems. State funds made up 19 percent of WATA’s O&M funds in FY2007, which is equal to the peer average of 19 percent. CTS had the highest percentage at 24 percent.

Figure 5.7: O&M Funding From Federal Funds

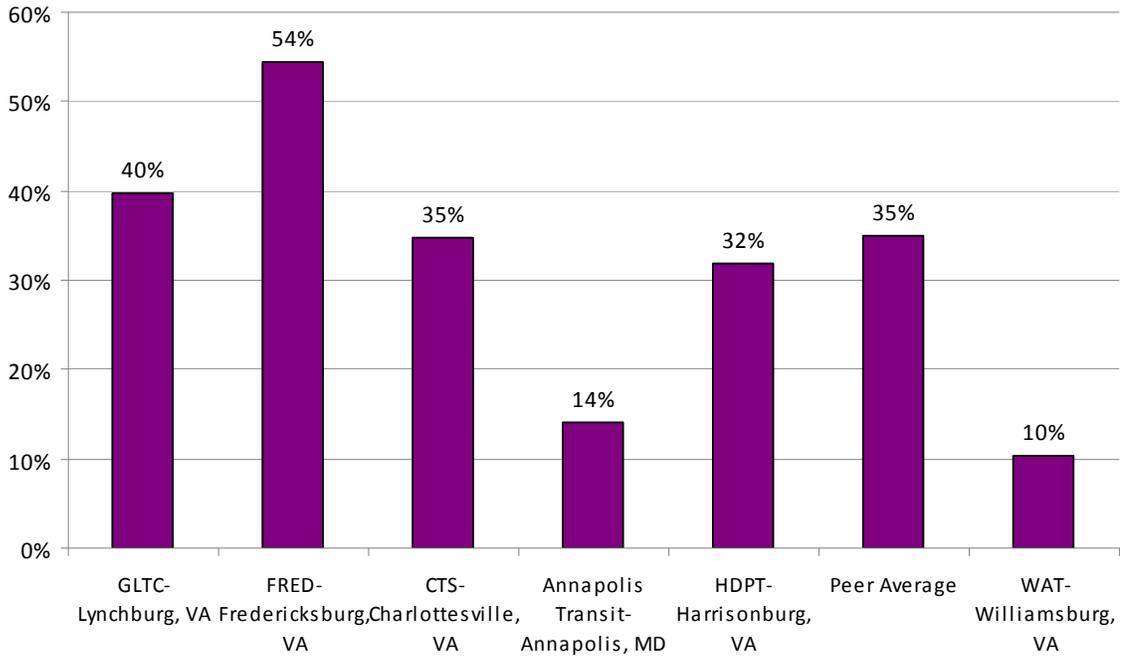
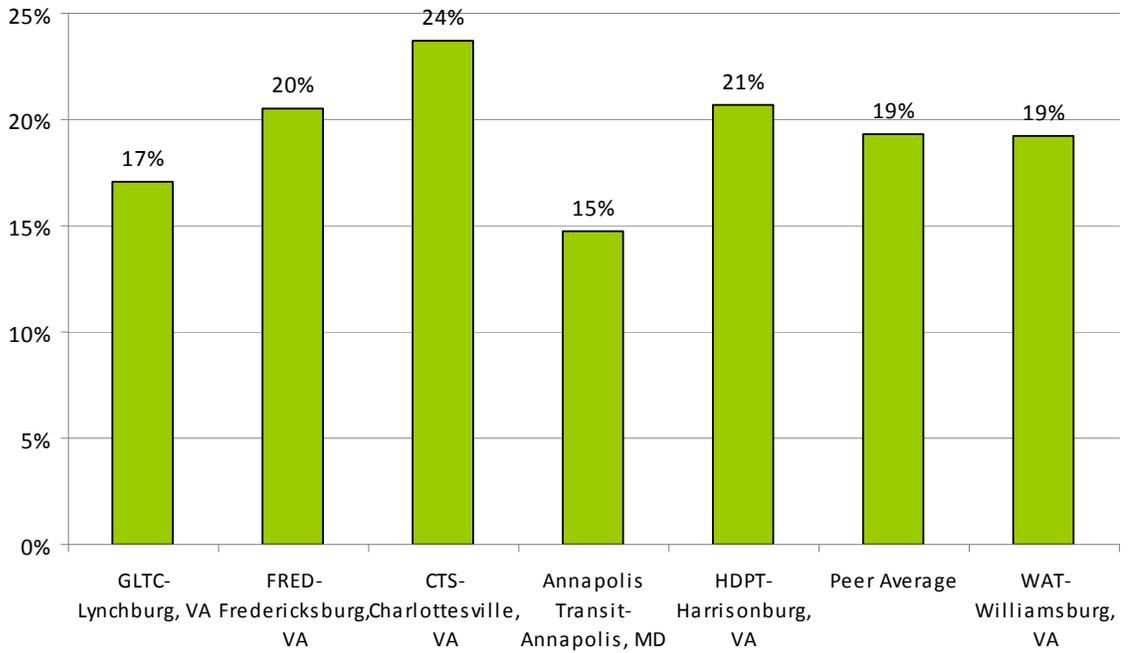


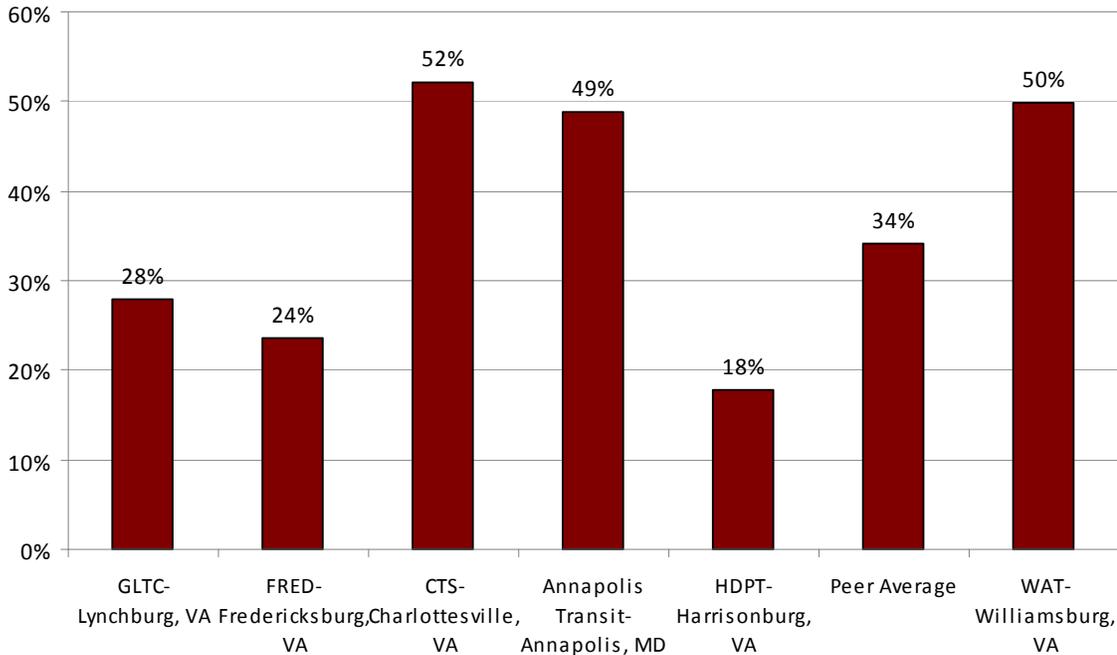
Figure 5.8: State funds for O&M



Local Funds for O&M

As previously discussed, WATA received 46 percent of its O&M funds from local sources. These funds covered 50 percent of WATA’s operating cost. This is 138 percent of the peer average of 34 percent, and the second highest to CTS among the peer systems displayed in Figure 5.9.

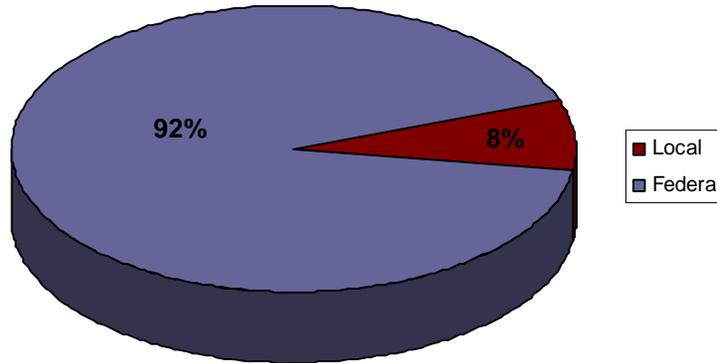
Figure 5.9: Local Funds for O&M



5.2 FUNDING SOURCES USED FOR CAPITAL

While funding levels and sources used for O&M remain relatively consistent from year to year, capital expenditure levels and sources can vary significantly from year to year, depending on the particular projects underway and the grants available. Thus, the information on capital funding levels and sources described below reflects a snapshot for FY2007, the most recent year for which data is available from the NTD. In FY2007, WATA received 92 percent of its funding for capital from federal sources and eight percent from local sources, as shown in Figure 5.10.

Figure 5.10: WATA Funding Sources for Capital



As shown in Figure 5.11, WATA received \$3,278,621 of capital funds in FY2007. This is significantly higher than the peer average of \$1,782,384. Among those funds, 92 percent came from federal sources, which is higher than the peer average of 82 percent. Based on a review of WATA’s FY2006 NTD profile and WATA’s fleet inventory, it appears the FY2007 capital funding was unusually high for WATA and was primarily used to purchase seven Orion CNG buses for use in CWF service.

WATA also received the highest percentage of capital funds from federal sources among the peer systems in FY2007. WATA’s local funding for capital was eight percent in 2007; this is close to the peer average of nine percent. HDPT received the most local funding for capital at 22 percent. WATA did not receive any state funding for capital. The peer average was nine percent. HDPT received 13 percent of their capital funding from state sources, as shown in Figure 5.12.

Figure 5.11: Capital Funding Sources

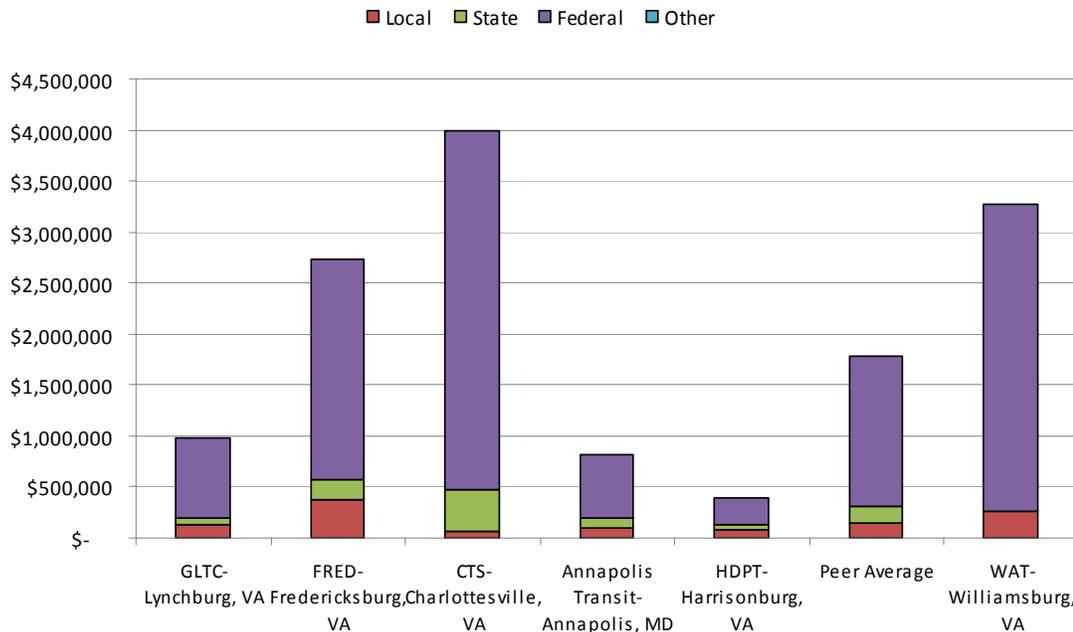
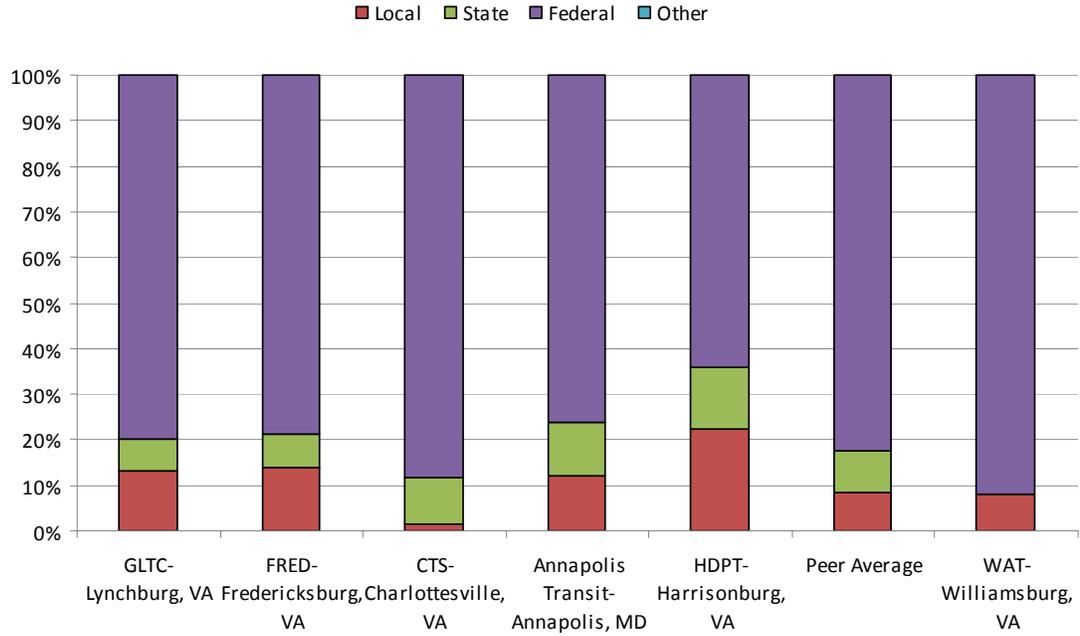


Figure 5.12: Percentage of Capital Funding Sources



6.0 Key Findings

This peer analysis provides performance measures compared across five peer systems for which WATA can use to gauge where deficiencies may occur and improvements could be warranted. While it is difficult to factor in the unique nature of Williamsburg's tourism industry, location, student population, and the tourism-based service provided under WATA by the CWF, five peer systems have been identified and used that best replicate WATA service. These peer systems include Greater Lynchburg Transit Company (GLTC), Fredericksburg Regional Transit (FRED), Charlottesville Transit Service (CTS); Annapolis Transit, and Harrisonburg Department of Public Transportation (HDPT). The previous sections provide detailed comparisons for key performance measures of service productivity, as well as sources for O&M and capital funding.

The challenge with comparing WATA service to the peers systems is the CWF routes that serve the historic tourist areas. This has been reported to the NTD as purchased transportation since FY2006, after WATA purchased vehicles for CWF using FTA funds. None of the peer systems have both purchased transportation and directly operated service. Key findings from this analysis are summarized below.

- *Vehicle Utilization:* WATA is the outlier for the fixed route number of vehicles available, with 36 compared to the peer average of 28. WATA has 24 percent more fixed route vehicles available than the peer average; however, the CWF vehicles are included in this number. WATA is the lowest among the peers for revenue hours per peak vehicle and only 83 percent of the peer average for revenue miles per peak vehicle. Again, the CWF purchased transportation routes are included in these ratios.
- *Service Supplied:* WATA's has higher than average revenue hours and miles per service area population. This is likely due to the higher ridership on the CWF routes as well as the tourist, temporary workers, and student population which is not factored into the service area population. Yet, WATA's revenue miles and hours per service area square mile are lower than the peer average. With the second largest service area among the peers, this may indicate portions of the service area are underserved, such as the Jamestown Road corridor identified as a service expansion need in passenger surveys.
- *Service Productivity:* WATA has higher than average number of passenger trips per service area population, which again reflects the CWF routes, as well as the transient population of tourist, temporary workers, and students that are not factored into the service area population. Additionally, WATA has a higher number of passenger trips per revenue hour and revenue mile. This is indicative of the CWF routes that primarily serve tourists in the historic area. The addition of later service, Sunday service, and proposed frequency increases may alter these results in future NTD reports.
- *Cost Efficiency:* WATA's operating cost per passenger trip is lower than the peer average; however, the operating cost per revenue hour is higher. The operating cost per revenue mile is close to the average. The lower cost per passenger trip likely reflects the high ridership on CWF routes. WATA's recent addition of Sunday service and later hours along with the ability to efficiently add this service will impact the results of the cost efficiency measures in future NTD reports.

- *Revenue Vehicle Maintenance Performance:* WATA has the youngest fleet among the peers, and as such has the fewest number revenue vehicle failures per 1,000 miles.
- *Farebox Revenues:* Accounting strictly for fares, WATA has a lower than average farebox recovery rate at 11 percent. The peer average is 20 percent. The farebox recovery ratio would be higher if payment in lieu of fares from W&M were included in this category.
- *Source of O&M Funds:* In FY 2007, WATA was heavily reliant on local funds for O&M (nearly 50 percent). WATA received less federal funds than the average for O&M and equal to the average from state funding. O&M funding is identified as one of the biggest challenges WATA faces moving forward.
- *Source of Capital Funds:* In FY 2007, WATA received 92 percent of its capital funding from federal sources and eight percent from local sources. WATA did not receive any state funding for capital. As grants expire and WATA service expands, capital funding may become a challenge in the future.

Appendix 3-B: 2008 Passenger Survey

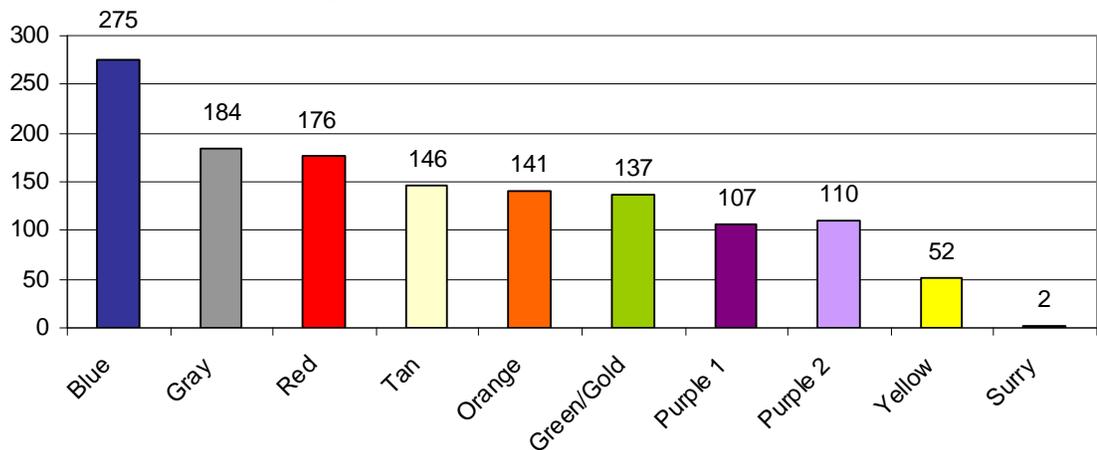
July and April 2008 WAT Passenger Survey

A survey of Williamsburg Area Transport (WAT) Riders was conducted in April and July of 2008 by KFH Group, as part of a technical planning study. Because the survey is recent, it falls within the time period of this TDP and meets survey requirements. Future TDP's may require a new survey to be conducted. This appendix describes the results of the KFH survey effort. A copy of the survey instrument follows this appendix. Also included is KFH's draft detailed rider profile for the April survey.

Surveys Completed

KFH conducted a passenger survey during April 24-26, 2008 in order to capture the opinions of students from the College of William and Mary, as well as from July 24-26 to capture the tourist and visiting workers population. These surveys were conducted on a Thursday through Saturday. A total of 1,300 surveys were completed, which includes 724 surveys in April and 576 in July. KFH gave the survey a confidence level of 95%, plus or minus 5%. The following Figure 1 shows the response rate by route for the April and July surveys. Note that the Green/Gold route only includes April survey responses and the Yellow Route only includes July responses.

Figure 1: Surveys Completed by Route



Survey Demographics

As part of the survey, demographic questions via multiple choice answers were asked in order to gauge who rides WAT service. These questions included 1) Are you Male/Female; 2) Do you have a car; 3) How do you classify yourself: African American, Asian American, Caucasian, Hispanic/Latino, Native American and Other; 4) Indicate your age group; 5) What is your current employment status; and 6) you total annual household income from all sources.

The KFH survey results indicate that off peak riders include local residents and College of William and Mary students; whereas, peak riders include local residents, visiting workers and tourists. Riders were racially diverse, and 51 percent were female. During April, 46 percent of the riders were between the age of 18 and 25, with age 26-55 being the majority in July at 40 percent.

Seventy-eight percent of the riders have no car. Table 1 displays the responses to the demographic questions.

Table 1: Demographics

	Male		Female		Total
	#	%	#	%	
Sex- April Survey	314	47%	359	53%	673
Sex- July Survey	280	52%	259	48%	539

	Yes		No		Total
	#	%	#	%	
Car Ownership- April	120	21%	445	79%	565
Car Ownership- July	107	22%	369	78%	476

Race	April		July	
	#	%	#	%
African American	255	39%	266	50%
Caucasian	252	39%	142	27%
Other	68	10%	76	14%
Hispanic/Latino	41	6%	18	3%
Asian American	28	4%	18	3%
Native American	7	1%	7	1%
Total	651		527	

Age	April		July	
	#	%	#	%
Under 12	3	0%	1	0%
12-17 years	43	6%	68	13%
18-25 years	305	46%	181	35%
26-55 years	255	38%	211	40%
56-64 years	38	6%	45	9%
65 years or older	20	3%	17	3%
Total	664		523	

Responses to employment questions reveal that 44 percent of the riders are employed full time and 15 percent are employed part-time, as shown in Table 2. As expected, July surveys reveal a higher employment rate, reflecting the visiting workers population and the absence of College of William and Mary students. Among the respondents, 63 percent reported household income of \$25,000 or less. Additionally, responses came from passengers who ride the system at least 3-4 days per week, as shown in Table 3.

Table 2: Employment and Income

Employment Status	April		July	
	#	%	#	%
Employed Full-Time	241	37%	278	52%
Student, full time	184	28%	69	13%
Employed Part-Time	97	15%	80	15%
Unemployed	51	8%	33	6%
Student, part time	36	5%	26	5%
Retired	29	4%	29	5%
Other	16	2%	12	2%
Homemaker	4	1%	5	1%
Total Respondents	658		532	

Income	April		July	
	#	%	#	%
\$15,000 or less	250	47%	168	38%
\$15,000- \$25,000	97	18%	100	23%
\$25,001- \$35,000	64	12%	72	16%
\$35,001- \$45,000	32	6%	35	8%
\$45,001- \$55,000	21	4%	20	5%
\$55,001- \$65,000	9	2%	18	4%
\$65,000- \$70,000	20	4%	5	1%
\$75,001 or higher	43	8%	20	5%
Total Respondents	536		438	

Table 3: Rider Frequency

How often do you ride WAT?	April		July	
	#	%	#	%
5-6 Days Per Week	348	48%	275	47%
3-4 Days Per Week	167	23%	122	21%
1-2 Days Per Week	132	18%	93	16%
Once a Month	30	4%	14	2%
Less than Once a Month	39	5%	61	10%
No Answer	8	1%	18	3%
	724		583	

Residency

The July survey included residency status with 37 percent of the respondents being residents of James City County, 20 percent residents of City of Williamsburg, 15 percent temporary workers, 12 percent visitors to the region, nine percent City of Newport News residents and six percent from York County, as shown in Table 4.

Table 4: Place of Residence – July 2008

Place of Residence	#	%
James City County	196	37%
City of Williamsburg	108	20%
York County	30	6%
Newport News	47	9%
Surry County	1	0%
A visitor to the region	62	12%
Temporarily living in the region for work purposes	78	15%
Other	9	2%
	531	

Origins and Destinations

The KFH survey asked respondents the location where they boarded the bus (origin) and the destination. Figure 2 shows the percentage of origins and destinations for both April and July. Forty percent of the passengers were traveling to or from James City County and 32 percent to or from City of Williamsburg. The results of the surveys for April, July and the two months combined are shown in Table 5.

Figure 2 – Origins and Destinations

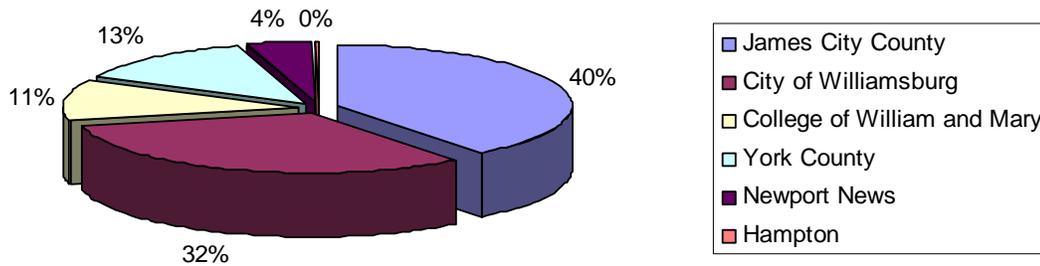


Table 5: Origins & Destinations

Location	<u>Origins</u>				<u>Destinations</u>				<u>Combined O & D</u>				TOTALS	
	April		July		April		July		April		July		#	%
	#	%	#	%	#	%	#	%	#	%	#	%		
James City County	222	35%	200	41%	232	38%	212	47%	454	36%	412	44%	866	40%
City of Williamsburg	209	33%	177	36%	151	25%	158	35%	360	29%	335	36%	695	32%
College of William and Mar	126	20%	0	0%	118	19%	0	0%	244	20%	0	0%	244	11%
York County	56	9%	59	12%	93	15%	73	16%	149	12%	132	14%	281	13%
Newport News	27	4%	49	10%	15	2%	7	2%	42	3%	56	6%	98	4%
Hampton	0	0%	1	0%	2	0%	1	0%	2	0%	2	0%	4	0%
Valid Responses	640		486		611		451		1,251		937		2,188	

Trip Purpose

Survey respondents were asked the purpose of their trip: work, shopping, school, social/recreation, medical, government service agency and other. Figure 3 displays the percentage of results from the April and July surveys. Table 6 shows the trip purpose by route. The Gray route has the highest percentage of work related trips at 76 percent and 78 percent for April and July, respectively.

Figure 3: Trip Purpose

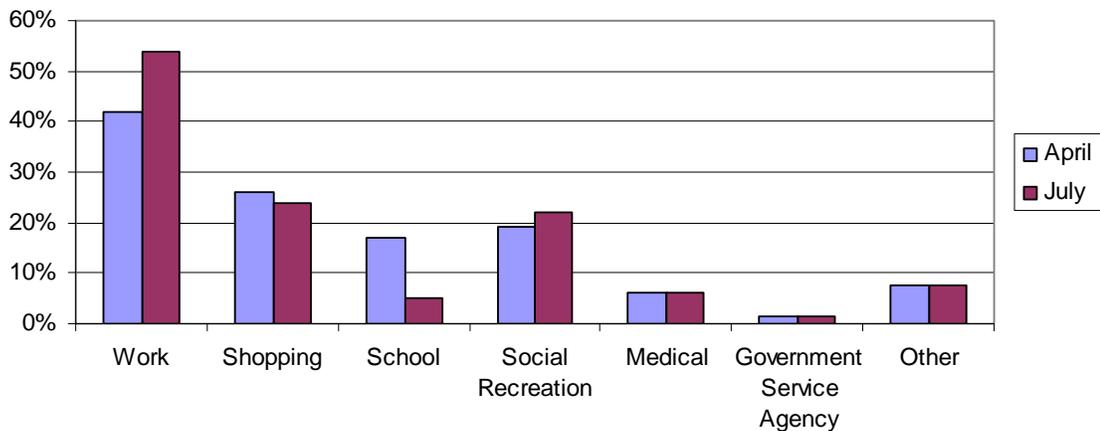


Table 6: Trip Purpose by Route*April:*

Route	% Use for Work	% Use for Shopping	% Use for School	% Use for Social/Rec	% Use for Medical	% Use for Gov't Svc.Agcy	% Use for Other
Gray	76%	22%	14%	15%	12%	5%	7%
Blue	57%	35%	8%	13%	4%	1%	11%
Orange	57%	9%	3%	15%	18%	6%	3%
Purple 1	43%	20%	11%	11%	20%	4%	9%
Purple 2	45%	20%	10%	17%	3%	0%	8%
Red	32%	36%	16%	18%	4%	5%	7%
W & M Green/Gold	6%	14%	47%	30%	1%	0%	4%
Tan	53%	40%	3%	22%	7%	0%	6%
Totals	42%	26%	17%	19%	6%	2%	7%

July:

Route	% Use for Work	% Use for Shopping	% Use for School	% Use for Social/Rec	% Use for Medical	% Use for Gov't Svc.Agcy	% Use for Other
Gray	78%	16%	6%	6%	8%	2%	3%
Blue	55%	26%	10%	18%	4%	1%	13%
Orange	50%	27%	3%	19%	4%	3%	11%
Purple 1	38%	28%	5%	34%	0%	0%	11%
Purple 2	58%	22%	8%	10%	10%	0%	8%
Red	43%	20%	7%	14%	11%	7%	14%
Yellow	37%	17%	0%	56%	0%	0%	2%
Tan	42%	37%	2%	41%	10%	0%	5%
Surry	50%	0%	0%	0%	0%	0%	50%
Totals	54%	24%	5%	22%	6%	1%	8%

Transfer Activity

The survey also analyzed transfer activity between routes for April and July. The highest transfer activity in April occurred between the Blue/Gray, Blue/Purple 2, and Blue/Orange. Total Transfer activity by route for April was as follows:

Total Transfer Activity Associated with:

Blue	208
Orange	118
Gray	83
Red	81
Tan	80
Purple 2	74
Purple 1	59
W & M	7

Highest Activity Pairs:

Blue-Gray	43
Blue-Purple 2	43
Blue-Orange	41
Blue-Purple 1	31
Orange-Red	28
Orange-Tan	24
Blue-Red	22

In July, Blue/Purple 1 and Blue/Gray had the most transfers, with transfer activity on other routes listed below.

Total Transfer Activity Associated with:

Blue	170
Orange	105
Gray	114
Red	45
Tan	76
Purple 2	48
Purple 1	78
Yellow	47

Highest Activity Pairs:

Blue-Purple 1	40
Blue-Gray	36
Gray-Orange	27
Blue-Orange	27
Blue-Purple 2	25
Gray-Tan	19

Tables 7 and 8 display the transfer activity by route for April and July.

Table 7: Transfer Patterns in April

Route During Which Survey Completed:	To/From 								More Than One	Total
	Gray	Blue	Orange	Purple 1	Purple 2	Red	W & M	Tan		
Gray		14	7	0	1	5	0	3	5	35
Blue	29		22	13	22	7	1	6	6	106
Orange	8	19		2	2	9	0	5	1	46
Purple 1	1	18	5		2	4	0	2	1	33
Purple 2	3	21	0	6		2	0	3	5	40
Red	1	15	19	1	1		3	2	4	46
W & M	0	1	0	0	0	1		1	0	3
Tan	6	14	19	4	6	7	0		2	58
	48	102	72	26	34	35	4	22	24	367

Table 8: Transfer Patterns in July

Route During Which Survey Completed:	To/From 								More Than One	Total
	Gray	Blue	Orange	Purple 1	Purple 2	Red	Yellow	Tan		
Gray		22	16	2	2	7	2	14	5	70
Blue	14		10	19	4	2	4	6	8	67
Orange	11	17		1	1	6	5	7	7	55
Purple 1	3	21	4		1	7	0	2	8	46
Purple 2	1	21	1	5		0	0	3	7	38
Red	5	7	3	1	0		2	0	3	21
Yellow	5	8	7	1	0	0		2	1	24
Tan	5	7	9	3	2	2	10		4	42
	44	103	50	32	10	24	23	34	43	363

Information

Respondents were asked how they found out about the WATA bus service. Table 9 displays the results. Many riders who answered other indicated that they found out through William and Mary for the April Survey, as well as from hotels for the July survey.

Table 9: Information

How did you find out about bus service?	April		July	
	#	%	#	%
Already Knew	400	55%	296	51%
Asked someone who uses bus	146	20%	134	23%
Other	44	6%	38	7%
Brochure	43	6%	30	5%
WAT website	41	6%	22	4%
Asked bus driver	29	4%	23	4%
No Answer	13	2%	21	4%
Telephoned WAT	8	1%	12	2%
	724		576	

Customer Satisfaction

Respondents were asked to rate their satisfaction with WAT services in various areas. One question listed predefined areas where respondents ranked the answer based on level of satisfaction. Others were open ended questions, where respondents could write in what they liked best and least about the service. The categories that ranked highest to the predefined questions were as follows:

- ✓ April: Cost, cleanliness of the busses, driver courtesy, and safety and security;
- ✓ July: Driver courtesy, cleanliness of the busses, safety and security, and cost.

Figures 4 and 5 display the results of the April and July customer satisfaction survey question.

Figure 4: April Customer Satisfaction

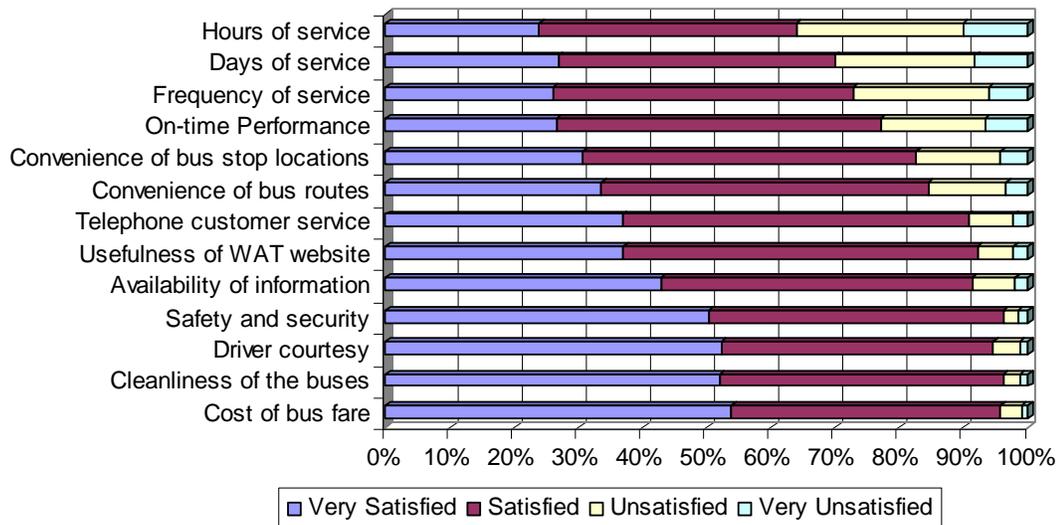
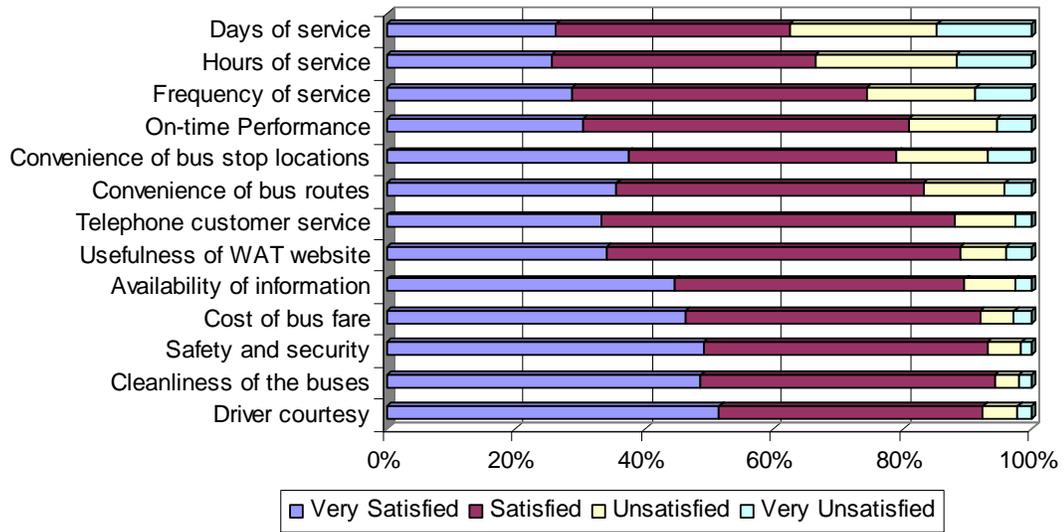
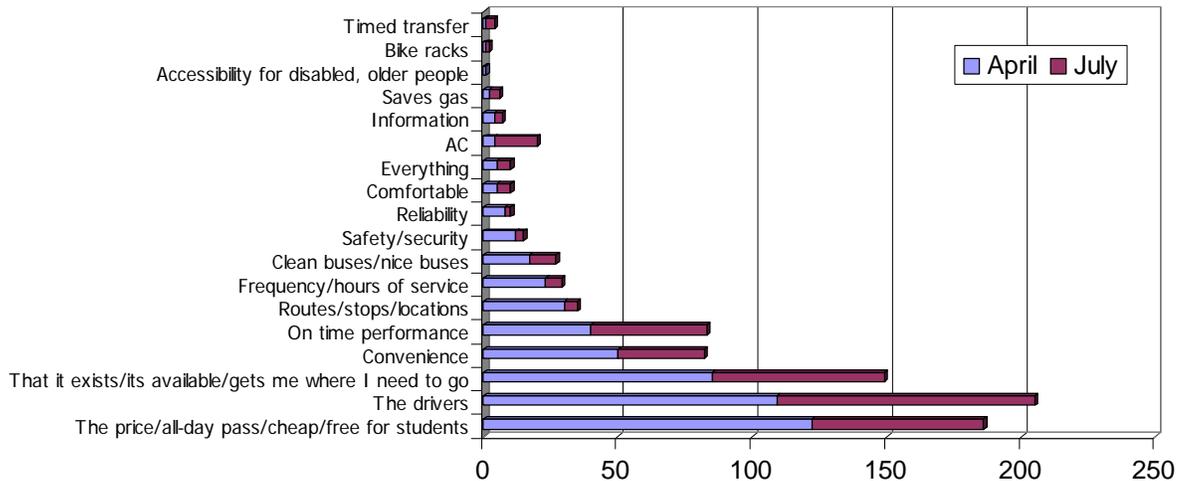


Figure 5: July Customer Satisfaction



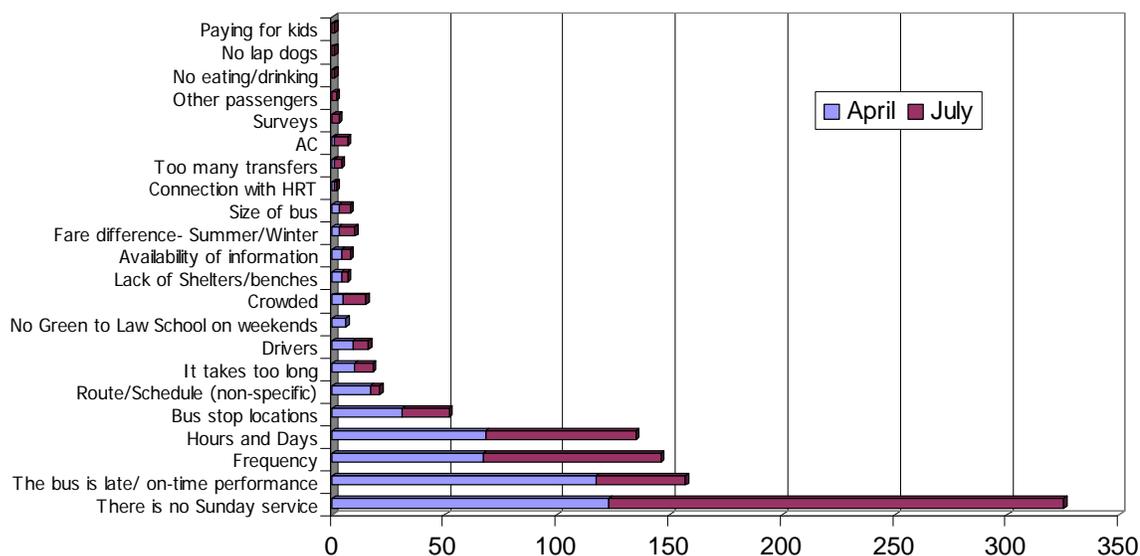
Among the passengers who filled in the open ended question—what they liked best about the service, April respondents wrote the price, driver courtesy, availability of service and convenience. July respondents wrote driver courtesy, the prices, availability of service and on-time performance. Figure 6 shows the results of what riders liked best about the service.

Figure 6: What Do You Like Best



Both April and July passenger responded that they would like to see improvements to Sunday service, better on-time performance, more hours and days of service and more frequent service. Figure 7 displays what riders liked least about the service.

Figure 7: What Do You Like Least



Finally, respondents were asked to list the top three geographical areas where they would like to see service if WAT were to expand service. The five most requested geographic areas were Jamestown Road Corridor, Newport News, Marquis Shopping Center, Richmond and Yorktown. Table 10 displays the responses to this question. This is followed by specific suggestions respondents wrote in on the surveys for April and July. A copy of the survey instrument follows.

Summary

The KFH survey summarized that WAT is generally used for daily trips and riders appreciate the service that is available. The fare is considered affordable and drivers are courteous. The April survey captured the student population, but did not gather a large sample of visitors. The July survey captured 62 visitor surveys. The survey also concluded that riders need Sunday service and evening service to accommodate hospitality jobs that have seven-day a week employment. On-time performance, frequency of service and service to the Jamestown area were identified as improvements needed to make the service better. It is important to note that WATA has addressed many of the deficiencies listed in the survey, such as Sunday service, later service, on-time performance and service to Marquis Shopping Center. Additionally, further improvements are pending, such as better frequency of service and a proposed Jamestown Road route.

Table 10: Geographic Areas in Need of Service

Place	April #	July #
Jamestown Road-further down/Jamestown	66	33
Newport News	30	11
JC Penney's/Kohl's/Marquis Shopping Center	23	12
Richmond	18	10
Yorktown	16	17
Walmart	10	2
Busch Gardens	9	3
New Kent County	9	4
VA Beach	9	10
Airport/ Airport Road	8	
Charles City	8	3
Hampton	8	10
Norfolk	8	7
Patrick Henry Mall	7	5
Toano	7	2
2nd Street	6	2
Gloucester	6	
Croaker	5	4
York County	5	2
Hospital	4	
James City County Complex/Kingsmill	4	
Waller Mill	4	
Boomerang to VA Beach	3	
Denbigh Blvd	3	1
Kings Dominion	3	1
Lanexa	3	
Target	3	
West Point	3	
Bottom of Chickahominy	2	1
Chambrel	2	
Colonial Parkway	2	
Conway Apts.	2	
IDK	2	
Ironbound Road	2	
Ivy Hill	2	3
Jail	2	
Lee Hall	2	2
Middlesex	2	
Outlets	2	1
Rochambeau	2	
Stonehouse	2	2

Table 10: Geographic Areas in Need of Service continued

Ukrops	2	
Upper County Park	2	1
Water Country	2	2
Williamsburg Landing	2	
Alltell	0	1
Apts. Off Mount Vernon	1	
Avalon women's shelter	1	
Barhamsville, VA	1	
Berkeley Town Road	1	1
Carver Gardens	1	
Centerville Road	1	1
Chester	1	
Christopher Newport University	1	
College Landing	1	
Cottersneck	1	
Ford's Colony	0	2
Forest Glen Road	1	2
Forge Road	0	2
Governor's Square Apts.	1	
Grafton	0	1
Holly Forks	0	1
Howard Drive	1	
Jackson Street	1	
James City County Community Center	1	
La Playa	1	
Lackey	1	
Lafayette Square- bus stop closer	1	
Landrum	1	
Mat Town	1	
Matoaka Elementary	0	1
New Town	1	
Olde Town Shopping Center	1	
Oyster Point	1	
Patriot Colony	1	
Pierce's Barbeque	1	
Poquoson	1	
Professional Drive	1	
Queens Lake	1	
Raleigh Square	1	
S. Boundary Stret	1	
Skimono	1	
Smithfield	1	
Surry County	1	2
WIC Office	1	
Williamsburg Christian Academy	0	1

Specific Suggestions (April):

All buses should stay at mall until the last bus comes in.
Bus stop needed opposite Monticello Marketplace
I have to take two buses to go to school but if Blue line comes to Human Services I can save an hour every day.
Make WAT and HRT transfers interact.
More service to Monticello Shopping Center
More stops along Richmond Road- At Snow and Go
Need a stop between Lafayette High School and Human Services toward New Town
Need bi-directional service- one bus going one way, one the other at 30 minute headways.
Need direct route from Longhill Road to College of William and Mary
Need direct service from Human Service to WM (like purple before).
Orange Line used to go to Cracker Barrel restaurant- now I have to transfer
The bus does not go to New Town in the morning.
The Gray line does not have to go to Busch Gardens. It holds us up.
The Green and Gold should go to Governor's Square
The Green and Gold should go to New Town both ways.
The Green and Gold should go to Target.
The Green and Gold should go to the Bypass
The route is long from Hospitality House to Steeplechase.
The Surry line does not stop in town.
Would like a Campus Center bus stop and near the Reeves Center
Would like the Purple line to run through the transportation center again.

Specific Suggestions (July):

Two way travel along bus routes
Better design of transportation center- designated pick-up locations for specific routes
Commuter rail between Richmond-Williamsburg-Newport News
Monthly bus passes
\$1.50 all day all year
Purple line to transportation center
Cupholders, flat screen TV and complimentary continental breakfast
Make stops at hotels for visitors
Bus stops closer to each other
TVs on buses showing the news
Need stops at Newtown Ave @ CU; Monticello@ Ironbound; Marketplace Shops; and Strawberry Plains@ John Tyler
Patience to international students
More stops in New Town
Less circles, shorter routes
Bus stops in other malls
Service to and from New Town that is not a loop.
Shelter at Midlands
Bus stop on the way back from Lee Hall at the 7-11 next to the funeral home.
Ride on buses to see what drivers are doing
Sell advertising space on buses
Communication with HRT at transfer points.
No loops-ride time the same in both directions

**WILLIAMSBURG AREA TRANSPORT (WAT)
ON-BOARD RIDER SURVEY
Draft 3/31/2008**

WAT would like rider input! Please complete this rider survey and return it to the surveyor when you get off the bus. If you have already filled out a survey this week, you do not need to fill this out again. Thank you.

1. What route are you currently riding?
 (1) Gray Route (5) Purple 2 Route (9) Surry County
 (2) Blue Route (6) Yellow Route (10) Tan Route
 (3) Orange Route (7) Red Route
 (4) Purple 1 Route (8) W&M Green and Gold Route

2. What was the location where you boarded the bus? If you transferred, the place where you boarded the first bus. Please indicate the street address, intersection, building, or landmark. *For example, Hospitality House.*

3. What is your destination? Please indicate the street address, intersection, building, or landmark. *For example, Target, Big Lots.*

4. Did you or will you have to transfer buses in order to complete this trip?
 (1) Yes (2) No (If No, Skip to question #6)

5. What bus route will you transfer to or did you transfer from?
 (1) Gray Route (5) Purple 2 Route (9) Surry County
 (2) Blue Route (6) Yellow Route (10) Tan Route
 (3) Orange Route (7) Red Route
 (4) Purple 1 Route (8) W&M Green and Gold Route

6. How did you find out about bus service?
 (1) Already knew (3) WAT Website (5) Asked bus driver
 (2) Asked someone who uses bus (4) Brochure (6) Telephoned WAT

7. What is the purpose of your bus trip today? You may check more than one.
 (1) Work (4) Social/ Recreation (7) Other _____
 (2) Shopping (5) Medical
 (3) School (6) Government Service Agency

8. How often do you ride WAT?
 (1) 5-6 Days a **week** (3) 1-2 Days a **week** (5) Less than once a **month**
 (2) 3-4 Days a **week** (4) Once a **month**

9. Do you also use the bus system operated by Colonial Williamsburg (CW)?
 (1) Yes, I have used the CW bus on occasion (less than once a month)
 (2) Yes, I ride the CW bus periodically (between once a week and once a month)
 (3) Yes, I ride the CW bus frequently (more than once a week)
 (4) No

OVER, PLEASE ☺☺☺

10. Please rate your satisfaction with WAT services in the following areas:

	Very Satisfied	Satisfied	Unsatisfied	Very Unsatisfied
	(1)	(2)	(3)	(4)
On-time performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Convenience of bus routes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Convenience of bus stop locations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Days of service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hours of service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frequency of service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost of bus fare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cleanliness of the buses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driver courtesy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety and security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Telephone customer service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Usefulness of WAT website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. What do you like the BEST about our service: _____

12. What do you like the LEAST about our service: _____

13. If WAT were to expand to serve additional geographic areas, what would be your top three choices?:

Please tell us a little bit about yourself-

14. Are you: Male Female

15. Do you have a car? Yes No

16. How would you classify yourself?

- (1) African American (3) Caucasian (5) Native American
 (2) Asian American (4) Hispanic/Latino (6) Other

17. Please indicate your age group.

- (1) Under 12 years old (3) 18-25 years old (5) 56-64 years old
 (2) 12-17 years old (4) 26-55 years old (6) 65 years old or older

18. Which of the following best describes your current employment status? You may check more than one.

- (1) Employed, full time (4) Student, full time (7) Unemployed
 (2) Employed, part time (5) Student, part time (8) Other
 (3) Retired (6) Homemaker

19. Please check your approximate total annual household income from all sources. Please check only one.

- (1) \$15,000 or less (4) \$35,001-\$45,000 (7) \$65,001-75,000
 (2) \$15,001- \$25,000 (5) \$45,001-\$55,000 (8) \$75,001 or higher
 (3) \$25,001-\$35,000 (6) \$55,001-\$65,000

20. Please list your email address below if you wish to receive occasional news or announcements from WAT.

Appendix 3-C: TDP Stakeholders Group Members

Transit Development Plan Stakeholders		
Last	First	Organization
Casey-Rutland	Randy	New Town
Chaplin	Cathy	Great Wolf Lodge
Douglas	Michael	College of William & Mary
Fisher	Mark	Grove Area Williamsburg
Geyer	Dorothy	National Parks Service
Gibson	Lisa	Historic Triangle Senior Center
Hershberger	Robert	Chamber/Alliance
Ingram	Jodie	Bush Gardens
Jones	Sarah	Colonial Williamsburg Foundation Transit Supervisor
Lamountain	Lee	WATA- Driver
Luther	Matthew	Williamsburg-James City County Schools Transition
Mack	Rhonda	Surry County
Massey	Bill	Peninsula Agency on Aging
McCoy	Brian	York County
Meacham	Sara	Avalon Center for Women and Children
Morales	Gloria	Network for Latino People
Nester	Reed	City of Williamsburg Planning
Smith	Stephanie	Active Williamsburg Alliance
Travis	Bill	Thomas Nelson Community College
Watson	Barbara	James City County Community Services
Williams	Sylvester	WATA-Supervisor

Appendix 3-D: Title VI Program

MEMORANDUM

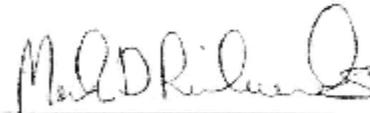
DATE: July 16, 2009
TO: The Board of Directors
FROM: Mark D. Rickards, Executive Director
SUBJECT: Adoption of Williamsburg Area Transit Authority Title VI Plan

Attached is a resolution adopting the updated Title VI Plan (the "Plan") for Williamsburg Area Transit Authority. As a condition of receiving federal revenues, the Federal Transit Administration (FTA) Office of Civil Rights requires an update of the Plan, in compliance with the U.S. Department of Transportation (DOT), 49 CFR Part 21.7. WATA's current plan expires September 30, 2009 and an update must be submitted to the FTA 60 days prior to expiration, or by July 30, 2009.

The Plan ensures that no person or group of persons on the basis of race, color, or national origin is subjected to discrimination in the level and quality of transportation services and benefits. Since WATA's last submission, there is an emphasis in taking steps to ensure persons with Limited English Proficiency (LEP) are aware of and provided these rights. These steps are detailed in Appendix B of the Plan.

The Plan is based upon best practices and has been reviewed by FTA without comment.

Staff recommends adoption of the attached resolution.



Mark D. Rickards

RD
Adoption of Title VI Plan_07.16.09.mem

Attachment

RESOLUTION

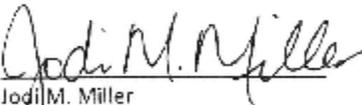
ADOPTION OF WILLIAMSBURG AREA TRANSIT AUTHORITY TITLE VI PLAN

WHEREAS, the Board of Directors of Williamsburg Area Transit Authority (WATA) is a recipient of Federal revenues and is required to meet Federal regulatory requirements for Title VI as established by 49 C.F.R. part 21.7; and

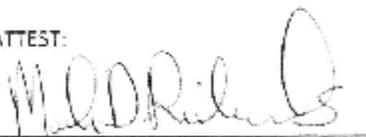
WHEREAS, the Federal Transit Administration (FTA) requested that WATA provide a Title VI Plan update to ensure no person or group of persons on the basis of race, color, or national origin is subjected to discrimination in the level and quality of transportation services and benefits, and that steps are taken to ensure that persons with limited English Proficiency are provided these rights; and

WHEREAS, WATA has developed an updated Title VI Plan based on best practices that meet FTA guidelines.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Williamsburg Area Transit Authority that the updated Williamsburg Area Transit Authority Title VI Plan, that meets FTA guidelines, is hereby adopted.


Jodi M. Miller
Chair

ATTEST:



Mark D. Rickards
Secretary

Adopted by the Board of Directors of the Williamsburg Area Transit Authority this 16th day of July, 2009.

RD
Adoption of WATA Title VI Plan_7.16.09.re

**Williamsburg Area Transit Authority (WATA)
Title VI Plan**

*Related to
Transportation Development Plan*

Endorsed and Approved July 16, 2009 by the:
Williamsburg Area Transit Authority Board of Directors

Submitted to:
Federal Transit Administration
Region III
1760 Market Street, Suite 500
Philadelphia, PA 19103-4124

July 24, 2009

RECIPIENT INFORMATION

RECIPIENT: Williamsburg Area Transit Authority
Urbanized Transit Agency (Urbanized area over 1,000,000)

SUBMITTAL DATE: July 24, 2009

EXPIRATION YEAR: 2012

CONTACT INFORMATION:

Mark D. Rickards
Executive Director
Williamsburg Area Transit Authority
7239 Pocahontas Trail
Williamsburg, VA 23185
mrickards@james-city.va.us
Phone: 757-220-8290
Fax: 757-220-6268

Jodi M. Miller
Chair
Williamsburg Area Transit Authority
7239 Pocahontas Trail
Williamsburg, VA 23185
jmiller@williamsburgva.us
Phone: 757-220-6106

TABLE OF CONTENTS

	<u>Page</u>
I. PROVISION OF TITLE VI ASSURANCES	4
II. TITLE VI COMPLIANCE HISTORY	4
III. INCORPORATION OF THE PROGRAM	5
IV. GENERAL GUIDELINES/REQUIREMENTS	8
a. Annual Certification and Assurance	8
b. Complaint Procedures	8
c. Record Title VI Activities	8
d. Access for LEP Persons	8
e. Public Notification	9
f. Additional Information	9
g. Timely Submission	9
h. Environmental Analysis of Construction Projects	9
i. Public Participation	10
APPENDIX A - Public Notice of Rights / Complaint Process	
APPENDIX B - WATA Limited English Proficiency (LEP) Plan	
APPENDIX C - Williamsburg Area Transport Title VI Service Area Map	

I. PROVISION OF TITLE VI ASSURANCES

The WATA hereby certifies that, as a condition of receiving Federal financial assistance under the Urban Mass Transportation Act of 1964, as amended, it will ensure that:

- a. WATA shall submit on an annual basis, their Title VI Assurance, as part of their annual Certification and Assurance submission to the FTA.
- b. No person, on the basis of race, color, or national origin, will be subjected to discrimination in the level and quality of transportation services and transit-related benefits.
- c. WATA will compile, maintain, and submit in a timely manner, Title VI information required by FTA Circular 4702.1A and in compliance with the Department of Transportation's Title VI Regulation, 49 CFR, Part 21.7.
- d. WATA will make it known to the public that those persons or persons alleging discrimination on the basis of race, color, or national origin as it relates to the provision of transportation services and transit-related benefits may file a complaint with the Federal Transit Administration and/or the U.S. Department of Transportation.

II. TITLE VI COMPLIANCE HISTORY

- a. There are no outstanding lawsuits or complaints naming the WATA which allege discrimination on the basis of race, color or national origin with respect to service or other transit benefits.
- b. There are no pending applications for Federal financial assistance, and there is no Federal financial assistance currently being provided to the WATA other than that being supplied by the Federal Transit Administration (FTA). Currently the WATA is applying for Section 5303, 5304, 5307 and 5311, funding through the FTA.
- c. During the course of the last three (3) years, there have not been any civil rights compliance review activities conducted with respect to the WATA and, to the best of our knowledge, there are not presently any ongoing civil rights compliance review activities being conducted with respect to the WATA.
- d. There are currently no pending construction projects which would negatively impact minority communities being performed by the WATA.

III. INCORPORATION OF THE PROGRAM

Williamsburg Area Transit Authority (hereinafter referred to as the "WATA" or "Recipient") hereby agrees that, as a condition to receiving any Federal financial assistance from the Department of Transportation, it will comply with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d-42 U.S.C. 2000c-4 (hereinafter referred to as the "Act"), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-Assisted Programs of the Department of Transportation - Effectuation of Title VI of the Civil Rights Act of 1964 (hereinafter referred to as the "Regulations"), and other pertinent directives. No person in the United States shall, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance from the Department of Transportation, including the Federal Transit Administration, and HEREBY GIVES ASSURANCE THAT it will promptly take any measures necessary to effectuate this agreement. This assurance is required by subsection 21.7(a) of the Regulations.

More specifically, and without limiting the above general assurance, the Recipient hereby gives the following specific assurances with respect to its Federal Transit Administration program:

- a. That the Recipient agrees that each "program" and each "facility", as defined in subsections 21.23(e) and 21.23(b) of the Regulations will be (with regard to a "program") conducted, or will be (with regard to a "facility") operated, in compliance with all requirements imposed by, or pursuant to, the Regulations.
- b. That the Recipient shall insert the following notification in all solicitations for bids for work or material subject to the Regulations and made in connection with all Federal Transit Administration programs and, in adapted form in all proposals or negotiated agreements:

The WATA, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-Assisted Programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders/proposers that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to the invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

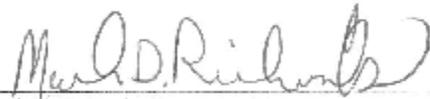
- c. That the Recipient shall insert the clauses contained herein every contract subject to this Act and the Regulations.

- d. That the Recipient shall insert the clauses contained herein as a covenant running with the land, in any deed from the United States affecting a transfer of real property, structures, or improvements thereon, or interest herein.
- e. That where the Recipient receives Federal financial assistance to construct a facility, or part of a facility, the assurance shall extend to the entire facility and facilities operated in connection therewith.
- f. That where the Recipient receives Federal financial assistance in the form, or for the acquisition of real property or an interest in real property, the assurance shall extend to rights to space on, over or under such property.
- g. That the Recipient shall include the appropriate clauses contained herein as a covenant running with the land, in any future deeds, leases, permits, licenses, and similar agreements entered into by the Recipient with other parties: (a) for the subsequent transfer of real property acquired or improved under Federal Transit Administration programs; and (b) for the construction or use of, or access to, space on, over, or under real property acquired, or improved under Federal Administration programs.
- h. That this assurance obligates the Recipient for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of personal property or real property or interest therein or structures or improvements thereon, in which case the assurance obligates the Recipient or any transferee for the longer of the following periods: (a) the period during which the property is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits; or (b) the period during which the Recipient retains ownership or possession of the property.
- i. The Recipient shall provide for such methods of administration for the programs as are found by the Secretary of Transportation or the official to whom he/she delegates specific authority to give reasonable guarantee that it, other interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the Act, the Regulations and this assurance.
- j. The Recipient agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the Act, the Regulations, and this assurance.

- k. The Recipient assures that the level and quality of transit service and related benefits are provided in a manner consistent with Title VI of the Civil Rights Act of 1964.

THESE ASSURANCES are given in consideration of, and for the purpose of, obtaining any and all Federal grants, loans, contracts, property, discounts or other Federal financial assistance extended after the date hereof to the recipient by the Department of Transportation under the Federal Administration and is binding on it, other recipients, subgrantees, contractors, subcontractors, transferees, successors in interest and other participants in the Federal Transit Administration programs.

The person(s), whose signature appears below, are authorized to sign these assurances on behalf of the grant applicant or recipient.

Date: 7-16-09 
Mark D. Rickards, Executive Director
Williamsburg Area Transit Authority (WATA)

Date: 7-27-09 
Jodi M. Miller, Chair
Williamsburg Area Transit Authority (WATA)

IV. GENERAL GUIDELINES/REQUIREMENTS

a. Annual Certification and Assurance

As stated in Section I, WATA shall submit annually, their Title VI assurance, as part of their annual Certification and Assurance submission to the FTA. The most recent submission for the WATA was approved by the Executive Director on January 2009 and was executed and submitted to the FTA January 2009.

b. Complaint Procedures

In compliance with 49 CFR Section 21.9(b), WATA has developed procedures for investigating and tracking Title VI complaints filed against them. Such procedures shall be made available to the public upon request. WATA complaint procedures and complaint form are contained herein as APPENDIX A.

c. Record Title VI Activities

In compliance with 49 CFR Section 21.9(b), WATA shall prepare and maintain a list of any active investigations conducted by entities other than the FTA, lawsuits, or complaints naming WATA that allege discrimination on the basis of race, color, or nation origin. Such list shall include:

- 1) Date the investigation, lawsuit, or complaint was filed;
- 2) Summary of the allegation(s);
- 3) The status of the investigation, lawsuit, or complaint; and
- 4) Actions taken by the WATA in response to the investigation, lawsuit or complaint.

d. Access for LEP Persons

WATA shall take steps to ensure meaningful access to the benefits, services, information, and other important portions of their programs and activities for individuals who are Limited English Proficient (LEP). WATA will assist persons with limited English proficiency to participate in the transportation planning process. WATA Staff will make every effort to provide translators and document translation, where feasible, upon request. WATA Limited English Proficiency (LEP) Plan is contained herein as APPENDIX B.

e. Public Notification

In compliance with 49 CFT Section 21.5(d), WATA shall provide information to the public regarding their Title VI obligations and apprise members of the public of the protections against discrimination afforded to them by the Title VI. WATA complaint procedures and public notification information on website at www.williamsburgtransport.com and vehicle placards are contained herein as APPENDIX A.

f. Additional Information

WATA acknowledges that, at the discretion of the FTA, information other than that which is required by FTA C 4702.1A, may be requested in writing of the WATA, to investigate complaints of discrimination or to resolve concerns about possible noncompliance with Title VI.

g. Timely Submission

WATA acknowledges that their Title VI submissions and/or updates thereto, shall be supplied to their FTA Regional Office once every three (3) years. The submission shall include, but is not limited to:

- 1) A summary of public outreach and involvement activities undertaken since the last submission and a description of steps taken to ensure that minority and low-income people had meaningful access to these activities;
- 2) WATA process for persons with limited English proficiency (LEP);
- 3) Title VI Complaint and Tracking procedures;
- 4) A list of any Title VI investigations, complaints or lawsuits filed since the last submission; and
- 5) A copy of WATA public notice regarding Title VI compliance and public access and instructions to WATA Title VI complaint procedures.

Portions of the Plan which have not changed since the last submission will not be resubmitted, however, WATA shall include a statement to this effect in lieu of copies of the original documents in order to eliminate redundancy in resubmissions.

h. Environmental Analysis of Construction Projects

WATA shall integrate an environmental justice analysis into their National Environmental Policy Act (NEPA) documentation of construction projects of which

require NEPA. If a Categorical Exclusion (CE) is performed, WATA shall complete the FTA's standard CE check-list which includes a section on community disruption and environmental justice. While preparing an Environmental Assessment (EA) or Environmental Impact Statement (EIS), WATA shall integrate into their documents, the following:

- 1) A description of the low-income and minority population within the study area affected by the project, and a discussion of the method used to identify this population;
- 2) A discussion of all adverse effects that would affect the identified minority and low-income population;
- 3) A discussion of all positive effects that would affect the identified minority and low-income population;
- 4) A description of all mitigation and environmental enhancement actions incorporated into the project to address the adverse effects, including, but not limited to, any special features of the relocation program that go beyond the requirements of the Uniform Relocation Act and address adverse community effects such as separation or cohesion issues, and the replacement of the community resources destroyed by the project, if applicable;
- 5) A discussion of the remaining effects, if any, and why further mitigation is not proposed; and
- 6) For projects that traverse predominantly minority and low-income and predominantly non-minority and non-low-income areas, a comparison will be completed of mitigation and environmental enhancement actions between the two stated areas. If there is no basis for such a comparison, WATA shall describe why this is so.

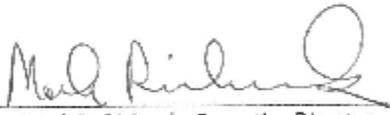
I. Public Participation

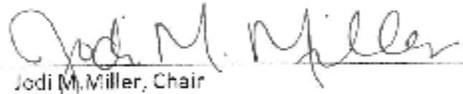
The WATA shall seek out and consider viewpoints of minority, low-income, and LEP populations in the course of conducting public outreach and involvement activities in regards to proposed transportation decisions. WATA shall make every effort to include the following practices:

- 1) Coordination with individuals, institutions, or organizations and implementing community-based public involvement strategies to reach out to members in the affected minority and/or low-income communities;

- 2) Provision of opportunities for public participation through means other than written communication, such as personal interviews or use of audio or video recording devices to capture oral comments;
- 3) Utilization of locations, facilities and meeting times that are convenient and accessible to low-income and minority communities;
- 4) Utilization of different meeting sizes or formats, or varying the type and number of news media used to announce public participation opportunities; and
- 5) Implementation of DOT's policy guidance regarding WATA responsibilities to LEP persons.

The person(s) whose signature appears below, are authorized to sign on behalf of the grant applicant or recipient.

Date: 7-16-09 
Mark D. Rickards, Executive Director
Williamsburg Area Transit Authority (WATA)

Date: 7/27/09 
Jodi M. Miller, Chair
(WATA) Williamsburg Area Transit Authority

APPENDIX A

TITLE VI PUBLIC NOTICE OF RIGHTS / COMPLAINT PROCESS Williamsburg Area Transit Authority (WATA)

Public Notice of Rights

The following statement shall be posted on site at the WATA office, on the WATA website (www.williamsburgtransport.com); permanently displayed on public transit vehicles; and other appropriate materials made available to the public: *(Documents will be translated into languages other than English, upon request.)*

Non-Discrimination - Your Rights Under Title VI of the Civil Rights Act of 1964

"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

Title VI Information, Limited English Proficient (LEP) information and Complaint Process (for printed materials, website, and other mediums upon request)

Williamsburg Area Transit Authority (WATA) grants all citizens equal access to all its transportation services. It is further the intent of the WATA that all citizens are aware of their rights to such access. This is designed to serve as an educational tool for citizens so that they may understand one of the civil rights laws that protect their benefit of the WATA programs and services, specifically, as it relates to Title VI of the Civil Rights Act of 1964.

What is Title VI?

Title VI of the Civil Rights Act of 1964 is the Federal law that protects individuals from discrimination on the basis of their race, color, or national origin in programs that receive Federal financial assistance.

"No person or group of persons shall be discriminated against with regard to the routing, scheduling, or quality of transportation service furnished by WATA on the basis of race, color, or national origin. Frequency of service, age and quality of vehicles assigned to routes, quality of stations serving different routes, and location of routes may not be determined on the basis of race, color or national origin."

What is LEP?

As part of Title VI requirements, WATA has developed a Limited English Proficiency (LEP) Plan to help identify reasonable steps to provide language assistance for LEP persons seeking meaningful access to WATA services as required by Executive Order 13166 "Improving Access to Services for Persons With Limited English Proficiency," reprinted at 65 FR 50121 (August 16, 2000). A Limited English Proficiency person is one who does not speak English as their primary language and who has a limited ability to read, speak, write, or understand English.

Williamsburg Area Transit Authority
TITLE VI SUBMISSION TO THE FTA

6/09

How can I file a discrimination complaint?

Any person who believes that they have, individually, or as a member of any specific class of persons, been subjected to discrimination on the basis of race, color, or national origin may file a complaint with WATA, Richard Drumwright, Director of Planning and Development at (757) 220-5547.

These procedures do not deny the right of the complainant to file formal complaints with other State or Federal agencies or to seek private counsel for complaints alleging discrimination. Every effort will be made to obtain early resolution of complaints at the lowest level possible. The option of informal mediation meeting(s) between the affected parties and the WATA may be utilized for resolution. Any individual, group of individuals or entity that believes they have been subjected to discrimination prohibited under Title VI and related statutes may file a complaint.

The following measures will be taken to resolve Title VI complaints:

- 1) A formal complaint must be filed within 180 days of the alleged occurrence. Complaints shall be in writing and signed by the individual or his/her representative, and will include the complainant's name, address and telephone number; name of alleged discriminating official, basis of complaint (race, color, national origin, sex, disability, age), and the date of alleged act(s). A statement detailing the facts and circumstances of the alleged discrimination must accompany all complaints.

The WATA strongly encourages the use of the attached WATA Title VI Complaint Form when filing official complaints.

The preferred method is to file your complaint in writing using the WATA Title VI Complaint Form, and sending it to:

Title VI Coordinator
Williamsburg Area Transit Authority
7239 Pocahontas Trail
Williamsburg, Virginia 23185

- 2) In the case where a complainant is unable or incapable of providing a written statement, a verbal complaint of discrimination may be made to the WATA Title VI Coordinator. Under these circumstances, the complainant will be interviewed, and the WATA Title VI Coordinator will assist the Complainant in converting the verbal allegations to writing.
- 3) When a complaint is received, the Title VI Coordinator will provide written acknowledgment to the Complainant, within ten (10) days by registered mail.
- 4) If a complaint is deemed incomplete, additional information will be requested, and the Complainant will be provided 60 business days to submit the required

information. Failure to do so may be considered good cause for a determination of no investigative merit.

- 5) Within 15 business days from receipt of a complete complaint, the WATA will determine its jurisdiction in pursuing the matter and whether the complaint has sufficient merit to warrant investigation. Within five (5) days of this decision, the Transportation Director or his/her authorized designee will notify the Complainant and Respondent, by registered mail, informing them of the disposition.
 - a. If the decision is not to investigate the complaint, the notification shall specifically state the reason for the decision.
 - b. If the complaint is to be investigated, the notification shall state the grounds of the WATA's jurisdiction, while informing the parties that their full cooperation will be required in gathering additional information and assisting the investigator.
- 6) When the WATA does not have sufficient jurisdiction, the **Executive Director or his/her authorized designee will refer the complaint to the appropriate State or Federal agency holding such jurisdiction.**
- 7) If the complaint has investigative merit, the Executive Director or his/her authorized designee will instruct the Title VI Coordinator to fully investigate the complaint. A complete investigation will be conducted, and an investigative report will be submitted to the Executive Director within 60 days from receipt of the complaint. The report will include a narrative description of the incident, summaries of all persons interviewed, and a finding with recommendations and conciliatory measures where appropriate. If the investigation is delayed for any reason, the Title VI Coordinator will notify the appropriate authorities, and an extension will be requested.
- 8) The Executive Director or his/her authorized designee will issue letters of finding to the Complainant and Respondent within 90 days from receipt of the complaint.
- 9) If the Complainant is dissatisfied with the WATA's resolution of the complaint, he/she has the right to file a complaint with the:

Federal Transit Administration
Region III
Attn: Civil Rights Officer

FTA Complaint procedures can also be found on the FTA web site at: www.fta.dot.gov. These procedures are also outlined in FTA Circular 4702.1A, Chapter IX.

Williamsburg Area Transit Authority
TITLE VI SUBMISSION TO THE FTA

6/09

3

APPENDIX B

**Limited English Proficiency (LEP) Plan
Williamsburg Area Transit Authority (WATA)**

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION	2
II. EXECUTIVE ORDER 13166	2
III. PLAN SUMMARY	2
IV. FOUR FACTOR ANALYSES	3
V. LIMITED ENGLISH PROFICIENCY PLAN OUTLINE	4
a. How to Identify an LEP Person who Needs Language Assistance	4
b. Language Assistance Measures	4
c. WATA Staff Training	5
d. Outreach Techniques	5
e. Monitoring and Updating the LEP Plan	5
f. Dissemination of the WATA Limited English Proficiency Plan	6
SECTION A – WATA Languages for Service Area	7
SECTION B – Census Bureau’s “I Speak Cards”	8

I. INTRODUCTION

The purpose of this limited English proficiency policy guidance is to clarify the responsibilities of recipients of federal financial assistance from the U.S. Department of Transportation (DOT) and assist them in fulfilling their responsibilities to limited English proficient (LEP) persons, pursuant to Title VI of the Civil Rights Act of 1964 and implementing regulations. It was prepared in accordance with **Title VI of the Civil Rights Act of 1964, 42 U.S.C. 2000d, et seq.**, and its implementing regulations provide that no person shall be subjected to discrimination on the basis of race, color, or national origin under any program or activity that receives federal financial assistance, and;

II. EXECUTIVE ORDER 13166

Executive Order 13166 "Improving Access to Services for Persons With Limited English Proficiency," reprinted at 65 FR 50121 (August 16, 2000), directs each Federal agency that is subject to the requirements of Title VI to publish guidance for its respective recipients clarifying that obligation. Executive Order 13166 further directs that all such guidance documents be consistent with the compliance standards and framework detailed in the Department of Justice's (DOJ's) Policy Guidance entitled "Enforcement of Title VI of the Civil Rights Act of 1964--National Origin Discrimination Against Persons With Limited English Proficiency." (See 65 FR 50123, August 16, 2000 DOJ's General LEP Guidance). Different treatment based upon a person's inability to speak, read, write, or understand English may be a type of national origin discrimination.

Executive Order 13166 applies to all federal agencies and all programs and operations of entities that receive funding from the federal government, including state agencies, local agencies such as the Williamsburg Area Transit Authority (WATA), and governments, private and non-profit entities, and subrecipients.

III. PLAN SUMMARY

WATA has developed this Limited English Proficiency Plan (LEP) to help identify reasonable steps to provide language assistance for LEP persons seeking meaningful access to WATA services as required by Executive Order 13166. A Limited English Proficiency person is one who does not speak English as their primary language and who has a limited ability to read, speak, write, or understand English.

This plan details procedures on how to identify a person who may need language assistance, the ways in which assistance may be provided, training staff, how to notify LEP persons that assistance is available, and information for future plan updates.

In developing the plan while determining the WATA's extent of obligation to provide LEP services, the WATA undertook a U.S. Department of Transportation four factor LEP analysis which considers the following: 1) The number or proportion of LEP persons eligible in the WATA service area who maybe served or likely to encounter an WATA program, activity, or service; 2)

the frequency with which LEP individuals come in contact with an WATA services; 3) the nature and importance of the program, activity or service provided by the WATA to the LEP population; and 4) the resources available to the WATA and overall costs to provide LEP assistance. A brief description of these considerations is provided in the following section.

IV FOUR FACTOR ANALYSES

- 1. The number or proportion of LEP persons eligible in the WATA service area who maybe served or likely to encounter a WATA program, activity, or service.** WATA compared the US Census American FactFinder 2005-2007 community profiles report and demographic surveys* conducted by KFH, Inc. for WATA, April and July, 2008 and was able to determine that approximately 9%, or 5,130 people spoke a language other than English within the WATA service area.* (See **SECTION A** WATA Languages for Service Area).

- 2. The frequency with which LEP individuals come in contact with a WATA program, activity, or service**

WATA assesses the frequency at which staff and drivers have or could possibly have contact with LEP persons. This includes conducting on-board surveys, community outreach with groups representing Non-English populations, provision of bus familiarity training and color coded subtitles of Routes in Spanish. WATA has never had a request for interpreters and zero requests for translated WATA documents. The staff and drivers have minimum contact with LEP individuals where interpretation is needed.

- 3. The nature and importance of the program, activity, or service provided by the WATA to LEP community**

There is no large geographic concentration of any one type of LEP individuals in the WATA service area. However, WATA has a Title VI Service Area Map that denotes Hispanic and moderate income housing areas (Appendix C). The majority (91%) of the service area population speaks only English.

Therefore, the focus of social, service, professional and leadership organizations within the WATA service area has been on a limited basis with population spread out within the community.

* 1,300 surveys conducted with 95% confidence level. Service area basis is 2 miles of WATA routes

- 4. The resources available to the WATA and overall costs**

The WATA assessed its available resources that could be used for providing LEP assistance. This included identifying translation companies and cost, including Spanish subtitles in brochures, working with stakeholder groups representing these populations and what level of staff training is needed.

After analyzing the four factors, the WATA developed the plan outlined in the following section for assisting persons of limited English proficiency.

V LIMITED ENGLISH PROFICIENCY PLAN OUTLINE

a) **How to Identify an LEP Person who Needs Language Assistance** - Below are tools to help identify persons who may need language assistance:

- Examine records requests for language assistance from past meetings and events to anticipate the possible need for assistance at upcoming meetings;
- When WATA sponsored workshops or conferences are held, set up a sign-in sheet table, have a staff member greet and briefly speak to each attendee. To informally gage the attendee's ability to speak and understand English, ask a question that requires a full sentence reply;
- Have the Census Bureau's "I Speak Cards" at the workshop or conference sign-in sheet table (contained herein as **SECTION B**). While staff may not be able to provide translation assistance at this meeting, the cards are an excellent tool to identify language needs for future meetings. Also, have the cards available at the WATA Office Customer Service Area; and
- Survey drivers and other first line staff of any direct or indirect contact with LEP individuals.

b) **Language Assistance Measures** - WATA has or will implement the following LEP procedures. The creation of these steps are based on the very low percentage of persons speaking other languages or not speaking English at least "well," and the lack of resources available in the WATA service area:

- Census Bureau's "I Speak Cards" are to be located at their Customer Service locations at all times.
- When the WATA's website is redesigned, AltaVista Babel Fish translation will be an added feature.
- When an interpreter is needed, in person or on the telephone, staff will first attempt to determine what language is required and then use WATA Language Resource Directory to assist with information. If this resource is not adequate, a staff person will contact www.languageline.com for assistance.

c) **WATA Staff Training** - All WATA staff will be provided with the LEP Plan and will be educated on procedures to follow. This information will also be part of the WATA staff orientation process for new hires. Training topics are listed below:

- Understanding the Title VI policy and LEP responsibilities;
- What language assistance services the WATA offers;
- Use of LEP "I Speak Cards";
- How to use the Language Resource Directory for interpretation and translation services;
- Documentation of language assistance requests;
- How to handle a Title VI and/or LEP complaint

d) **Outreach Techniques** - As of this first draft of the WATA LEP Plan dated July 24, 2009, WATA does not have a formal practice of outreach techniques due to the lack of LEP population. However, the following are a few options that the WATA will incorporate when and/or if the need arises for LEP outreach:

- If staff knows that they will be presenting a topic that could be of potential importance to an LEP person or if staff will be hosting a meeting or a workshop in a geographic location with a known concentration of LEP persons, meeting notices, fliers, advertisements, and agendas will be printed in an alternative language, based on known LEP population in the area.
- When running a general public meeting notice, staff will insert the clause, based on the LEP population and when relevant, that translates into "A (insert alternative Language) translator will be available". For example: "*Un traductor del idioma español estará disponible*" This means "*A Spanish translator will be available*".
- Key print materials, including but limited to schedules and maps, will be translated and made available at the WATA Transit Center, on board vehicles and in communities when a specific and concentrated LEP population is identified or a request is made.

e) **Monitoring and Updating the LEP Plan** - This plan is designed to be flexible and is one that can be easily updated. At a minimum, the WATA will follow the Title VI Program update schedule for the LEP Plan. However, major updates most likely will not occur until the next Census in 2010 unless the WATA finds it necessary and crucial for an update before such time.

Each update should examine all plan components such as:

- How many LEP persons were encountered?
- Were their needs met?
- What is the current LEP population in WATA service area?
- Has there been a change in the types of languages where translation services are needed?

- Is there still a need for continued language assistance for previously identified WATA programs? Are there other programs that should be included?
 - Have the WATA's available resources, such as technology, staff, and financial costs changed?
 - Has the WATA fulfilled the goals of the LEP Plan? and
 - Were any complaints received?
- f) **Dissemination of the WATA Limited English Proficiency Plan** - The WATA includes the LEP Plan with its Title IV Policy and Complaint Procedures. The WATA's Notice of Rights under Title VI to the public is posted in the WATA office, on the website at www.williamsburgtransport.com, on all WATA vehicles, and in selected printed materials and also refers to the LEP Plan's availability.

Any person, including social service, non-profit, and law enforcement agencies and other community partners with internet access will be able to access the plan.

Copies of the LEP Plan will be provided, on request, to any person(s) requesting the document via phone, in person, by mail or email. LEP persons may obtain copies/translations of the plan upon request.

Any questions or comments regarding this plan should be directed to the WATA Title VI Coordinator.

WATA Title VI Coordinator
Williamsburg Area Transit Authority
7239 Pocahontas Trail
Williamsburg, Virginia 23185
Phone: 757-220-5547
Fax: 757-220-5547

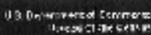
Section A

WATA Languages for Service Area

WATA Languages Spoken at Home Based on 2000 Census FactFinder and 2008 Survey		
LANGUAGE SPOKEN	Total	Percent of population
Service area population:	57,000	100.00%
Speak only English	51,870	91%
Language other than English	5,130	9%
Speak Spanish	3,420	6%
Speak Asian and Pacific Island Languages	1,710	3%
Final Williamsburg Area Transit Authority "Non" or "Limited" Spanish/Other Speaking Persons: There is a very small population of potential WATA riders or current riders who speak Spanish/Other Languages, and those that do, the majority speak English "very well" and "well."		

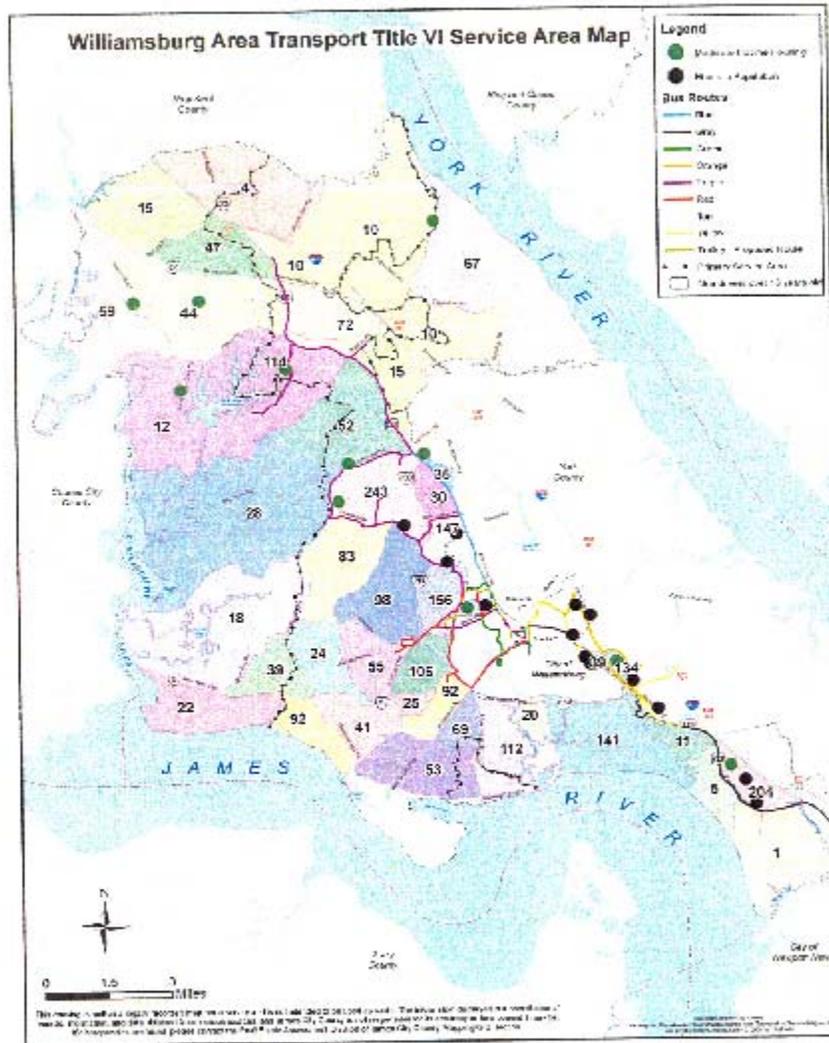
Email: richardd@james-city.va.us

Section B
Census Bureau's "I Speak Cards"

 	
LANGUAGE IDENTIFICATION FLASHCARD	
<input type="checkbox"/> <p>أنا هنا أتكلم العربية أو تتحدث العربية</p>	Arabic
<input type="checkbox"/> <p>Ես այստեղ եմ կարողանում ասել և հասկանալ հայերեն կամ հայերենով կարողանում եմ ասել և հասկանալ անգլերեն</p>	Armenian
<input type="checkbox"/> <p>এখানে আমি বাংলা বলতে পারি এবং আপনি বাংলা বুঝতে পারেন</p>	Bengali
<input type="checkbox"/> <p>ខ្ញុំនៅទីនេះអាចនិយាយនិងយល់ភាសាខ្មែរ</p>	Cambodian
<input type="checkbox"/> <p>Ma o'u kahua kama'u i kahi paha e noi i Chomoro</p>	Chamorro
<input type="checkbox"/> <p>我在这里说中文，能听懂我的话吗？</p>	Chinese
<input type="checkbox"/> <p>Mahe kame'ua a si-mi i owa-ou, hale kreyoli a'oyen.</p>	Creole
<input type="checkbox"/> <p>Đemotić ovaj kroatički ako želite govorete hrvatski jezik</p>	Croatian (Serbo-Croatian)
<input type="checkbox"/> <p>Začínám to slovensky, pokiaľ nie a hovoria slovensky</p>	Czech
<input type="checkbox"/> <p>Kan dit vakje waken? Naja kants kint leant of spreken</p>	Dutch
<input type="checkbox"/> <p>Mark this box if you read or speak English</p>	English

U.S. 1165

APPENDIX C



Appendix 3-E: Triennial Review Draft Report and Close-out Letter

DRAFT REPORT

FY2008 TRIENNIAL REVIEW

of the

**Williamsburg Area Transport
WAT
Williamsburg, Virginia**

**Desk Review: January 8-9, 2008
Site Visit: September 17-18, 2008**

October 2008

**Prepared for the
Federal Transit Administration
Region III
Philadelphia, Pennsylvania**

by

**Interactive Elements Incorporated
60 East 42nd Street
New York, NY**

Table of Contents

I.	TRIENNIAL REVIEW BACKGROUND.....	1
II.	REVIEW PROCESS.....	1
III.	DESCRIPTION OF THE GRANTEE.....	2
IV.	RESULTS OF THE REVIEW.....	5
	1. Legal.....	5
	2. Financial.....	5
	3. Technical.....	6
	4. Satisfactory Continuing Control.....	6
	5. Maintenance.....	6
	6. Procurement.....	7
	7. Disadvantaged Business Enterprise (DBE).....	8
	8. Buy America.....	8
	9. Suspension/Debarment.....	8
	10. Lobbying.....	9
	11. Planning/Program of Projects.....	9
	12. Title VI.....	9
	13. Public Comment Process for Fare and Service Changes.....	10
	14. Half Fare.....	10
	15. ADA.....	10
	16. Charter Bus.....	11
	17. School Bus.....	12
	18. National Transit Database (NTD).....	12
	19. Safety and Security.....	12
	20. Drug-Free Workplace.....	13
	21. Drug and Alcohol Program.....	13
	22. Equal Employment Opportunity (EEO).....	13
	23. ITS Architecture.....	13
V.	SUMMARY OF FINDINGS AND CORRECTIVE ACTIONS.....	14
VI.	TRANSIT SECURITY EXPENDITURES.....	16
VII.	ATTENDEES.....	17

I. TRIENNIAL REVIEW BACKGROUND

The United States Code, chapter 53 of title 49, requires the Federal Transit Administration (FTA) of the United States Department of Transportation (USDOT) to perform reviews and evaluations of Urbanized Area Formula Grant activities at least every three years. This requirement is contained in 49 U.S.C. 5307(i).

- (2) At least once every 3 years, the Secretary shall review and evaluate completely the performance of a recipient in carrying out the recipient's program, specifically referring to compliance with statutory and administrative requirements and the extent to which actual program activities are consistent with the activities proposed under subsection (d) of this section and the planning process required under sections 5303-5306 of this title.
- (3) The Secretary may take appropriate action consistent with the review, audit and evaluation under this subsection, including making an appropriate adjustment in the amount of a grant or withdrawing the grant.

The Triennial Review includes a review of the grantee's compliance in 23 different areas. The basic requirements for each of these areas are summarized below.

This report presents the findings from the Triennial Review of Williamsburg Area Transit Authority (WAT) of Williamsburg, VA. This review was performed in accordance with FTA procedures (published in FTA Order 9010.1B, April 5, 1993) and included preliminary reviews of documents on file at the Region III Office in Philadelphia and on-site discussions and review of the procedures, practices, and records of WAT as deemed necessary. The review concentrated primarily on procedures and practices employed during the past three years; however, coverage was extended to earlier periods as needed to assess the policies in place and the management of grants. During the visit, administrative and statutory requirements were discussed, documents were reviewed, and facilities were toured. Specific documents examined during the Triennial Review are available in FTA's and WAT's files.

II. REVIEW PROCESS

The desk review was conducted in the Region III Office on January 8-9, 2008. Following the desk review, an agenda package was sent to WAT advising it of the site visit and indicating additional information that would be needed and issues that would be discussed.

The site visit to WAT occurred on September 17-18, 2008. The individuals participating in the review are listed in Section VII of this report.

At the entrance conference, the purpose of the Triennial Review and the review process were discussed. During the site visit, urbanized area formula grant program administrative and

statutory requirements were discussed and documents were reviewed. The WAT transit facilities were toured to provide an overview of activities related to FTA-funded projects. A sample of FTA-funded vehicles was inspected during the site visit.

On completion of the review, an exit conference was held with the WAT staff to discuss findings, corrective actions and schedules. This information is summarized in the table in Section V of this report. A draft copy of this report was provided to WAT at the exit conference.

III. DESCRIPTION OF THE GRANTEE

The General Assembly of the Commonwealth of Virginia granted permission in March of 2006, for the Williamsburg Area Transport (WAT) to form a Regional Transit Authority with the Counties of James City and York, the City of Williamsburg and local jurisdiction members and Colonial Williamsburg Foundation, as a non-jurisdictional member. On August 28, 2008, at the Williamsburg Area Transit Authority (WATA) first Organizational meeting, the Counties of James City County and York and the City of Williamsburg approved a Cooperative Agreement for these jurisdictions to form a Regional Transit Authority and selected a Chairperson and Vice-Chair. Subsequently, through legislative authority, the Colonial Williamsburg Foundation, as a non-voting jurisdictional member, was extended an invitation to join the Authority and they accepted. A Service Agreement allowing Colonial Williamsburg Foundation voting privileges and Authority membership is expected to be approved at the September 30, 2008, meeting.

The Williamsburg Area Transit Authority will act through its Board unless otherwise delegated by the Board. The WATA capital consists of the Member Jurisdictions' initial and quarterly contributions, and federal and state grants and other revenue or assets obtained by the WAT. For Colonial Williamsburg, the WAT may contract with Colonial Williamsburg for the operation and provision of Transportation around and throughout the historic Williamsburg area, as well as Transportation to and from historic Jamestown, Jamestown Settlement, and historic Yorktown.

The services will continue to be provided under the name of Williamsburg Area Transport (WAT). The WAT serves the counties of James City and York, the City of Williamsburg and College of William and Mary with connections to Newport News, and the historic sites of Colonial Williamsburg, Jamestown and Yorktown through a Transportation network with Hampton Roads Transit and the Colonial Williamsburg Foundation. The population of WAT service area is approximately 57,000. With the 2010 census to be conducted it is expected that the service area population will approach 94,000.

In 1980 James City County created the public service corporation James City County Transit Company for the purpose of providing public Transportation service. In October 2003, the transit company's name was legally changed to Williamsburg Area Transit Company, to reflect its regional service. The General Assembly granted permission March 23, 2006 for WAT to form a Regional Transit Authority with the Counties of James City and York, the City of Williamsburg, the College of William and Mary and Colonial Williamsburg Foundation. Since

that time partners have met regularly to establish the legal framework to implement an Authority. Thus far, the City of Williamsburg and James City County have approved the framework for membership, with other partners expected to follow shortly. The first seated meeting for the Williamsburg Area Transit Authority of Directors is scheduled July 17, 2008.

WAT employees operate the fixed route and complementary paratransit services. WAT contracts with Penske Truck Leasing Company for vehicle maintenance support.

WAT directly operates a network of ten fixed routes, or “lines,” with terminus at the Williamsburg Area Transportation Center, a multimodal center served by WAT, Amtrak, intercity buses, and taxis, at New Town, a mixed-use commercial/residential community and at the Williamsburg Outlet Mall providing improved services to growth occurring in the western part of James City County. Purchased public Transportation is provided the Colonial Williamsburg Foundation to the historic attractions of Colonial Williamsburg, Jamestown and Yorktown. The terminus for this Transportation is the Colonial Williamsburg Visitor center where seamless connections are made.

From September to May, service is provided on weekdays and Saturdays from 6:00 a.m. to 8:00 p.m. Hours are extended to 10:00 p.m. from Memorial Day to Labor Day. When classes are in session at the College of William and Mary, two buses provide fixed route services from 7 a.m. – 1 a.m. Monday through Sunday. WAT complementary Para Transit service operates during all fixed route hours.

The basic adult fare for bus service is \$1.25. A reduced fare of 50 cents is offered to senior citizens 60 years and over, the disabled and Medicare cardholders during all operating hours. An express connection to Newport News costs 50 cents. Middle and High School students with IDs may and children under six who do not occupy a seat ride free. Students with a College of William and Mary ID also ride free. The one-way fare for ADA paratransit service is \$2.00.

WAT has a fleet of forty (40) vehicles to provide directly and purchased fixed-route service. The fixed route fleet consists of twenty (20) low-floor heavy duty diesel buses, sixteen (16) low-floor Compressed Natural Gas low-floor buses, one (1) replica Trolley Street Car and four (4) Body-on-Chassis vehicles. Currently the peak requirement for these vehicles is thirty-one (31) vehicles; however this peak is expected to increase to thirty-nine (39) vehicles this fall as we phase in increased frequency, add Sunday and add service to areas not served through the obligation of CMAQ revenues. WAT operates three vans for ADA paratransit service.

WAT and CWF cooperate in providing ADA paratransit service to employees, residents, and visitors. CWF provides paratransit service within the Historic Area on a same-day request basis for visitors arriving at the Colonial Williamsburg Visitors Center by car or private tour bus. For ADA-certified residents or visitors to WAT’s service area, WAT provides door-to-door service from its service area into the Historic Area. It is not necessary for these passengers to transfer to a CWF vehicle.

Williamsburg Area Transit headquarters is located at 7239 Pocahontas Trail, Williamsburg, Virginia 23185; in leased space on property owned by the Colonial Williamsburg Foundation Center. Vehicles are dispatched from and stored at that location. The property includes a maintenance garage occupied by the maintenance contractor, Penske Truck Leasing.

WAT National Transit Database Report for FY2006 provided the following financial and operating statistics for its fixed-route and paratransit service:

	Fixed-Route Service	Paratransit Service
Unlinked Passengers	2,760,989	6,405
Revenue Hours	59,666	3,819
Operating Expenses	\$2,920,082	\$214,346

During the review period, WAT completed several noteworthy projects that have led to unprecedented use and five consecutive years of increased use:

- Increased regional connections between Hampton Roads Transit (Newport News) and Williamsburg Area Transit (James City County) from three to six and then to fifteen daily through CMAQ support;
- Purchased nine buses, (7) CNG and two (2) Diesel buses to support Jamestown 2007, two (2) buses to support rapid developing medical/commercial growth along Mooretown Road, one (1) replica Trolley to increase service in historic Yorktown and five (5) replacement BOC to support disabled service and regional connections;
- Introduced a new route (Tan Line) addressing medical/commercial development in York County and location of a new Regional Hospital;
- Improved safety, security and customer service with installation of ten new bus shelters and surveillance cameras on buses, and
- Coordinated Transportation services to support Jamestown 2007 Anniversary Weekend, May 11-13th, 2007. The Park-and-Ride system utilized nine Lots, up to 300 buses daily from six school systems and carried 70,000 passengers resulting in favorable comments and press.

Future plans are to continue efforts in building a regional network to meet on-going demands in one of the fastest growth areas of State. These include the following:

- Continuation of Regional connections from outside the service area to Greater Williamsburg to meet labor shortages for retail, warehousing and hospitality industries estimated of up to 50,000 positions over the next ten years. WAT connections via the Jamestown-Scotland Ferry across the James River from Surry County will continue, with connections from New Kent County, cities of Hampton and Newport News evaluated;
- Improved safety and security with installation of additional cameras at WAT Operations/Administrative facilities and Card Access Entry System through a Homeland Security Grant. Other safety/security and passenger improvements underway or planned

include additional radio units, GPS/AVL for buses, Goggle Transit and pre-paid pass system;

- Encourage tying public transit to transit oriented development with the introduction of a Trolley service connecting commercial/residential development of Merchants Square (Colonial Williamsburg), High Street (City of Williamsburg) and New Town (James City County). Collectively these developments attract over a million visitors annually, have 800,000 of commercial use, 1,000 multi-family units and a business technology center.
Three Trolleys have been approved for Flexible STP in FY 2009 to begin this service; and
- Identify additional office space necessary for administrative growth and evaluate managing and owning an operation facility versus leasing and contracting maintenance. FY 2009 section 5304 planning funds have been approved for these efforts.

These are examples of on-going and future objectives as we implement a Regional Authority. With this new Board's guidance and increased citizen input these strategic plans are only expected to grow.

RESULTS OF THE REVIEW

The Triennial Review focused on WAT's compliance in 23 different areas. This section provides a discussion of the basic requirements and findings in each area. No deficiencies were found with the FTA requirements in 17 of the 23 areas. Deficiencies were found in the other six areas.

1. Legal

Basic Requirement: The grantee must be eligible and authorized under state and local law to request, receive, and dispense FTA funds and to execute and administer FTA funded projects. The authority to take all necessary action and responsibility on behalf of the grantee must be properly delegated and executed.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for legal.

2. Financial

Basic Requirement: The grantee must demonstrate the ability to match and manage FTA grant funds, to cover cost overruns, to cover operating deficits through long-term stable and reliable sources of revenue, to maintain and operate federally funded facilities and equipment, and to conduct an annual independent organization-wide audit in accordance with the provisions of OMB C A-133.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for financial.

3. Technical

Basic Requirement: The grantee must be able to implement the Urbanized Area Formula Grant Program of Projects in accordance with the grant application, Master Agreement, and all applicable laws and regulations, using sound management practices.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for technical.

4. Satisfactory Continuing Control

Basic Requirement: The grantee must maintain control over real property, facilities and equipment and ensure that they are used in transit service.

Findings: During this Triennial Review of WAT, deficiencies were found with the FTA requirements for satisfactory continuing control.

The WAT equipment records did not provide all of the required information. Specifically, WAT was unable to identify the grants associated with its fixed route buses particularly those buses purchased prior to 2006.

Although WAT conducted a physical inventory of equipment on April 18, 2008, the inventory results were not reconciled to equipment records.

Corrective Actions and Schedule:

Within 30 days of the final report, WAT will provide to the Region III Office, evidence that WAT has identified for each of its fixed route buses the grant number associated with the purchase of the bus.

Within 30 days of the final report WAT will provide to the Region III Office, evidence that it has reconciled the inventory with equipment records.

5. Maintenance

Basic Requirement: The grantee must keep federally funded equipment and facilities in good operating order.

Findings: During this Triennial Review of WAT, deficiencies were found with the FTA requirements for maintenance.

WAT does not have a current written vehicle maintenance plan for its federally funded vehicles. WAT contracts with Penske for preventive maintenance and relies solely on Penske to determine and track the manufacturer's recommendations preventive maintenance checks to meet the manufacturer's minimum maintenance requirements.

Corrective Action and Schedule:

Within 90 days of the final report, WAT should develop and submit to the FTA Region III Office a written maintenance plan and preventive maintenance checklists consistent with its fleet. At a minimum the plan should include the maintenance goals and objectives, a checklist consistent with the manufacturer's minimum requirements and a discussion of how WAT will track the manufacturer's recommendations and updates on requirements. Also, the maintenance procedures must provide a checklist to indicate regular and periodic maintenance of accessibility features such as kneelers, ramps, public address systems, and voice annunciation systems.

6. Procurement

Basic Requirement: FTA grantees will use their own procurement procedures that reflect applicable state and local laws and regulations, provided that the process ensures competitive procurement and that the procedures conform to applicable federal law including 49 CFR Part 18, specifically Section 18.36 and FTA C 4220.1E, "Third Party Contracting Requirements." Grantees will maintain a contract administration system that ensures that contractors perform in accordance with terms, conditions, and specifications of their contracts or purchase orders.

Findings: During this Triennial Review of WAT, deficiencies were found with the FTA requirements for procurement.

WAT uses the James City County Purchasing to procure federally funded equipment, supplies and services. The County makes use of several documents to meet its purchasing needs including those provided by the State, FTA's best practices, the FTA Circular 4220.1E and a Purchasing Policy developed by the County. A review of the procurement files, however, indicated a lack of cohesiveness, missing key federally required certifications such as TVM and the Certification of Bus Testing which collectively demonstrates deficiencies in the procurement policies and procedures.

Corrective Action and Schedule:

Within 120 days, WAT should develop and submit to the FTA Region III Office procurement policies and procedures that conform to 49 CFR Part 18, specifically Section 18.36 and FTA Circular 4220.1E, "Third Party Contracting Requirements." The WAT procurement policies and procedures should provide procurement standards that include clauses and certifications required by federal statutes and a contract administration system that ensures that contractors perform in accordance with terms, conditions of their contracts.

7. Disadvantaged Business Enterprise (DBE)

Basic Requirement: The grantee must comply with the policy of USDOT that DBEs, as defined in 49 CFR Part 26, are ensured nondiscrimination in the award and administration of USDOT-assisted contracts. Grantees also must create a level playing field on which DBEs can compete fairly for USDOT-assisted contracts; ensure that only firms that fully meet eligibility standards are permitted to participate as DBEs; help remove barriers to the participation of DBEs; and assist the development of firms that can compete successfully in the marketplace outside the DBE program.

Findings: During this Triennial Review of WAT, deficiencies were found with USDOT requirements for DBE.

After a review of the WAT procurement files for two procurements of transit vehicles, the reviewer was unable to find the TVM certifications from the successful bidders. All grantees must require that as a condition of being authorized to bid on transit vehicles funded by FTA transit vehicle manufacturers must certify that it has complied with the requirements of 49 CFR Part 26.

Corrective Action and Schedule:

Within 120 days of the final report, WAT should provide evidence to the Region III Office, that it will obtain TVM certifications from any and all current successful bidders for FTA funded rolling stock. This should be addressed as a part of the development of the overall development of WAT procurement policies and procedures.

8. Buy America

Basic Requirement: Per Buy America law, federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless FTA has granted a waiver, or the product is subject to a general waiver. Rolling stock must have a 60 percent domestic content and final assembly must take place in the United States.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for Buy America.

9. Suspension/Debarment

Basic Requirement: To protect the public interest and prevent fraud, waste, and abuse in federal transactions, persons or entities, which by defined events or behavior, potentially threaten the integrity of federally administered programs, are excluded from participating in FTA assisted programs. Federal agencies use the government-wide nonprocurement debarment and suspension system to exclude from Federal programs persons who are not presently responsible. Grantees are required to ensure to the best of their knowledge and belief that none of the grantee's

“principals” (as defined in the governing regulation 49 CFR Part 29), subrecipients, and third-party contractors and subcontractors is debarred, suspended, ineligible, or voluntarily excluded from participation in federally assisted transactions or procurements. Grantees are required to review the Excluded Parties Listing System (<http://epls.arnet.gov/>) before entering into any third party contracts.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for suspension/debarment.

10. Lobbying

Basic Requirement: Recipients of federal grants and contracts exceeding \$100,000 must certify compliance with Restrictions on Lobbying before they can receive funds. In addition, grantees are required to impose the lobbying restriction provisions on their contractors.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for lobbying.

11. Planning/Program of Projects

Basic Requirement: The grantee must participate in the Transportation planning process in accordance with FTA requirements, SAFETEA-LU, and the Metropolitan and Statewide Planning Regulations.

Each recipient of a grant shall have complied with the public participation requirements of Section 5307(c)(1) through (7). Each recipient is required to develop, publish, afford an opportunity for a public hearing on, and submit for approval a Program of Projects (POP).

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for planning/POP.

12. Title VI

Basic Requirement: The grantee must ensure that no person in the United States shall, on the ground of race, color, or national origin, be excluded from participating in, or denied the benefits of, or be subject to discrimination under any program or activity receiving federal financial assistance. The grantee must ensure that federally supported transit service and related benefits are distributed in an equitable manner.

Findings: During this Triennial Review of WAT, deficiencies were found with the FTA requirements for Title VI.

Discussions with WAT staff during the site visit noted that the WAT has not advised the public of their rights under Title VI.

Corrective Actions and Schedule:

Within 30 days of the final report, WAT will submit to the FTA Region III Civil Rights Officer, a plan and timeline for developing and disseminating a notification to the public of their rights under Title VI. The WAT can find examples of brochures published by the U.S. Department of Justice by visiting <http://www.usdoj.gov/crt/cor/Pubs/t6broch.htm>

13. Public Comment Process for Fare and Service Changes

Basic Requirement: The grantee must have a locally developed process to solicit and consider public comment before raising a fare or carrying out a major reduction of Transportation services.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for public comment process for fare and service changes.

14. Half Fare

Basic Requirement: Grantees must ensure that elderly persons and persons with disabilities, or an individual presenting a Medicare card, will be charged during non-peak hours for Transportation using or involving a facility or equipment of a project financed under Section 5307 not more than 50 percent of the peak hour fare.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for half fare.

15. ADA

Basic Requirement: Titles II and III of the Americans with Disabilities Act of 1990 provide that no entity shall discriminate against an individual with a disability in connection with the provision of Transportation service. The law sets forth specific requirements for vehicle and facility accessibility and the provision of complementary paratransit service.

Findings: During this Triennial Review of WAT, deficiencies were found with the FTA requirements for ADA.

Discussions with the WAT staff, unfolded a series of issues that in sum amount to capacity constraints on the ADA complementary paratransit service. WAT does not have in place a monitoring system that could provide data on missed trips, late pickups WAT does not monitor these operations or keep monitoring records. WAT also has been unable to collect or provide data on its phone reservation system.

During discussions with staff, it was determined that WAT does not have a tracking mechanism to track trip denials or data that the reviewer could use to determine if complementary paratransit trips are being provided within the one-hour window as required by the ADA. Grantees must track trip denials properly.

WAT staff provided copies of training materials and discussed the training program with the reviewer. After a review of the limited training material, the reviewer found that the training provided by WAT does not meet the standard of proficiency. The ADA requires that fixed-route or demand responsive service operators ensure that personnel are trained to proficiency.

Corrective Actions and Schedule:

To address the limits on capacity constraints, WAT must address these ADA deficiencies. In order to assure that WAT is able to demonstrate that such actions as denials, missed trips, late pickups or excessively long trips are not operational patterns WAT must establish monitoring systems for its complementary paratransit service. There is indeed no ADA requirement for an established monitoring system per se, but without one, WAT cannot demonstrate how the service is meeting the demand. If, in point of fact, WAT does not have adequate capacity, which cannot be demonstrated either way without data, WAT should consider measures to meet capacity. An ADA monitoring system to provide the necessary data to determine capacity should be developed within 90 days of the final report and evidence of data collected provided to the Region III Office.

Within 60 days of the final report, WAT must provide to the Region III Office evidence that trip denials are being properly tracked.

Within 90 days of the final report, WAT should provide to the Region III Office a training plan that will assure that WAT has incorporated sensitivity training on interacting with persons with disabilities into its various equipment operations and safety training.

16. Charter Bus

Basic Requirement: Grantees are prohibited from using federally funded equipment and facilities to provide charter service except on an incidental basis and when one or more of applicable exceptions for urban areas set forth in the charter service regulation at 49 CFR 604.9 (b) applies.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for charter bus.

17. School Bus

Basic Requirement: Grantees are prohibited from providing exclusive school bus service unless the grantee qualifies under specified exceptions. In no case can federally funded equipment or facilities be used.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for school bus.

18. National Transit Database (NTD)

Basic Requirement: The grantee must collect, record, and report financial and non-financial data in accordance with the Uniform System of Accounts (USOA) and updated with the *National Transit Database (NTD) Reporting Manual* as required by 49 USC 5335(a).

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for National Transit Database.

19. Safety and Security

Basic Requirement: Any recipient of Urbanized Area Formula Grant Program funds must annually certify that it is spending at least one percent of such funds for transit security projects or that such expenditures for security systems are not necessary.

Under the safety authority provisions of the Federal transit laws, the Secretary has the authority to investigate the operations of the grantee for any conditions that appear to create a serious hazard of death or injury, especially to patrons of the transit service. However, FTA has no specific requirements for transit safety. States are required to oversee the safety of rail fixed guideway systems through a designated oversight agency.

Under security, a list of 17 Security and Emergency Management Action Items has been developed by FTA and the Department of Homeland Security's Transportation Security Administration (TSA). This list of 17 items, an update to the original FTA Top 20 security action items list, was developed in consultation with the public Transportation industry through the Mass Transit Sector Coordinating Council, for which the American Public Transportation Association (APTA) serves as Executive Chair. Security and Emergency Management Action Items for Transit Agencies aim to elevate security readiness throughout the public Transportation industry by establishing baseline measures that transit agencies should employ.

Findings: A summary of WAT's expenditures of Section 5307 funds for security projects is provided in Section VI of this report.

During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for safety and security.

20. Drug-Free Workplace

Basic Requirement: Grantees are required to maintain a drug-free workplace for all employees and to have an ongoing drug-free awareness program.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for drug-free workplace.

21. Drug and Alcohol Program

Basic Requirement: Grantees receiving FTA funds under Capital Grant, Urbanized Area Formula Grant, or Non-Urbanized Area Formula Grant Programs must have a drug and alcohol testing program in place for all safety-sensitive employees.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for the drug and alcohol program.

22. Equal Employment Opportunity (EEO)

Basic Requirement: The grantee must ensure that no person in the United States shall, on the ground of race, color, creed, national origin, sex, age, or disability be excluded from participating in, denied the benefits of, or be subject to discrimination in employment under any project, program or activity receiving federal financial assistance from the federal transit laws.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for EEO.

23. ITS Architecture

Basic Requirement: Intelligent Transportation Systems (ITS) projects funded by the Highway Trust Fund and the Mass Transit Account must conform to the National ITS Architecture, as well as to U. S. Department of Transportation (USDOT) adopted ITS standards.

Findings: During this Triennial Review of WAT, no deficiencies were found with the FTA requirements for ITS architecture.

IV. SUMMARY OF FINDINGS AND CORRECTIVE ACTIONS

Review Area	Finding	Deficiency	Corrective Action	Response Days/Date	Date Closed
1. Legal	ND				
2. Financial	ND				
3. Technical	ND				
4. Satisfactory Continuing Control	D	03 – Inadequate equipment records	Include Grant Number in equipment records	30 days	Status-closed
		05 – Inventory results not reconciled to equipment records	Provide evidence that Inventory results have been reconciled to equipment record	30 days	
5. Maintenance	D	01 – No vehicle maintenance plan	WAT must submit a new maintenance plan.	90 days	Completed to forward FTA Jan.
6. Procurement	D	33 – Deficiencies in written procurement policies and procedures	Provide evidence to the TRO III that policies and procedures have been established that meet federal standards.	120 days	Completed under WATA review to request Board approval Feb. meeting
7. Disadvantaged Business Enterprise	D	12 – No TVM certification	Will provide evidence to FTA TRO III that it will obtain TVM certifications from any and all current successful bidders for FTA funded rolling stock	120 days	Status - closed
8. Buy America	ND				
9. Suspension/Debarment	ND				
10. Lobbying	ND				
11. Planning/POP					
12. Title VI	D	10 – Title VI public notification deficiencies	a plan and timeline for developing and disseminating a notification to the public of their rights under Title VI.	30 days	Status - closed
13. Public Comment for Fare and Service Changes					
14. Half Fare					

Review Area	Finding	Deficiency	Corrective Action	Response Days/Date	Date Closed
15. ADA	D	05 – Limits or capacity constraints on ADA Complementary Paratransit service 06 – Inadequate tracking of trip denials – 08 Training not adequate	Must establish system to determine if there is a capacity issue WAT must provide to the Region III Office evidence that trip denials are being properly tracked Training Plan to Region	90 days 60 days 90 days	Established to forward FTA in Jan
16. Charter Bus					
17. School Bus					
18. National Transit Database					
19. Safety and Security					
20. Drug-Free Workplace					
21. Drug and Alcohol Program					
22. Equal Employment Opportunity					
23. ITS Architecture					

Findings: ND = No Deficiencies; D = Deficient; AC = Advisory Comment; NA = Not Applicable; NR = Not Reviewed

V. TRANSIT SECURITY EXPENDITURES

Does the grantee expend one percent or more of its Section 5307 Urbanized Area Formula Grant funds for transit security? Yes X No

If no, why does the grantee consider such expenditure unnecessary (check all that apply):

- No deficiency found from a threat and vulnerability assessment
 TSA/FTA Security and Emergency Management Action Items met or exceeded
 Other (please describe): _____

Security Funding	FTA Section 5307 Funds (in Dollars)		
	FY 2005	FY 2006	FY 2007
Total amount of 5307 Funds expended	\$345,588	\$380,192	\$402,850
Amount of 5307 Funds expended on security	\$5,650	\$5,435	\$17,945
Percent of 5307 Funds expended on security	2 %	2%	2%
Infrastructure/Capital Improvement Security Projects:			
Lighting, Fencing & Perimeter Control			
CCTV and Surveillance Technology			
Communications Systems	\$5,650	\$5,543	\$17,945
Security Planning*			
Drills & Tabletop Exercises*			
Employee Security Training*			
Other Security-Related Infrastructure & Capital Improvements (please list): _____			
Operating/Personnel Expenditures (can only be used by agencies in areas with populations UNDER 200,000):			
Contracted Security Force			
In-house Security Force			
Other Security-Related Operating Expenditures (please list): _____			

* SAFETEA-LU amended the definition of a capital project to include:
- projects to refine and develop security and emergency response plans;
- the conduct of emergency response drills with public Transit agencies and local first response agencies; and
- security training for public Transit employees.

VI. ATTENDEES

Name	Title/Organization	Phone Number	e-mail address
<i>Grantee</i>			
Mark Richards	Executive Director	757 220 8290	mrichards@james-city.va.us
Richard Drumwright	Director Planning & Development	757 220 5547	richardd@james-city.va.us
Barbara Creel	Acting Budget & Grants Administration	757 220 5493	barbaric@james-city.va.us
Darrel Feasel	Manager of Transit Programs DRPT	804 786 8090	darrel.feasel@drpt.virginia.gov
Don Breland	James County Senior Buyer	757-253-6648	jbreland@james-city.va.us
Gary Cosman	Marketing & Public Relations	757 220 5578	gcosman@james-city.va.us
Jess Tooley	Penske	757 505 2018	Jessesy.tooley@penske.com
Jodie Bently	York County Operations Coordinator	757 890 3846	Jodie.bentley@yorkcounty.gov
Denny Kincade	Maintenance Supervisory York County	757 890 3840	kincaded@yorkcounty.cog
Mark Bellamy	Fleet Manager York County	757 890 3844	bellamy@yorkcounty.gov
Leon Sisco	Operations Director	757 220 0633	wsisco@james-city.va.us
Robert B. Case	MPO Principal Transportation Engineer	757 420 8300	rcase@hrpdva.gov
Doug Powel	James City County	757 259 5402	dpowel@james-city.va.us
<i>FTA</i>			
Sheila Byrne	FTA Grant Representative	215 656 7256	Sheila.byrne@dot.gov
<i>Reviewer</i>			
Kay Luongo	Reviewer	239 649 6267	kxl@ieitransit.com



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION III
Delaware, District of
Columbia, Maryland,
Pennsylvania, Virginia,
West Virginia

1760 Market Street
Suite 500
Philadelphia, PA 19103-4124
215-656-7100
215-656-7260 (fax)

MAR 10 2009

Mr. Mark Rickards
Executive Director
Williamsburg Area Transport
7239 Pocahontas Trail
Williamsburg, VA 23185

Re: FY 2008 Triennial Review –
Findings update: maintenance, procurement and ADA

Dear Mr. Rickards:

As you know, the FTA conducted a triennial review in September 2008. We have reviewed the final remaining response to the finding addressing an updated ADA training plan. Based on your February 11, 2009 submission, we have closed out the remaining finding and the review as well.

As you know, the report focused on WAT's compliance in the 23 areas. No deficiencies were found with the FTA requirements in 17 areas. Deficiencies were found in six areas including Satisfactory Continuing Control, Maintenance, Procurement, Disadvantaged Business Enterprise, Title VI and the Americans with Disabilities Act (ADA). Advisory Comments were provided in the area of ADA. Following the site visit, WAT corrected the deficiencies in the Satisfactory Continuing Control and Title VI review areas, and as such, those findings have been closed. WATA responded to the issues for satisfactory continuing control in September 2008, DBE in October 2008, ADA and maintenance in January 2009. The remaining element of the ADA finding has been closed as of February 11, 2009.

Enclosed is a copy of our tracking sheet from our Oversight Tracking System for your records.

Thank you for the hospitality and cooperation shown to us in conjunction with the Triennial Review. If you have any questions please call Sheila Byrne (215) 656-7256.

Sincerely,



Michael McCollum
Director, Office of Operations and
Program Management

Enclosure

cc: Corey Hill, VDRPT

Review Findings

WILLIAMSBURG AREA TRANSPORT COMPANY (Formerly JCCT)
 (Recipient ID: 5719, DUNS: 109722129)
 FTA Office: TRO-03 (WILLIAMSBURG, VA)
 Fiscal Year Planned 2008 Triennial Review
Findings by Review Area

<u>Review Area</u>	<u>Program Impact</u>	<u>Finding</u>	<u>Due Date</u>	<u>Date Closed</u>	<u>Latest Update</u>
Satisfactory Continuing Control	Medium	03 - Inadequate equipment records	11/19/2008	9/25/2008	10/13/2008
Satisfactory Continuing Control	Medium	05 - Inventory results not reconciled to equipment records	11/19/2008	9/25/2008	10/13/2008
Maintenance	Medium	01 - No Vehicle maintenance plan	1/16/2009	1/15/2009	2/5/2009
Procurement	Medium	33 - Deficiencies in written procurement policies and procedures	2/16/2009	1/15/2009	2/5/2009
Disadvantaged Business Enterprise	Medium	12 - No TVM certification	2/16/2009	10/27/2008	2/11/2009
Title VI	Medium	10 - Title VI public notification deficiencies	11/19/2008	9/29/2008	1/9/2009
ADA	Medium	05 - Limits or capacity constraints on ADA Complementary Paratransit service	1/16/2009	1/15/2009	2/5/2009
ADA	Medium	06 - Inadequate tracking of trip denials	12/19/2008	1/15/2009	2/5/2009
ADA	Medium	08 - Training not adequate	1/16/2009	2/11/2009	2/11/2009