Transit Development Plan

Bay Transit

FISCAL YEARS 2016 – 2021

Connetics Transportation Group

Kimley»Horn

DRPT
Virginia Department of Rail and Public Transportation

BayTransit

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CHAPTER 1: OVERVIEW OF BAY TRANSIT

1.1 HISTORY

Bay Transit is a nonprofit community transit service that operates in the rural region of eastern Virginia, providing thousands of trips a year. The public transportation authority is a division of Bay Aging, an organization that formed in 1978 to serve the elderly and persons with disabilities. Despite its origin, Bay Transit services are open to people of all ages in eastern Virginia.

Bay Transit began in September 1996 with only one vehicle operating demand-response service 2 days a week in Gloucester County – the area east of Richmond, Virginia. In December of 1998 Bay Transit grew to two buses and expanded into Lancaster County, and then into Essex 1 year later. Throughout the next 6 years, Bay Transit continued this rapid expansion, bringing demand-response transit service to seven additional counties. Much of this growth was possible through the use of rural public transportation demonstration funding grants from the Virginia Department of Rail and Public Transportation (DRPT).

In 2015, the service area for Bay Transit has grown to cover nearly 3,000 square miles of eastern Virginia including the Northern Neck and Middle Peninsula for a total of 12 counties: Charles City, Essex, Gloucester, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northumberland, Richmond, and Westmoreland (see Figure 1-1). Although the majority of ridership still comes from the demand-response service, Bay Transit also has been successful in bringing seasonal trolley service and deviated fixed-route service to localized areas in the region. Seasonal trolleys run in the towns of Colonial Beach, Kilmarnock, Irvington, White Stone, and Urbanna. In addition, Bay Transit has been expanding the deviated fixed-route service (also called flex route service) from the Courthouse Circulator in Gloucester and the West Pointe Route in King William to the newest route The Rivah Ride in Tappahannock, which began service in the Fall of 2015.

Figure 1-1 Counties Served by Bay Transit

To keep up with the demands of the increased service, Bay Transit added two major facilities. In mid-2010, an operations and maintenance facility opened in Commerce Park of Warsaw. Then in early 2015, Bay Transit added the Middle Peninsula Regional Transit Facility in the Gloucester Courthouse area of Gloucester. These facilities account for a large portion of recent capital costs, which have decreased dramatically since the completion of these projects.

1.2 GOVERNANCE

Bay Transit is governed by Bay Aging, a nonprofit provider of programs and services to older adults and those with disabilities in eastern Virginia. The Bay Aging Board of Directors is composed of four officers (listed in Table 1-1) and 11 directors (listed in Table 1-2), each serving a term of 5 years. Ten members are appointed by their county's board of supervisors, while five are chosen by the citizens of the Middle Peninsula and Northern Neck. The board of directors have scheduled meetings every two months.

Table 1-1 Bay Aging Board of Directors (Officers)

Jimmie Carter	Chair, At Large
Don James	Vice-Chair, At Large
Lt. General C. Norman Wood, USAF (Ret.)	Treasurer, Essex County
Reverend Kenneth Rioland Jr.	Recording Secretary, Northumberland County

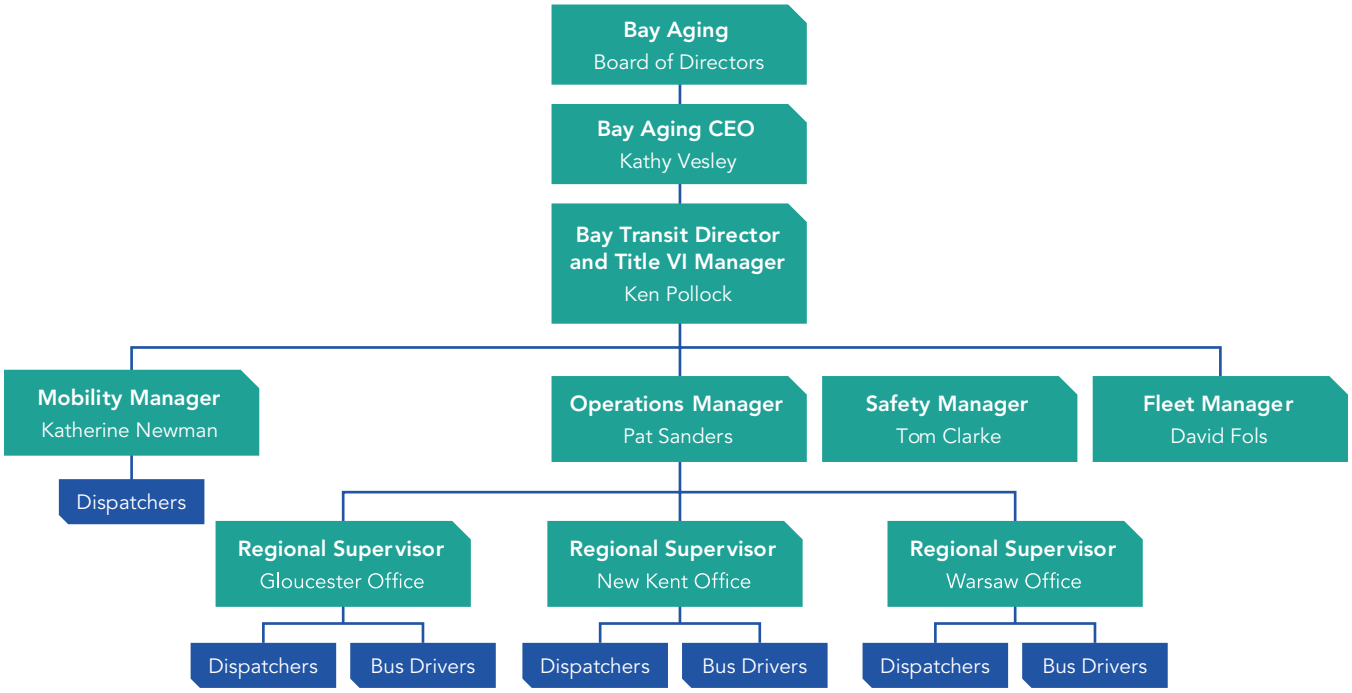
Table 1-2 Bay Aging Board of Directors (Directors)

Joseph Curry	Lancaster County
Peggy Garland Esq.	At Large
Terrence "Terry" McGregor	At Large
Cynthia Talcott	Richmond County
Bill Reisner	At Large
Sheriff Stanley Clarke	At Large
Karen Lewis	Westmoreland County
Ed Clayton	Mathews County
Marcia Jones	Middlesex County
Charles Adkins, Esq.	King & Queen County
Reverend Maria Harris	King William County

1.3 ORGANIZATIONAL STRUCTURE

Bay Aging oversees the operation of Bay Transit. Day-to-day operations of Bay Transit are conducted by the transit manager, who oversees the management positions for mobility, operations, safety, and fleet. Offices in Gloucester, New Kent, and Warsaw manage local dispatchers and bus drivers. Bay Transit is directly operated, with no transportation services contracted outside of the agency. An organizational chart of Bay Transit is shown in Figure 1-2.

Figure 1-2 Bay Transit Organizational Chart



1.4 TRANSIT SERVICES PROVIDED AND AREAS SERVED

The region served by Bay Transit includes the counties of Charles City, Essex, Gloucester, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northumberland, Richmond, and Westmoreland, and the towns of West Point and Colonial Beach. Currently Bay Transit offers three types of service: demand-response, deviated fixed-route, and seasonal trolley. The demand-response services for the general public as well as those with disabilities operate within the entire service area. Two of the buses in this fleet have bike racks. The deviated fixed-routes (Courthouse Circulator, Rivah Ride, and West Point), serve the towns of Warsaw, Tappahannock, and West Point, respectively. The seasonal trolley services (Colonial Beach Trolley, Kilmarnock Trolley, and the Urbanna Trolley), operate within their respective namesakes. The mobility management service is designed for those with disabilities and operates throughout the entire service area.

Demand-Response Service

Demand-Response

From the beginning, Bay Transit has offered demand-response service that takes passengers from point to point locations. This service still remains the most active transit service in the agency. Riders must call at least 24 hours in advance of the scheduled appointment. Riders may speak directly with the dispatcher when making an appointment. Bay Transit offers demand-response service Monday through Friday between the hours of 6:00 a.m. and 6:00 p.m.

New Freedom Mobility Management

Bay Transit recognizes the importance for everyone to be able to enjoy important social and recreational events, retail shopping, medical appointments, and work. Therefore, in compliance with the Americans with Disabilities Act (ADA), Bay Transit provides the New Freedom Mobility Management program for seniors and those with disabilities. This service operates in the Middle Peninsula and Northern Neck Planning District Commission (PDC) region. Appointments for this program must be made at least 72 hours in advance.

Deviated Fixed-Route Service

Courthouse Circulator - Gloucester

The Courthouse Circulator route was made possible by a partnership of Bay Transit and Gloucester County. This route operates as a deviated fixed-route, and therefore has permanent stops and a set schedule but will deviate up to ¾ of a mile to pick up riders. Alignment of the route is shown in Figure 1-3 as solid line, with the ¾ mile deviation limit shown in a dashed line. For deviations to occur, riders must call a day in advance to schedule the pick-up. Permanent alignment begins at the Big Lots on George Washington Memorial Highway and serves the nearby Walmart before turning onto Main Street. The circulator then serves the library, post office, and Riverside Walter Reed Hospital along Main Street before traveling to the Food Lion and Daffodil Gardens. A large part of the route operates along a pedestrian friendly section of Main Street. However, sidewalks are discontinued at Warehouse Road on the southern side of Main Street, and just before George Washington Memorial Highway on the northern section. The southernmost section of the route, along George Washington Memorial Highway, also has poor pedestrian connectivity.

Service hours are from 10:00 a.m. until 2:00 p.m., Monday through Friday. The Courthouse Circulator requires one bus to operate at 60-minute frequencies, and pulls out of the nearby Gloucester facility.

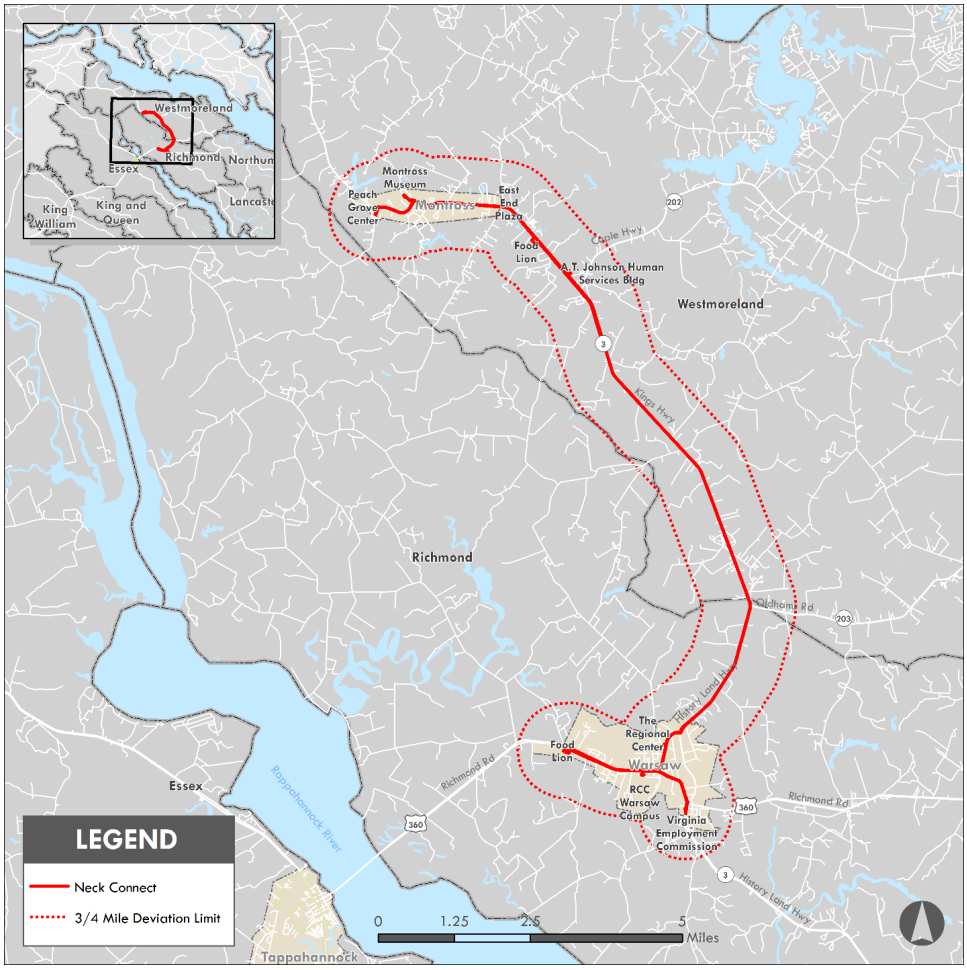
Figure 1-3 Courthouse Circulator Deviated Fixed-Route Alignment

Neck Connect (discontinued)

The Neck Connect route was a deviated fixed-route service, running from Montross in Westmoreland County to Warsaw in Richmond County, shown cartographically in Figure 1-4. The route operated from Warsaw east to Callao in Northumberland County, but this section was discontinued in late summer of 2015 because of poor ridership. In early 2016, the remainder of the route was discontinued, also because of low demand. As a deviated fixed-route service, the Neck Connect deviated up to ¾ of a mile with a reservation scheduled a day in advance, also shown in Figure 1-4 as a dashed line. Due to the rural nature of much of this route, the sidewalks in each of the towns served are intermittent, and typically only on one side of the road.

Service hours were from 10:00 a.m. until 2:00 p.m., Monday through Friday. The Neck Connect required one bus to operate at 120-minute headways, and pulled out from the Warsaw facility.

Figure 1-4 Neck Connect Deviated Fixed-Route Alignment



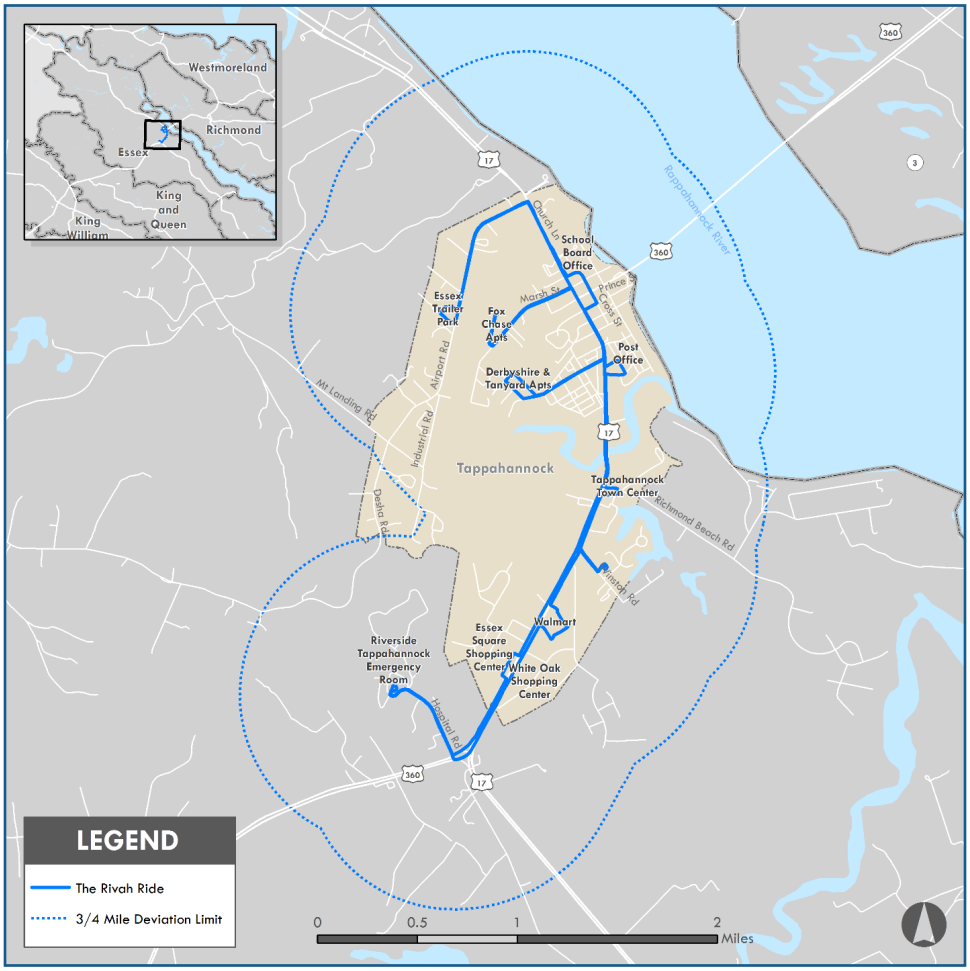
Rivah Ride - Tappahannock

In 2015, the town of Tappahannock agreed to contribute a local match option to help fund a deviated fixed-route service. In the Fall of 2015, the Rivah Ride was added to Bay Transit's service, shown in Figure 1-5. As in the previous two figures, the solid line reveals the alignment, while the ¾ mile limit forthe deviation is shown as a dashed line. The route serves the Riverside Tappahannock Hospital on the southern end, turning onto Church Lane to service the businesses on the southern end of the town.

The route continues to downtown Tappahannock before turning left onto Marsh Street to reach the intermediate school and nearby multi-family housing. The southern side of the route has poor pedestrian connectivity, with little to no sidewalks. Downtown Tappahannock, however, has continuous pedestrian infrastructure.

Service hours are from 10:00 a.m. until 2:00 p.m. and operates weekdays only. The Rivah Ride requires one bus to operate at 60-minute headways, and pulls out of the Warsaw facility.

Figure 1-5 The Rivah Ride Deviated Fixed-Route Alignment

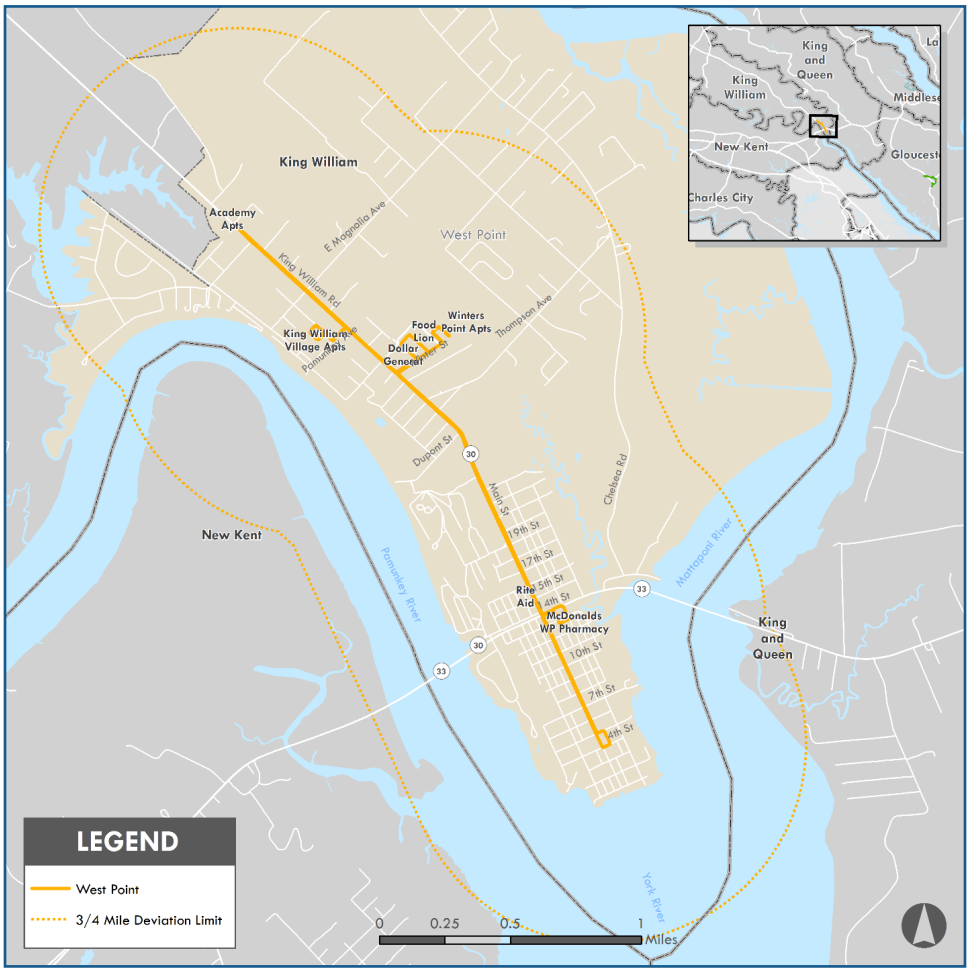


West Point

The West Point deviated fixed-route is shown in Figure 1-6, with the route alignment as well as the ¾ mile buffer designating the limit for deviations. West Point begins service from the Winters Point Apartments behind the Food Lion off of King William Road. The route primarily operates along the King William Road Corridor, with minor scheduled deviations to serve commercial and residential locations. Academy Apartments, King William Village Apartments, and New Delaware Townhouses are all served on the northern half of the route. Fast food and pharmacies are served near the Main Street and 14th Street intersection. Low density residential is served on the southern side of the route, south of 14th Street.

Service hours are from 10:00 a.m. until 2:00 p.m. on Mondays, Wednesdays, and Fridays only. The West Point route requires one bus, which operates at 60-minute headways.

Figure 1-6 West Point Deviated Fixed-Route Alignment



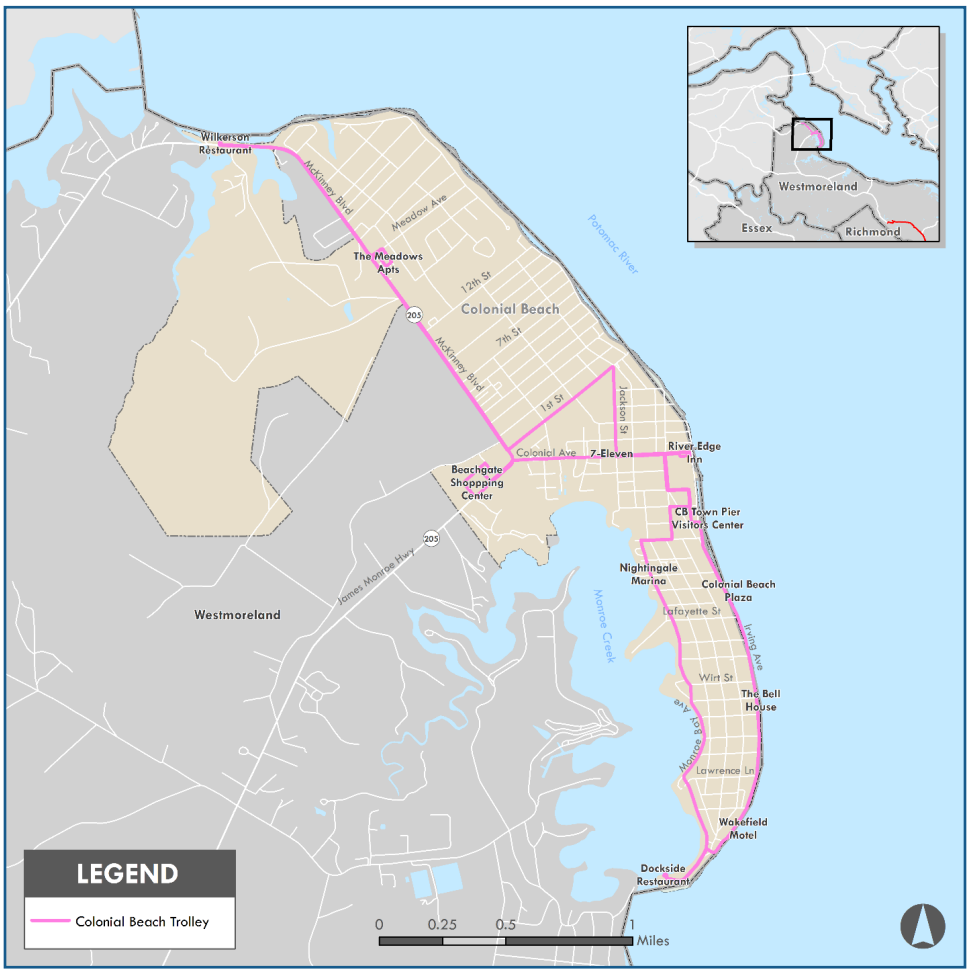
Seasonal Trolley Service

Colonial Beach Trolley

The fixed-route Colonial Beach Trolley is funded by a local match from Colonial Beach, with additional funding from DRPT. This route begins at the Colonial Beach Town Pier and the Colonial Beach Visitors Center and travels south on the peninsula connecting hotels, homes, restaurants, and the marina. The route then serves the Beachgate shopping center, The Meadows Apartments, and restaurants on the northern end of the route. Colonial Beach has a gridded street network that is generally well connected with sidewalks. Figure 1-7 shows the route alignment of the Colonial Beach Trolley.

The Colonial Beach Trolley is a summer service in operation from Memorial Day through Labor Day. Regular service runs from 11:00 a.m. until 7:00 p.m. on Saturdays and Sundays; however, holiday weekends such as 4th of July, Memorial Day, and Labor Day weekends see service extended by one extra day. The Colonial Beach Trolley requires one bus to operate at 60-minute frequencies.

Figure 1-7 Colonial Beach Trolley Alignment

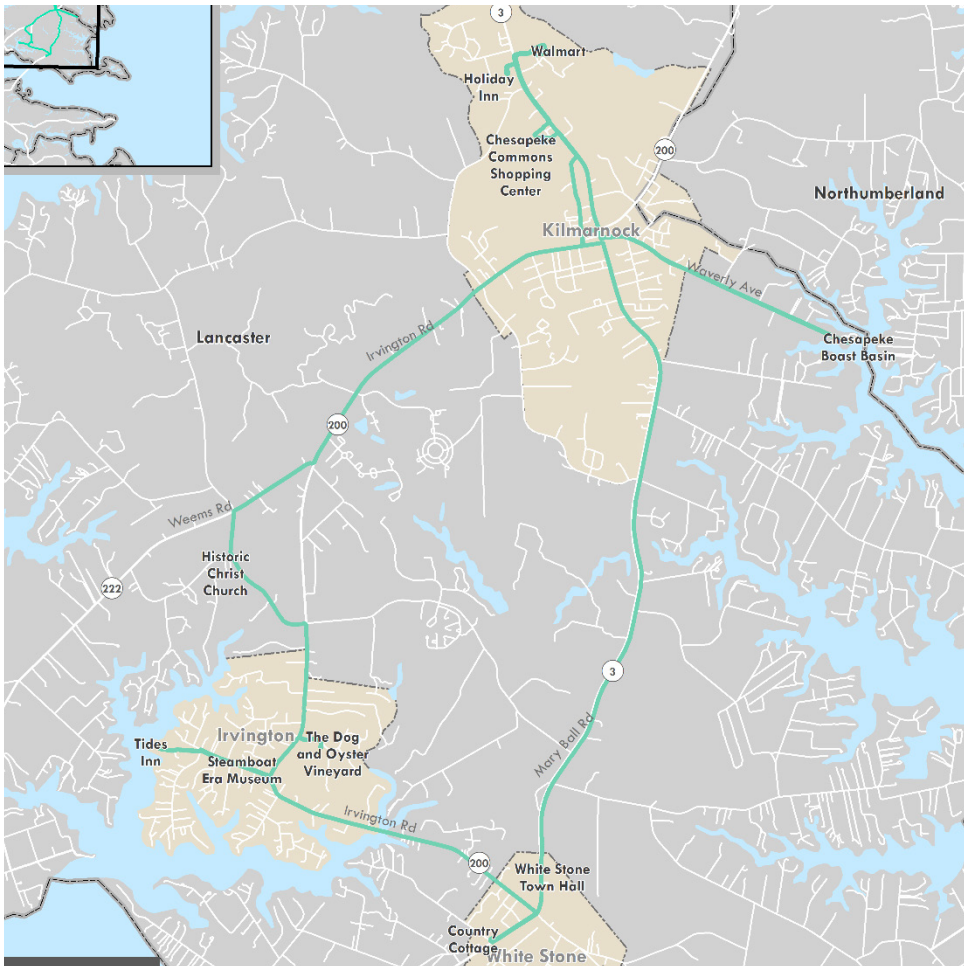


Kilmarnock Trolley

The towns of Kilmarnock, Irvington, and White Stone sponsor the Kilmarnock Trolley, with additional funding coming from DRPT. Figure 1-8 shows the alignment, which begins on North Main Street in Kilmarnock, and travels south to Irvington and then White Stone, before returning to Kilmarnock in a large loop configuration. Sidewalks exist in nearly all major stop locations in each of the towns, although the northernmost stops in Kilmarnock (the Holiday Inn Express and Walmart), are not well connected to the sidewalk system.

Service for the trolley starts in late May and runs until the beginning of October, operating on Fridays from 4:00 p.m. to 10:00 p.m. and Saturdays from 10:00 a.m. to 10:00 p.m. The Kilmarnock Trolley requires one bus to operate at 60-minute frequencies.

Figure 1-8 Kilmarnock Trolley Alignment

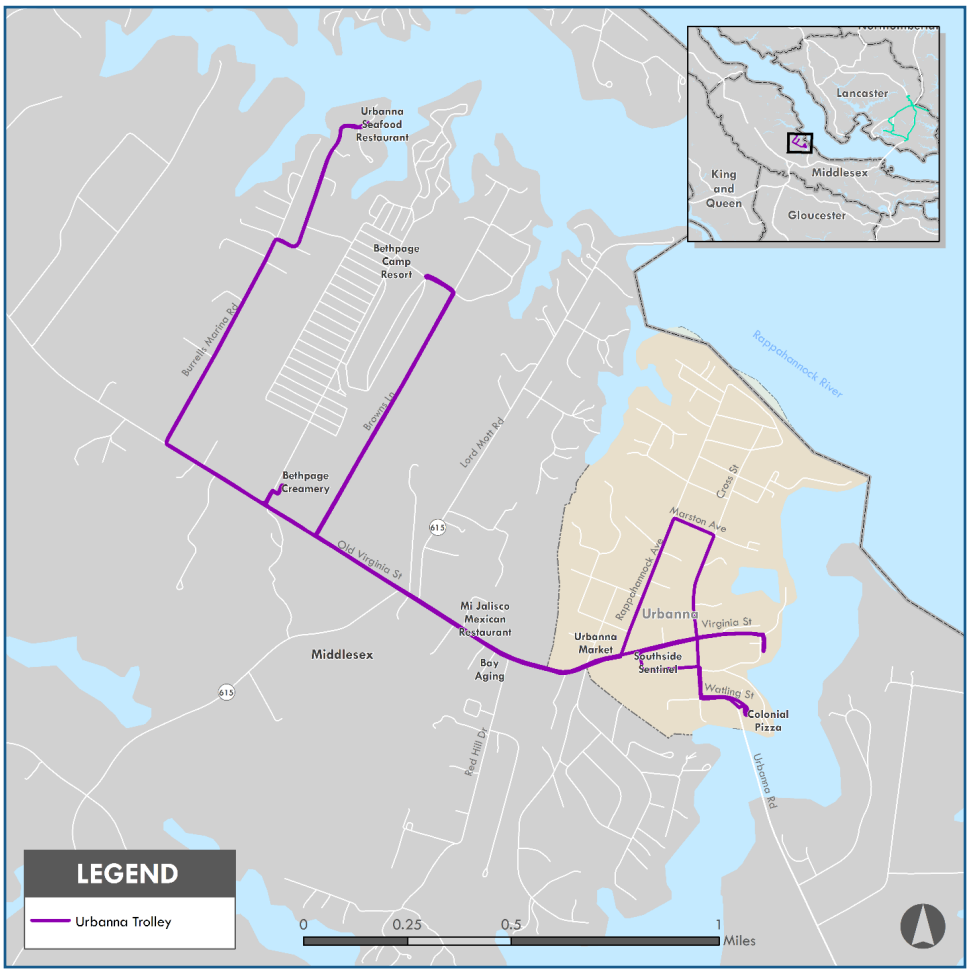


Urbanna Trolley

The Urbanna Trolley is funded by the town of Urbanna and DRPT. This route is tailored for visitors, connecting the large tourist population at the Bethpage Camp Resort to the town of Urbanna in Middlesex, VA. Alignment of the route is shown in Figure 1-9. There are no bicycle accommodations present for this route and no sidewalks present connecting the Camp Resort to the town center. The central street of Urbanna and Virginia Street have sidewalks on both sides of the street providing some pedestrian connectivity to the trolley stops.

Annual service runs from Memorial Day to Labor Day, with holiday hours during the weekends as well as the July 4th weekend. The trolley operates on Thursdays from 12:00 p.m. to 10:00 p.m., on Fridays from 5:00 p.m. to 10:00 p.m., and Saturdays from 10:00 a.m. to 10:00 p.m. The Urbanna Trolley requires one bus to operate at 30-minute frequencies.

Figure 1-9 Urbanna Trolley Alignment



1.5 FARE STRUCTURE

The base fare for Bay Transit's demand-response service costs $2.00 for a single ride, which increased from $1.00 in October 2013. However, several exceptions for the purchase price exist, shown in Table 1-3. Booklets of tickets are available for purchase, at the discounted price of $12.00 for 10 tickets ($8.00 in Colonial Beach). A monthly pass is available in Dahlgren for $60.00. The deviated fixed-route and seasonal trolleys all cost $0.50 per ride. Transfers among the Bay Transit routes incur no additional cost to the rider.

Table 1-3. Bay Transit Single Ride Fares

Service Type	Location	Price
Demand-Response	Base Fare	$2.00
	Colonial Beach	$1.00
	Dahlgren	$3.00
	Spotsylvania Mall (from Colonial Beach	$4.00
	New Kent/Charles City to Williamsburg or Richmond	$0.50
	West Point (around town)	$0.50
	New Freedom Mobility Management (0-50 mile trip)	$5.00
	New Freedom Mobility Management (51-90 mile trip)	$10.00
Deviated Fixed-Route	Courthouse Circulator	$0.50
	Neck Connect	$0.50
	Rivah Ride	$0.50
	West Point	$0.50
Seasonal Trolley	Colonial Beach Trolley	$0.50
	Kilmarnock Trolley	$0.50
	Urbanna Trolley	$0.50

1.6 FLEET

A fleet inventory shows that Bay Transit currently owns a total of 62 vehicles. The composition of the fleet reflects the agencies emphasis on demand-response service, which owns a total of 53 vans, three 30-foot buses, and six sedan/station wagons. The maximum pullout needs of Bay Transit are 36 vehicles (inclusive of the new Tappahannock route), and most years the total number of revenue vehicles is around 42 to 44 buses, resulting in a relatively high number of spare vehicles. The high spare ratio is considered a necessity because of the large service area and long distances that vehicles must travel. Table 1-4 shows the age of the fleet while Appendix A provides additional details on the fleet makeup such as vehicle make and model, manufacture date, Federal Transit Administration (FTA) code, and purchase date. It should be noted that six of the vehicles listed were planned for a late 2015 retirement.

Table 1-4. Vehicles and Year Manufactured

Year Manufactured	Vehicle Count
1986	1
2000	1
2003	4
2006	1
2008	2
2009	4
2010	17
2012	9
2014	13
2015	10

1.7 EXISTING FACILITIES

Bay Transit has recently constructed two major facilities where administration, operations, dispatch, and maintenance are housed. In 2010, an 11,000 square-foot operations and maintenance facility opened in Commerce Park, Warsaw. This facility was designed to handle operations and dispatch, and includes a fleet maintenance shop with two vehicle bays. Bay Transit's newest location is the Middle Peninsula Regional Transit Facility in the Gloucester Courthouse Area, which opened in early 2015. This two-story building is just under 20,000 square feet and includes space for operations and dispatching of the Middle Peninsula region and two vehicle bays for maintenance. Propane fueling occurs at both the Warsaw Office and the Gloucester Office. In addition to these facilities, Bay Transit has a smaller office in New Kent County. Several small properties for storing vehicles also are leased throughout the service area.

1.8 TRANSIT SECURITY PROGRAM

Since the previous Transit Development Plan (TDP) in 2009, Bay Transit has implemented several new security features to ensure a safe environment for employees and riders alike. Bay Transit is in the final stages of phasing out vehicles without onboard cameras, replacing them with vehicles that include four or six camera systems. In addition to onboard camera systems, each of the office buildings have camera systems enabled. Additional security will be provided by installing fences around each of the facilities once funding is available.

Fare inspection occurs on a daily basis via a fare reconciliation procedure. Fares are collected by the driver when riders board the vehicle. The driver is then responsible for reconciling the fares collected with the manifest. Fares are then checked again by the dispatcher before being locked into a lockbox. The fares are reconciled a third and final time the next day by a supervisor or designee and then submitted to the bank in a deposit slip by a second employee. Bay Transit requires that deposits occur daily, and signed by three different parties. Additional security measures will be outlined in an official system security and emergency preparedness plan, which will be completed in early 2016.

1.9 INTELLIGENT TRANSPORTATION SYSTEMS (ITS) PROGRAM

Bay Transit uses Intelligent Transportation Systems (ITS) purchased from RouteMatch– a transit technology company specializing in routing software. Specifically, Bay Transit takes advantage of the scheduling and dispatch software by RouteMatch, which can optimize the itineraries for demand-response vehicles. Bay Transit equips drivers with tablets that receive information from dispatchers on pick up locations as well as other information such as vehicle location and important safety updates. This technology has led to successful incident prevention in instances where weather has made roads and driveways hazardous. In addition to the on-board tablets, nearly all of the vehicles have added security through the on-board cameras discussed in the previous section.

Vehicle maintenance is managed by the Mitchel Maintenance Software system, which tracks and catalogs vehicle upkeep. The ITS advancements represent a significant step for Bay Transit, which is now one of the more technologically proficient rural transit agencies in the state.

1.10 DATA COLLECTION, RIDERSHIP AND REVENUE REPORTING METHODOLOGY

Bay Transit has a combination of manual and automated data collection and ridership reporting methods. For demand-response service, much of

the data collection is done through RouteMatch Software, keeping records of passengers and fares automatically. For deviated fixed-route and trolley services, data collection is accomplished manually by the drivers. Fares are collected in an on-board bank bag that is reconciled daily per the process outlined in Section 1.8.

1.11 PUBLIC OUTREACH

Bay Transit uses both public hearings and surveys as methods to gauge public opinion. Public hearings, however, are typically only used in the event of major system changes such as fare increases or significant increases or decreases in service. On-board surveys are conducted as needed, with the most recent surveys completed in January of 2014. These surveys have collected information from all 12 counties on on-time performance, scheduling, customer service, and overall rating of Bay Transit. The surveys also seek to gauge the interest in expansion of fixed-route services in each county, as well as any other suggestions and recommendations to the agency.

CHAPTER 2: GOALS, OBJECTIVES, AND STANDARDS

Bay Transit Mission Statement: We believe that every citizen must be assured accessible and safe transportation to the local destination of their choice without regard for disability, age, or economic status.

The above mission statement by Bay Transit is echoed through a series of defined goals, updated in each TDP to reflect the ongoing aspirations of the agency and current challenges. Where necessary, objectives are outlined as criteria for accomplishing each goal and to provide employees specific plans to maintain and improve a successful transit system.

2.1 GOALS AND OBJECTIVES

Goal 1: Provide reliable demand-responsive service and modified fixed-route service that meets the transportation needs for all residents of the Bay Transit service area. Ensure plans are coordinated with the Coordinated Human Services Mobility (CHSM) Team and integrated into the updated CHSM Plan.

Objective 1.1 Provide transit service connections between residential areas, commercial areas with jobs, education, shopping, and medical services. This objective is to be accomplished through the following minimum activities:

- Meet with the board of supervisors and administrator of each county at least annually to discuss current services and transit needs.

Around town service in Colonial Beach was recently expanded to 5 days a week. In 2014, Bay Transit met with local businesses in the Tappahannock area of Essex County to discuss the viability of a deviated fixed-route service around the town of Tappahannock. The town of Tappahannock contributes a local match to help fund the deviated fixed-route service that began in late 2015.

Objective 1.2 Provide easily identifiable stop locations along routes and passenger shelters, if warranted. This objective is to be accomplished through the following minimum activities:

- Consider passenger shelters based on the demand for the deviated fixed-route services.

The current transfer or fixed stops include: Walmart locations in Gloucester, Kilmarnock, Tappahannock & Williamsburg; Hardees locations in West Point and Warsaw; Rappahannock Community College (RCC) Campuses in Warsaw and Glenns; and Watts Store in Central Garage. In Williamsburg additional stops are Target on Monticello, Sentara Hospital, and Premium Outlets. Stop locations are coordinated with businesses/educational facilities to allow riders to wait for bus arrivals inside the business/educational facilities.

Goal 2: Market existing transit services through outreach efforts and coordination with mobility management information sharing activities.

Objective 2.1 Actively market transit services as a viable travel option within the entire Bay Transit service area. This objective is to be accomplished through the following minimum activities:

- Participate with the state's "Try Transit Week".
- Participate in community events, parades, and expos or network opportunities.
- Advertise in newspapers, radio, and in local chamber of commerce publications.
- Be actively involved in county resource councils and local chambers of commerce.
- Insert flyers in town utility bills; display brochures at VEC, Department of Social Services (DSS), and other local service centers.

The "Seniors on the Go" program offers training and support for senior citizens on how to ride Bay Transit and how to schedule rides. Outreach staff met with multiple church and senior center groups during the year and has participated in health and disability fairs. The Bay Transit web site (www.baytransit.org) has been reconstructed to be more user-friendly and interactive. It is currently getting about 50 visits per day. Transit services are shared with CHSM members, including area human services providers, planning commissions, and TDM programs. Contact information is maintained for members of county

resource councils, chambers of commerce, directors of local DSS offices, and county administrators.

Objective 2.2 Explore potential demand to expand hours of operation and/or cost-effective transit service to areas outside of the current 12-county Bay Transit service area. This objective is to be accomplished through the following minimum activities:

- Reevaluate extended services offered to Williamsburg, Richmond, Dahlgren, and Fredericksburg

Goal 3: Deliver modified fixed-route and demand-responsive services in a cost-effective manner.

Objective 3.1 Maintain a system-wide farebox recovery ratio (farebox revenue/total operating expenses) that meets or exceeds standards identified in Section 2.2. This objective is to be accomplished through the following minimum activities:

- Record and monitor trends in passenger trips by route and county service area.
- Record and monitor monthly transit operations expenses and farebox revenues.

Current farebox ratio is seven percent. Fare increases were implemented in October 2013 to help improve the farebox recovery ratio. Bay Transit saw an increase in farebox recovery but a decrease in overall ridership for FY 14.

Objective 3.2 Hold administrative costs to approximately 20 percent of total operating budget. This objective is to be accomplished through the following minimum activities:

- Continue to record and monitor monthly transit operations expenses and farebox revenues.

The current administration ratio is approximately 25 percent.

Objective 3.3 Achieve system-wide demand-responsive and modified fixed-route ridership levels that meet or exceed standards identified in Section 2.2. This objective is to be accomplished through the following minimum activities:

- Maintain and report monthly and year-to-date ridership and non-accommodations numbers to each county administrator for each service area. These numbers are used to evaluate service improvement opportunities.

Scheduling and dispatch software has been installed to improve scheduling efficiency, decrease unnecessary mileage, reduce no-shows, increase ridership, and improve data collection procedures. FY14 ridership for demand-responsive services is 1.91 passengers per revenue hour.

Goal 4. Deliver modified fixed-route and demand-responsive services in a safe manner.

Objective 4.1 Ensure that transit service operators maintain a preventable accident rate less than the standard identified in Section 2.2 of the TDP. This objective is to be accomplished through the following minimum activities:

- Continue the paratransit training curriculum that was introduced in 2014. It has proven to be very effective.
- Continue to track vehicles, incidents, accidents, and unsafe driving practices by the on board cameras, global positioning systems (GPS), and telemetry technology.

Almost twice as many drivers received safety awards this year than last. All new drivers are required to complete a 48-hour para-transit driver training and 24 hours of on-board training with a seasoned driver. All drivers must attend quarterly safety training meetings. Remedial training is required as needed on an individual basis.

Objective 4.2 Ensure that an adequate fleet of vehicles is maintained for demand-responsive services. This objective is to be accomplished through the following minimum activities:

- Continue to monitor new and improved procedures that have been implemented to assure that maintenance is completed according to DRPT and FTA standards.
- Maintain a spare vehicle ratio of no less than 10 percent for the total number of vehicles for each service area.

Vehicles are inspected daily by the driver at the beginning of each shift. Repairs are monitored and tracked to assure the vehicles are kept in optimal operating condition. The fleet manager/mechanic

and maintenance administrator maintain all records necessary to identify any vehicle that has met its useful life, following the standards of DRPT and the FTA.

Goal 5: Provide transit services that are accessible to citizens.

Objective 5.1 Provide transit services that are accessible to all population groups within the 12-county Bay Transit service area. This objective is to be accomplished through the following minimum activities:

- Maintain driver training for compliance with ADA requirements.

All public transit buses are equipped with wheelchair lifts and equipment necessary to accommodate riders with special needs. All drivers are trained for compliance with ADA service requirements.

2.2 SERVICE PERFORMANCE STANDARDS

This TDP work effort has identified the following service standards to be monitored on a monthly basis by Bay Transit administrative staff.

Ridership Service Productivity Measures

The following system-wide service standards are proposed based on a review of ridership characteristics during the past several months:

Modified Fixed-Route Standard – monthly system-wide fixed-route ridership should maintain levels equivalent to 1.40 passenger trips per revenue hour.

Demand-Response Standard – Monthly demand-response service should maintain ridership levels equivalent to 2.0 passenger trips per revenue-hour for average one-way ride times not exceeding 50 minutes. Monthly demand-response service should maintain ridership levels equivalent to 1.5 passenger trips per revenue-hour for average one-way ride times exceeding 50 minutes. Corrective measures should be investigated if ridership on Bay Transit's services fall below the levels identified above for a period of three consecutive months.

Cost-Effectiveness Measures

Fixed-Route Standard – Bay Transit's farebox recovery ratio (farebox revenues as a percentage of operating expenses) for fixed-route services shall remain at approximately two percent. Corrective measures should be investigated if the farebox recovery ratio falls below this standard for three consecutive months.

Demand-Response Standard – Bay Transit's farebox recovery ratio for demand-response service should remain within the range of five to eight percent. Corrective measures should be investigated if these thresholds are not met for three consecutive months.

Vehicle Maintenance Performance Measures

The following two standards shall be monitored with regards to vehicle maintenance performance:

Bus Preventive Maintenance Inspections – Preventive maintenance shall be conducted on all vehicles in the transit fleet per the vehicle manufacturer recommendations.

Revenue Vehicle Failures – Bay Transit should maintain a standard of no more than 0.15 revenue vehicle failures per 1,000 revenue bus-miles of service.

Vehicle Preventable Accident Rate Measures

For the purpose of service performance standards, a preventable accident is defined as physical contact of the transit vehicle with a person or object causing $1,000 or greater in total damage and/or injury requiring medical transport with fault being placed upon the transit vehicle driver. The following standards shall be monitored with regards to driver safety performance:

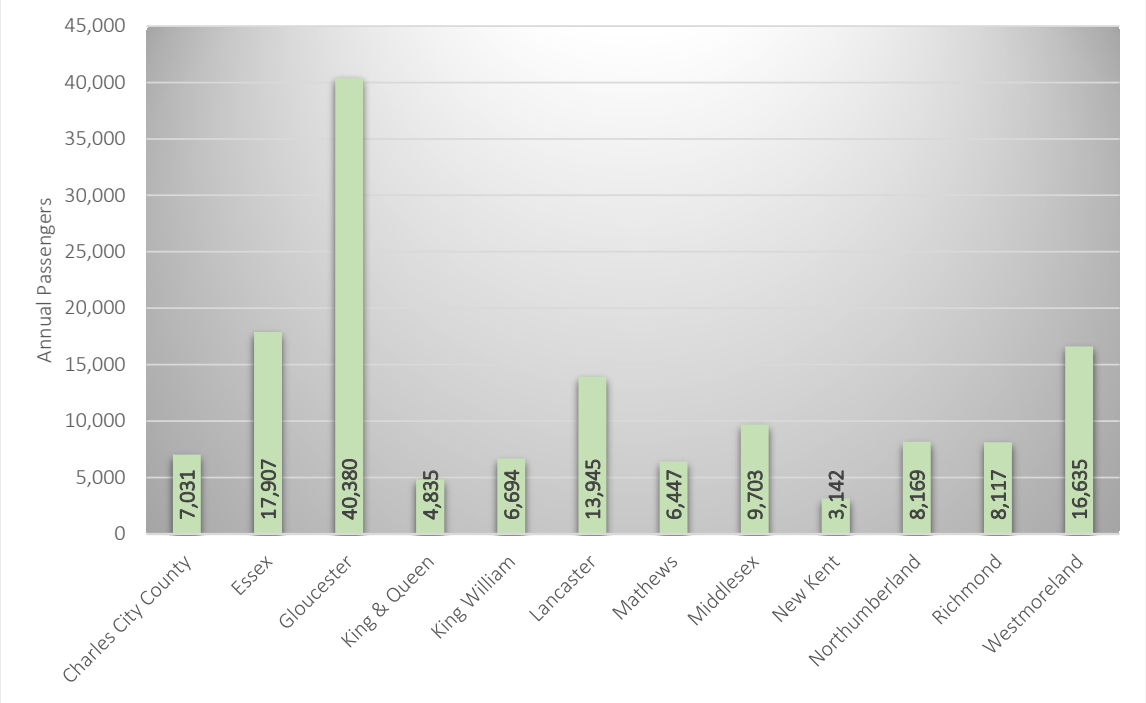
- The preventable accidents per 100,000 vehicle revenue miles is less than the running average during the previous three fiscal years
- The preventable accidents per 10,000 vehicle revenue hours is less than the running average during the previous three fiscal years
- The preventable accidents per 10,000 passenger trips is less than the running average during the previous three fiscal years

CHAPTER 3: SERVICE AND SYSTEM EVALUATION

3.1 EXISTING AND HISTORICAL SERVICE ANALYSIS

The Bay Transit service area includes 12 counties covering 2,664 square miles in eastern Virginia. With a rural population of only 167,855 distributed throughout the large service area, the population density averages to 65 people per square mile. Much of the service area is rural in nature, and relies on demand-response vehicles for service. The ridership from each of the 12 counties for FY 2015 is shown in Figure 3-1. Additionally, Figure 3-2 shows ridership by county cartographically. Gloucester County has the largest ridership numbers by a wide margin, with 40,380 riders representing 28.2 percent of the total system ridership in 2015. The next highest ridership comes from Essex County with 17,907, followed by Lancaster with 13,945. Counties/towns with the lowest ridership are West Point (2,467), followed by New Kent (3,142), and King William (4,227).

Figure 3-1 FY 2015 Bay Transit Ridership



The demand-response and deviated fixed-route/ trolley services' annual totals from FY 2012 through FY 2014 are shown in Figure 3-3. Annual ridership has decreased 2 years in a row, with a loss of 4,553 from FY 2012 to FY 2013, and a loss of 16,304 from FY 2013 to FY 2014. The cause for a large drop in ridership from FY 2013 to FY 2014 is most likely from the increase in standard fare costs from $1.00 per ride to $2.00 per ride that was implemented in October 2013, which was the start of FY 2014. Overall, from FY 2012 to FY 2014, ridership has fallen 12.7 percent, totaling 20,857 riders.

Figure 3-2 FY 2015 Bay Transit Ridership by County

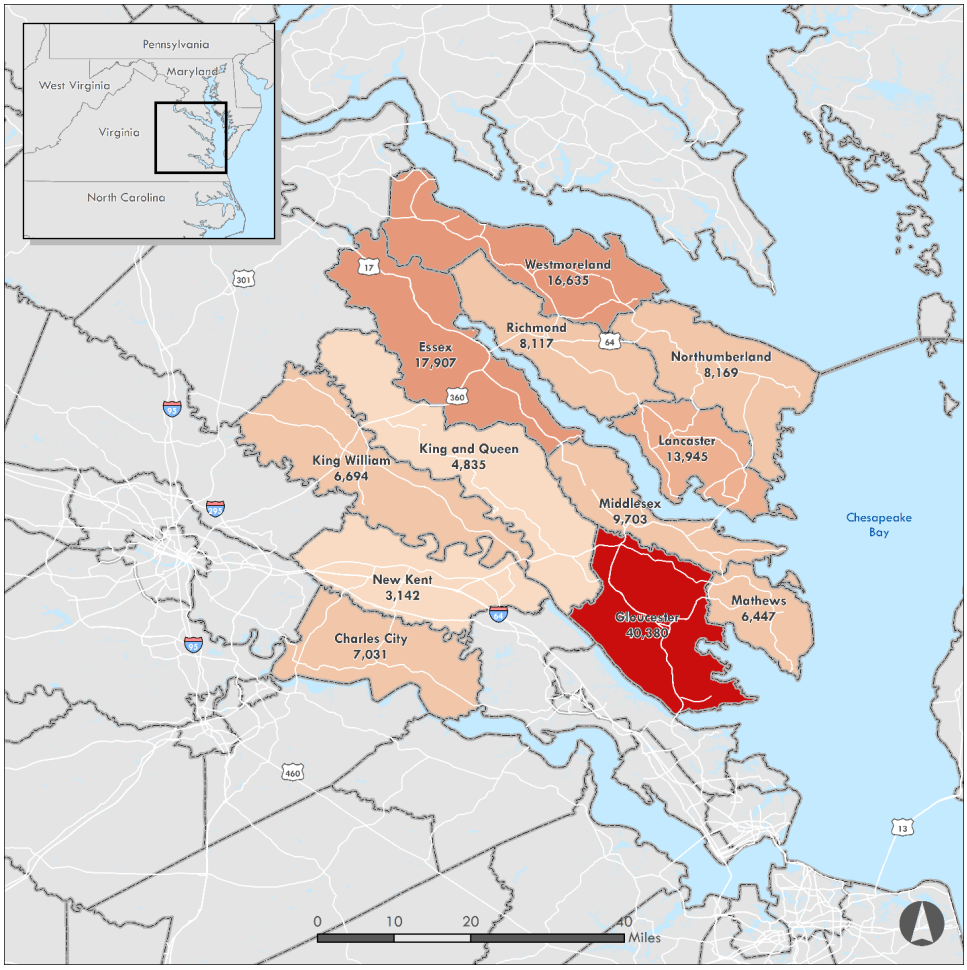
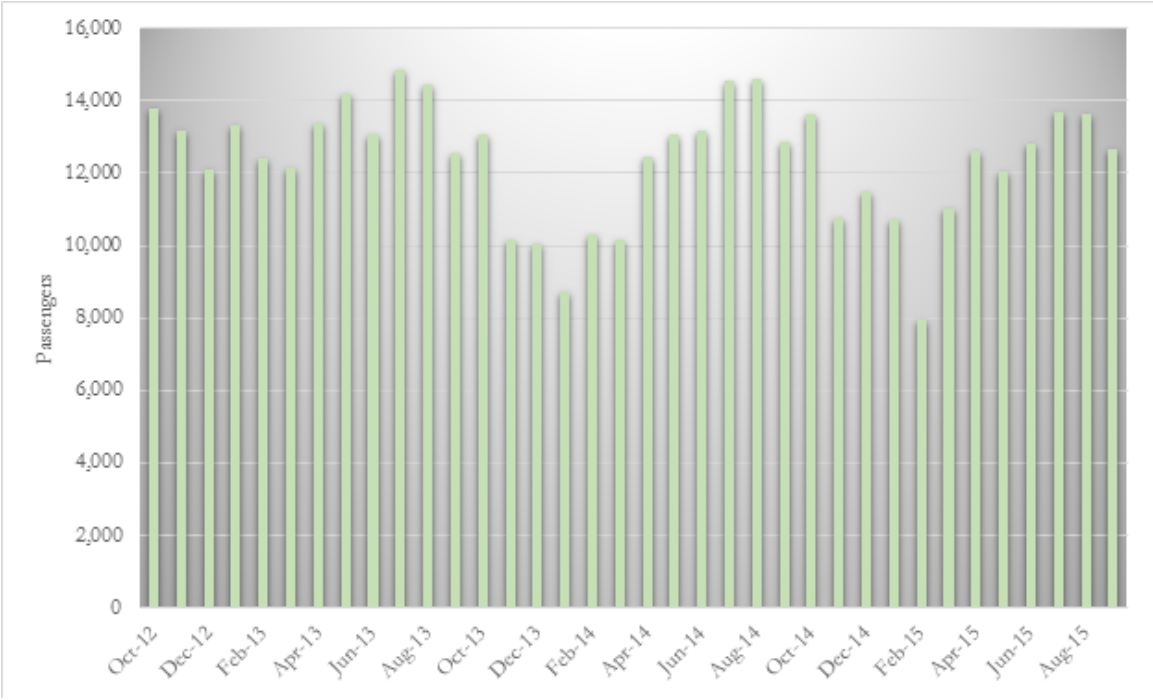


Figure 3-3 Bay Transit Annual Ridership

Monthly ridership for the entire system from fiscal year 2013 through 2015 is presented in Figure 3-4, showing the cyclical nature throughout the year. In all three fiscal years, the lowest ridership occurs in the winter months, (December 2012, January 2014, and February 2015). Ridership increases into the spring months, and culminates with the highest ridership in the summer months of July and August. The ridership low in each year declines year after year, with the lowest point in all three years occurring in February of 2015. The highest ridership months also continue to decline, seen with the slight decrease of peaks in Figure 3-4 from a high of 14,859 in 2013, to 14,614 in August 2014, and finally 13,680 in July 2015. Out of the 36 months in the monthly ridership analysis, the lowest 11 months in terms of ridership all occurred in either FY 2014 or FY 2015.

Figure 3-4 Bay Transit Monthly Ridership



In addition to ridership, Bay Transit maintains records of operating costs and miles, enabling the calculation of performance metrics for longitudinal analysis. At the time of writing of this TDP, some performance metrics were not finalized, and therefore the fiscal years 2012, 2013 and 2014 are shown below in Table 3-1.

From FY 2012 through FY 2014, the number of revenue miles and revenue hours decreased each year. In the case of a service that is primarily demand-response, the decreased number of revenue miles and revenue hours is directly linked to the decreased passengers. To account for the decreased passengers, the passengers per revenue mile and passenger per revenue hour are also shown in Table 3-1. The passengers per revenue mile increased from 0.10 to 0.13 during the study period. This indicated that an appropriate drop in service coincided with the decreased ridership, leading to an overall more efficient system. A similar increase in efficiency is shown in the passenger per revenue hour metric, which actually increased each year for a total of 18 percent greater efficiency throughout the study period.

Table 3-1 Passenger-based operating Statistics for Bay Transit FY 2012 – FY 2014

Route	FY 2012	FY 2013	FY 2014	3 Year % Change
Annual Passenger Trips	164,027	159,474	143,170	-13%
Annual Revenue Miles	1,680,165	1,609,244	1,134,900	-32%
Annual Revenue Hours	74,522	73,161	55,130	-26%
Passengers per Revenue Mile	0.10	0.10	0.13	29%
Passengers per Revenue Hour	2.20	2.18	2.60	18%

The increased efficiency in passengers per service metric is not apparent in the cost measures. Table 3-2 shows the operating costs adjusted to reflect the first half of 2015 inflation values calculated by referencing the Bureau of Labor Statistics Consumer Price Index. The total operating costs for the system decreased each year for a 3-year decrease of five percent. To account for the ridership, which also was decreasing, the cost per passenger trip reveals a marginal increase of nine percent. This indicates that although the ridership decreased each year, the operating costs have adjusted to the reduced service. Conversely, the cost per revenue hour and revenue mile show the opposite trend, where the costs have risen by 41 percent and 29 percent, respectively. The greatest changes in the cost-based statistics occur with the fare revenue, also shown in Table 3-2. The fare revenue increased by $69,690 during the 3-year study period, an increase of 53 percent. This large increase in fare revenue occurred because of the fare cost increase at the beginning of FY 2014, when fares increased from $1.00 per passenger up to $2.00. Moreover, the farebox recovery ratio, which shows the percentage of the operating costs that are being paid by the fares, increased from 4.62 percent up to 7.44 percent.

Table 3-2 Cost-based operating Statistics for Bay Transit FY 2012 – FY 2014

Route	FY 2012	FY 2013	FY 2014	3-Year % Change
Annual Operating Costs	$2,828,607	$2,779,462	$2,690,880	-5%
Cost per Passenger Trip	$17.24	$17.43	$18.79	9%
Cost per Revenue Mile	$1.68	$1.73	$2.37	41%
Cost per Revenue Hour	$37.96	$37.99	$48.81	29%
Fare Revenue	$130,549	$139,078	$200,239	53%
Farebox Recovery Ratio	4.62%	5.00%	7.44%	61%

- *Operating costs are adjusted by consumer price index inflation values to reflect the first half of 2015 values.*

3.2 PEER REVIEW ANALYSIS

In addition to a retrospective analysis, a peer analysis can be used to evaluate the performance of a transit system in terms of service and financial efficiency. In this effort, the previous TDP of Bay Transit used data from Four County Transit, Mountain Empire Transit (MEOC), and JAUNT. These systems were chosen based on their similarity to Bay Transit in size and service characteristics. Additionally, the peer review was restricted to systems in the state of Virginia. This was done to control for the state-specific funding rules and procedures that may affect the financial and operational metrics used in this section. As Bay Transit is primarily a demand-response system, only transit systems that are either primarily or exclusively demand-response were considered. Another criterion used to select the peers was that the systems cover large, multi-county service areas. The procedure for determining a peer system remains consistent with

the method used in the previous TDP, resulting in the same set of peer systems in the 2016-2021 TDP. The use of the same set of peers enables a consistent historical documentation of the same set of systems for a greater temporal comparison.

The following sections are composed of discussions and figures regarding the service area, service supplied, ridership, and the cost efficiency of Bay Transit as well as comparisons to the aforementioned peer systems. While each system is unique, a comparison of these metrics can reveal areas where Bay Transit excels or lags behind. Table 3-3 shows a summary of these metrics, which will be discussed in further detail in the following sections.

Table 3-3. Peer Comparison of Service-based Statistics in FY 2014

Operating Statistics	MEOC	Four County Transit	JAUNT	Peer Average	Bay Transit
Service Area Population	91,301	109,889	274,326	158,505	167,267
Service Area Population Density	66	60	90	72	63
Annual Revenue Miles	925,155	885,671	2,165,263	1,325,363	1,134,900
Annual Revenue Hours	53,634	41,574	111,543	68,917	55,130
Annual Passenger Trips	68,301	158,216	150,525	125,681	143,170
Passengers per Revenue Mile	0.07	0.18	0.07	0.11	0.13
Passengers per Revenue Hour	1.27	3.81	1.35	2.14	2.60
Revenue Miles per Capita	10.13	8.06	7.89	8.36	6.78
Revenue Hours per Capita	0.59	0.38	0.41	0.43	0.33

Service Area

Despite the effort to identify peers with similar attributes, some notable differences occur between systems. Of the peer systems, MEOC and Four County Transit are much smaller in population than JAUNT, shown in Figure 3-5. The service area for MEOC and Four County Transit are smaller as well, so the population density is similar to Bay Transit. The peer average of the service area population also is very similar to Bay Transit, both in volume and density.

Figure 3-5. Peer Comparison of Population

Service Supplied

The revenue miles and revenue hours per capita show that Bay Transit is running less service than any of the peers relative to the service area population, depicted in Figures 3-6 and 3-7. This is indicative of the challenge of operating within a large service area, such as Bay Transit's. Figures 3-8 and 3-9 show this relationship more directly, with the revenue hours and revenue miles per square mile of service area. Bay Transit has the lowest values using these metrics relative to the peer systems. These figures underscore the difficulty of serving such a large service area, even when compared to similar rural systems.

Figure 3-6. Peer Comparison of Revenue Hours per Capita

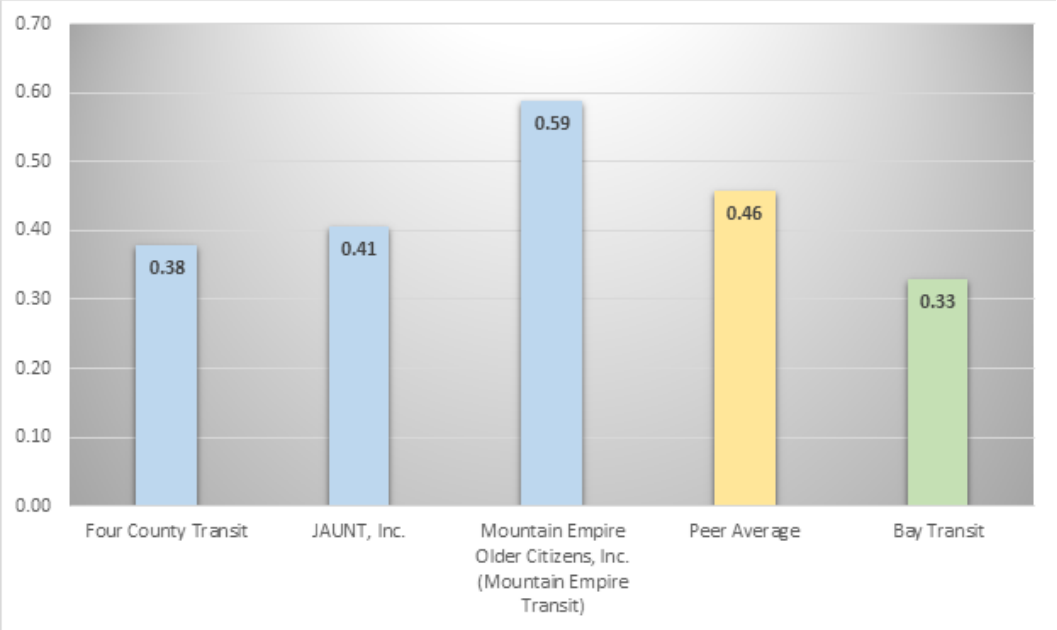


Figure 3-7. Peer Comparison of Revenue Miles per Capita

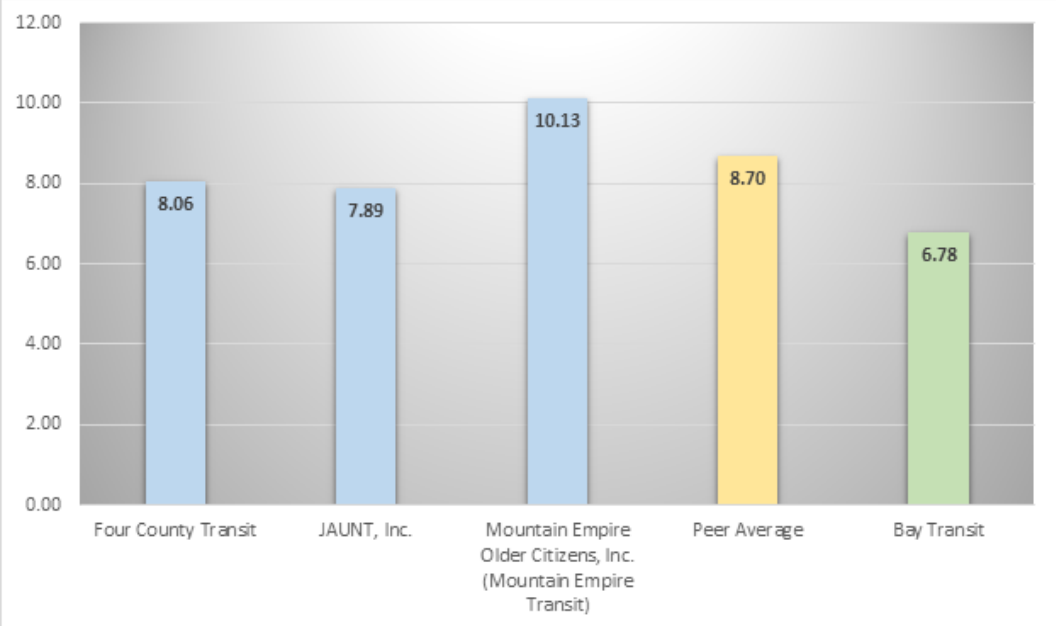


Figure 3-8. Peer Comparison of Revenue Hours per Square Mile of Service Area

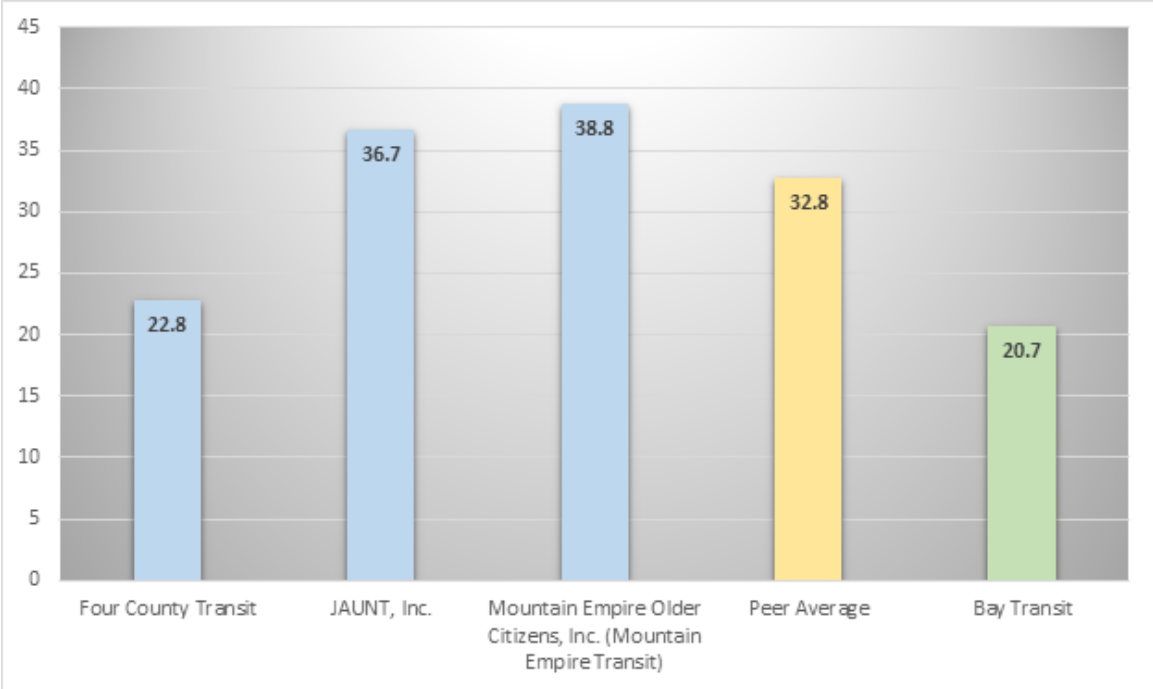
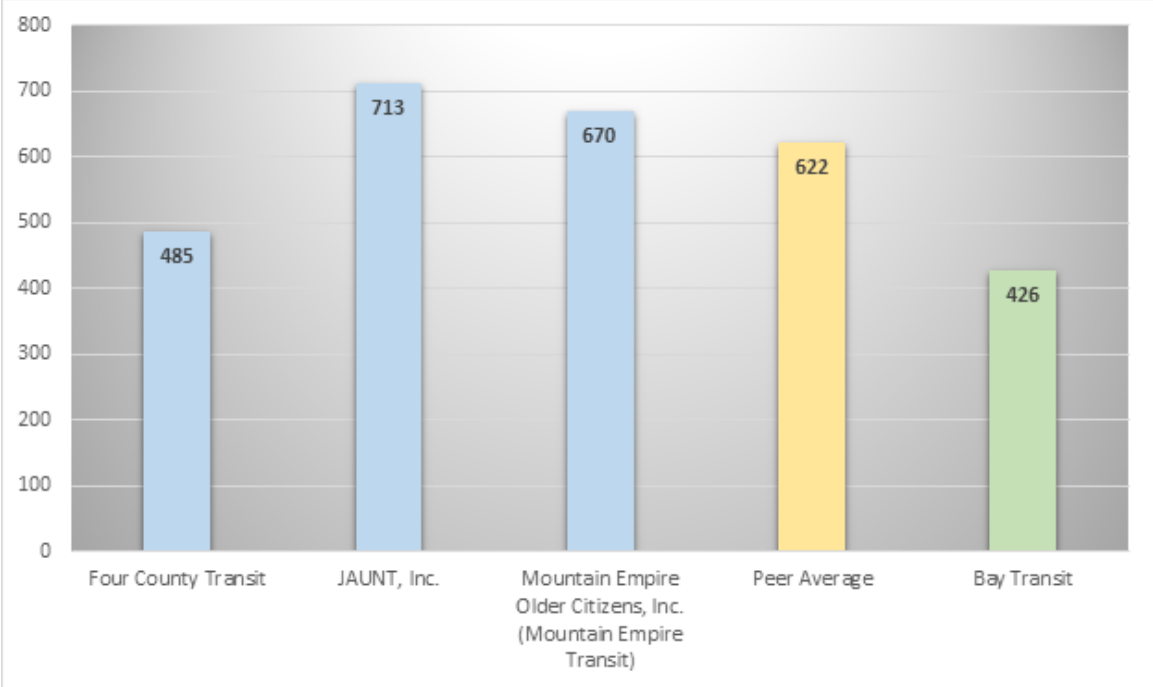


Figure 3-9. Peer Comparison of Revenue Miles per Square Mile of Service Area



Ridership

Bay Transit had more than 143,000 riders in FY 2014, which is 13.9% higher than the peer average annual trips of 126,000, shown earlier in Table 3-3. Figure 3-10 reveals ridership per capita among the peer systems, which shows that Bay Transit is within a normal range of number of riders compared to the total population. When considering how much service Bay Transit is running with the passengers per revenue mile and passengers per revenue hour metrics, Bay Transit is above average, shown in Figures 3-11 and 3-12. This indicates a relatively efficient operation in terms of riders per unit of service.

Figure 3-10. Peer Comparison of Passenger Trips per Capita

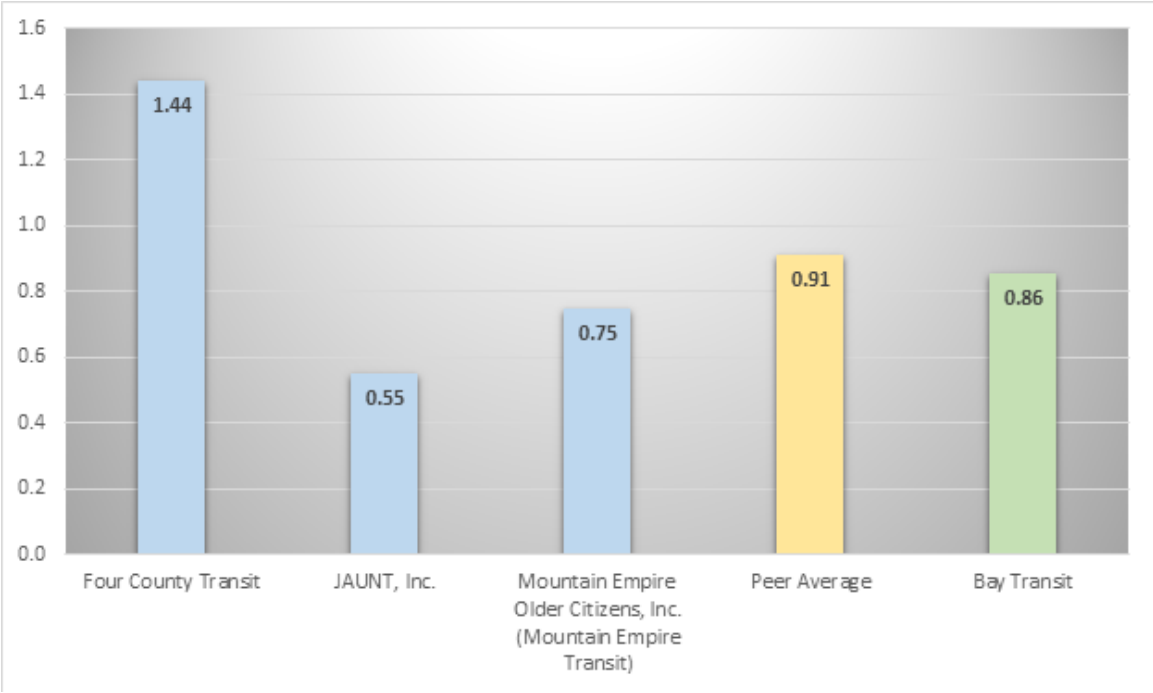


Figure 3-11. Peer Comparison of Passenger Trips per Revenue Hour

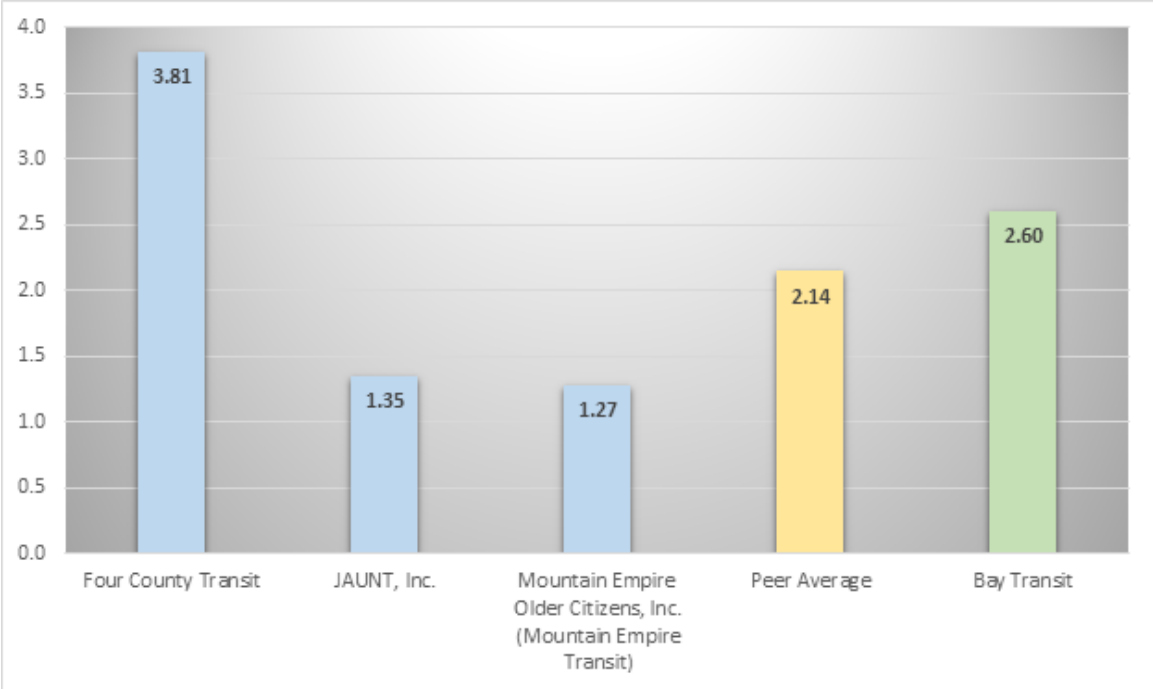
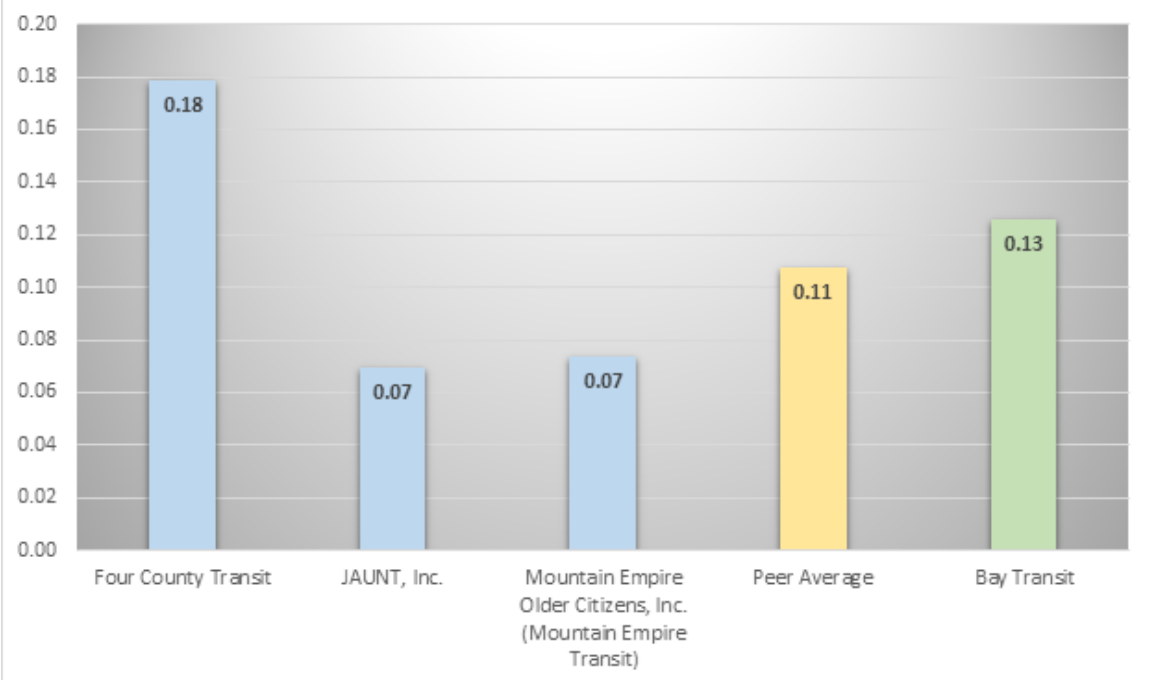


Figure 3-12. Peer Comparison of Passenger Trips per Revenue Mile



Cost Efficiency

The cost comparison using the same three peer systems is shown in Table 3-4. This table shows that again, MEOC and Four County Transit are considerably smaller than JAUNT, with the peer average being very close to Bay Transit's values. Four County Transit appears to have high ridership for the relative cost, so the cost per passenger is considerably lower than the other systems. Even with Four County Transit, Bay Transit has a favorable cost per passenger trip of $18.88, considering the peer average is $23.09. The cost per revenue mile and revenue hour at Bay Transit is slightly above the peer average of $2.03 and $39.30, respectively. In 2014, Bay Transit received a total of $197,813 in fares, comparable to the peer average. The disparity in farebox revenue among the peer systems, however, is very large. JAUNT collects more than 27 times as much fare revenue as Four County Transit, serving approximately the same number of people. The disparity occurs from the much higher fares at JAUNT than at Four County Transit, which is only $0.25 a ride. As discussed in Chapter 1, Bay Transit charges $2.00 per trip. Because of the FY 2014 increase in fares, Bay Transit increased its farebox recovery ratio, which stands at 7.44%, well above the peer average of 4.65%. Likewise, another benefit of the increased fares is the reduced subsidy per trip of $17.50, which also is below the peer average of $21.69.

Table 3-4 Peer Comparison of Cost-based Statistics

Operating Statistics	MEOC	Four County Transit	JAUNT	Peer Average	Bay Transit
Annual Operating Cost	$1,683,083	$1,691,991	$5,109,544	$2,828,206	$2,703,203
Cost per Passenger Trip	$24.64	$10.69	$33.94	$23.09	$18.88
Cost per Vehicle Revenue Mile	$1.82	$1.91	$2.36	$2.03	$2.38
Cost per Vehicle Revenue Hour	$31.38	$40.70	$45.81	$39.30	$49.03
Farebox Revenue	$48,523	$18,705	$509,623	$192,284	$197,813
Farebox Recovery Ratio	2.88%	1.11%	9.97%	4.65%	7.32%
Subsidy per Passenger Trip	$23.93	$10.58	$30.56	$21.69	$17.50

Figure 3-13. Peer Comparison of Operating Cost per Passenger Trip

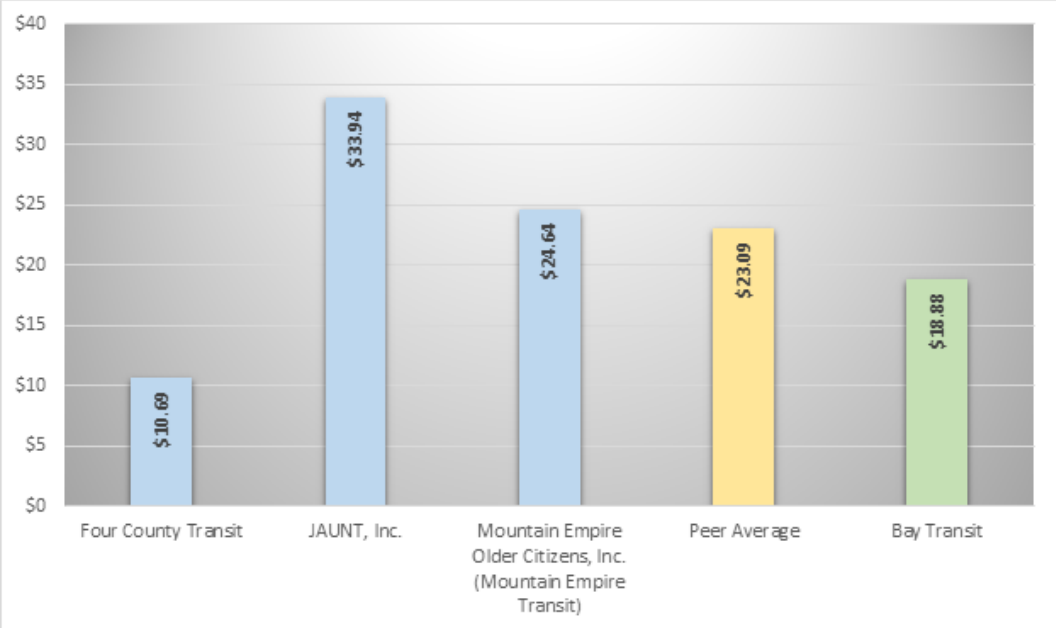


Figure 3-14. Peer Comparison of Operating Cost per Revenue Hour

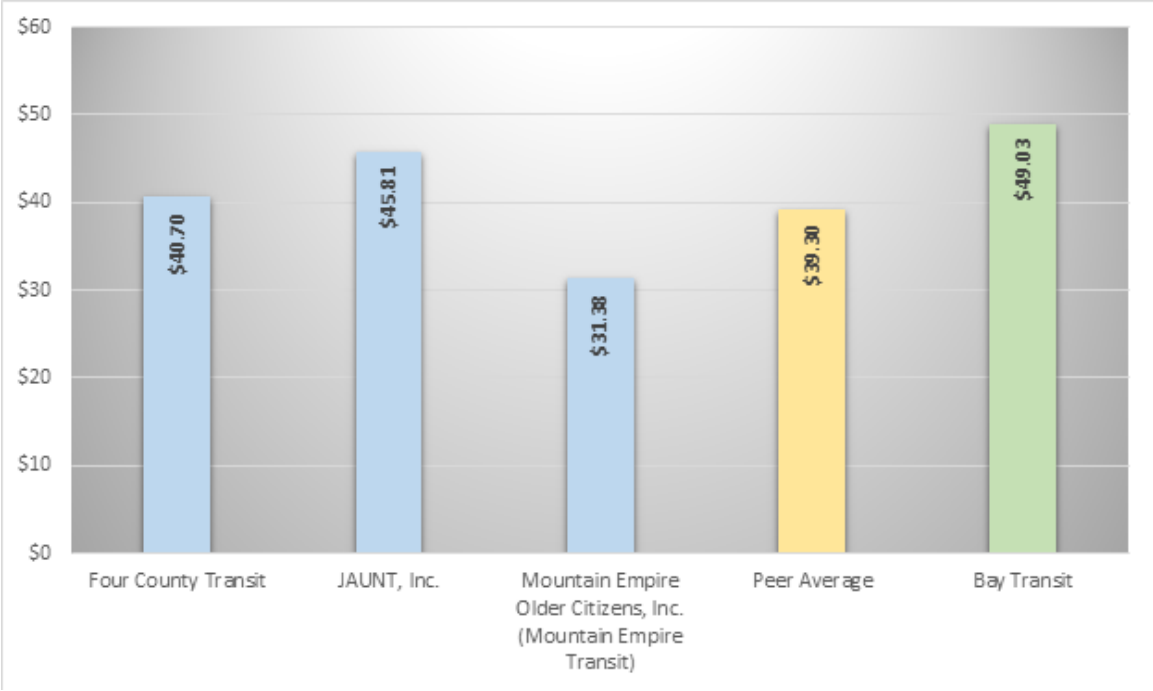


Figure 3-15. Peer Comparison of Operating Cost per Revenue Mile

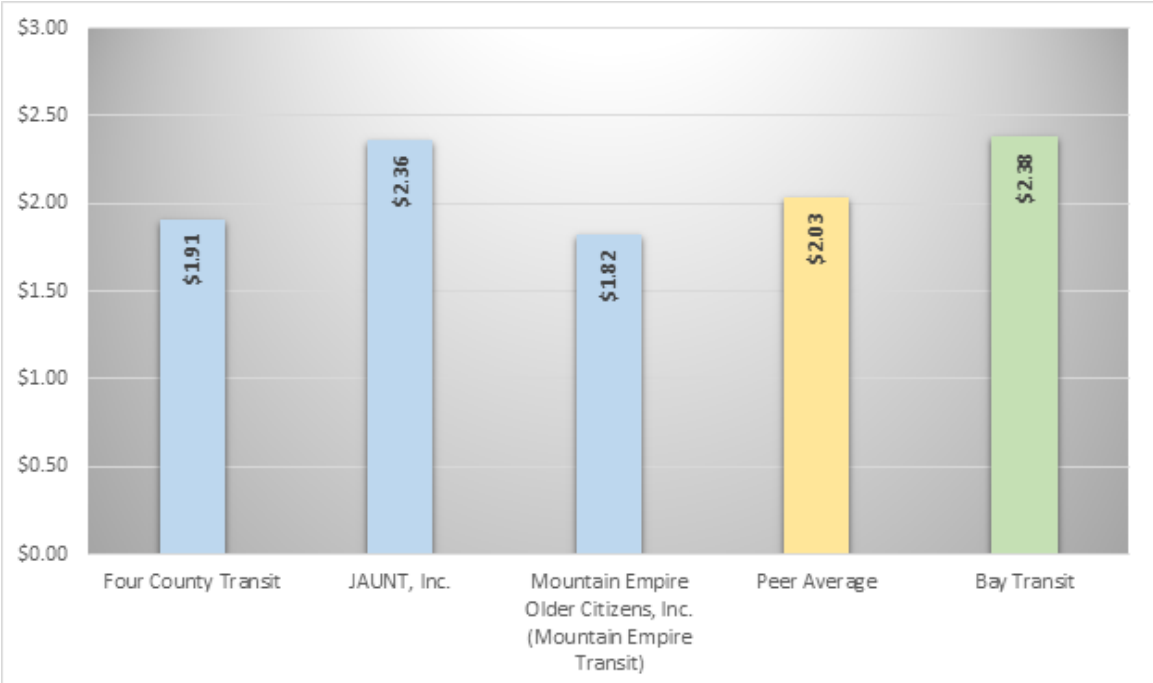


Figure 3-16. Peer Comparison of Farebox Recovery

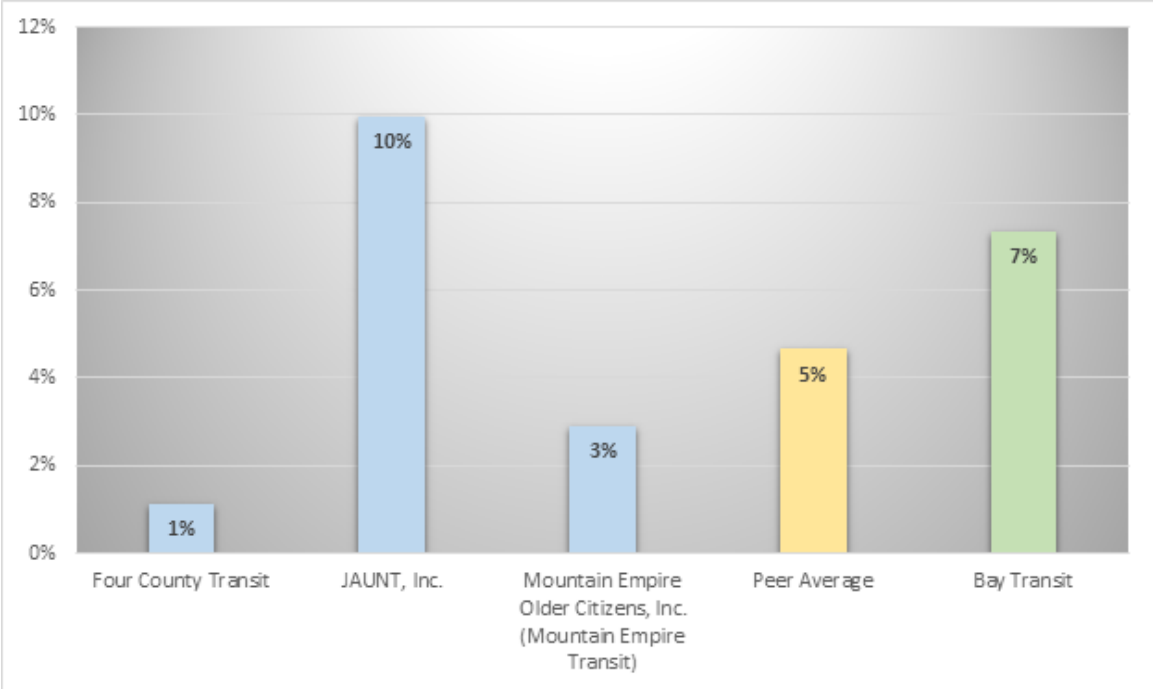
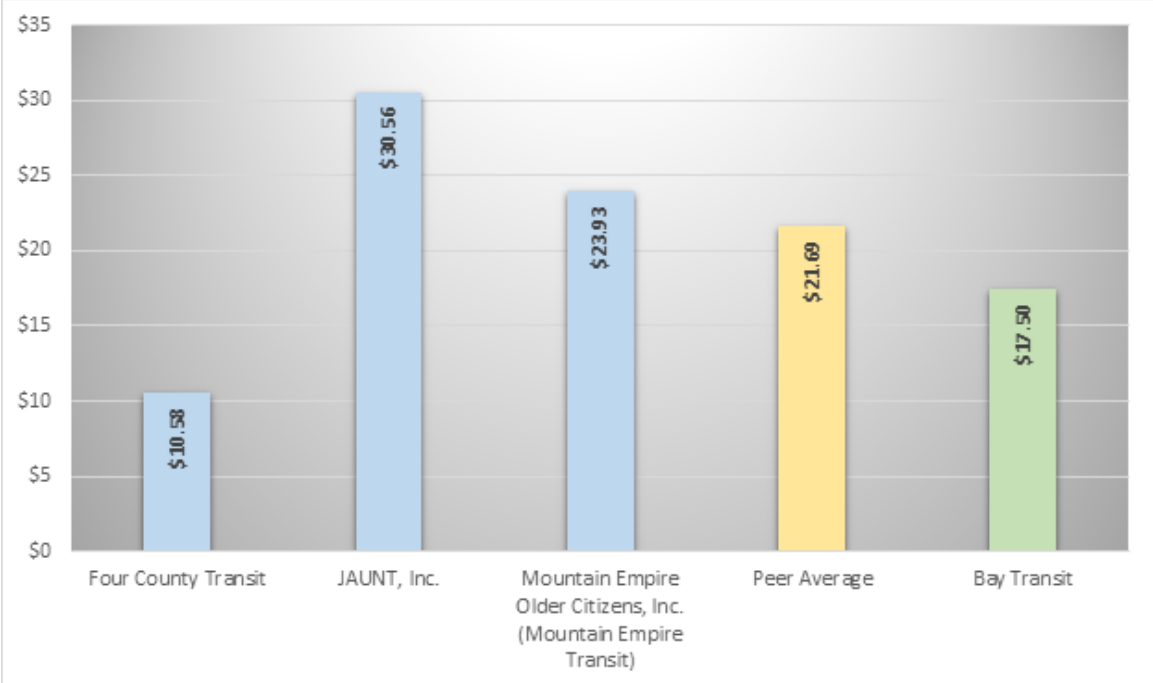


Figure 3-17. Peer Comparison of Subsidy per Passenger Trip



3.3 ON-BOARD SURVEY FINDINGS

An on-board survey of riders on the Courthouse Circulator was conducted on September 15, 2015, yielding a total of 10 respondents. Additional surveying was attempted on September 17, 2015 on the Neck Connect, but did not result in any respondents. Surveying on the Neck Connect on September 29, 2015 and October 7, 2015 resulted in five additional surveys to analyze, totaling 15 surveys. A summary of the riders follows below, with additional figures on ridership shown in Appendix B. It should be noted that the low ridership on the Neck Connect resulted in discontinuing the route in early 2016.

Passenger Demographics

- Gender: Roughly the same number of males and females were interviewed, with eight females and seven males
- Age: The most common age of the riders was from the 60 and older category (33 percent), followed by the 50-59 (27 percent), and the 20-29 (27 percent) groups. Nine of the 15 respondents were 50 or older. However, counter to the widespread misinterpretation that Bay Transit is primarily for the senior population in the region, a significant percentage (27 percent) of the passengers were from the 20-29 age category
- Race: The race of the respondents was either African-American or Caucasian, with roughly equal numbers of both (eight African-American and seven Caucasian)
- Education: More than half of the respondents preferred not to answer the question regarding educational attainment. Of the respondents that answered this question, however, equal numbers had graduated high school/GED or did not graduate high school. Only one person had some college education
- Income: Most of the respondents preferred not to answer the question on household annual income. The remaining six respondents indicated making either under $10,000 (four total), or $10,000 to $20,000 (two total)
- Frequency of Ridership: Nearly half of the respondents of the survey indicated that they use Bay Transit four or more days a week, representing a strong frequent ridership base. The next most common category was 2 to 3 days per week, which was indicated by five riders. Only three out of the 15 riders responded that they use the service 1 day a week
- Ridership Loyalty: The majority of riders (eight out of the 15 surveyed) have been riding for 1 to 2 years. Five of the respondents were relatively new to the service, and have been riding for less than a year. The categories for 3 to 5 years and more than 5 years of riding the service each had one person total

Trip Characteristics

- Trip Origin: Most of the respondents (53 percent) indicated that they had come from their home, with a total of 53 percent. The next most common response was shopping, with 27 percent. A small percentage of riders came from work or social activities, while no one came from the remaining survey options of school/college, medical/dental, service agency, or other
- Trip Destination: Destinations for riders were more diverse than origins. About one-third of the riders were traveling to a shopping destination, which was the most common response in the survey. The next most common response was the library, with 20 percent of the total surveys. The remaining surveys had a mix of responses for trip destination
- Transit Access: Nearly all of the Bay Transit riders walked to the bus, with 80 percent of the total. The only other mode of access was being dropped off, which occurred 20 percent of the time
- Scheduled Deviations: 40 percent of the total trips surveyed included a scheduled deviation from the normal route alignment, representing a large portion of ridership
- Reason for Riding: Nearly all of the riders surveyed (93 percent) were riding Bay Transit because they either do not own a vehicle or their vehicle was not available to them at that time

Service Rating

- Service: Bay Transit received very high ratings from the surveyed riders, with each of the eight service categories averaging 4.4 or greater on a scale of 1 to 5 (1 being very poor and 5 being very

good). The lowest average the agency received was on the hours of service, while the highest rated categories were cleanliness of buses and the courtesy and friendliness of bus drivers

- Recommended Improvements: The riders on Bay Transit were asked to respond to the importance of several potential service improvements including advance time required for appointments, hours of operation, and security on vehicles. Riders indicated that they would like to see less time required to schedule a trip as well as expanded hours/days of service. The security on the buses was rated as less important than the other categories. Although the small sample size of this survey limits the ability to draw large scale conclusions, these findings are validated by other sections of this TDP

3.4 DEMAND-RESPONSE ORIGINS AND DESTINATIONS

Data from Bay Transit's reservations and itinerary planning software was examined for a 1-month period (October 2015) to identify patterns in cross-jurisdictional travel. The results are shown in Table 3-5.

Table 3-5 Demand-Response Cross-Jurisdictional Trips (October 2015)

Origin	Caroline	Charles City	Colonial Beach	Essex	Fredricksburg	Gloucester	Hanover	Henrico	James City	King and Queen	King George	King William	Lancaster	Mathews	Middlesex	New Kent	Newport News	Northumberland	Richmond City	Richmond County	Spotsylvania	Stafford	Westmoreland	York	**Total**
Caroline																									**0**
Charles City																49								7	**56**
Colonial Beach					3						9									4	2		109		**127**
Essex	4						1			11		15	1							215			3		**250**
Fredricksburg			3								1										1		24		**29**
Gloucester				1					2	4		1	8	104	111		1		6		2				**240**
Hanover				1								2													**3**
Henrico														1		4									**5**
James City						2																			**2**
King and Queen				9		3						28			29		1		1						**71**
King George			7																				9		**16**
King William				13		1	2			26					6	3		1	1	1				1	**55**
Lancaster				1		8									36			144		45					**234**
Mathews						107		1									1								**109**
Middlesex						125				17		10	54			1	1		1						**209**
New Kent		56						3				4			1										**64**
Newport News						2								1	1										**4**
Northumberland			1	1									169							84			1		**256**
Richmond City						6				1		1			1	1									**10**
Richmond County			17	206								1	28					57					93		**402**
Spotsylvania			2		6	2					1												12		**23**
Stafford			1																						**1**
Westmoreland			89	5	22															65	14	1			**196**
York		4										1													**5**
Total	**4**	**60**	**120**	**237**	**31**	**256**	**3**	**4**	**2**	**59**	**11**	**63**	**260**	**106**	**185**	**58**	**4**	**202**	**9**	**414**	**19**	**1**	**251**	**8**	**2367**

The largest number of cross-county trips occurred between Essex County and Richmond County. There were 421 of these trips (206 to Essex County and 215 to Richmond County), accounting for nearly 18 percent of the overall cross-county trips. These trips are particularly challenging given the limited access across the Rappahannock River. The next largest movement occurred between Lancaster and Northumberland Counties. These neighboring counties were responsible for a total of 313 trips or 13 percent of the monthly total. Of these trips, 144 originated in Lancaster County while the remaining 169 originated in Northumberland County. Other significant cross-jurisdictional movements occurred between Gloucester and Middlesex Counties (236 trips), Gloucester and Mathews Counties (211 trips), and Colonial Beach and Westmoreland County (198 trips).

3.5 PUBLIC OUTREACH EFFORTS

Three public outreach efforts occurred in the development of this TDP to gauge the level of

support for transit within the community. Groups targeted for the development of this section include regional stakeholders as well as riders and non-riders of the system. Throughout the Fall of 2015, select regional stakeholders and transit users were contacted via telephone while non-users were interviewed in-person at two of Rappahannock Community College's campuses.

Regional Stakeholders

Attempts were made to contact at least one community stakeholder from each of the 12 counties and four towns served by Bay Transit. Stakeholders were asked three questions that discussed transit aspects such as new service ideas and anticipated funding challenges. Representatives from all but two localities provided feedback via phone interview. Many stakeholders reported they were satisfied with the existing service Bay Transit provided to their communities and had no suggestions for improvement. Those with feedback typically focused on extending hours or improving frequency of existing services rather than identifying opportunities for new service. Multiple stakeholders expressed concern that given the size of Bay Transit's service area, no convenient system exists to allow for transfers between different Bay Transit routes. Stakeholders representing towns benefitting from summer trolley service provided by Bay Transit were unanimously satisfied. When asked about anticipated funding challenges, many stakeholders expressed concern that the local contributions necessary to sustain the service in their communities were dependent largely on a shrinking tax base. Even with this reality, most stakeholders did not foresee any immediate funding challenges.

Transit System User Focus Group

Twelve Bay Transit riders, one from each county in the transit service area, provided feedback via phone interview. Riders were asked to rate the quality of various aspects of the existing transit service and the importance of several potential service improvements. Additionally, riders were asked whether they had any other recommendations for improvements to the transit service. These questions were identical to Questions 15 and 16 of the on-board survey provided in Appendix B. On average, Bay Transit's cost of bus fare and the courtesy and friendliness of the bus drivers were rated most favorably. Respondents rated least favorably the service's hours of operation and bus on-time performance, though no respondents rated either of these any worse than 'okay'. Respondents ranked decreasing the advance notice required to schedule a trip as the most important potential improvement for the next several years. Expanding hours or days of service was ranked as the least important potential improvement. While expanding hours or days of service was rated least important on average, several respondents gave specific feedback that weekend service to shopping centers would be a welcome addition to existing transit. Many respondents simply said they were content with existing service, and most commended the courteousness of the bus drivers.

Transit System Non-User Focus Group

The results of the on-board survey revealed a disproportionate number of riders on Bay Transit are from elderly age groups. Understanding the reasons for low ridership among the younger population may help develop the younger ridership base.

In September 2015, visitation to the Warsaw and Glenns campuses of Rappahannock Community College enabled interaction and surveying of the student population, many of which are from the younger age groups identified in the previous section. A total of 78 students were asked a series of questions regarding public transit in the Bay area. The Warsaw Campus made up a total of 35 out of the 78, while the Glenns Campus made up the remaining 43 respondents.

Experience

- The majority of students arrived to campus via personal automobile (85.9 percent). A much larger percentage of students drove personal vehicles to the Glenns Campus (95.2 percent) than at the Warsaw Campus (74.2 percent). The Warsaw Campus had more students that were dropped off or that carpooled. The Warsaw Campus also had two students that arrived to school via Bay Transit
- A total of 12.8 percent of the students surveyed indicated that they have taken Bay Transit in the past. Almost all of these students were from the Warsaw campus, where 25.7 percent of students had taken Bay Transit before. At the Glenns Campus, only one student (2.3 percent of the total) had ever taken Bay Transit

Awareness

- Most of the students had heard of (or seen) Bay Transit, but lacked substantive or accurate knowledge of the system. Most of those who were aware of the system were only aware of the demand-response service. Many of the students had little to no knowledge of the fixed-route service. When students did know about the fixed-route service, their knowledge was limited and vague
- Many of the students did not know the price of fares, although most students knew the service was affordable. Some students thought the service was free
- Most of the students understood that Bay Transit is available for anyone to ride, but also had the impression that the intended purpose is to transport the elderly or those without any other mobility options

Reason for not using the service

- Nearly all of the students replied that they did not use Bay Transit because they "do not have a need", or that they had access to a personal vehicle and prefer to drive themselves. Many students state that even if they did not have access to a vehicle that they would get a ride from someone else
- Some students replied that they did not want to wait for the bus
- Some students replied that their schedules were too complicated to use the bus

Suggested changes

- Most of the students said they would not use the transit services unless they had no other means of transportation, and suggested no changes to the service
- The most commonly requested change to the service was to have more/better information on the service available to increase awareness of the system. Some students suggested that advertising to the younger demographic could help entice students to use the service because most students perceived the service as intended for the elderly. Posting or sending out fliers and publishing a schedule was suggested to let the students know about the service
- Several students requested a longer span of service because the service stops before their return trip. An increase of coverage also was requested
- Additional requests were for more traditional larger buses and for free fares
- An existing user requested friendlier service and better on-time performance

3.6 LAND USE PLAN

Bay Transit provides transit to a service area that spans 12 counties: Charles City, Essex, Gloucester, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northumberland, Richmond, and Westmoreland. In addition, Bay Transit offers some form of service to the Towns of Colonial Beach, Kilmarnock, Urbanna, and West Point. Each of these jurisdictions have comprehensive plans that include summaries of existing and planned future land uses. These future land use plans include discussions of planned or desired development that may eventually benefit from transit access.

Charles City County

Eighty percent of the existing land in Charles City County is either undeveloped or used for agriculture or forestry. Most commercial and industrial development is located in the western part of the county, with development clustered along major roads or along the Chickahominy and James Rivers. Residential development within the county consists almost entirely of single-family housing.

Charles City County most recently updated its Comprehensive Plan in 2014. The plan prioritizes preserving the rural character of the county by containing future development within defined growth centers, thereby relieving development pressure on existing agricultural and forested lands. The largest growth centers are designated for the communities of Roxbury and Charles City Courthouse, with five smaller growth areas located elsewhere across the county. The plan prescribes that 85 percent of upcoming residential development be confined to the plan's designated growth centers. Commercial development discussions in the plan focus on growing the local tourism industry.

Essex County

Ninety-four percent of the existing land in Essex County is either undeveloped or used for forestry or agriculture. Most commercial development in the county is clustered in the vicinity of the Town of Tappahannock, with residential development scattered throughout the county. The most recent residential development has come in the form of mobile homes.

Essex County adopted an updated Comprehensive Plan in 2015. The plan focuses on limiting growth largely to areas in the vicinity of the Town of Tappahannock, since this is where most development is currently occurring. Beyond this, the plan provides for the development of small pockets of limited commercial uses in what are referred to as 'rural service center areas' along US Routes 17 and 360.

Gloucester County

Most existing development in Gloucester County is concentrated along US Route 17 or in Gloucester Village. Commercial strip development is typical along Route 17 south of Gloucester. In other locations, rural service centers at roadway intersections serve local community functions and may accommodate light commercial or industrial uses.

Gloucester County updated its Comprehensive Plan in 2001. Maintaining much of the existing concentrated development and organization of rural service center areas is suggested in the plan. It also includes plans to convert the existing commercial strip development along Route 17 to more clustered development. Future land use designations plan for a rural countryside district in the northern portion of the county, which will contain low-density residential development. Suburban countryside districts in western and northeastern parts of the county will contain residential development at somewhat higher densities. Both Gloucester Village and Gloucester Point were identified as future village areas planned for relatively high-density development.

King and Queen County

King and Queen County updated its Comprehensive Plan in 2006. Land use goals contained in the plan include maintaining existing forest and agricultural land, and developing rural village center areas that will serve as locations for mixed residential and light commercial development. The plan notes two economic development corridors currently operating along US Route 360 in the northern portion of the county and along State Route 33 in the southern portion of the county. Future plans encourage continuing this development, specifically the potential to further develop industrial land uses near an existing airport along the Route 33 corridor.

King William County

Most development in King William County is concentrated in the northern portion of the county or along US Route 360. Commercial development along Route 360 is clustered in the Central Garage, Aylett, and Manquin communities. Most rural areas of the county contain a mixture of agricultural and low-density residential uses, while the newest residential subdivisions have been developed to the west of Route 360.

King William County updated its Comprehensive Plan in 2003. Future land use plans confine all mid- and high-density residential development to either Route 360, the Port Richmond area, or a few other small developments mostly in the northwestern part of the county. The plan also denotes small rural cluster areas that allow for limited commercial development in other less-developed parts of the county.

Lancaster County

Lancaster County updated its Comprehensive Plan in 2013. The plan included several provisions for development, such as limiting the extent of sprawl and 'checkerboard development' in existing agricultural and open lands and confining higher density residential or commercial development to existing villages and towns within the county. The county's largest primary growth area identified for future development is located in the space between the communities of Kilmarnock, Irvington, and White Stone in the center of the county. Other smaller planned growth areas exist, but only the community of Lively has such a designation. However, the plan

mentions that areas in the communities of Lancaster, Morattico, and Weems also may qualify for planned growth area status.

Mathews County

About 50 percent of the land in Mathews County is either undeveloped or used for agriculture, with most of this land located in the central portion of the county. Single-family residential development lines the county's extensive shoreline, while commercial and industrial development are concentrated around State Routes 14 and 198.

Mathews County updated its Comprehensive Plan in 2011. The plan confines most development to the areas in and around Mathews Village, several smaller village hamlets and highway crossroads, and in small waterfront business districts along the county coastline. Village hamlets allow compact commercial development that serves local residents. The plan designates the communities of Hudgins, Gwynn's Island, and Cobbs Creek as hamlets.

Middlesex County

Middlesex County updated its Comprehensive Plan in 2009. Existing residential development in Middlesex County is located mostly along the county coastline, while commercial development is largely confined to corridors along US Route 17 and State Route 33. The plan includes provisions for mixed-use residential and commercial development in areas along the Rappahannock River near Urbanna and Water View. Future planned residential development is concentrated toward the eastern end of the county, near the coastline. Future planned commercial development is largely in the same location as existing development, but the development is organized in nodes rather than in the existing strip development configuration.

New Kent County

Most residential development is located in the western and central portions of New Kent County. Commercial development is largely confined to areas around Bottoms Bridge, Providence Forge, and Eltham. In each case the commercial development is surrounded by other residential development. New Kent Courthouse is emerging as the county's first designated village area, with land designated for mixed-use development.

New Kent County updated its Comprehensive Plan in 2012. The overall land development goal of the plan is to concentrate new housing, commerce, recreation, and public facilities in a mixed-use setting in existing village centers. A corridor of land along State Route 33 is identified as the primary focus for industrial development within the county. The plan also permits smaller-scale development at crossroads locations farther away from village centers.

Northumberland County

More than 80 percent of the land in Northumberland County is either vacant or dedicated to agriculture or forestry. Much of this undeveloped land is in the central and southwestern portions of the county, away from major roadways. Existing development is concentrated along roads and the county waterfront. Commercial development is located more along primary highways throughout the county and in higher concentrations near the designated development centers of Callao, Heathsville, and Burgess.

Northumberland County updated its Comprehensive Plan in 2006. The plan prescribes focusing development in existing development centers. The plan also permits light commercial uses in areas immediately around the development centers and also in more rural locations such as Lottsburg, Wicomico Church, Reedville, and Lilian.

Richmond County

Richmond County updated its Comprehensive Plan in 2013. The plan directs most future growth toward the existing developed area around the Town of Warsaw, specifically prioritizing the preservation of the county's prime farmland. The County Board recently purchased 57 acres of land in Warsaw with the intent to develop the land into a commerce park for industrial use. The plan also permits limited commercial land use in several other villages and rural crossroads areas throughout the county. Residential development areas are largely confined to locations along secondary highways near US Route 360, east of Warsaw, with other development prescribed within and adjacent to Warsaw and on some parts of the county's shoreline.

Westmoreland County

Westmoreland County is a rural location largely composed of waterfront communities. Residences and businesses are located throughout the county, but most are located in and around the Towns of Montross and Colonial Beach, or in other small community centers. Twenty-seven percent of the residences in the county are only used seasonally or recreationally. Industrial development is spread across the county, with the larger sites including Colonial Beach Commerce Park and several other developments near the communities of Leedstown and Maple Grove.

The county updated its Comprehensive Plan in 2010. The plan prioritizes retaining the overall rural character of the county while incorporating scattered industrial uses. The plan designates 'Primary Growth Areas' outside the Towns of Colonial Beach and Montross. These areas permit moderate-density residential, retail, office, and light manufacturing land uses. Other 'Secondary Growth Areas' contain similar uses but at lower densities. These areas compose the centers of county communities such as Hague, Carmel Church, Nomini Grove, Monroe Hall, Kinsale, Oak Grove, and Coles Point.

Town of Colonial Beach

The Town of Colonial Beach contains mostly single-family residential housing, but multi-family residential units have increased in prevalence more recently. Commercial development runs along Colonial Avenue at the town's center, but also is prevalent in the coastal resort commercial district. The Beachgate Shopping Center also provides retail and other commercial space.

The town updated its Comprehensive Plan in 2009. The plan prioritizes maintaining the historic integrity of the existing housing stock and existing historic commercial districts while allowing for clustered single-family residential development on undeveloped or underdeveloped land further inland. The plan specifically denotes a Planned Unit Development at Potomac Crossing to the northwest of the town center that will feature mixed-use development and a golf course.

Town of Kilmarnock

The Town of Kilmarnock updated its Comprehensive Plan in 2014. The plan stresses the importance of maintaining the community's residential character while continuing to implement its downtown revitalization plan. The future land use map shows growth in both the downtown commercial area and a large area north of downtown along Main Street. The plan also discusses the development of a new commercial center at the intersection of State Route 200 and the James B. Jones Memorial Highway, near the current site of Rappahannock General Hospital. The largest remaining undeveloped area in town is currently designated for medium-density residential use in the future land use plan.

Town of Urbanna

Existing land use in the Town of Urbanna is mostly single family residential, although an increasing number of vacation homes and multi-family condo-style developments are being constructed. Commercial space is largely confined to a two-block space within the downtown historic district. Only about 10 percent of land in the town is both vacant and developable. The town updated its Comprehensive Plan in 2012. Priorities of the future land use plan include retaining and promoting low-density residential development within the town and concentrating future commercial development along accessible urban streets.

Town of West Point

The Town of West Point updated its Comprehensive Plan in 2000. The plan states that single-family housing will continue to be the predominant type of residence in the community, but that higher-density housing will become more important with time. The plan identifies two mixed-use special development areas within the town. It also identifies the site of a future industrial park on the northern end of town along the Pamunkey River, with additional sites in other locations designated to accommodate less intensive industrial uses.

Potential Future Transit Service Needs

Bay Transit offers service to a very large rural area, with several routes linking destinations within one county or across adjacent counties. One of the

biggest challenges with the service covering such a large area is that the opportunities for transfers between individual transit lines on the service are rare. The only route that connected adjacent counties was the Neck Connect Line, which ran between Montross in Westmoreland County and Warsaw in Richmond County. However, poor performance on this route led to its discontinuation. Extensions of existing service in adjacent counties or the provision of a separate on-demand service that could allow transit users to transfer between existing routes would improve the mobility of those who are transit-dependent.

Existing local services also may require modification to accommodate proposed future land uses. The existing summer trolley in Colonial Beach may benefit from extending service to the planned Potomac Crossing development once opened. Similar trolley services in Urbanna and Kilmarnock also would benefit from extending service in response to their expanding commercial development bases. Providing connectivity between Gloucester Village and Gloucester Point within Gloucester County, or providing connectivity to other destinations in nearby Mathews County would improve mobility in the region as well.

3.7 FACILITY AND EQUIPMENT CHARACTERISTICS

As discussed in Section 1.6, Bay Transit owns a large fleet of 62 vehicles to serve the expansive 12-county service area. The maximum pullout needs of the system is only 36 vehicles, yielding a high spare ratio for the system; however, the rural nature of the service area makes this high spare ratio a necessity because of the long distances travelled by the fleet.

As discussed in Section 1.7, Bay Transit operates two large facilities where administration, operations, dispatch, and maintenance activities occur. The Warsaw facility is located at 111 Commerce Parkway, while the Gloucester location is located at 5959 Fiddlers Green Road. The construction of these facilities temporarily increased capital costs dramatically until the completion of the Warsaw facility in 2010 and the Gloucester facility in early 2015. As a result, the new facilities improved efficiency by reducing deadhead travel between the garage and Bay Transit's passengers.

3.8 TITLE VI AND TRIENNIAL REVIEW

A Rural Public Transit Compliance Review was completed on August 29, 2014, to report the compliance of the system with regard to current laws and regulations. The report states that issues were found in the areas of organizational management, satisfactory continuing control, personnel issues, operations and service requirements, and planning and coordination. Corrective action took place on all issues and remains in good standing. A copy of the compliance corrective action plan is included in Appendix C and the Title VI report is included in Appendix D.

CHAPTER 4: SERVICE EXPANSION PROJECT DESCRIPTIONS

This chapter of the TDP builds upon previous sections by identifying and considering potential service and facility needs during the 6-year TDP lifespan. Beginning with a geographic analysis of current demographics in the region, this chapter evaluates the suitability of transit services within different counties in the service area. Future years are analyzed using projections of population and employment from the Virginia Employment Commission (VEC). Combined with insights from previous sections of this TDP, the demographic analysis helps validate service and facility needs for the region. Descriptions for potential projects also are provided and evaluated, concluding with project cost estimates and policy implications.

4.1 DEMOGRAPHIC ANALYSIS OF EXISTING POPULATION

Areas with a high-density population are more likely to support transit than less dense areas. Therefore, this section begins with an analysis of the population density in the service area. Additionally, other factors may influence the rate of ridership in a region, such as the percentage of elderly, low-income, or unemployed population. Chapter 4 of this TDP analyzes each of these variables in table and map form to show where the greatest potential exists for transit markets. Understanding these markets and comparing them to the current ridership can help reveal areas that are candidates for changes or expansion of service.

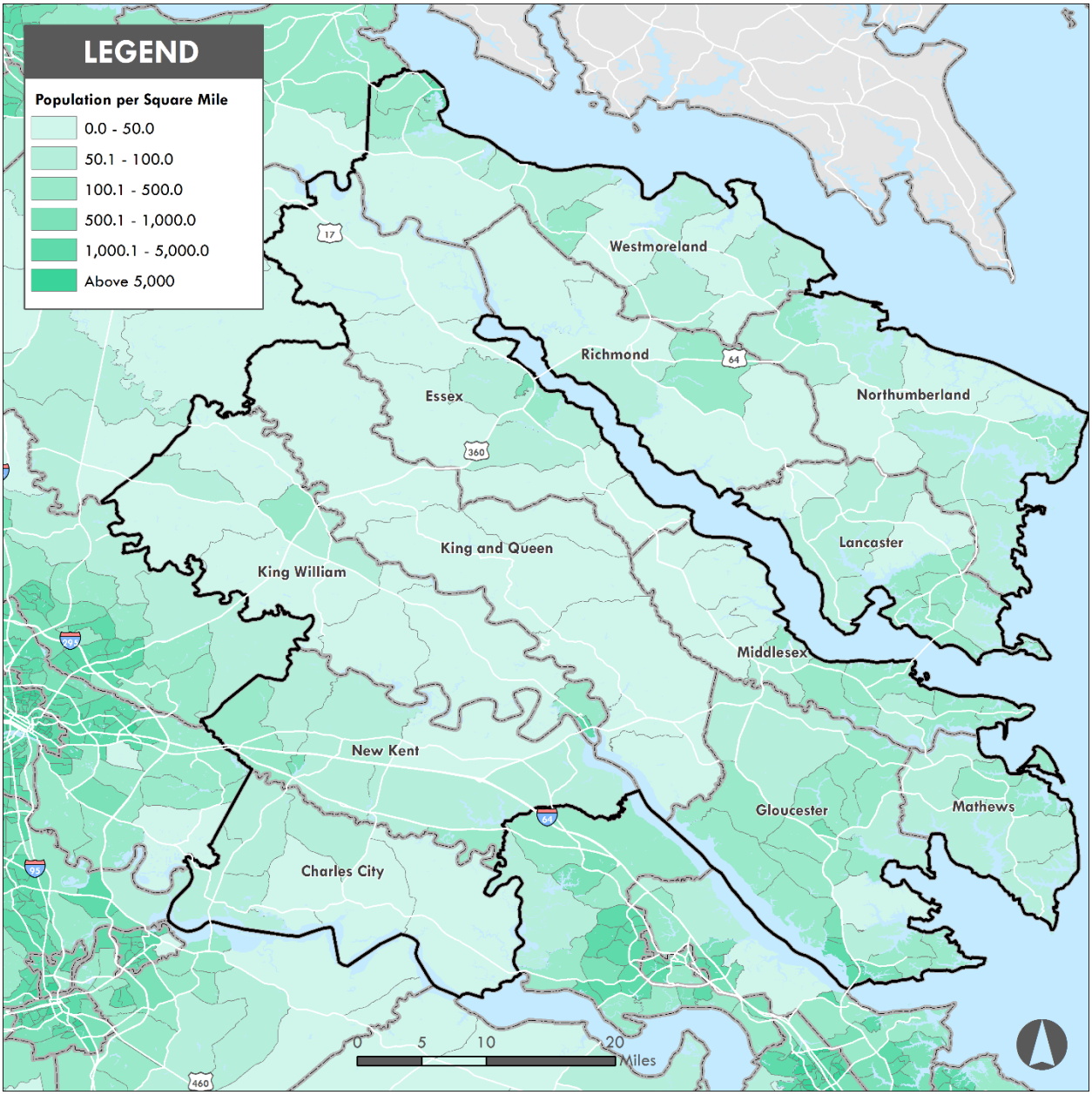
Table 4-1 highlights the overall population in each county of the service area, based on the American Community Survey (ACS). The table shows that Bay Transit has a very large service area of about 2,664 square miles, with a population of about 167,400. These statistics yield an overall population density of only 64 people per square mile, indicating that the service area is primarily rural in nature. The county with the largest total population was Gloucester with 36,938, followed by New Kent (19,187), Westmoreland (17,518), and King William (16,045). When these figures were normalized by square miles to create a population density measure, Gloucester County still has the greatest value by a large margin with (145.8 residents per square mile), followed by Mathews County (86.5), New Kent County (85.3), and Lancaster County (74.8). Conversely, counties with relatively low population density were King and Queen (21.8) and Charles City (35.1).

Table 4-1. Total Population (ACS 5-Year Estimates)

County	Area (Square Miles)	Total Population	Population Density
Charles City County	204.0	7,154	35.1
Essex County	276.4	11,166	40.4
Gloucester County	253.3	36,938	145.8
King and Queen County	324.4	7,073	21.8
King William County	285.2	16,045	56.3
Lancaster County	150.0	11,224	74.8
Mathews County	103.1	8,923	86.5
Middlesex County	142.3	10,817	76.0
New Kent County	225.0	19,187	85.3
Northumberland County	216.4	12,320	56.9
Richmond County	206.1	9,072	44.0
Westmoreland County	277.7	17,518	63.1
Total Bay Transit Service Area	2,663.9	167,437	62.9

Figure 4-1 shows the population density at the block group level, revealing specific regions within each county that are densely populated. This map reinforces that Gloucester County is more densely populated than the other counties, and that the central and southernmost regions represent the highest densities out of the entire service area. In fact, two out of the top four most densely populated census blocks occurred in the southeastern part of the county, near Gloucester Point and Ordinary. The other two most densely populated blocks occurred in Westmoreland County, in the Colonial Beach area.

Figure 4-1. Regional Population Density



Given the large number of seniors served by Bay Transit, it is important to understand the distribution of the elderly population, defined here as those aged 65 year or older. Table 4-2 summarizes the population by county, showing the total, density, and percentage of elderly residents. The county with the greatest number of elderly residents is Gloucester with 5,932, followed by Northumberland (3,966), Westmoreland (3,877), and Lancaster (3,693). Gloucester County also has one the greatest proportions of elderly residents, with 23.4 persons per square mile, which is much higher than the service area average of 12.8. Only Lancaster (24.6 per square mile) and Mathews (23.7 per square mile) counties have greater elderly population densities than Gloucester. The final metric, percentage of population that is 65 years of age or older, shows that Lancaster and Mathews Counties are again at the higher end of the totals, with 32.9% and 27.4% belonging in that age category, respectively. Northumberland County (32.2%) and Middlesex County (27.2%) also are noted for significant percentages of senior populations.

Table 4-2. Elderly Population (ACS 5-Year Estimates)

County	Elderly Population		
	Count	People per Square Mile	Percent of Total Population
Charles City County	1,370	6.7	19.2%
Essex County	2,109	7.6	18.9%
Gloucester County	5,932	23.4	16.1%
King and Queen County	1,353	4.2	19.1%
King William County	2,131	7.5	13.3%
Lancaster County	3,693	24.6	32.9%
Mathews County	2,445	23.7	27.4%
Middlesex County	2,944	20.7	27.2%
New Kent County	2,555	11.4	13.3%
Northumberland County	3,966	18.3	32.2%
Richmond County	1,694	8.2	18.7%
Westmoreland County	3,877	14.0	22.1%
Total Bay Transit Service Area	34,069	12.8	20.3%

Figure 4-2 shows the percentage of residents aged 65 years or more as distributed over the region. In general, the census block groups located along the coast have greater percentages of elderly residents than inland census block groups. This trend is particularly apparent in Northumberland County, where two of the census block groups along the coast have populations with more than 50% in the 65 or older age category. The high elderly population continues south of Northumberland County into Lancaster County, which has three census blocks that have more than 40% of the total population in the elderly age category.

Figure 4-2. Regional Elderly Population

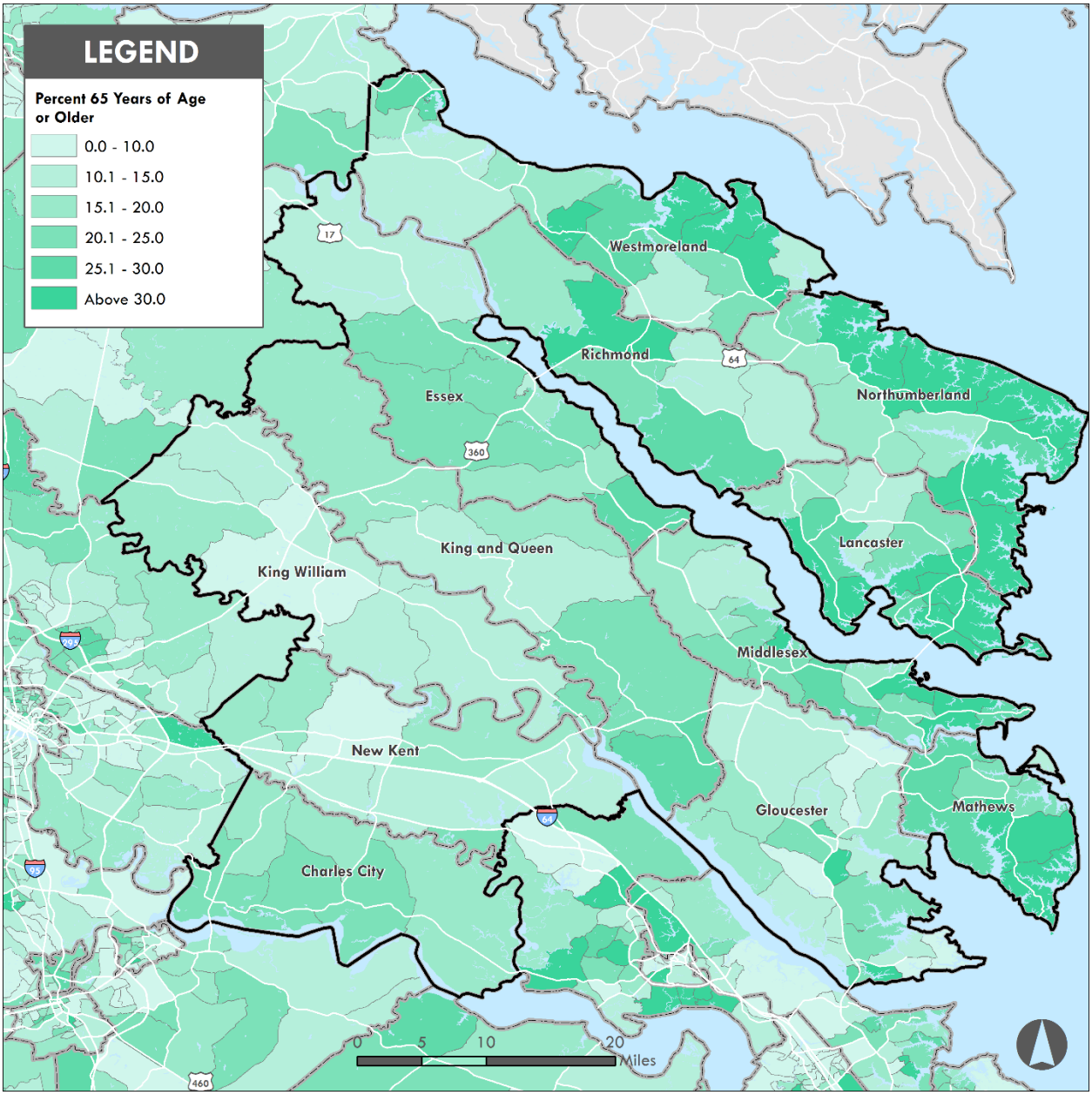


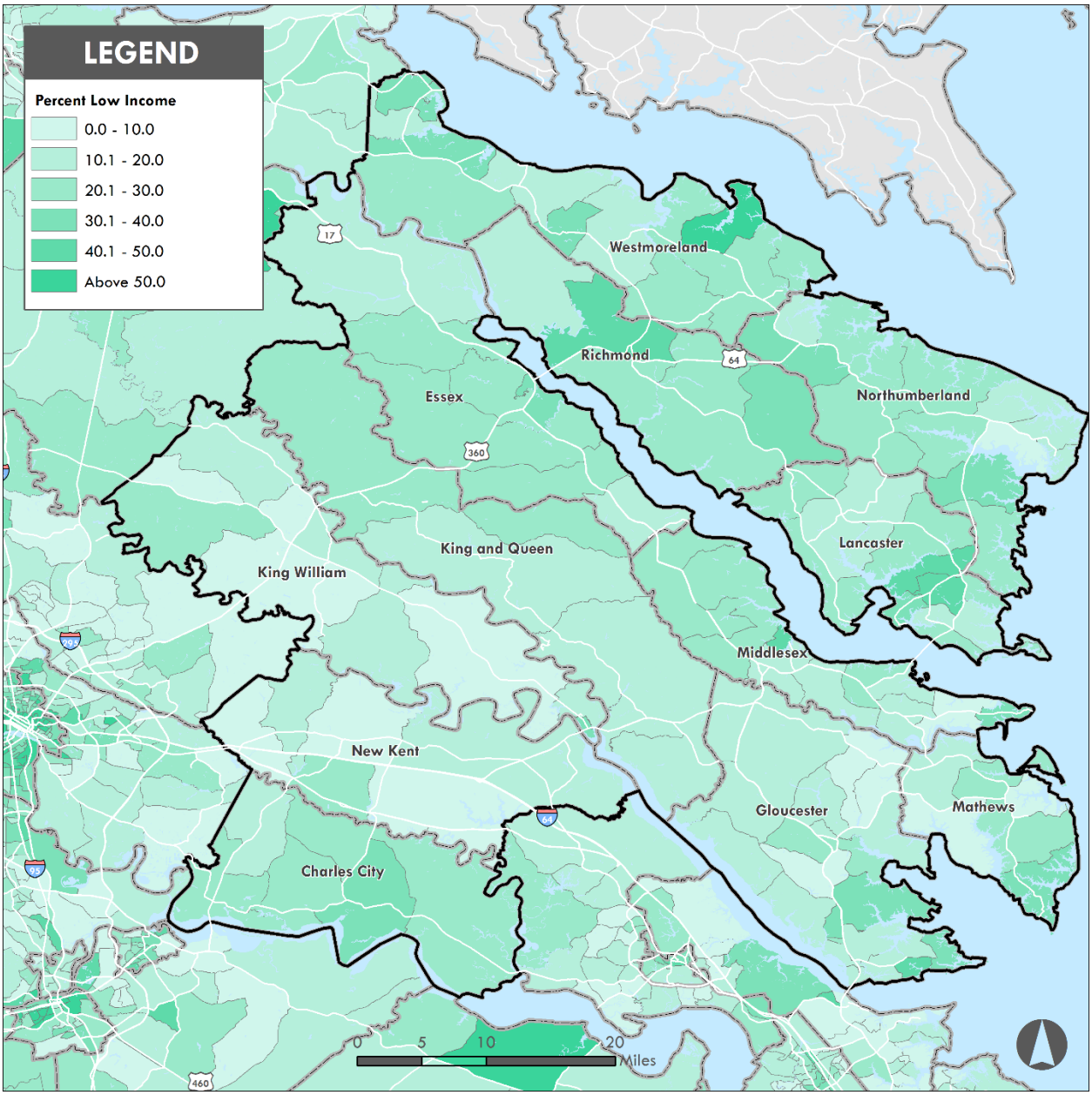
Table 4-3 shows the low-income households by county in the northeastern portion of Virginia in total number, density, and percentage. For the purposes of this TDP, low-income is defined as a household with a total income of less than $25,000 annually. The service area as a whole has 13,224 households that belong to the low-income grouping, which is 5.0 households per square mile. A total of 7.9% of the households in the Bay Transit service area have an annual income of less than $25,000 annually. At the county scale, the greatest number of households under this threshold is Gloucester (2,366), followed by Westmoreland (1,832), and Lancaster (1,378). The density measure for low-income tells a similar story, with Gloucester and Lancaster with the highest values, 9.3 and 9.2 households per square mile, respectively. Counties with the lowest densities are King and Queen and King William, with only 1.5 and 2.8 households per square mile, respectively. Lastly, the percentage of total households that are low-income is shown in Table 4-3. Lancaster (12.3%), Northumberland (10.6%), Westmoreland (10.5%), and Essex (10.4%) all have greater than 10% of the households making less than $25,000 annually.

Table 4-3. Low-Income Population Estimates (ACS 5-Year Estimates)

County	Low Income Population		
	Count	People per Square Mile	Percentage of Total Population
Charles City County	687	3.4	9.6%
Essex County	1,161	4.2	10.4%
Gloucester County	2,366	9.3	6.4%
King and Queen County	490	1.5	6.9%
King William County	810	2.8	5.0%
Lancaster County	1,378	9.2	12.3%
Mathews County	670	6.5	7.5%
Middlesex County	982	6.9	9.1%
New Kent County	752	3.3	3.9%
Northumberland County	1,308	6.0	10.6%
Richmond County	788	3.8	8.7%
Westmoreland County	1,832	6.6	10.5%
Total Bay Transit Service Area	13,224	5.0	7.9%

Figure 4-3 shows a greater level of detail geographically, using census block groups to show the percentage of low-income households in the region. Overall, the northeast portion of Westmoreland County, the center of Richmond County, and the southeastern portion of Lancaster County all have sections with large percentages of low-income households.

Figure 4-3. Regional Low Income Households



Lastly, regional unemployment is expressed as the rate of unemployed civilian population in the labor force that is 16 years of age or more in Table 4-4 and Figure 4-4. Overall, there are 5,960 residents that live in the Bay Transit service area that are unemployed, which accounts for 3.6 percent of the civilian population in the work force at least 16 years old. In terms of density, this yields a total of 2.2 unemployed residents per square mile over the service area.

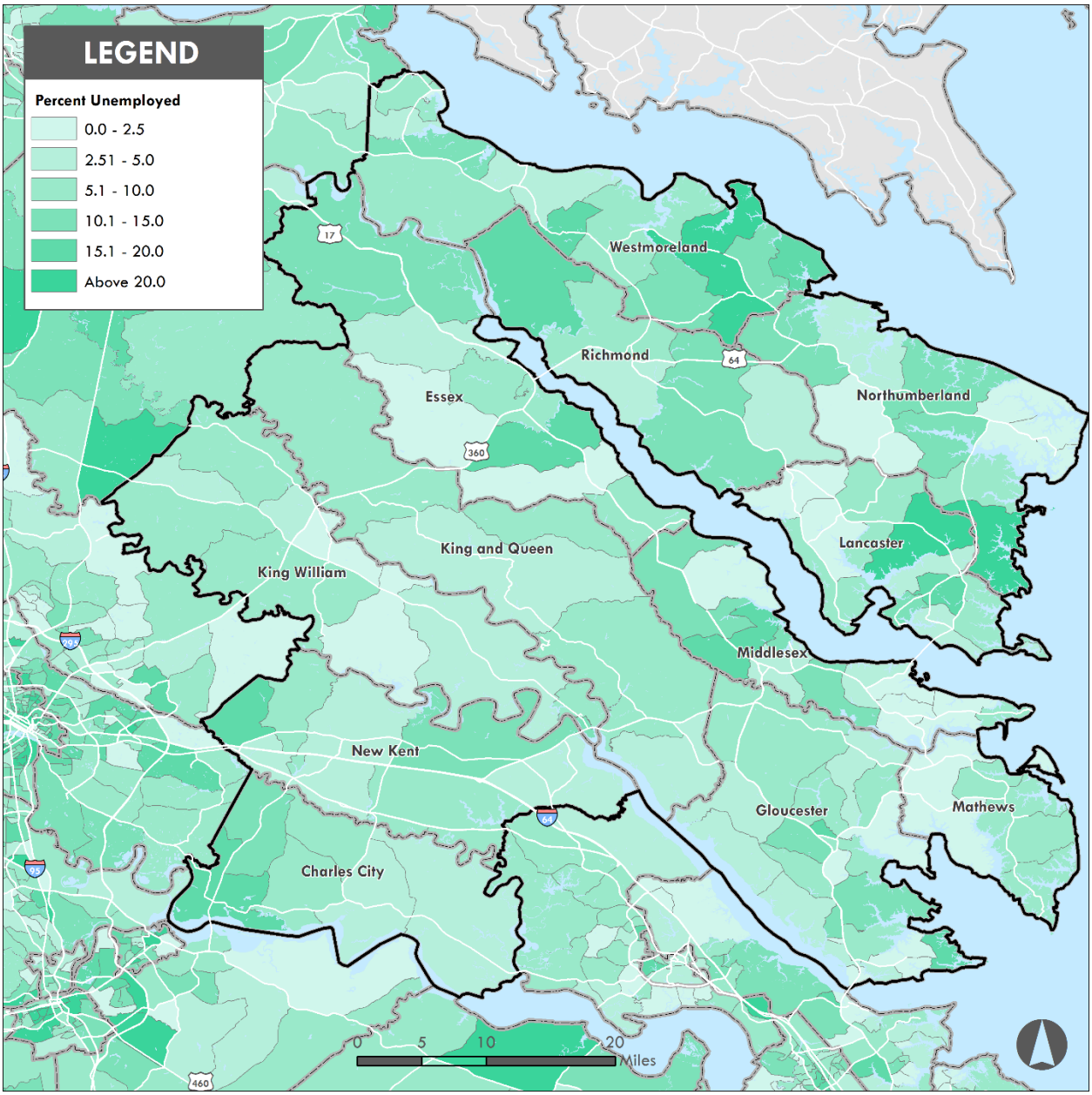
The county with the highest total number of unemployed citizens is Gloucester (1,094), followed by Westmoreland (875), and New Kent (785). The same three counties have the greatest density of unemployment, all with more than three unemployed residents per square mile. In observation of the percentage of the population that is unemployed, Charles City and Westmoreland stand out with five percent. New Kent County also has a high percentage of unemployment at 4.1 percent. Low rates of unemployment exist in Mathews County with two percent, King and Queen County with 2.5 percent, and Middlesex County with 2.6 percent.

Table 4-4. Unemployed Population Estimates (ACS 5-Year Estimates)

County	Unemployed Population		
	Count	People per Square Mile	Percent of Total Population
Charles City County	359	1.8	5.0%
Essex County	441	1.6	3.9%
Gloucester County	1,094	4.3	3.0%
King and Queen County	179	0.6	2.5%
King William County	494	1.7	3.1%
Lancaster County	433	2.9	3.9%
Mathews County	175	1.7	2.0%
Middlesex County	283	2.0	2.6%
New Kent County	785	3.5	4.1%
Northumberland County	477	2.2	3.9%
Richmond County	365	1.8	4.0%
Westmoreland County	875	3.2	5.0%
Total Bay Transit Service Area	5,960	2.2	3.6%

A cartographic representation of regional unemployment is shown in Figure 4-4. In general, the Northern Neck appears to have greater unemployment compared to the rest of the region. A cluster of two census block groups on the eastern side of Westmoreland County have unemployment rates of 39.1 percent and 36.5 percent, which are the highest from the entire service area. Another particularly high cluster of unemployment exists on the southernmost census block group in Northumberland, and continues into the eastern area of Lancaster, where unemployment rates are 28.2 percent and 26.8 percent, respectively.

Figure 4-4. Regional Unemployment



4.2 DEMOGRAPHIC ANALYSIS OF ANTICIPATED POPULATION AND EMPLOYMENT CHANGES

VEC publishes population and economic outlook information in the form of Labor Market Information Community Profiles. The community profiles for each of the counties in the service area, including overall population and elderly population, are reported through 2040 in Tables 4-5 and 4-6. Economic data was not available at the county level; instead a 5-year retrospective analysis is shown in Table 4-7 to show the economic trends for each county.

The 2010 Census and 2020 projections were used to create a 2015 estimate of existing conditions. Overall, the service area is expected to grow 6.8 percent throughout the life of this TDP, which is a total of 11,501 people. This is a slower rate than Virginia as a whole, which is expected to increase 8.3 percent in total population from 2015 to 2020. Mathews County is expected to have the greatest percentage of population growth by a large margin, with 23.9 percent. Following Mathews County, New Kent County and King William County are projected to grow 11.5 percent and 7.1 percent, respectively, during the 6-year period. The northeastern portion of the service area, with Lancaster and Northumberland counties, is expected to grow the least with 2.5 percent and 2.1 percent, respectively.

Table 4-5. Population Projections for Bay Transit Service Area

County	Population				2015 - 2020 Change	
	2015	2020	2030	2040	Number	Percent
PDC 18 - Middle Peninsula						
Essex County	11,273	11,884	12,477	13,007	611	5.4%
Gloucester County	37,328	39,680	42,517	45,225	2,352	6.3%
King and Queen County	6,990	7,217	7,465	7,687	227	3.2%
King William County	16,164	17,310	18,318	19,191	1,146	7.1%
Mathews County	9,429	11,682	12,303	12,854	2,253	23.9%
Middlesex County	11,080	11,682	12,303	12,854	603	5.4%
PDC 18 Total	92,264	99,455	105,383	110,818	7,191	7.8%
PDC 17 - Northern Neck						
Lancaster County	11,448	11,735	12,164	12,582	287	2.5%
Northumberland County	12,381	12,635	12,968	13,282	254	2.1%
Richmond County	9,333	9,728	10,174	10,587	395	4.2%
Westmoreland County	17,602	18,342	19,203	19,995	740	4.2%
PDC 17 Total	50,764	52,440	54,509	56,446	1,676	3.3%
PDC 15 - Richmond Region						
Charles City County	7,349	7,814	8,374	8,905	465	6.3%
New Kent County	18,863	21,032	23,114	25,037	2,169	11.5%
PDC 15 Total	26,212	28,846	31,488	33,942	2,634	10.0%
Service Area Total	169,240	180,741	191,380	201,206	11,501	6.8%
Virginia Total	8,136,105	8,811,512	9,645,281	10,530,229	675,407	8.3%

Table 4-6 shows the elderly population projections for the Bay Transit Service Area through the year 2040. For the purposes of this TDP, elderly population is defined as those aged 65 years and older. During the TDP period, the service area's elderly population is expected to increase 25.5 percent. Compared to the total population increase over the service area from Table 4-4, the elderly population is expected to grow at a much greater rate than the overall population growth of 6.8 percent. The elderly population across the state of Virginia is expected to grow at an even greater rate, with a 30.6 percent increase during the life of this TDP. At the county level, New Kent has the greatest elderly population projected growth, with 48.8 percent, followed by Mathews with 38.8 percent and Charles City with 37.5 percent. Only one county has an expected elderly population growth of less than 10 percent, which is Northumberland County at 9.7 percent.

Table 4-6. Elderly Population (65 and up) Projections for Bay Transit Service Area

County	Elderly Population				2015 - 2020 Change	
	2015	2020	2030	2040	Number	Percent
PDC 18 - Middle Peninsula						
Essex County	2,040	2,559	3,066	3,097	519	25.5%
Gloucester County	5,805	7,780	11,052	11,786	1,975	34.0%
King and Queen County	1,272	1,617	2,134	2,228	345	27.1%
King William County	2,080	2,632	3,387	3,552	552	26.5%
Mathews County	2,483	3,447	4,417	4,574	964	38.8%
Middlesex County	2,875	3,447	4,417	4,574	573	19.9%
PDC 18 Total	16,555	21,482	28,473	29,811	4,928	29.8%
PDC 17 - Northern Neck						
Lancaster County	3,669	4,246	5,180	5,282	577	15.7%
Northumberland County	3,787	4,154	5,125	5,045	368	9.7%
Richmond County	1,721	1,914	2,452	2,692	193	11.2%
Westmoreland County	3,788	4,502	5,588	5,690	714	18.9%
PDC 17 Total	12,964	14,816	18,345	18,709	1,852	14.3%
PDC 15 - Richmond Region						
Charles City County	1,313	1,805	2,521	2,714	493	37.5%
New Kent County	2,467	3,670	5,006	5,238	1,203	48.8%
PDC 15 Total	3,779	5,475	7,527	7,952	1,696	44.9%
Service Area Total	33,298	41,773	54,345	56,472	8,475	25.5%
Virginia Total	1,040,642	1,359,169	1,767,330	1,904,275	318,527	30.6%

Although the projected growth of number of jobs is not available at the county level, the 2010 and 2015 employment counts were collected from the Quarterly Census of Employment and Wages (QCEW) to show the 6-year trend leading up to the current TDP. The service area as a whole neither gained nor lost employment since 2010. The state of Virginia; however, increased jobs by 6.5 percent. On a county level, the greatest increase in employment was seen in the southernmost portion of the service area in the Richmond Region, with Charles City increasing by 18.6 percent and New Kent increasing by 9.1 percent, for a total of almost 600 jobs between the two counties. Large losses of jobs were seen in the Northern Neck, with Richmond County losing 14.5 percent of its employment and Northumberland County losing 6.9 percent.

Table 4-7. Employment Trends for Bay Transit Service Area

County	Employment		2010 - 2015 Change	
	2010	2015	Number	Percent
PDC 18 - Middle Peninsula				
Essex County	3,984	3,950	-34	-0.9%
Gloucester County	9,341	9,365	24	0.3%
King and Queen County	873	919	46	5.3%
King William County	3,394	3,659	265	7.8%
Mathews County	1,534	1,491	-43	-2.8%
Middlesex County	3,218	3,230	12	0.4%
PDC 18 Total	22,344	22,614	270	1.2%
PDC 17 - Northern Neck				
Lancaster County	4,614	4,464	-150	-3.3%
Northumberland County	2,649	2,466	-183	-6.9%
Richmond County	3,348	2,862	-486	-14.5%
Westmoreland County	3,500	3,462	-38	-1.1%
PDC 17 Total	14,111	13,254	-857	-6.1%
PDC 15 - Richmond Region				
Charles City County	1,382	1,639	257	18.6%
New Kent County	3,751	4,093	342	9.1%
PDC 15 Total	5,133	5,732	599	11.7%
Service Area Total	41,588	41,600	12	0.0%
Virginia Total	3,536,676	3,767,197	230,521	6.5%

4.3 PROPOSED SERVICE EXPANSION PROJECTS

Bay Transit is committed to operating transit that is tailored to the needs of the community for efficient service, both in terms of cost and mobility. After months of low ridership on the Neck Connect, Bay Transit responded by removing the deviated fixed-route service in January 2016. Likewise, a demand for service in Tappahannock resulted in Bay Transit implementing a deviated fixed-route service through the downtown, which has immediately shown promising ridership returns. While maintaining the current service is the primary focus of the agency, Bay Transit recognizes that looking for new opportunities to expand the service also is important to the long-term health of the transportation system. Therefore, Bay Transit continuously evaluates potential new markets to determine the viability of service expansion.

This section of the TDP takes insights gleaned from previous chapters, (e.g. performance measures, interviews with the community), as well as the demographic information observed from the first section of this chapter, to construct a list of potential service improvements. The four potential service improvements proposed in this chapter are: (1) additional demand-response vehicle in Middlesex County, (2) extended services to the City of Richmond, (3) adding a deviated fixed-route service from Gloucester Courthouse to Gloucester Point, and (4) extending service to evening hours. Each improvement listed is accompanied by a description of what the service may look like in implementation, including a cost estimate comparison of current and proposed services and policy implications.

Service Expansion Project 1: Additional Demand-Response Vehicle in Middlesex County

As stated in the previous section, Middlesex County has a population of approximately 10,817 over an area of 142.3 square miles. Middlesex generated 9,703 riders in FY 2015, which was accomplished using a single demand-response vehicle. Adding a second demand-response vehicle would improve the on-time performance and reduce the number of non-accommodations, which was 771 for FY 2015.

The operation of the second demand-response vehicle would run concurrent with the existing demand-response vehicle starting in FY 2017.

Table 4-8 shows the estimated hours and costs associated with doubling the number of revenue hours in Middlesex County using the FY 2015 cost per hour of $51.12. To pay for the services for the second on-demand vehicle, Bay Transit is initiating a pilot project grant through a local community foundation to provide local matching funds for the first two years of operation. If the pilot project is successful after two years, Bay Transit will seek a commitment from the Middlesex County Board of Supervisors to provide matching funds. The addition of this service also would incur capital costs in the form of an additional vehicle. Bay Transit plans to acquire a new vehicle for this service in FY 2019, which will cost an estimated $95,613 based on current vehicle costs and an annual vehicle inflation rate of four percent.

Table 4-8. Second Demand-Response Vehicle in Middlesex County

	Existing	Proposed	Increase
Daily Revenue Hours	12	24	12
Annual Days of Operation	255	255	0
Annual Revenue Hours	3,060	6,120	3,060
Annual Operating Cost	$156,430	$312,859	$156,430
Annual Ridership	7,966	13,277	5,311

Assumptions: Operating costs per revenue hour is the FY 2015 cost of $51.12 an hour

The approximate ridership for the additional service is shown in Table 4-8. The annual ridership in Middlesex County for the demand-response service is consistently around 8,000 riders. Increasing the number of buses from one to two will improve the quality of service by reducing wait times and schedule availability, thereby increasing the total ridership in the county. However, doubling the annual service hours does not equate to an expected doubling of riders. By looking at the number of requests for service in Middlesex, a more reasonable approach to estimating ridership should be an approximate increase of 67 percent (two-thirds) of the existing ridership. Using this methodology to project ridership, there should be approximately 5,300 additional riders in Middlesex County, leading to a total annual ridership of more than 13,200.

Service Expansion Project 2: Extended Services to the City of Richmond

Objective 2.2 in Chapter 2 states that Bay Transit will evaluate the demand to expand services outside of the service area. One of the existing services involves using one of the three demand-response buses from New Kent and Charles City counties to run service to the City of Richmond on Mondays, Wednesdays, and Fridays for four revenue hours. This service is express, operating non-stop from New Kent and Charles City to a limited number of stops in the City of Richmond in the morning, with return service in the opposite direction in the afternoon. Many of the current stops are at medical facilities, and a large percentage of the ridership uses the service to reach medical appointments and resources not available in the Bay Transit service area. In an effort to increase the number of choice riders who use the service, Bay Transit is interested in expanding the number of destinations served in Richmond. There is strong demand in the service area for access to Richmond, which is the fourth most populous city in the commonwealth with 217,853 people (July, 2014 U.S. Census QuickFacts). The city of Richmond grew 6.7 percent from 2010 to 2014, an increase of 13,706 people. Increased demand for services to Richmond will therefore likely accompany the large increase

in population. Connecting to Greater Richmond Transit Company (GRTC) stops and stations would enable convenient access to a large network of transportation options and further increase demand.

The additional stops in Richmond would likely add approximately 2 hours to the daily revenue hours to this service, equating to 306 hours annually. However, the two additional service hours will replace two existing hours of demand-response service in New Kent and Charles City counties. In other words, one of the three demand-response buses will operate service to Richmond for 6 hours a day instead of only 4 hours. Table 4-9 shows the existing and proposed service statistics, revealing the change would be cost neutral.

The ridership for the demand-response service reduction, also shown in Table 4-9, shows that the two hours of demand-response service generates zero ridership. In reality, all three of the buses carry passengers throughout the day. The average number of riders for this service in New Kent and Charles City is only about 1.1 per hour, which could be accommodated with only two buses when one bus serves Richmond. The ridership for the proposed service was extrapolated from the October 2015 origin/destination matrix shown previously in Table 3-5. The matrix shows that there were 19 riders who used the service during the month-long study period, which equates to 228 riders per year. Strategically increasing the number of stops in Richmond could add approximately 50 percent to the ridership total, yielding 342 total riders annually. Operating service to Richmond for an additional three hours three times a week would yield approximately 114 more trips a year, shown below.

Table 4-9. Additional Service to Richmond

	Existing*	Proposed	Difference
Daily Revenue Hours	2	2	0
Annual Days of Operation	153	153	0
Annual Revenue Hours	306	306	0
Annual Operating Cost	$15,643	$15,643	0
Annual Ridership	0	114	114

** The existing service statistics represent the service operating as demand-response that will be replaced by the additional service to Richmond*

Service Expansion Project 3: Deviated Fixed-Route Service from Gloucester Courthouse to Gloucester Point

Shown in Chapter 3, Gloucester County currently supports demand-response service in large numbers, with ridership of nearly 36,000 in 2015. Currently there is only one deviated fixed-route service, in the form of the Courthouse Circulator, which is well used (almost 4,400 riders in FY 2015). The strong demand for these services has provided drive to expand the deviated fixed-route service in the county. The new service, presented as the Gloucester Point Route and shown in Figure 4-5, would replace existing demand-response revenue hours instead of initiating additional revenue hours. The result would be the implementation of a second deviated fixed-route service without the prerequisite of additional operating funds.

Figure 4-5. Gloucester Point Proposed Alignment

Shown above in Figure 4-5, the Gloucester Point Route would run limited service from Gloucester Point and connect to the Gloucester Courthouse route via US Hwy 17. The route would initiate from Bay Transit's Gloucester facility and deadhead to a connection point with the Gloucester Courthouse Route to begin service. This connection point would likely be the Walmart Supercenter at 6819 Walton Lane to the west of US Hwy 17, necessitating 2.25 miles of deadhead before the start of service. From Walmart, the route would travel south along US Hwy 17 to serve White Marsh and Ordinary before arriving at the Virginia Institute of Marine Science at Gloucester Point. The route would operate as an express type service, with about three stops in Gloucester Point, and about three stops in Gloucester Courthouse. The one-way revenue miles for this particular alignment would be approximately 11.7 miles. The Gloucester Point Route would operate service 1 hour earlier and 1 hour later than the Gloucester Courthouse route to enable riders a connection to and from Gloucester Courthouse at the beginning and end of the service day. The schedule therefore would start at 9:00 a.m. and end at 3:00 p.m., operating on weekdays only. This schedule and alignment would enable one bus to operate a 60-minute cycle time.

Table 4-10 shows the revenue hours, operating costs, and projected ridership for the proposed Gloucester Point route as well as the existing demand-response service it is intended to replace. Assuming 255 operating days a year, the Gloucester Point route would require about 1,530 annual revenue hours costing approximately $78,215. However, because this service would replace six hours of demand-response service, the project would be cost neutral. It also is important to note that Bay Transit currently runs 36 daily revenue hours of demand-response service, of which 30 hours would be retained in the proposed scenario. Moreover, the cessation of the Neck Connect affords Bay Transit the opportunity to use an existing bus for this service rather than procure a new vehicle. The operating and capital costs for this service expansion therefore, would be kept to a minimum.

Table 4-10. Gloucester Point Route

	Existing*	Proposed	Increase
Daily Revenue Hours	6	6	0
Annual Days of Operation	255	255	0
Annual Revenue Hours	1,530	1,530	0
Annual Operating Cost	$78,215	$78,215	$0
Annual Ridership	5,999	6,576	577

** The existing service statistics represent the service operating as demand-response that will be replaced by the Gloucester Point Route*

The ridership from six hours of the existing demand-response service is also shown in Table 4-10. The estimated 5,999 riders for this service was calculated using the ridership per hour for demand-response service of 3.92 riders and applying it to the annual revenue hours. The proposed ridership is estimated using the existing deviated fixed-route (Courthouse Circulator) riders per hour of 4.29 and applying it to the annual revenue hours. This method essentially exchanges the number of riders typical for a demand-response service in the county and replaces it with the number of riders typical for fixed-route service in the area. The result is a ridership gain of 577 riders per year.

Service Expansion Project 4: Extension of Service to Evening Hours

Bay Transit has been considering extending the span of service for demand-response service to include evening hours. Evening service would be implemented on a county by county basis because it is dependent on additional funding by each county. Therefore, the analysis for the evening service expansion is completed by county, starting with Table 4-11 that includes the number of buses and annual ridership by county. Additionally, Table 4-11 calculates the revenue hours by county and riders per hour based on implementing 12-hour service during an entire year.

Table 4-11. Existing Demand-Response Service Operating Statistics

County	Buses Operating 12 hrs/day	Approximate Revenue Hours	Ridership	Riders per Hour
Gloucester	3	9,180	35,996	3.92
Essex	2	6,120	17,851	2.92
Mathews	1	3,060	6,447	2.11
Middlesex	1	3,060	7,966	2.60
King and Queen	0.75	2,295	4,835	2.11
King William	0.75	2,295	4,227	1.84
New Kent	1.5	4,590	3,142	0.68
Charles City	1.5	4,590	7,031	1.53
Lancaster	1.5	4,590	13,379	2.91
Northumberland	2	6,120	8,089	1.32
Richmond County	1	3,060	7,999	2.61
Westmoreland	1	3,060	6,932	2.27

Table 4-12 shows the additional revenue hours associated with evening service for each county, calculated by assuming one bus operating 2 hours of service. The additional hours of service would increase the existing service, which operates 12 hours (6 a.m. to 6 p.m.) up to 14 hours (6 a.m. to 8 p.m.). Cost of the service was calculated by using the FY 2015 cost per revenue hour of $51.12. The projected ridership, also shown in Table 4-12 was calculated by assuming a 50 percent decrease in riders per hour compared to the average for the entire day shown in Table 4-11, which is comparable to other systems' evening ridership productivity rates.

Table 4-12. Annual Evening Service Projections by County

County	Revenue Hours	Operating Cost	Projected Ridership	Riders per Hour
Gloucester	510	$26,072	1,000	1.96
Essex	510	$26,072	744	1.46
Mathews	510	$26,072	537	1.05
Middlesex	510	$26,072	664	1.30
King and Queen	510	$26,072	537	1.05
King William	510	$26,072	470	0.92
New Kent	510	$26,072	175	0.34
Charles City	510	$26,072	391	0.77
Lancaster	510	$26,072	743	1.46
Northumberland	510	$26,072	337	0.66
Richmond County	510	$26,072	667	1.31
Westmoreland	510	$26,072	578	1.13

CHAPTER 5: OPERATIONS PLAN

Over the 6-year period of this TDP, Bay Transit will continue to provide deviated fixed-route and demand-response service to the 12 county service area. The previous chapter showed a number of potential service improvements that could be introduced to expand the reach of Bay Transit to serve more of the community. While each of the improvements have identifiable merits and could improve the mobility of those living in the service area, Bay Transit must remain responsibly cognizant of their fiscal constraints and offer increases in services incrementally and sustainably. Additionally, over the life of the previous TDP, Bay Transit has undergone a series of changes including modifying its deviated fixed-route services as well as opening two new operations and maintenance facilities. Therefore, it is recommended that Bay Transit should focus primarily on maintaining the quality it provides through its demand-response and two successful deviated fixed-route services. Additional services planned during the life of this TDP are conservative but should provide valuable extensions of the current service brand.

5.1 EXISTING SERVICE OVERVIEW

At the time of the previous TDP, Bay Transit's service consisted of exclusively demand-response operations. Since then, Bay Transit introduced the first deviated fixed-route services to complement its extensive demand-response service. Section 1.4 details the types of services offered to accommodate the nearly 3,000 square mile service area. Currently, there are three deviated fixed-routes, three trolleys, a new freedom program, and 17 buses operating demand-response service. Collectively, the system required 53,967 revenue hours, 1,622,092 revenue miles, and $2,758,837 in fiscal year 2015. This effort provided 143,005 passenger trips to rural northeastern Virginia. Ridership by county is shown in Figure 3-2 of Chapter 3, revealing Gloucester County as the largest producer of trips in the service area. The deviated fixed-route services have been mostly successful, with the Courthouse Circulator continuously showing strong ridership. The Neck Connect on the other hand, has suffered from low ridership totals through FY 2015. Table 3-1, also in Chapter 3, shows the 3-year trend in annual statistics for the system, including passenger trips, revenue miles, and revenue hours. Based on the findings from Chapter 3, Chapter 4 shows a list of expansion projects that could be undertaken to provide greater mobility in the region. The next section schedules several of the projects that are reasonably expected to be undertaken over the course of this TDP.

5.2 PLANNED SERVICE

Bay Transit is committed to delivering reliable transit services to the public that are productive and efficient. Part of that commitment is reacting to demand for transit and providing a corresponding level of service appropriate to the needs of the community. Expansion and/or reduction in service can occur in response to demand and funding sources. Although the potential service improvements from the previous chapter could increase ridership and mobility in the area, not all service improvements are planned for implementation during the life of this TDP. An annual timeline that shows expected service expansion and reduction is shown below in Table 5-1, including descriptions of the service changes and approximate revenue miles and revenue hours that will occur as a result of the changes.

Table 5-1. Planned Service Levels for FY 2016 - FY 2021

	Service Change Impacts		
Fiscal Year	Service Description	Annual Vehicle Hours Change	Annual Vehicle Miles Change
2016	Addition of Rivah Ride	1,275	16,881
	Discontinue Neck Connect	-1,275	-43,911
	Expansion of service to city of Richmond	306	30,600
2017	Second Vehicle in Middlesex County	3,315	99,639
2018	-	-	-
2019	-	-	-
2020	-	-	-
2021	-	-	-

FY 2016

The daily vehicle hours for the Rivah Ride are estimated to be five hours a day, made up of four revenue hours a day and an additional hour for the bus to deadhead from the Warsaw facility to Tappahannock to begin service as well as a return trip in the afternoon. The five hours of weekday service yield an annual amount of 1,275 hours. The Rivah Ride requires about 66.2 vehicle miles a day, including four 12.7 mile round trips and 15.4 miles of total deadhead.

The poor performance of the Neck Connect deviated fixed-route service caused Bay Transit to discontinue service in January 2016. The daily vehicle hours of this route was approximately five hours, based on the four revenue hours and an additional hour for deadhead to and from the bus facility. This change will affect the overall operating statistics by decreasing the annual vehicle hours by 1,275, and the annual vehicle miles by 43,911.

The additional service in Richmond is estimated to increase the vehicle hours by approximately 306 hours a year. This is calculated by considering two additional hours for the bus to serve an increased number of stops. It is important to note that this expansion keeps the same three days a week schedule (Monday, Wednesday, and Friday). The exact locations of the stops are yet to be determined; however, an approximate value of 30 miles was used to estimate the additional annual service miles of 30,600.

FY 2017

The final change in operations expected during the tenure of this TDP will come in FY 2017, with the addition of a second demand-response vehicle in Middlesex County. This change will incur an extra 13 vehicle hours a day, equating to 3,315 hours annually. The annual vehicle miles pivot off of this assumption using a basic metric for average miles per hour for the entire system (30.06 mph). Using this relationship, the estimated additional miles should be almost 100,000 miles.

5.3 FACILITY AND CAPITAL PROJECTS

The final section of Chapter 5 reveals planned facility improvements and capital projects that have direct and significant impact on the operations of the transit system. A more detailed and comprehensive assessment of the facility and capital projects is located in Chapter 6.

Purchase and Install Bus Stop Shelters – Bus stop signs have been purchased and installed at designated deviated fixed-route stops. Although this has been a necessary improvement, additional upgrades in the form of bus shelters are appropriate for some of the more popular stops. There are approximately 5 to 10 stops that will be upgraded to include bus shelters. Bay Transit plans to investigate specific locations, shelter sizes, and estimated costs

for inclusion in the capital plan for 2017. Bus stops may impact operations by reducing the number of times the bus needs to stop to pick up passengers, thereby reducing trip times.

Fixed-Route Scheduling Software – Bay Transit has upgraded the demand-response scheduling system with RouteMatch Software, as described in Section 1.9. The fixed-route scheduling system; however, still needs to be upgraded in a similar fashion to a more effective, efficient scheduling and record-keeping system. For easy transition and interoperability, the new deviated fixed-route scheduling software should be compatible with the demand-response system. As Bay Transit strives to improve transit operations, this software will be critical for route development, scheduling, and collecting/reporting data to the DRPT.

Vehicle Replacement Program – Bay Transit must replace vehicles that have reached their useful life in order to provide safe and effective transit services. Typically, Bay Transit receives 5 to 10 new transit vehicles annually to keep maintenance costs low and to avoid excessively large replacement costs in any given year. Given the current fleet size and operating requirements, the replacement of eight or nine new vehicles during the remainder of the TDP will keep the fleet within dependable operating condition. Chapter 6 outlines the vehicle replacement plan in greater detail as part of the overall capital improvement program (CIP).

CHAPTER 6: CAPITAL IMPROVEMENT PROGRAM

This chapter presents the CIP required to carry out the operations and services set forth in the operating plan including vehicles, facilities, and equipment. The recommendations in the CIP reflect those projects for which Bay Transit reasonably anticipates local funding to be available. Specific recommendations for vehicles, facilities, passenger amenities, and technology upgrades are outlined below.

6.1 VEHICLE REPLACEMENT AND EXPANSION PROGRAM

This section presents the vehicle replacement and expansion program, including vehicle life cycles, a replacement schedule, and costs. As noted in Chapter 1, Bay Transit currently operates a fleet of 62 vehicles, with 42 of those vehicles generally operating as revenue vehicles. Given that many revenue service vehicles are at or exceeding their service life, vehicle replacements will be an important component of the capital program. The revenue service fleet is comprised of cutaway body-on-chassis (BOC) minibuses, trolley coaches, and smaller sedans and minivans. All trolleys and all but one minibus are ADA-accessible. A total of 49 revenue vehicles are gasoline powered, two are diesel, and nine run on compressed natural gas. Bay Transit also owns one shop truck. Vehicle replacement needs account for a majority of the capital costs; however, some service expansions may require the purchase of additional buses for implementation.

The vehicle replacement and expansion program was developed using FTA's and DRPT's useful life policies. These policies stipulate a minimum useful life of four years or 100,000 miles for all Bay Transit vehicles. By this metric, all of the vehicles in the fleet will become eligible for replacement during the years covered by this TDP. However, the program also is based on the historical vehicle usage, past purchasing patterns for Bay Transit, and anticipated availability of local funds. In general, the revenue vehicles are replaced using the useful life policies, while the non-revenue vehicles are replaced on a needs basis to avoid unnecessary costs. Bay Transit typically purchases seven or eight new vehicles every year, and the recommended replacement schedule continues this purchasing pattern. It is important to note that trolleys are used on a seasonal basis, and therefore the mileage is more indicative than age in determining the vehicles' useful life. Table 6-1 summarizes the current inventory and recommended replacement year. A detailed vehicle inventory table can be found in Appendix A. Vehicle replacement will be important to avoid high operating costs associated with over-age vehicles and to maintain service reliability.

Table 6-1. Vehicle Inventory with Replacement Year Estimate

Bay Transit Vehicle ID No.	Vehicle Type	Number of Passengers	Model Year	Total Mileage[1]	Estimated Replacement Year
110	Cutaway	15	2010	175,136	2017
111	Cutaway	15	2010	206,830	2017
113	Cutaway	15	2010	211,032	2017
114	Cutaway	14	2012	110,996	2018
115	Cutaway	14	2012	139,719	2018
116	Cutaway	14	2012	145,623	2018
117	Cutaway	14	2012	116,635	2018
118	Cutaway	14	2012	91,299	2019
119	Cutaway	14	2012	128,260	2019
120	Cutaway	14	2012	172,855	2019
121	Cutaway	14	2012	153,311	2019
123	Cutaway	14	2014	41,127	2021
124	Cutaway	14	2014	58,842	2020
125	Cutaway	14	2014	80,494	2020
127	Cutaway	14	2014	63,017	2021
128P	Propane Cutaway	14	2014	72,047	2020
129P	Propane Cutaway	14	2014	52,641	2021
130	Cutaway	15	2014	35,619	2021
131	Cutaway	15	2014	36,560	2021
133	Cutaway	15	2014	49,370	2021
134V	Van	9	2014	23,230	2019
135V	Van	9	2014	14,990	Beyond TDP Horizon
136	Cutaway	15	2014	37,717	2020
92	Cutaway	15	2010	161,930	2016
93	Cutaway	15	2010	188,312	2016
T4	Trolley	25	2006	80,917	2018
T5	Trolley	26	2010	30,767	2019
137P	Propane Cutaway	15	2015	3,978	Beyond TDP Horizon
138P	Propane Cutaway	15	2015	1,210	Beyond TDP Horizon
139P	Propane Cutaway	15	2015	2,175	Beyond TDP Horizon
140P	Propane Cutaway	15	2015	2,352	Beyond TDP Horizon

Table 6-1. Vehicle Inventory with Replacement Year Estimate

Bay Transit Vehicle ID No.	Vehicle Type	Number of Passengers	Model Year	Total Mileage[1]	Estimated Replacement Year
141P	Propane Cutaway	15	2015	1,731	Beyond TDP Horizon
142P	Propane Cutaway	15	2015	379	Beyond TDP Horizon
144	Cutaway	15	2015	6,313	Beyond TDP Horizon
146	Cutaway	19	2015	981	Beyond TDP Horizon
147	Cutaway	19	2015	1,142	Beyond TDP Horizon
Pickup	Shop Truck	2	1986	169,986	2017
Traverse	Support Vehicle	8	2012	35,258	2021
Uplander	Support Vehicle	4	2008	71,411	2020
Caravan	Support Vehicle	4	2003	144,597	2016
Intrepid	Support Vehicle	4	2003	92,554	2017
Neon SE	Support Vehicle	4	2003	111,578	2017
Escape	Support Vehicle	4	2009	67,686	2019
T6	Trolley	26	2010	39,013	2020
Van 1	Shop Van	1	2014	16,051	2021
88	Cutaway	15	2009	201,778	2016
96	Cutaway	15	2010	201,269	2016
97	Cutaway	15	2010	168,581	2017
145	Cutaway	15	2015	4,001	2020
126	Cutaway	15	2014	67,147	2019
132	Cutaway	14	2014	33,228	2020

[1]*Mileage information taken from DRPT OLGA database in February 2016*

Table 6-2 provides the overall vehicle replacement and expansion program for FY 2016 through FY 2021. New revenue service vehicles will be of similar types to those used in the current fleet: that is, ADA-accessible, gasoline or propane powered, cutaways (and to a lesser extent vans and trolleys). While the actual costs will vary at the time of purchase, estimates are based on unit costs of $85,000 for a diesel-powered cutaway, $94,000 for a propane-powered cutaway, $30,000 for support vehicles (including shop trucks), and $100,000 for a trolley in FY 2016 dollars. The proceeds from a vehicle sale at the time of replacement are typically used towards the local match These unit costs were developed from approximate values for similar vehicles previously purchased by Bay Transit, and cost estimates include a 4.0 percent annual escalation rate. As noted in Chapter 5, Middlesex County is scheduled to have one additional demand-response vehicle in service in FY 2017. This service will use a spare vehicle for the first two years. If the new service is determined to be successful, the Middlesex County Board of Supervisors will have the option of providing matching funds for a new dedicated vehicle. Additional replacement vehicles programmed through FY 2021 is estimated to total just more than $5 million for the CIP.

Table 6-2. Vehicle Program

Number of Vehicles	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Replacement							
Cutaway (Diesel)	7	8	8	8	7	7	45
Cutaway (Propane)	-	-	-	-	1	1	2
Van	-	-	-	1	-	-	1
Support Vehicle	2	-	-	-	-	-	2
Shop Truck	-	-	-	-	-	1	1
Trolley	-	-	1	1	1	-	3
Expansion							
Cutaway	-	-	-	1	-	-	1
Total Vehicles	9	8	9	11	9	9	55
Vehicle Costs[1]							
Replacement							
Cutaway (Diesel)	$595,000	$707,200	$735,488	$764,908	$696,066	$723,908	$4,222,570
Cutaway (Propane)	-	-	-	-	$109,967	$114,365	$224,332
Van	-	-	-	$33,746	-	-	$33,746
Support Vehicle	$60,000	-	-	-	-	-	$60,000
Shop Truck	-	-	-	-	-	$36,500	$36,500
Trolley	-	-	$108,160	$112,486	$116,986	-	$337,632
Expansion							
Cutaway	-	-	-	$95,613	-	-	$95,613
Total Projected Vehicle Costs	$655,000	$707,200	$843,648	$1,006,753	$923,018	$874,773	$5,010,393

[1]*Vehicle costs calculated assuming a 4.0% per year escalation rate*

6.2 MAJOR SYSTEM MAINTENANCE AND OPERATIONS FACILITIES

Bay Transit has recently opened two operations and maintenance facilities. The first opened in Warsaw in 2010 and the second opened near Gloucester Courthouse in 2015. With these two new facilities, there is not a need for facility expansion or improvements in the near-term. Thus, no new maintenance and operations facilities projects are identified in the CIP. Towards the end of this TDP's time horizon, the Warsaw operations and maintenance facility is anticipated to require some state-of-good-repair maintenance (e.g. flooring replacement or HVAC system work). Estimated costs for this maintenance work are included in Table 6-3.

6.3 PASSENGER AMENITIES AND TECHNOLOGY

The overall program for non-vehicle capital expenses is shown in Table 6-3. Ten bus shelters are planned for installation at the heavily used stop locations throughout the service area by FY 2017. Unit costs for bus shelter purchase and installation were derived from similar bus shelter projects in Virginia and were estimated at $7,000 per unit.

Bay Transit will maintain a computerized scheduling program throughout the time horizon of this TDP. Annual costs for maintaining this software are estimated to be between $2,000 and $3,000. In addition, Bay Transit plans to deploy a fixed-route scheduling system similar to its existing RouteMatch demand-response scheduling system in FY 2017. The deviated fixed-route module from RouteMatch will extend the tablet-based system to the vehicles providing deviated fixed-route service. The system will offer real-time vehicle tracking and driver-dispatch communications through the mobile devices, and allow drivers to record the number of passengers boarding at each stop. This will provide a more efficient system for scheduling and data collection. The software will be fully integrated with the existing demand-response system with a combined reporting module for all of Bay Transit's service.

In addition to the benefits the technology upgrades will have for Bay Transit's operations and its customers, it also will align with the DRPT's direction toward performance data collection and reporting. The upgrade would meet the recommendation of the Commonwealth's Transit Service Delivery Advisory Committee (TSDAC) for all grantees to transition to a "simple electronic system" for collecting ridership, revenue miles, and revenue hours data. A breakdown of estimated capital costs for the technology enhancements is included in Table 6-4. Bay Transit does not anticipate additional capital needs for any other passenger amenities or technology enhancements.

Table 6-3. Non-Vehicle Capital Program

Project	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
New Bus Shelters[1]	-	$21,525	$14,709	$15,076	$23,180	-	$74,490
Fixed-Route Scheduling	-	$63,600	-	-	-	-	$63,600
Warsaw Facility Standard Maintenance	-	-	-	-	$50,000	$50,000	$100,000
Onboard Tablet Replacement[2]	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$24,000
Ongoing Computerized Scheduling Upgrades[2]	$2,400	$2,400	$2,400	$2,400	$2,400	$2,400	$14,400
Total Non-Vehicle Capital Expenses	$6,400	$91,525	$21,109	$21,476	$79,580	$56,400	$276,490

[1]Bus shelter costs calculated assuming a 2.5% annual inflation rate

[2]Replacement costs for tablets and computerized scheduling upgrades are not expected to escalate in future years

Table 6-4. Technology Cost Assumptions

Items	Cost Estimate (FY 2017)
Hardware and Software	
Base Fixed-Route System	$20,000
Fixed-Route Vehicle License (5 units)	$12,500
RouteMatch Mobile Application (5 units)	$7,500
Implementation (Services)	$23,600
Total Capital Costs	$63,600

6.4 TOOLS AND EQUIPMENT

There are no specific recommendations for additional tools and equipment included in the CIP.

6.5 ROUTE ENHANCEMENTS

Several route enhancements will result in a change in operating and capital expenses during the course of the TDP evaluation period. As discussed in Chapter 5, the fiscally constrained plan provides for the addition of a second demand-response vehicle in Middlesex County and the extension of existing fixed-route services to the city of Richmond. The discontinuation of the Neck Connect deviated fixed-route and beginning of the Rivah Ride deviated fixed-route service in FY 2016 also will impact operating costs, but these changes should counterbalance the total projected costs because of the similarity in service hours. A year-by-year summary of costs associated with route enhancements is shown in Table 6-5. Route enhancements are estimated to add more than $1.3 million to the cost of existing services during the course of the six year TDP.

For the demand-response program, Bay Transit has initiated a pilot project grant through a local community foundation to provide local matching funds for the first two years of operation. As noted previously, Bay Transit will seek a commitment from the Middlesex County Board of Supervisors to provide matching funds if the pilot project is successful after a period of two years.

Table 6-5. Operating and Capital Cost Estimates for Route Enhancements

Service Enhancement	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Addition of Rivah Ride (Operating)*	$65,178	$67,785	$70,497	$73,316	$76,249	$79,299	$432,324
Discontinue Neck Connect (Operating)*	($65,178)	($67,785)	($70,497)	($73,316)	($76,249)	($79,299)	($432,324)
Expansion of service to city of Richmond (Operating)	$15,643	$16,268	$16,919	$17,596	$18,300	$19,032	$103,758
Second Vehicle in Middlesex County							
Operating	$169,463	$176,241	$183,291	$190,623	$198,248	$206,177	$1,124,043
Capital	-	-	-	$95,613	-	-	$88,400
Total Projected Costs	$185,106	$192,509	$200,210	$303,832	$216,548	$225,209	$1,316,201

**The addition of the Rivah Ride and the discontinuation of the Neck Connect negate the combined operating costs.*

CHAPTER 7: FINANCIAL PLAN

Describing the financial plan and demonstrating the financial sustainability of Bay Transit is a principal objective of this TDP. This chapter is devoted to exploring Bay Transit's financial outlook, including rehabilitation and replacement of capital assets. Elements that affect the capital and operating budgets are examined and organized into three sections on costs and funding sources based on operating and maintenance (Section 7.1), bus purchases (Section 7.2), and facility improvements (Section 7.3).

7.1 OPERATION AND MAINTENANCE COSTS AND FUNDING SOURCES

The most recent year with complete financial information available for Bay Transit is FY 2015. In FY 2015, Bay Transit had an operating budget of $2,758,837, inclusive of both demand-response and deviated fixed-route services. Funding sources for the FY 2015 operating budget are summarized into the five categories listed below. Additionally, Appendix E shows details for FY 2013, FY 2014, and FY 2015 for a historic perspective.

- Federal Funds - $1,284,795 (46.6 percent)
- State Funds - $508,120 (18.4 percent)
- Farebox - $182,450 (6.6 percent)
- Other (Contract Revenue and other sources) - $51,709 (1.9 percent)
- Local Government Funding $731,762 (26.5 percent)

The financial plan is derived from the costs and funding sources budgeted for FY 2016, referred to as the "base year". Annual operating and maintenance costs are expected to increase by approximately 15 percent from $3.08 million in FY 2016 to $3.48 million in FY 2021. The increase of about $400,000 during the 6-year TDP lifespan includes the service changes described in Chapter 5 as well as a 2.5 percent increase each year to account for inflation.

Because exact figures for state operating assistance are not yet available, future years of state funding were derived using the State Mass Transit Fund increases in the 2016 DRPT Six-Year Improvement Program (SYIP). Table 7-1 shows the percent increases year after year, which reveals that the state operating assistance is expected to increase at a greater rate than inflation for 4 out of the 5 future years.

Table 7-1. State Operating Assistance Rate Increases

Year	Percent Increase
FY 2016 to FY 2017	2.79%
FY 2017 to FY 2018	2.86%
FY 2018 to FY 2019	2.83%
FY 2019 to FY 2020	2.63%
FY 2020 to FY 2021	2.44%

It is important to note that the State Mass Transit Fund in the SYIP may not precisely replicate the increase in funding to Bay Transit by the State. The exact amount of funding will depend on several factors including system size and performance evaluation. In 2014, Senate Bill 1140 introduced an alternative method for state funding allocation that uses a combination of traditional and performance-based measures. The traditional method is calculated using the standard used since 1987, which states that operating assistance is allocated to each system based on their operating costs relative to the total operating costs for all transit providers receiving state operating assistance. The first $160 million is allocated for state funding using the traditional method, after which the performance-based method takes effect.

The performance-based funding is based on a combination of net cost per passenger (50 percent), customers per revenue hour (25 percent), and customers per revenue mile (25 percent). In FY 2014, the first year of performance-based funding, Bay Transit received $431,183 in state operating assistance, representing a $75,707 decrease from FY 2013. DRPT now publishes the distribution of operating assistance, which showed that in FY 2015 Bay received $384,829 (75.7 percent) in traditional funding and $123,291 (24.3 percent) in performance-based funding. According to the SYIP, Bay Transit will receive, $348,678 (73.4 percent) in traditional funding

and $126,643 (26.6 percent) in performance-based funding in FY 2016.

Table 7-2 identifies the operating and maintenance costs and the sources and amounts of funding annually through FY 2021. State operating assistance is expected to increase gradually from $475,352 in FY 2016 to $543,311 in FY 2021. Although this is an increase of about $68,000 during the TDP lifespan, the state assistance remains at about 15 percent of the total operating and maintenance costs.

The federal component of funding must not exceed 50 percent of the operating deficit (costs minus farebox/contract revenue funding sources). Under these conditions, the ederal component grows from $1.429 million in FY 2016 to $1.620 million in FY 2021.

Additional funding sources include farebox revenues, local government funds, and other sources such as advertising. Farebox revenues were estimated using a seven percent recovery of operating costs in FY 2015, a relatively conservative metric that is based on historical data, and takes into account proposed service growth in 2017. Farebox revenues are conservatively assumed to remain the same beyond FY 2017. The "Other (Contract Rev & Other)" funding is made available via advertising, charter, and senior transportation contracts. Finally, the local government funding required is calculated as the remainder of the operating costs less the total of the aforementioned funding sources. Each year of the TDP, the remainder is about 30 to 31 percent of the total operating costs, requiring the local government to contribute $936,312 in FY 2016 to an estimated $1.077 million in FY 2021.

Table 7-2. Financial Plan for Funding Annual Operations and Maintenance (O&M) Costs (Costs in Year of Expenditure Dollars)

TDP Financial Plan for: Service O&M Costs	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Annual Revenue Hours	54,300 [1]	57,600 [2]	57,600	57,600	57,600	57,600
Annual Operating Costs	$3,081,704 [3]	$3,158,747 [4]	$3,237,715	$3,318,658	$3,401,625	$3,486,665
Anticipated Funding Sources						
Federal[5,6]	$1,429,352	$1,456,317	$1,495,802	$1,536,273	$1,577,756	$1,620,276
State[5]	$475,321	$488,582	$502,556	$516,778	$530,370	$543,311
Farebox[7]	$215,719	$221,112	$221,112	$221,112	$221,112	$221,112
Farebox Recovery Ratio	7.0%	7.0%	6.8%	6.7%	6.5%	6.3%
Other (Contract Rev & Other)	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000
Local Gov't Funding Required[8]	$936,312	$967,735	$993,246	$1,019,495	$1,047,387	$1,076,966
Local Gov't Funding Percentage	30.4%	30.6%	30.7%	30.7%	30.8%	30.9%

[1]FY 2016 revenue hours approximated to be about 300 hours more than FY 2015 due to the additional service to the city of Richmond.

[2]FY 2017 and beyond revenue hours approximated to be about 3,300 hours more than FY 2016 due to the second demand-response vehicle in Middlesex County.

[3]Operating cost estimates for FY 16 based on current SYIP budget.

[4]Annual Operating costs for FY 2017-2021 calculated assuming a 2.5% annual inflation rate.

[5]State and Federal funding levels known for FY 2016, after which growth is assumed consistent with DRPT's SYIP (2017=2.79%, 2018=2.86%, 2019=2.83%, 2020=2.63%, 2021=2.44%).

[6]Federal funding levels based on 50% of net operating deficit (costs minus farebox and other/contract revenues).

[7]Farebox revenue receipts based on 7% farebox recovery for 2016 and 2017. Farebox revenue anticipated to remain constant in FY 2018 - 2021, when there is no planned service expansion.

[8]Local funding required captures remaining amount of funds required.

It should be noted that additional funding beyond the amounts in Table 7-2 is required for Bay Transit to continue operating the New Freedom Assistance Program and the Senior Transportation Assistance Program. According to the 2015 SYIP, there are an estimated total of $217,530 in FTA 5310 funds, $68,677 in state paratransit funds, and $17,169 in local assistance dedicated to the New Freedom Assistance Program for FY 2016. These amounts are shown in Table 7-3. Additionally, Table 7-4 shows the estimated funding for the Senior Transportation Assistance Program of $16,000 from state funds and $4,000 in local assistance. However, the funding for these programs are uncertain in future years, and therefore are conservatively estimated to remain consistent with FY 2016 estimates.

Table 7-3. FY 2016 Financial Plan for New Freedom Assistance Program

TDP Financial Plan for: New Freedom Assistance Program	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Budget Items						
Middle Peninsula-Northern Neck Mobility Management	$306,166	$303,366	$303,366	$303,366	$303,366	$303,366
Anticipated Funding Sources						
Revenues	$2,800	-	-	-	-	-
Federal Operating (FTA 5310)	$141,200	$141,200	$141,200	$141,200	$141,200	$141,200
Federal Mobility Management (FTA 5310)	$76,320	$76,320	$76,320	$76,320	$76,320	$76,320
State Funds	$68,677	$68,677	$68,677	$68,677	$68,677	$68,677
Local Assistance	$17,169	$17,169	$17,169	$17,169	$17,169	$17,169

Table 7-4. FY 2016 Senior Transportation Assistance Program

TDP Financial Plan for: Senior Transportation Assistance Program	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Budget Items						
Senior Transportation Program	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000
Anticipated Funding Sources						
Revenues	$0	$0	$0	$0	$0	$0
State Funds	$16,000	$16,000	$16,000	$16,000	$16,000	$16,000
Local Assistance	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000

7.2 BUS PURCHASE COSTS AND FUNDING SOURCES

Chapter 6 detailed the vehicle replacement and expansion program, highlighted again in Table 7-5 with funding amounts by source. Previous SYIPs were used to understand historical distributions to aid in estimating future year projections. For each year in the TDP lifespan, 80 percent of the total vehicle costs are funded with FTA's Section 5311 Program. For FY 2016-2018, the state is expected to contribute 16 percent of the capital costs, resulting in a local contribution of only four percent. The higher state contribution during this time period is a result of funding from state capital bonds. The bonds are likely to expire in 2018, which readjusts the FY 2019- 2021 funding contribution to 80 percent federal, 10 percent state, and 10 percent local.

In most years, Bay Transit must replace about nine vehicles to avoid accumulating over-age vehicles and the associated high maintenance costs. The greatest expense is expected in FY 2019 with more than $1 million in vehicle costs, when Bay Transit plans to purchase 11 vehicles. During the six year TDP timeframe, Bay Transit is anticipated to need $5 million for the purchase of transit vehicles.

Table 7-5. Financial Plan for Funding Vehicle Purchases (Costs in Year of Expenditure Dollars)

TDP Financial Plan for: Bus Replacements[1,2]	FY2016[3]	FY2017[3]	FY2018[3]	FY2019[4]	FY2020[4]	FY2021[4]
Total Vehicles	9	8	9	11	9	9
Total Vehicle Costs	$655,000	$707,200	$843,648	$1,006,753	$923,018	$874,773
Anticipated Funding Sources						
Federal - FTA 5311 Program	$524,000	$565,760	$674,918	$805,402	$738,414	$699,818
State	$104,800	$113,152	$134,984	$100,675	$92,302	$87,477
Local Gov't Funding Required	$26,200	$28,288	$33,746	$100,675	$92,302	$87,477

[1]*Vehicle replacements by year identified in Chapter 6.*

[2]*Table reflects 4.0% per year escalation in vehicle acquisition costs.*

[3]*Vehicles purchased through FY 18 assume 80% funding through FTA Section 5311 program, 16% funding from State, and the remaining 4% funding from local government.*

[4]*Vehicles purchased from FY 19-21 assume 80% funding through FTA Section 5311 program, 10% funding from State, and the remaining 10% funding from local government.*

7.3 FACILITY IMPROVEMENT COSTS AND FUNDING SOURCES

The first two sections of this chapter detailed the financial plan for O&M costs and vehicles costs. This section describes how Bay Transit plans to fund non-vehicle capital projects such as bus shelters, vehicle routing hardware and software, and facility improvements. Table 7-6 summarizes the costs outlined in Chapter 6 with additional information on funding amount and source. Like the previous section that describes vehicle capital costs, 80 percent of the non-vehicle capital costs are paid for with Federal 5311 Program funds. The remaining funding will come from state and local funds, at 16 percent and four percent of total costs, respectively, through FY 2018. Again, as in the previous section on vehicle capital costs, the non-vehicle capital cost funding sources will change in FY 2019, when state capital bonds are expected to expire. Thus, in FY 2019-2021, the state funding percentage is assumed to decrease to 10 percent of capital costs, resulting in an increase of local funding to 10 percent.

Table 7-6. Financial Plan for Funding Facility Improvements (Costs in Year of Expenditure Dollars)

TDP Financial Plan for: Funding Facility Improvements[1]	FY2016[2]	FY2017[2]	FY2018[2]	FY2019[3]	FY2020[3]	FY2021[3]
Anticipated Costs						
New Bus Shelters	-	$21,525	$14,709	$15,076	$23,180	-
Fixed Route Scheduling Software	-	$90,000	-	-	-	-
Warsaw Multimodal Facility	-	-	-	-	$50,000	$50,000
Onboard Tablet Replacement	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000
Ongoing Computerized Scheduling Upgrades	$2,400	$2,400	$2,400	$2,400	$2,400	$2,400
Total Facility Improvement Costs	$6,400	$117,925	$21,109	$21,476	$79,580	$56,400
Anticipated Funding Sources						
Federal - FTA 5311 Program	$5,120	$94,340	$16,887	$17,181	$63,664	$45,120
State	$1,024	$18,868	$3,377	$2,148	$7,958	$5,640
Local Gov't Funding Required	$256	$4,717	$844	$2,148	$7,958	$5,640

[1]*Facility improvement costs identified in Chapter 6.*

[2]*Facility purchases through FY 18 assume 80% funding through FTA Section 5311 program, 16% funding from State, and the remaining 4% funding from local government*

[3]*Facility purchases from FY 19-21 assume 80% funding through FTA Section 5311 program, 10% funding from State, and the remaining 10% funding from local government.*

CHAPTER 8: TDP MONITORING AND EVALUATION

This TDP covers a total of six years, from 2016 through 2021, detailing a comprehensive evaluation of Bay Transit's service and cost characteristics. The previous seven chapters have presented a myriad of information on the system. Some essential elements of Bay Transit that have been addressed in this effort include:

- An overview of the system including a brief history, governance descriptions, organization chart, and Bay Transit service area
- A description of fare structure, fleet, facilities, security program, intelligent transportation systems program, data collection methods, and public outreach
- The development of goals, objectives, and performance standards for use in guiding the future development of transit services
- A thorough assessment of Bay Transit's existing service characteristics, identifying and describing the strengths and weaknesses
- Comparison of Bay Transit's service and financial characteristics to a set of peer agencies of similar size and traits
- An on-board survey that helped glean more information about who uses Bay Transit, and how to better serve them
- Non-rider input in the form of interviews with regional stakeholders and students from Rappahannock Community College
- Identification and description of potential service expansion projects with details on additional resources required for each project
- An operations plan constrained by reasonably expected revenues, scheduled by year
- The CIP, showing the capital assets needed to carry out the operations set forth in the operating plan
- Funding requirements and expected revenues partitioned by source for the set of recommended services

In order to preserve the utility of this planning document, many of these elements must be monitored and evaluated during time to ensure that proper goals and objectives are met. Moreover, these efforts should be coordinated with other transportation and land use planning endeavors. Annual updates of this TDP will provide DRPT the necessary information to track the progress of service and facility improvements. Each of these elements will assist Bay Transit in maintaining a properly functioning transit system that balances the needs of the community with finite resources.

8.1 COORDINATION WITH OTHER PLANS AND PROGRAMS

Transportation and land use planners at the county, regional, and statewide levels should review and incorporate elements of this TDP into future planning efforts. Each of the 12 counties in the Bay Transit service area should review and incorporate the goals and objects in Chapter 2 into the respective transportation related comprehensive plans. Additionally, the Long Range Transportation Plan (LRTP) and Transportation Improvement Program (TIP) for each of the planning districts in the Bay Transit service area (Northern Neck, Middle Peninsula, and Richmond Regional) should include elements of the TDP. The statewide SYIP, TIP, and the Multimodal LRTP (VTrans2035) should all include references to the TDP where appropriate.

8.2 SERVICE PERFORMANCE MONITORING

In Chapter 2, Bay Transit defined a set of system-wide performance measures and operating guidelines customized for their rural demand-response system. Observance of these metrics and guidelines will safeguard the system's performance from deteriorating over time. It is therefore important for Bay Transit management to continually monitor and track these metrics and make comparisons to past months to avoid a decline in service.

Identification of inadequate service performance should lead to corrective action. Bay Transit. Corrective measures may involve strategies including

the reduction of demand-response bus allocations, realignment of deviated fixed-route services, changes to route frequencies, and/or changes to the span of service. Bay Transit currently tracks monthly performance at the system and county level, including ridership, service-hours, service miles, operating costs, and operating revenues. Expansion of service would necessitate close monitoring of the service to determine the viability of the service. Bay Transit should continue its strong track-record of making necessary changes, demonstrated by first modifying and subsequent elimination of the Neck Connect due to low ridership. In fact, conducting an on-board ridership survey every 6 years is part of DRPT's guidelines.

8.3 ANNUAL TDP MONITORING

In addition to the comprehensive TDP completed every six years, the DRPT guidelines require an annual letter of brief but important updates on the system. The "TDP Update" will include the progress in implementing the TDP recommendations and any necessary modifications of the TDP. Elements that should be included are system expansions or reductions, new services or facilities being planned or implemented, changes in agency organization or government, fare structure changes, and any other relevant and significant modifications to the system or agency. A set of recommended updates in the letter should include, but are not limited to, the following:

- A summary of ridership trends for the each of the preceding 12 months
- A description of TDP goals and objectives that have advanced during the preceding 12 months
- A description of any service or facility improvements implemented in the preceding 12 months, including those that were identified in the TDP
- An update to the TDP's list of recommended service and facility improvements, specifically identifying those improvements with changes to the year of implementation and any improvements that become added or eliminated. For each TDP Update the list of improvements should be extended an additional year so that a six year planning horizon is maintained
- A summary of operating costs and capital costs as well as the funding from federal, state, and local sources. This should include the most recently completed fiscal year and the current year projections
- Updates to the financial plan tables for capital and operating costs presented in Chapter 7. For each TDP Update the table should extend an additional year to maintain a six year planning horizon.

APPENDIX A: VEHICLE INVENTORY

APPENDIX A: VEHICLE INVENTORY

Vehicle No.	Vehicle Type	Grantee	FTA Code	VIN	Vehicle Condition	Number of Passengers	Model Year	Description	Engine Type	Purchase Date	Purchased New	Purchase Price	Wheelchair Accessible	Total Mileage1	Primary Route Type	Average Hours operated per week	Average Miles Traveled per week	Location of Item
7	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	2B6LB31Z3YK132934	Unknown	13	2000	# 7 - Dodge	GA	3/27/2000	Yes	$ 28,970	No	159,649	Rural	0	0	Essex County
91	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE45S29DA39493	Unknown	15	2009	# 91 Ford Supreme (BOC)	GA	6/12/2009	Yes	$ 52,224	Yes	231,256	Rural	0	0	Lancaster County
CB10	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDXE45F53HB98841	Unknown	21	2003	# CB 10 - Ford (BOC)	D2	1/22/2004	Yes	$ 57,150	Yes	161,851	Rural	0	0	Westmoreland County
100	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS8ADA76096	Unknown	15	2010	#100 Ford Supreme 15 Passenger BOC w/lift	GA	6/22/2010	Yes	$ 57,379	Yes	149,307	Rural	60	1250	Essex County
103	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS9ADA90248	New	15	2010	#103 2010 Ford Supreme BOC 15 Pass w lift	GA	10/12/2010	Yes	$ 54,444	Yes	154,232	Rural	0	0	Gloucester County
107	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS0ADA90252	New	15	2010	#107 2010 Ford Supreme BOC 15 Pass w/lift	GA	10/14/2010	Yes	$ 54,444	Yes	201,335	Rural	0	0	Lancaster County
108	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS2ADA90253	New	15	2010	#108 2010 Ford Supreme BOC 15 Pass w/lift	GA	10/12/2010	Yes	$ 54,444	Yes	141,734	Rural	30	1200	Gloucester County
109	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS6ADA90255	New	15	2010	#109 2010 Ford Supreme BOC 15 Pass w/lift	GA	10/14/2010	Yes	$ 54,444	Yes	86,917	Rural	0	0	Westmoreland County
110	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS8ADA90256	New	15	2010	#110 2010 Ford Supreme BOC 15 Pass w/lift	GA	10/12/2010	Yes	$ 54,444	Yes	175,136	Rural	0	0	Gloucester County
111	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS4ADA90240	New	15	2010	#111 2010 Ford Supreme BOC 15 Pass w/lift	GA	10/14/2010	Yes	$ 54,444	Yes	206,830	Rural	0	0	Lancaster County
113	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FSXADA90257	New	15	2010	#113 2010 Ford Supreme BOC 15 Pass wlift	GA	10/12/2010	Yes	$ 54,444	Yes	211,032	Rural	0	0	Essex County
114	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1GB6G5BG8C1181879	Unknown	14	2012	#114 - Chevrolet Supreme	GA	7/16/2012	Yes	$ 60,229	Yes	110,996	Rural	0	0	Essex County
115	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1GB6G5BG0C1182489	Unknown	14	2012	#115 - Chevrolet Supreme	GA	7/16/2012	Yes	$ 60,229	Yes	139,719	Rural	0	0	Essex County
116	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1GB6G5BG8C1180246	Unknown	14	2012	#116 - Chevrolet Supreme	GA	7/16/2012	Yes	$ 60,229	Yes	145,623	Rural	0	0	Essex County
117	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1GB6G5BG2C1181084	Unknown	14	2012	#117 - CHEVROLET SUPREME	GA	7/16/2012	Yes	$ 60,229	Yes	116,635	Rural	0	0	Lancaster County
118	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1GB6G5BG0C1182654	New	14	2012	#118 - Chevrolet Supreme Bus	GA	7/16/2012	Yes	$ 60,229	Yes	91,299	Rural	0	0	Gloucester County
119	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1GB6G5BGXC1180278	Unknown	14	2012	#119 - Chevrolet Supreme Bus	GA	7/16/2012	Yes	$ 60,229	Yes	128,260	Rural	0	0	Gloucester County
120	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1GB6G5BG0C1181729	Unknown	14	2012	#120 - Chevrolet Supreme Bus	GA	7/16/2012	Yes	$ 60,229	Yes	172,855	Rural	0	0	Gloucester County
121	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1GB6G5BG9C1182314	Unknown	14	2012	#121 - Chevrolet Supreme Bus	GA	7/16/2012	Yes	$ 60,229	Yes	153,311	Rural	0	0	Gloucester County
123	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS9EDA19427	New	14	2014	#123 FORD ALLSTAR	GA	3/4/2014	Yes	$ 62,068	Yes	41,127	Rural	40	2000	Gloucester County
124	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS9EDA19430	New	14	2014	#124 FORD ALLSTAR	GA	3/4/2014	Yes	$ 62,068	Yes	58,842	Rural	40	2000	Gloucester County

Vehicle No.	Vehicle Type	Grantee	FTA Code	VIN	Vehicle Condition	Number of Passengers	Model Year	Description	Engine Type	Purchase Date	Purchased New	Purchase Price	Wheelchair Accessible	Total Mileage1	Primary Route Type	Average Hours operated per week	Average Miles Traveled per week	Location of Item
125	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS0EDA19431	New	14	2014	#125 FORD ALLSTAR	GA	3/4/2014	Yes	$ 62,068	Yes	80,494	Rural	40	2000	Gloucester County
127	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS4EDA19433	New	14	2014	#127 FORD ALLSTAR	GA	3/4/2014	Yes	$ 62,068	Yes	63,017	Rural	40	2000	Richmond County
128P	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS0EDA19428	New	14	2014	#128P FORD ALLSTAR	NA	3/4/2014	Yes	$ 79,873	Yes	72,047	Rural	40	2000	Richmond County
129P	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS2EDA19429	New	14	2014	#129P FORD ALLSTAR	NA	3/4/2014	Yes	$ 79,873	Yes	52,641	Rural	40	2000	Richmond County
130	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS2EDA61180	New	15	2014	#130 FORD STARCRAFT ALLSTAR	GA	6/18/2014	Yes	$ 64,550	Yes	35,619	Rural	40	500	Gloucester County
131	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS3EDA69451	New	15	2014	#131 FORD STARCRAFT ALLSTAR	GA	6/18/2014	Yes	$ 64,550	Yes	36,560	Rural	40	500	Gloucester County
133	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS7EDA69453	Unknown	15	2014	#133 FORD STARCRAFT ALLSTAR	GA	6/18/2014	Yes	$ 64,550	Yes	49,370	Rural	40	500	Richmond County
134V	Van	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FTSS3EL4EDA50942	New	9	2014	#134V Ford Braun	GA	7/16/2014	Yes	$ 45,491	Yes	23,230	Rural	20	200	Westmoreland County
135V	Van	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FTSS3EL6EDA50943	New	9	2014	#135V Ford Braun	GA	7/16/2014	Yes	$ 45,491	Yes	14,990	Rural	20	200	Gloucester County
136	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS4EDA61181	New	15	2014	#136 Ford Cutaway Van	GA	8/29/2014	Yes	$ 64,581	Yes	37,717	Rural	40	500	Essex County
92	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS0ADA42394	Unknown	15	2010	#92 Ford Supreme 15 Passenger BOC w/Lift	GA	3/29/2010	Yes	$ 56,104	Yes	161,930	Rural	0	0	Gloucester County
93	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS2ADA42395	Unknown	15	2010	#93 Ford Supreme 15 Passanger BOC w/Lift	GA	3/29/2010	Yes	$ 56,104	Yes	188,312	Rural	0	0	Lancaster County
T4	Trolley	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.03 - Bus 30 FT	4UZAACBW46CW69993	Unknown	25	2006	#T4 - Freightliner (BOC) Trolley	D2	12/5/2007	No	$ 3,000	Yes	80,917	Rural	0	0	Westmoreland County
T5	Trolley	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.04 Bus < 30 FT	1F66F5DY7B0A00900	Unknown	26	2010	#T5-Supreme Classic American Trolley	GA	6/29/2010	Yes	$ 127,700	Yes	30,767	Rural	0	0	Middlesex County
137P	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS1FDA12361	New	15	2015	137P Ford Allstar	NA	4/15/2015	Yes	$ 87,458	Yes	3,978	Rural	40	500	Gloucester County
138P	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS8FDA09795	New	15	2015	138P Ford Allstar	NA	4/15/2015	Yes	$ 87,458	Yes	1,210	Rural	40	500	Gloucester County
139P	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS3FDA12359	New	15	2015	139P Ford Allstar	NA	4/15/2015	Yes	$ 87,458	Yes	2,175	Rural	40	500	Gloucester County
140P	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS1FDA14448	New	15	2015	140P Ford Allstar	NA	4/8/2015	Yes	$ 87,458	Yes	2,352	Rural	40	500	Gloucester County
141P	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS8FDA14432	New	15	2015	141P Ford Allstar	NA	4/8/2015	Yes	$ 87,458	Yes	1,731	Rural	40	500	Gloucester County
142P	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS3FDA14435	New	15	2015	142P Ford Allstar	NA	4/8/2015	Yes	$ 87,458	Yes	379	Rural	40	500	Gloucester County
143P	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS3FDA12362	New	15	2015	143P Ford Allstar	NA	4/8/2015	Yes	$ 87,458	Yes	3,152	Rural	40	500	Richmond County
144	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS4FDA14430	New	15	2015	144 Ford Allstar	GA	4/8/2015	Yes	$ 67,573	Yes	6,313	Rural	40	500	Richmond County

Vehicle No.	Vehicle Type	Grantee	FTA Code	VIN	Vehicle Condition	Number of Passengers	Model Year	Description	Engine Type	Purchase Date	Purchased New	Purchase Price	Wheelchair Accessible	Total Mileage1	Primary Route Type	Average Hours operated per week	Average Miles Traveled per week	Location of Item
146	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS2FDA15978	New	19	2015	146 Ford Allstar	GA	4/15/2015	Yes	$ 81,649	Yes	981	Rural	40	500	Richmond County
147	Cutaway	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1FDFE4FS7FDA07536	New	19	2015	147 Ford Allstar	GA	4/8/2015	Yes	$ 81,649	Yes	1,142	Rural	40	500	Gloucester County
Pickup	Shop Truck	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.16 - Sedan / Station Wagon	1FTBR10A4GUB90742	Fair	2	1986	1986 Ford Pickup	GA	11/17/2011	No	$ 800	No	169,986	Rural	10	1000	Richmond County
Traverse	Van	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1GNKREED2CJ296037	New	8	2012	2012 Chev. Traverse	GA	4/12/2012	Yes	$ 25,560	No	35,258	Rural	10	500	Richmond County
Uplander	Van	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.16 - Sedan / Station Wagon	1GNDV23168D161127	Unknown	4	2008	Chevrolet Uplander Minivan	GA	2/19/2008	Yes	$ 17,555	No	71,411	Rural	0	0	Richmond County
Caravan	Van	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.16 - Sedan / Station Wagon	1D4GP25333B185696	Unknown	4	2003	Dodge Caravan Wagon	GA	11/15/2002	Yes	$ 18,390	No	144,597	Rural	0	0	Middlesex County
Intrepid	Sedan	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.16 - Sedan / Station Wagon	2B3HD46R83H552304	Unknown	4	2003	Dodge Intrepid	GA	11/15/2002	Yes	$ 17,075	No	92,554	Rural	0	0	Middlesex County
Neon SE	Sedan	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.16 - Sedan / Station Wagon	1B3ES26C53D159043	Unknown	4	2003	Dodge Neon SE	GA	11/15/2002	Yes	$ 12,294	No	111,578	Rural	0	0	Richmond County
Escape	Sedan	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.16 - Sedan / Station Wagon	1FMCU59389KA12129	Unknown	4	2009	Ford Escape Hybrid	GA	7/23/2008	Yes	$ 26,937	No	67,686	Rural	0	0	Middlesex County
T6	Trolley	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.04 Bus < 30 FT	1F6NF53Y190A00205	Good	26	2010	T6-Ford Trolley	GA	4/10/2012	No	$ 84,583	Yes	39,013	Rural	0	0	Lancaster County
Van 1	Van	Bay Aging - Middle Pen/ NNeck/Colonial Beach	11.12.15 - Vans	1GTZ7TCGXE1125618	Unknown	1	2014	VAN 1 GMC SAVANA VAN	GA	11/4/2013	Yes	$ 24,241	No	16,051	Rural	15	275	Richmond County
88	Cutaway	Bay Aging/New Kent/Charles City	11.12.15 - Vans	1FDFE45S79DA26710	Unknown	15	2009	#88 Ford Supreme (BOC)	GA	4/14/2009	Yes	$ 52,224	Yes	201,778	Rural	0	0	New Kent County
96	Cutaway	Bay Aging/New Kent/Charles City	11.12.15 - Vans	1FDFE4FSXADA49269	Unknown	15	2010	#96 Ford Supreme 15 Passenger BOC Bus w/Lift	GA	3/29/2010	Yes	$ 56,104	Yes	201,269	Rural	0	0	New Kent County
97	Cutaway	Bay Aging/New Kent/Charles City	11.12.15 - Vans	1FDFE4FS6ADA49270	Unknown	15	2010	#97 Ford Supreme 15 Passenger BOC Bus w/Lift	GA	3/29/2010	Yes	$ 56,104	Yes	168,581	Rural	0	0	New Kent County
145	Cutaway	Bay Aging/New Kent/Charles City	11.12.15 - Vans	1FDFE4FS6FDA14431	New	15	2015	145 Ford Allstar	GA	4/15/2015	Yes	$ 67,573	Yes	4,001	Rural	40	500	New Kent County
126	Cutaway	Bay Aging/New Kent/Charles City	11.12.00 - Large SUV	1FDFE4FS2EDA19432	New	15	2014	BUS 126 FORD ALLSTAR	GA	3/4/2014	Yes	$ 62,068	Yes	67,147	Rural	40	2000	New Kent County
132	Cutaway	Bay Aging/New Kent/Charles City	11.12.15 - Vans	1FDFE4FS5EDA69452	New	14	2014	Bus 132 Ford Allstar	GA	6/18/2014	Yes	$ 64,550	Yes	33,228	Rural	40	500	New Kent County

APPENDIX B:
ON-BOARD RIDERSHIP SURVEY

APPENDIX B: ON-BOARD RIDERSHIP SURVEY

An on-board ridership survey was conducted on the Courthouse Circulator and Neck Connect in September and October 2015. The survey was conducted in an interview style format, as previous surveys have been reported to be most successful when conducted in this manner. Despite this effort, a total of 10 respondents were interviewed on the Courthouse Circulator on September 15, 2015 and no respondents were interviewed on the Neck Connect on September 17, 2015. The poor ridership observed in the survey and additional records indicating low ridership, instigated the modification of the Neck Connect to no longer serve the community of Callao. Additional surveying was conducted on September 19, 2015 and October 7, 2015 to bolster the initial surveying effort, which yielded five more surveys for a final total of 15. Although the sample size is exceptionally small, some conclusions can still be drawn from the results of the survey.

Figure B-1 presents the questionnaire that the surveyor used to gather information from passengers. The survey is separated into three sections. The first section, titled "About You" focuses on the sociodemographic aspects of the rider, including gender, age, race/ethnicity, education level, annual income, and riding habits. These aspects are summarized in chart format in Figures B-2 through B-8. The second section of the survey concerns the trip itself, including aspects of trip origin, transit access, trip destination, trip scheduling, and trip purpose. Graphics for these questions are shown in Figures B-9 through B-13. The final two questions were focused on customer satisfaction and future service initiatives. The results for these questions are depicted in Figures B-14 and B-15.

Figure B-1. On-Board Survey Questionnaire for Bay Transit

Dear Rider: Bay Transit is presently evaluating existing and future transit service needs. Please take a moment to complete this survey regarding your experience with Bay Transit. ***Thank you for your help.*** *Date*_____ *Route*_____ *Approximate Time*_____

About You

1. I am: ___ Male ___ Female

2. My age is:
___ 19 or under ___ 30-39 ___ 50-59
___ 20-29 ___ 40-49 ___ 60 or older

3. My ethnic background is primarily:
___ Caucasian ___ African-American ___ Asian
___ Hispanic ___ Native American ___ Other

4. I education level is:
___ Did not graduate from High School
___ High School Graduate/GED
___ Some College
___ College degree or higher

5. My household's total annual income is:
___ Under $10,000 ___ $30,000-$40,000
___ $10,000-$20,000 ___ $40,000-$50,000
___ $20,000-$30,000 ___ Over $50,000
___ Prefer not to answer

6. How often do you ride Bay Transit?
___ Less than once a month ___ Once or twice a month
___ 1 day a week ___ 2-3 days a week
___ 4 or more days a week

7. How long have you been a rider on Bay Transit?
___ Less than one year ___ 1-2 years
___ 3-5 years ___ More than 5 years

About Your Trip

8. Where did your current trip begin?
___ Your home ___ Work ___ School/College
___ Shopping ___ Medical/Dental ___ Service Agency
___ Social/Recreational ___ Other _____

9. Where was that located? *(please provide address, major intersection or nearby landmark)*
_____

10. How did you get to the bus?
___ Walk ___ Bike
___ Dropped Off ___ Drove

11. Where are you going now?
___ Your home ___ Work ___ School/College
___ Shopping ___ Medical/Dental ___ Service Agency
___ Social/Recreational ___ Other _____

12. Where is that located? *(please provide address, major intersection or nearby landmark)*
_____

13. Does your trip include a scheduled pickup or drop-off outside of the regular route alignment?
___ Yes ___ No

14. Why did you ride the bus today?
___ I don't have a car ___ Car not available
___ To save time ___ Prefer to ride the bus
___ To save money ___ Disabled/Unable to drive

About Our Service (please circle your selection)

15. Please rate the following characteristics of Bay Transit's service:

	Very Good	Good	Okay	Poor	Very Poor	Not Sure
a. Reservation Procedures	5	4	3	2	1	NS
b. Bus on-time performance	5	4	3	2	1	NS
c. Hours of service	5	4	3	2	1	NS
d. Cost of bus fare	5	4	3	2	1	NS
e. Sense of security on buses	5	4	3	2	1	NS
f. Cleanliness of buses	5	4	3	2	1	NS
g. Courtesy and friendliness of bus drivers	5	4	3	2	1	NS
h. Overall Service	5	4	3	2	1	NS

16. What service improvements would you like to see over the next several years?

	Very Important	Somewhat Important	Not Important	Not Sure
a. Less advance time required to schedule trip	3	2	1	NS
b. Expand house / days of service	3	2	1	NS
c. Improve security on buses	3	2	1	NS
d. Other _____	3	2	1	NS

Figure B-2 displays the percentage of males and females riding Bay Transit. The proportion is evenly distributed on the routes surveyed, with a total of eight female riders and seven males.

Figure B-2. Question 1 Survey Results: Gender

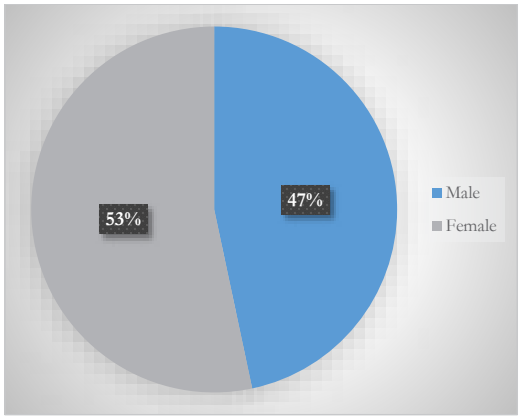
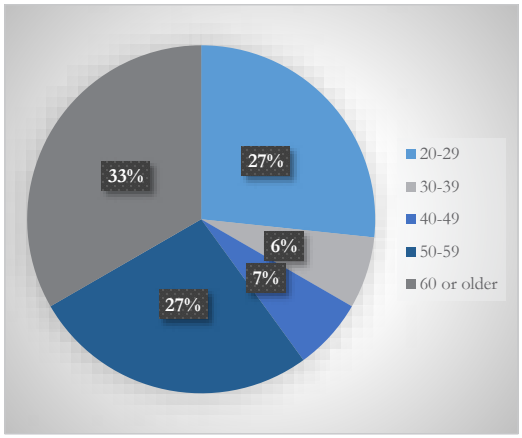


Figure B-3 reveals the summarized results from the question of rider age. The largest category was "60 or older", with five of the 15 passengers falling into this category. The other two categories that made up a large percentage of the riders were the "50-59" and "20-29" age groups, each with four respondents. Although the most common age categories was "60 or older", two thirds of the ridership is less than 60 years old. Therefore, most riders are not senior citizens and the speculation that Bay Transit is a service for the elderly is not substantiated.

Figure B-3. Question 2 Survey Results: Age



Question 3 asks the riders to indicate their ethnic background out of six common racial/ethnic groups. Only two of the six racial/ethnic groups were chosen by riders, with an approximately equal number of African American and Caucasian responses, shown in Figure B-4 below.

Figure B-4. Question 3 Survey Results: Ethnic Background

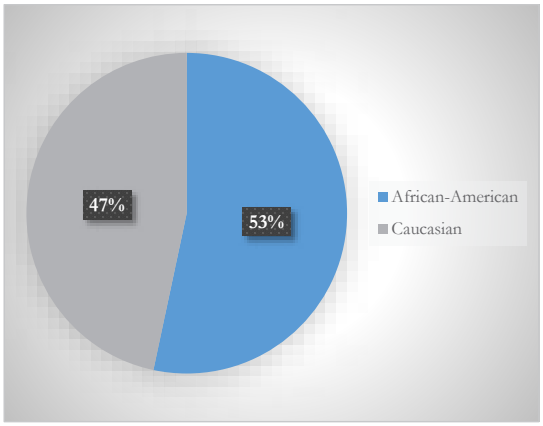


Figure B-5 shows the results from question 4 on the survey. The majority of the riders preferred not to answer this question, totaling eight of the 15 riders. Of those that did respond to this question, a large percentage of riders fell into the categories of high school graduate/GED or did not graduate high school. Only one respondent indicated some college education, while no respondents indicated obtaining a college degree.

Figure B-5. Question 4 Survey Results: Education Level

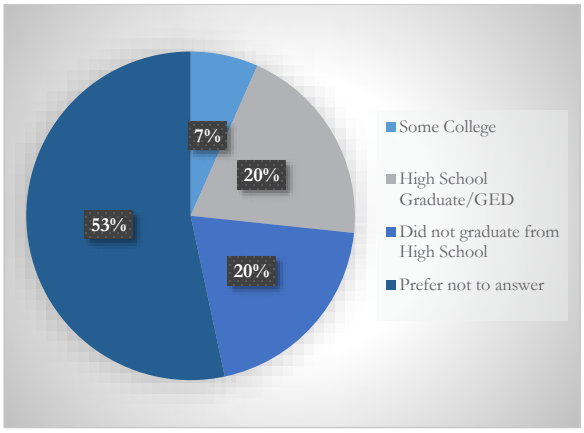
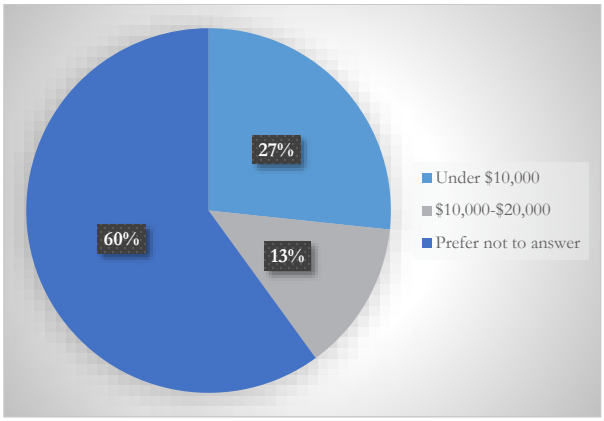


Figure B- 6 displays the results of question five of the survey, regarding the annual household income of the riders. Similar to the question regarding education level, question five had a large percentage of respondents uncomfortable sharing this information. Of riders who answered this question, four out of six reported a household income of less than $10,000 annually. The only other reported income category was $10,000 - $20,000, reported twice.

Figure B-6. Question 5 Survey Results: Annual Household Income



Question six of the survey requested riders to indicate how often they ride Bay Transit. Figure B-7 displays the results, showing that much of the ridership is made up of frequent riders. This is evident by the most common response being four or more days a week.

Figure B-7. Question 6 Survey Results: Frequency of Ridership

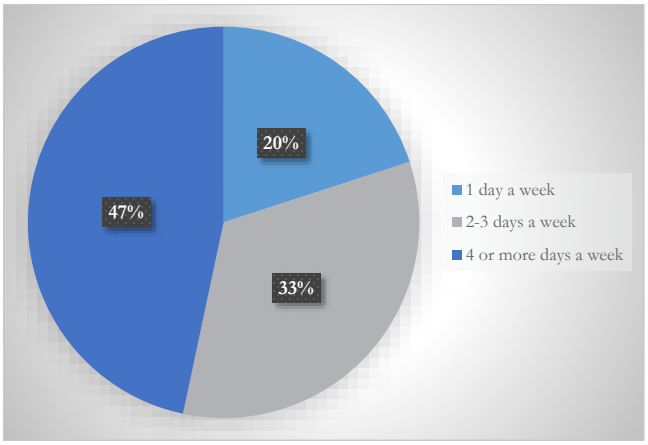


Figure B-8 shows the results of how long the riders have been using Bay Transit, which is question seven of the survey. While about one-third of the riders have been using the service less than a year, more than half of the riders have been riding for between 1 and 2 years. A small percentage of riders have been using the service for 3 to 5 years, or more than 5 years. Overall, this shows that a significant number of riders have acclimated to using the service consistently for a long period of time.

Figure B-8. Question 7 Survey Results: Length of Ridership on Bay Transit

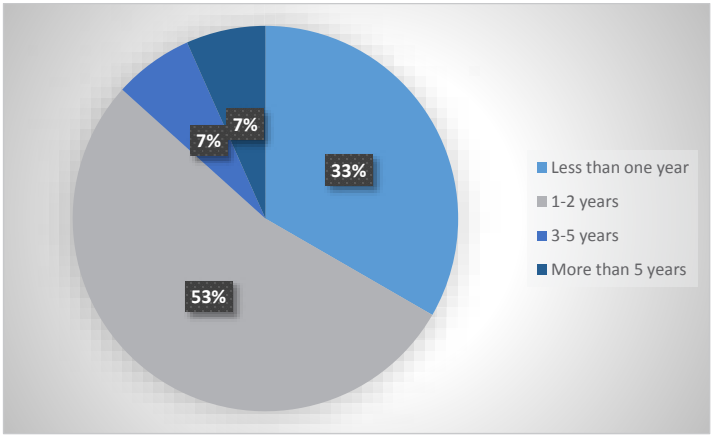
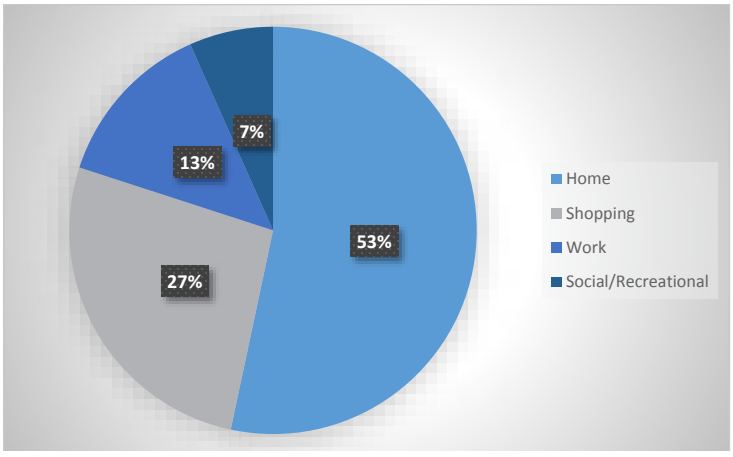


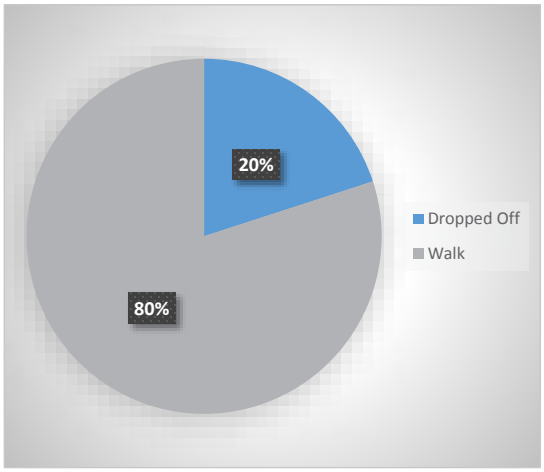
Figure B-9 shows results of where Bay Transit riders said their transit trip began. Options for trip origin included: home, work, school/college, shopping, medical/dental, service agency, social/recreational, and other. More than half of the respondents (53 percent) replied that they were coming from their residence, followed by shopping (27 percent).

Figure B-9. Question 8 Survey Results: Trip Origin



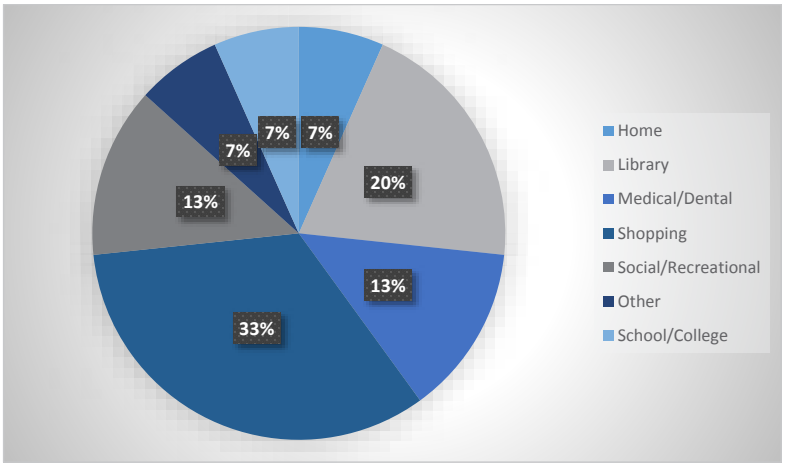
Most of the Bay Transit riders surveyed access the bus by walking, as shown in Figure B-10. The remaining passengers were dropped off at the stop. No respondents to the survey drove themselves or rode a bicycle to access the bus stop.

Figure B-10. Question 10 Survey Results: Transit Access



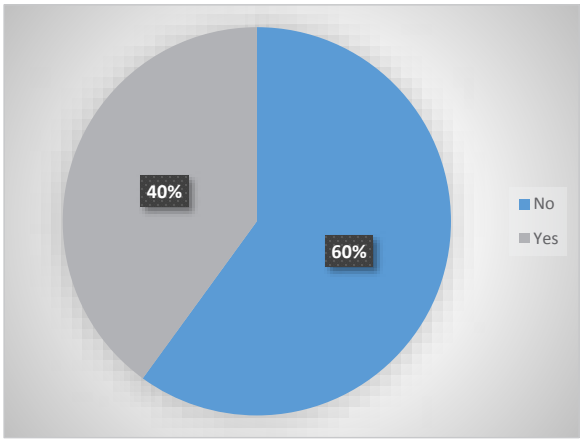
Question 11 of the survey asked for the type of destination passengers were heading to, which resulted in Figure B-11. The most common response was shopping, which included one-third of all respondents, followed by the library. The other responses were relatively evenly distributed among the remaining destination categories.

Figure B-11. Question 11 Survey Results: Trip Destination



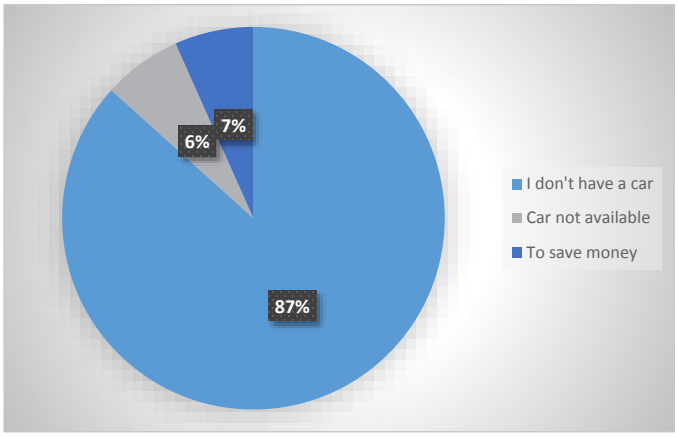
A total of 40 percent of the respondents indicated that their trip included a scheduled pickup or drop-off outside of the regular route alignment, representing a very high percentage of the total ridership. The proportion of trips that had deviations compared to trips along the regular alignment is shown in Figure B-12.

Figure B-12. Question 13 Survey Results: Trips that include a Deviation from Regular Alignment



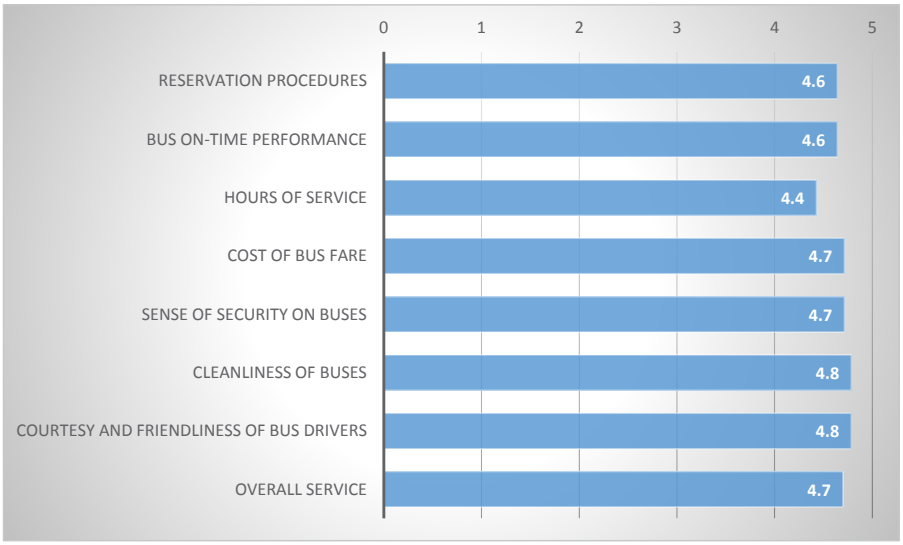
Question 14 requested the riders to respond to why they were riding the bus. The vast majority (87 percent) of the riders responded that they did not have a car, shown in Figure B-13. An additional six percent of riders did not have a car available to them resulting in a total of 93 percent of passengers without car access. Question 14 reveals that a very high percentage of riders are transit dependent.

Figure B-13. Question 14 Survey Results: Reason for Riding Bay Transit



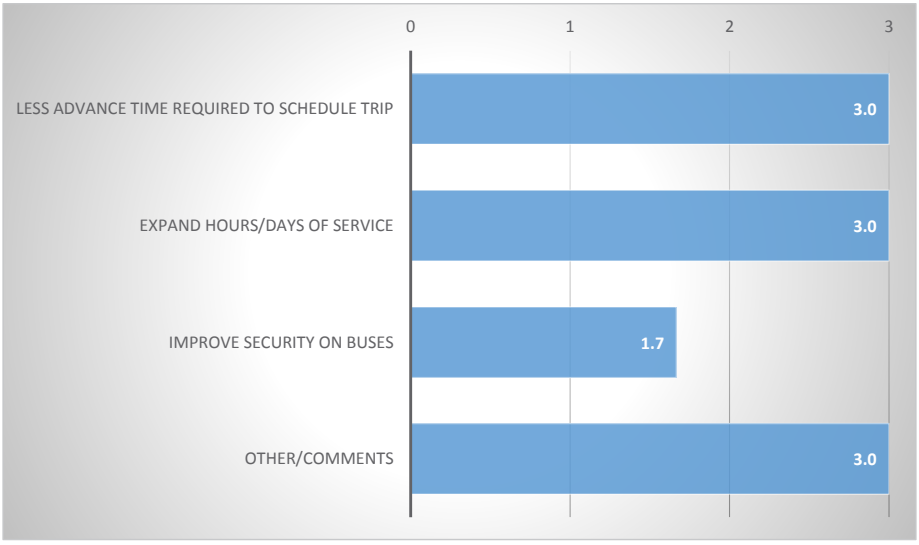
Questions 15 and 16 of the on-board survey requested that the respondents rate Bay Transit's quality of service in a variety of categories, shown in Figures B-14 and B-15. The first series of ratings is shown in Figure B-14, on a scale of 1 to 5 (1 indicating very poor and 5 indicating very good). Overall, the responses were very positive, with all service categories resulting in ratings of over 4. A total of 10 out of the 15 respondents rated all service characteristics as very good (all 5's). The lowest rated category was hours of service, which scored a 4.4 out of 5, while cleanliness of buses and courtesy and friendliness of bus drivers scored a 4.8 out of 5.

Figure B-14. Question 15 Survey Results: Rating of Bay Transit Service Characteristics



On a scale from 1 to 3 (1 being not important and 3 being very important), respondents were asked how they felt about reducing the advance time required to schedule trips, expanding the hours and days of service, and improving security on the vehicles. The response rate for this set of questions was low, with only five riders answering, two of which replied "Not Sure". Overall, the three respondents that did reply thought that most or all of the improvements raised were very important, shown in Figure B-15.

Figure B-15. Question 16 Survey Results: Rating of Service Improvement Importance



APPENDIX C: COMPLIANCE CORRECTIVE ACTION PLAN

VIRGINIA
DEPARTMENT OF
RAIL AND PUBLIC TRANSPORTATION

Rural Public Transit
Compliance Review

Section 5311

REPORT

8/29/2014

Bay Transit

111 Commerce Parkway, Warsaw, VA 22572

Director

Ken Pollock

Site Visit Attendance List

Name	Title	Organization	Phone	Email
Joel Eisenfeld	Senior Transportation Planner	KFH Group	301-951-8660	jeisenfeld@kfhgroup.com
Will Sutton	Transportation Planner	KFH Group	301-951-8660	wsutton@kfhgroup.com
Ken Pollock	Transit Director	Bay Aging	804-250-2019	kpollock@bayaging.org
Kathy Vesley	President and CEO	Bay Aging	804-758-2386	kveasley@bayaging.org
Steven Hennessee	Project Manager	DRPT	804-225-4157	steven.hennessee@drpt.virginia.gov
Tom Clark	Safety Manager	Bay Aging	804-250-2019	tclarke@bayaging.org

Document List

Document	Comment
Bay Aging/Bay Transit Marketing Materials	
Bay Transit New Driver Training	
Fixed Asset Listing and Depreciation Schedule	
OLGA Vehicle Inventory	
Bay Transit Charter Policy	
Bay Transit Drug Policy	
DAMIS Report - 2013	
Bay Transit Drug Collection Sites	
Bay Aging - Financial Policy and Procedures	
Cost Allocation Plan Agreement with DHHS	
Cost Allocation Plan	
Fare Reconcilation Procedure	
FY14 Board Approved Budget	
Sample Monthly Financial Report	
Sources of Local Match	
Vehicle Inspection Sheet	
Bay Aging Board of Directors	
Bay Transit Org Chart	
Bay Aging EEO Plan	
Bay Transit Job Application	

Bay Transit Job Advertisement

Sample Bay Transit Job Posting

FY14 Semi-Annual DBE Report

2014 Emergency Plan

Bay Transit Report Procedures

Bay Transit Safety and Security Plan

Certificate of Liability Insurance

Training Guidelines

Bay Transit Maintenance Plan

Bay Transit Operating Analysis

Vehicle Maintenance Policy

DRPT Section 5311 Workbook

Compliance Findings

Topic	Subtopic	Finding	Follow Up Needed	Deadline Timeline	Corrective Actions	Corrective Action Date
Organizational Management						
	Legal Authority					
		Bay Aging's articles of incorporation and/or bylaws do not specifically mention public transportation, coordination of transportation or other passenger transportation functions.	Submit to DRPT revised bylaws addressing transportation.	90 days	Bay Aging will revise the bylaws and present them to the Board of Directorsl for approval at the September 2014 meeting.	
Project Management/Grant Administration						
		None				
Financial Management						
		None				
Satisfactory Continuing Control						
	Disposition of Vehicles and Equipment					
		Need to update policy for disposition of vehicles to say that funds gained from the sale of vehicles is placed in a dedicated transportation capital replacement fund.	Submit updated policy to DRPT.	30 days	Bay Aging's *Financial Policies and Procedures Manual* will be amended and submitted to the Board of Directors for approval by September 30, 2014. The asset account that Bay Aging uses for funds derived from the sale of transit vehicles has been renamed the Public Transportation Capital Replacement fund.	
Procurement						

Topic	Subtopic	Finding	Follow Up Needed	Deadline Timeline	Corrective Actions	Corrective Action Date
		None				
Personnel Issues						
	Drug Free Workplace and Drug and Alcohol Testing Program					
		Files for employees who have a CDL do not contain documentation that the employee has had a physical at least once every two years.	Bay Transit needs to establish a policy to ensure the CDL physical is being performed and included in the employee's file. This updated policy needs to be sent to DRPT.	30 days	This policy will be developed and included in an updated *Driver's Handbook* by 12/31/14.	
Operations and Service Requirements						
	Charter Bus					
		Bay Transit has a contract with Virginia Rides to provide charter service if Virginia Rides does not have the capacity to handle the service. However, Bay Transit is not currently meeting Exception 604.8 #4 (The operator has exhausted all of the available vehicles for the registered charter providers in your geographic area) - Virginia Rides needs to provide evidence to Bay Transit in order for Bay Transit to provide this service.	Bay Transit needs to follow all four conditions of Exception 604.8 prior to engaging in any charter service and revise their contract/agreement with Virginia Rides reflecting this.	30 days	Va Rides has amended the contract with Bay Aging and will provide evidence that the conditions of Exception 604.8 have been met. (Bay Aging will provide a copy of the executed amendment).	
	Maintenance					

Topic	Subtopic	Finding	Follow Up Needed	Deadline Timeline	Corrective Actions	Corrective Action Date
		45% of the vehicle PM inspections are not on time (i.e. 10% or 600 mile variance threshold is exceeded).	Bay Transit needs to submit to DRPT an updated policy detailing how PM schedules will be adhered to.	30 days	Bay Transit is revising its PM policy to include procedures for how PM schedules will be adhered to. To be submitted by 9/30/14.	
Service Provision						
		None				
Planning and Coordination						
	Title VI - Nondiscrimination in the Delivery of Service					
		Title VI statement is not included on Bay Transit's brochures and schedules.	Title VI statement needs to be added to brochures, schedules, and other printed document distributed to the public.	90 days	The Title VI statement is being added to all new materials to be distributed to the public. Brochures and schedules will be reprinted with the Title VI statement by 12/31/14.	

Notes

This review covers FY13 and FY14.
Bay Transit is a division of Bay Aging which is the legal entity that represents Bay Transit in financial records, grants, etc.
Bay Transit receives funding under S.5311
Bay Transit operates general public demand response service for twelve counties, including: Charles City, Essex, Gloucester, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northumberland, Richmond, and Westmoreland.
Demand response services operate from 6:00 a.m. to 6:00 p.m.
Bay Transit also operates two fixed routes. One route is in Gloucester and one connects Westmoreland, Richmond and Northumberland Counties.
Both fixed routes run from 10 a.m. to 2 p.m.
Fixed route service is $0.50 while the demand response service is $2.00 - not compliant with ADA requirements - may need to raise the fair to one-half of the demand response or modify the fixed route to a deviated fixed route.
Overall ridership for FY2013 was 159,474.
The Middle Peninsula Transit Facility is scheduled to be completed in September-October of 2014. The administration and maintenance facility, located in Gloucester County, will serve the southern half of our service area. It will be a LEED Gold certified building.
Bay Transit utilizes 42 revenue vehicles with 10 spares. Bay Transit has a higher spare ratio than the

Observations

DRPT is researching the requirement of a Resolution Authorizing the Application for State Aid for Public Transportation and will notify Bay Transit if this is indeed a mandatory requirement.
Bay Transit maintains a contract "internal agreement" with Bay Aging for transportation to congregate meal sites for a monthly lump sum.
Bay Aging By-Laws do not specifically mention transportation functions.
Community Action Agency - Board members must represent low income and minority populations. Ten of the board members represent the jurisdictions being served while five of the board members represent low income and minority to meet the Federal Community Action Agency Requirements.
Lacking a written policy on service animals though not specifically required by FTA – a good practice to do so.
Bay Transit needs to Initiate stop announcements on fixed route service to comply with ADA regulations.
Charter bus policy has recently been drafted and has not yet been approved by the Board.
Bay Transit is not currently meeting Exception 604.8 #4 (The operator has exhausted all of the available vehicles for the registered charter providers in your geographic area) - Virginia Rides needs to provide evidence to Bay Transit. This has not occurred to date. Additionally, Bay Transit must complete and submit to DRPT the Charter Service Reporting Form with the Monthly Project Expenditure Report.

Need clarification on meals-on-wheels service. Bay Transit is not sure that the vehicles used are FTA and mileage is not always recorded when providing meals-on-wheels service and subtracted from the useful life mileage requirement because of multiple service centers and a geographically diverse and large service area.
Bay Transit utilizes private providers for New Freedom trips under agreements with a cost per mile rate.
The Title VI statement on the Bay Transit website is buried through links – though not required, it is recommended that this be on the Bay Transit home page.
Title VI statement needs to be added to brochures, schedules, etc.
Driver files do not contain the results of a required physical exam.
Need to update policy for disposition of vehicles to say that funds gained from the sale of vehicles is placed in a dedicated transportation capital replacement fund.

APPENDIX D:
TITLE VI REPORT

Title VI Plan and Procedures

Title VI of the Civil Rights Act of 1964

Adopted date

May 28, 2015

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APPENDICES

I. INTRODUCTION

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance. Specifically, Title VI provides that "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." (42 U.S.C. Section 2000d).

The Civil Rights Restoration Act of 1987 clarified the intent of Title VI to include all programs and activities of Federal-aid recipients, sub-recipients, and contractors whether those programs and activities are federally funded or not.

Recently, the Federal Transit Administration (FTA) has placed renewed emphasis on Title VI issues, including providing meaningful access to persons with Limited English Proficiency.

Recipients of public transportation funding from FTA and the Virginia Department of Rail and Public Transportation (DRPT) are required to develop policies, programs, and practices that ensure that federal and state transit dollars are used in a manner that is nondiscriminatory as required under Title VI.

This document details how Bay Aging incorporates nondiscrimination policies and practices in providing services to the public. Bay Aging's Title VI policies and procedures are documented in this plan and its appendices and attachments. This plan will be updated periodically (at least every three years) to incorporate changes and additional responsibilities that arise.

II. OVERVIEW OF SERVICES

Established in 1978, Bay Aging has a diverse menu of services designed to help meet the needs of people of all ages. Some services are authorized by the Older Americans Act and as such are applicable only to older adults, while many others are available to people of all ages.

Services include: Options Counseling, Meals on Wheels, Care Transitions Intervention Coaching, In-Home Care, Personal Assistant, Veterans Directed Home and Community Services, Adult Day Break Centers (day care), Active Lifestyle Centers (senior centers), Medicare Insurance Counseling, Ombudsman, Senior Medicare Patrol, Senior Employment, Legal Aid, Retired and Senior Volunteer Program, Bay Transit, New Freedom Mobility Management, MedCarry, Emergency Home Repair, Weatherization, Indoor Plumbing Rehabilitation, Community Development Block Grant Substantial Housing Rehabilitation, Service Enriched Senior Apartment Communities and Housing Choice Voucher Program.

Bay Aging is the Lead Community Based Organization for the Eastern Virginia Care Transitions Partnership (EVCTP) which delivers Care Transitions Intervention Coaching to people who are at risk of being readmitted to a hospital within 30 days post discharge. EVCTP's service area reaches from Fredericksburg/King George, to the Middle Peninsula/Northern Neck, to Williamsburg/James City County/York County, Peninsula, Southside and the Eastern Shore. EVCTP's membership includes the health systems of Bon Secours, Mary Washington, Rappahannock General, Riverside and Sentara and 11 hospitals – most of which are located in CFC's region. In FY14 – 8,396 patients received 40,000 hours of Coaching, reducing health care and taxpayer costs while improving a person's health and saving millions in health care dollars.

Bay Aging contracts with Peninsula Agency on Aging, Inc. (PAA) to work with seniors in their service area - counties of James City and York, and the cities of Poquoson, Newport News and Hampton. Services include: Medicare Insurance Counseling, Ombudsman and Senior Medicare Patrol.

Bay Aging is the only Area Agency on Aging in Virginia that delivers Veterans-Directed Home and Community Services. Bay Aging contracts with Hunter McGuire Veterans Medical Center in Richmond to deliver home and community supports for veterans who are at risk of entering into a nursing care facility. These less costly services help the veterans stay at home far longer. Bay Aging staff also responds to veterans who live in other parts of Virginia.

Bay Transit, a service of Bay Aging, is the only federally funded public transportation provider in the Middle Peninsula and Northern Neck, and the counties of Charles City and New Kent. In FY14, Bay Transit provided 147,375 transit trips for 3,132 people to gain access to jobs, health care, cancer/dialysis treatments and other therapy services and consumer services. New Freedom, a service of Bay Transit, gives seniors and people with disabilities access to transportation outside of Bay Transit's normal service region and hours of operation. New Freedom is especially helpful for people seeking health care services in the cities of Richmond, Hampton, Newport News and Williamsburg. Over 4,100 rides were provided through New Freedom in FY14.

III. POLICY STATEMENT AND AUTHORITIES

Title VI Policy Statement

Bay Aging is committed to ensuring that no person shall, on the grounds of race, color, national origin, as provided by Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1987 (PL 100.259), be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity, whether those programs and activities are federally funded or not.

The Bay Aging Title VI Manager is responsible for initiating and monitoring Title VI activities, preparing required reports, and other responsibilities as required by Title 23 Code of Federal Regulations (CFR) Part 200, and Title 49 CFR Part 21.

Signature of Authorizing Official

5-28-25

Date

Authorities

Title VI of the 1964 Civil Rights Act provides that 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 receiving federal financial assistance (refer to 49 CFR Part 21). The Civil Rights Restoration Act of 1987 broadened the scope of Title VI coverage by expanding the definition of the terms "programs or activities" to include all programs or activities of Federal Aid recipients, sub recipients, and contractors, whether such programs and activities are federally assisted or not.

Additional authorities and citations include: Title VI of the Civil Rights Act of 1964 (42 U.S.C. Section 2000d); Federal Transit Laws, as amended (49 U.S.C. Chapter 53 et seq.); Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. 4601, et seq.); Department of Justice regulation, 28 CFR part 42, Subpart F, "Coordination of Enforcement of Nondiscrimination in Federally-Assisted Programs" (December 1, 1976, unless otherwise noted); U.S. DOT regulation, 49 CFR part 21, "Nondiscrimination in Federally-Assisted Programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964" (June 18, 1970, unless otherwise noted); Joint FTA/Federal Highway Administration (FHWA) regulation, 23 CFR part 771, "Environmental Impact and Related Procedures" (August 28, 1987); Joint FTA/FHWA regulation, 23 CFR part 450 and 49 CFR part 613, "Planning Assistance and Standards," (October 28, 1993, unless otherwise noted); U.S. DOT Order 5610.2, "U.S. DOT Order on Environmental Justice to Address Environmental Justice in Minority Populations and Low-Income Populations," (April 15, 1997); U.S. DOT Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient Persons, (December 14, 2005), and Section 12 of FTA's Master Agreement, FTA MA 13 (October 1, 2006).

IV. NONDISCRIMINATION ASSURANCES TO DRPT

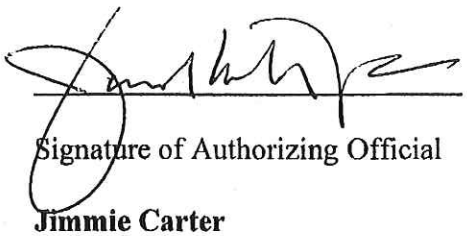
In accordance with 49 CFR Section 21.7(a), every application for financial assistance from the Federal Transit Administration (FTA) must be accompanied by an assurance that the applicant will carry out the program in compliance with DOT's Title VI regulations. This requirement is fulfilled when the Virginia Department of Rail and Public Transportation (DRPT) submits its annual certifications and assurances to FTA. DRPT shall collect Title VI assurances from sub-recipients prior to passing through FTA funds.

As part of the Certifications and Assurances submitted to DRPT with the Annual Grant Application and all Federal Transit Administration grants submitted to the DRPT, **Bay Aging** submits a Nondiscrimination Assurance which addresses compliance with Title VI as well as nondiscrimination in hiring (EEO) and contracting (DBE), and nondiscrimination on the basis of disability (ADA).

In signing and submitting this assurance, Bay Aging confirms to DRPT the agency's commitment to nondiscrimination and compliance with federal and state requirements.

V. PLAN APPROVAL DOCUMENT

We, the Board of Directors of Bay Aging, hereby acknowledge the receipt of the Bay Aging Title VI Implementation Plan 2015-2018. We have reviewed and approve the Plan. We are committed to ensuring that no person is excluded from participation in, or denied the benefits of Bay Aging's transportation services on the basis of race, color, or national origin, as protected by Title VI according to Federal Transit Administration (FTA) Circular 4702.1B Title VI requirements and guidelines for FTA sub-recipients.



6/8/15

Signature of Authorizing Official

DATE

Jimmie Carter

Chairman of the Board of Directors

Bay Aging

VI. ORGANIZATION AND TITLE VI PROGRAM RESPONSIBILITIES

Bay Aging's Transit Director is responsible for ensuring implementation of the agency's Title VI program. Title VI program elements are interrelated and responsibilities may overlap. (Note, more than one official may be designated to serve as the Title VI official). The specific areas of responsibility have been delineated below for purposes of clarity.

Overall Organization for Title VI

The Title VI Manager and staff are responsible for coordinating the overall administration of the Title VI program, plan, and assurances, including complaint handling, data collection and reporting, annual review and updates, and internal education.

Detailed Responsibilities of the Title VI Manager

The Title VI Manager is charged with the responsibility for implementing, monitoring, and ensuring compliance with Title VI regulations. Title VI responsibilities are as follows:

1. Process the disposition of Title VI complaints received.

2. Collect statistical data (race, color or national origin) of participants in and beneficiaries of agency programs, (e.g., affected citizens, and impacted communities).

3. Conduct annual Title VI reviews of agency to determine the effectiveness of program activities at all levels.

4. Conduct Title VI reviews of construction contractors, consultant contractors, suppliers, and other recipients of federal-aid fund contracts administered through the agency.

5. Conduct training programs on Title VI and other related statutes for agency employees.

6. Prepare a yearly report of Title VI accomplishments and goals, as required.

7. Develop Title VI information for dissemination to the general public and, where appropriate, in languages other than English.

8. Identify and eliminate discrimination.

9. Establish procedures for promptly resolving deficiency status and writing the remedial action necessary, all within a period not to exceed 90 days.

General Title VI responsibilities of the agency

The Title VI Manager is responsible for substantiating that these elements of the plan are appropriately implemented and maintained, and for coordinating with those responsible for public outreach and involvement and service planning and delivery.

1. Data collection

To ensure that Title VI reporting requirements are met, Bay Aging will maintain:

- A database or log of Title VI complaints received. The investigation of and response to each complaint is tracked within the database or log.

- A log of the public outreach and involvement activities undertaken to ensure that minority and low-income people had a meaningful access to these activities.

2. Annual Report and Updates

As a sub-recipient of FTA funds, Bay Aging is required to submit a Quarterly Report Form to DRPT that documents any Title VI complaints received during the preceding quarter and for each year. Bay Aging will also maintain and provide to DRPT an annual basis, the log of public outreach and involvement activities undertaken to ensure that minority and low-income people had a meaningful access to these activities.

Further, we will submit to DRPT updates to any of the following items since the previous submission, or a statement to the effect that these items have not been changed since the previous submission, indicating date:

- A copy of any compliance review report for reviews conducted in the last three years, along with the purpose or reason for the review, the name of the organization that performed the review, a summary of findings and recommendations, and a report on the status or disposition of the findings and recommendations
- Limited English Proficiency (LEP) plan
- procedures for tracking and investigating Title VI complaints
- A list of Title VI investigations, complaints or lawsuits filed with the agency since the last submission
- A copy of the agency notice to the public that it complies with Title VI and instructions on how to file a discrimination complaint

3. Annual review of Title VI program

Each year, in preparing for the Annual Report and Updates, the Title VI Manager will review the agency's Title VI program to assure implementation of the Title VI plan. In addition, they will review agency operational guidelines and publications, including those for contractors, to verify that Title VI language and provisions are incorporated, as appropriate.

4. Dissemination of information related to the Title VI program

Information on our Title VI program will be disseminated to agency employees, contractors, and beneficiaries, as well as to the public, as described in the "public outreach and involvement "section of this document, and in other languages when needed according to the LEP plan as well as federal and State laws/regulations.

5. Resolution of complaints

Any individual may exercise his or her right to file a complaint if that person believes that he, she or any other program beneficiaries have been subjected to unequal treatment or discrimination in the receipt of benefits/services or prohibited by non-discrimination requirements. Bay Aging will report the complaint to DRPT within three business days (per DRPT requirements), and make a concerted effort to resolve complaints locally, using the agency's Title VI Complaint Procedures. All Title VI complaints and their resolution will be logged as described under Section 1. Data collection and reported annually (in addition to immediately) to DRPT.

6. Written policies and procedures

Our Title VI policies and procedures are documented in this plan and its appendices and attachments. This plan will be updated periodically to incorporate changes and additional responsibilities that arise. During the course of the Annual Title VI Program Review (item 3 above), the Title VI Manager will determine whether or not an update is needed.

7. Internal education

Our employees will receive training on Title VI policies and procedures upon hiring and upon promotion. This training will include requirements of Title VI, our obligations under Title VI (LEP requirements included), and required data that must be gathered and maintained. In addition, training will be provided when any Title VI-related policies or procedures change (agency-wide training), or when appropriate in resolving a complaint.

Title VI training is the responsibility of the Transit Director.

8. Title VI clauses in contracts

In all federal procurements requiring a written contract or Purchase Order (PO), Bay Aging's contract/PO will include appropriate non-discrimination clauses. The Title VI Manager will work with the Chief Financial Officer who is/are responsible for procurement contracts and PO's to ensure appropriate non-discrimination clauses are included.

VII. PROCEDURES FOR NOTIFYING THE PUBLIC OF TITLE VI RIGHTS AND HOW TO FILE A COMPLAINT

Requirement to Provide a Title VI Public Notice

Title 49 CFR Section 21.9(d) requires recipients to provide information to the public regarding the recipient's obligations under DOT's Title VI regulations and apprise members of the public of the protections against discrimination afforded to them by Title VI. At a minimum, Bay Aging shall disseminate this information to the public by posting a Title VI notice on the agency's website and in public areas of the agency's office(s), including the reception desk, meeting rooms, in federally-funded vehicles, etc. (see Appendix A).

Title VI Complaint Procedures

Requirement to Develop Title VI Complaint Procedures and Complaint Form.

In order to comply with the reporting requirements established in 49 CFR Section 21.9(b), all recipients shall develop procedures for investigating and tracking Title VI complaints filed against them and make their procedures for filing a complaint available to members of the public. Recipients must also develop a Title VI complaint form. The form and procedure for filing a complaint shall be available on the recipient's website and at their facilities.

Any individual may exercise his or her right to file a complaint with Bay Aging if that person believes that he or she has been subjected to unequal treatment or discrimination in the receipt of benefits or services. We will report the complaint to DRPT within three business days (per DRPT requirements), and make a concerted effort to resolve complaints locally, using the agency's Nondiscrimination Complaint Procedures. All Title VI complaints and their resolution will be logged and reported annually (in addition to immediately) to DRPT.

A person may also file a complaint directly with the Federal Transit Administration, Office of Civil Rights, Attention: Title VI Program Coordinator, East Building, 5th floor – TCR, 1200 New Jersey Avenue SE, Washington, DC 20590.

Bay Aging includes the following language on all printed information materials, on the agency's website, in press releases, in public notices, in published documents, and on posters on the interior of each vehicle operated in passenger service:

Bay Aging/BayTransit is committed to ensuring that no person is excluded from participation in, or denied the benefits of its transportation services on the basis of race, color, or national origin, as protected by Title VI in Federal Transit Administration (FTA) Circular 4702.1B. If you feel you are being denied participation in or being denied benefits of the transit services provided by Bay Aging/Bay Transit or otherwise being discriminated against because of your race, color, national origin, gender, age, or disability, our contact information is:

Name: Ken Pollock
Title: Transit Director
Agency Name: Bay Aging/Bay Transit
Address: PO Box 610, , VA 23175
City: Urbanna, VA 23175
Telephone Number: 804-758-2386 ext. 1210
Email address: kpollock@bayaging.org.

Instructions for filing Title VI complaints are posted on the agency's website and in posters on the interior of each vehicle operated in passenger service and agency's facilities, and are also included within Bay Transit's brochures (see Complaint Form, Appendix B).

Procedures for Handling and Reporting Investigations/Complaints and Lawsuits

Should any Title VI investigations be initiated by FTA or DRPT, or any Title VI lawsuits are filed against Bay Aging the agency will follow these procedures:

Procedures

1. Any individual, group of individuals, or entity that believes they have been subjected to discrimination on the basis of race, color, or national origin may file a written complaint with the Title VI Manager. The complaint is to be filed in the following manner:

   a. A formal complaint must be filed within 180 calendar days of the alleged occurrence.
   b. The complaint shall be in writing and signed by the complainant(s).
   c. The complaint should include:
      - the complainant's name, address, and contact information
      - (i.e., telephone number, email address, etc.)
      - the date(s) of the alleged act of discrimination (if multiple days, include the date when the complainant(s) became aware of the alleged discrimination and the date on which the alleged discrimination was discontinued or the latest instance).
      - a description of the alleged act of discrimination
      - the location(s) of the alleged act of discrimination (include vehicle number if appropriate)
      - an explanation of why the complainant believes the act to have been discriminatory on the basis of race, color, and national origin
      - if known, the names and/or job titles of those individuals perceived as parties in the incident
      - contact information for any witnesses
      - indication of any related complaint activity (i.e., was the complaint also submitted to DRPT or FTA?)
   d. The complaint shall be submitted to the Bay Aging Title VI Manager at PO Box 610, Urbanna, VA 23175 or kpollock@bayaging.org.

e. Complaints received by any other employee of Bay Aging will be immediately forwarded to the Title VI Manager.
f. 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 Title VI Manager. Under these circumstances, the complainant will be interviewed, and the Adminstration/Human Resources Director will assist the complainant in converting the verbal allegations to writing.

2. Upon receipt of the complaint, the Title VI Manager will immediately:
   a. notify DRPT (no later than 3 business days from receipt)
   b. notify the Bay Aging Authorizing Official
   c. ensure that the complaint is entered in the complaint database
3. Within 3 business days of receipt of the complaint, the Title VI Manager will contact the complainant by telephone to set up an interview.
4. The complainant will be informed that they have a right to have a witness or representative present during the interview and can submit any documentation he/she perceives as relevant to proving his/her complaint.
5. If DRPT has assigned staff to assist with the investigation, the Title VI Manager will offer an opportunity to participate in the interview.
6. The alleged discriminatory service or program official will be given the opportunity to respond to all aspects of the complainant's allegations.
7. The Title VI Manager will determine, based on relevancy or duplication of evidence, which witnesses will be contacted and questioned.
8. The investigation may also include:
   a. investigating contractor operating records, policies or procedures
   b. reviewing routes, schedules, and fare policies
   c. reviewing operating policies and procedures
   d. reviewing scheduling and dispatch records
   e. observing behavior of the individual whose actions were cited in the complaint
9. All steps taken and findings in the investigation will be documented in writing and included in the complaint file.
10. The Title VI Manager will contact the complainant at the conclusion of the investigation, but prior to writing the final report, and give the complainant an opportunity to give a rebuttal statement at the end of the investigation process.
11. At the conclusion of the investigation and **within 60 days** of the interview with the complainant, the Title VI Manager will prepare a report that includes a narrative description of the incident, identification of persons interviewed, findings, and recommendations for disposition. This report will be provided to the Authorizing Official, DRPT, and, if appropriate, Bay Aging's legal counsel.
12. The Title VI Manager will send a letter to the complainant notifying them of the outcome of the investigation. If the complaint was substantiated, the letter will indicate the course of action that will be followed to correct the situation. If the complaint is determined to be unfounded, the letter will explain the reasoning, and refer the complainant to DRPT in the event the complainant wishes to appeal the determination. This letter will be copied to DRPT.
13. A complaint may be dismissed for the following reasons:
    a. The complainant requests the withdrawal of the complaint.

b. An interview cannot be scheduled with the complainant after reasonable attempts.
c. The complainant fails to respond to repeated requests for additional information needed to process the complaint.

14. DRPT will serve as the appealing forum to a complainant that is not satisfied with the outcome of an investigation conducted by Bay Aging. DRPT will analyze the facts of the case and will issue its conclusion to the appellant according to their procedures.

Transportation-Related Title VI Investigations, Complaints, and Lawsuits

Background
All recipients shall prepare and maintain a list of any of the following that allege discrimination on the basis of race, color, or national origin:

- Active investigations conducted by FTA and entities other than FTA;
- Lawsuits; and
- Complaints naming the recipient.

This list shall include the date that the transportation-related Title VI investigation, lawsuit, or complaint was filed; a summary of the allegation(s); the status of the investigation, lawsuit, or complaint; and actions taken by the recipient in response, or final findings related to the investigation, lawsuit, or complaint. This list shall be included in the Title VI Program submitted to DRPT every three years and information shall be provided to DRPT quarterly and annually(see Appendix D).

Public Outreach and Involvement

PUBLIC PARTICIPATION PLAN

Introduction

The Public Participation Plan (PPP) is a guide for ongoing public participation endeavors. Its purpose is to ensure that Bay Aging utilizes effective means of providing information and receiving public input on transportation decisions from low income, minority and limited English proficient (LEP) populations, as required by Title VI of the Civil Rights Act of 1964 and its implementing regulations.

Under federal regulations, transit operators must take reasonable steps to ensure that Limited English Proficient (LEP) persons have meaningful access to their programs and activities. This means that public participation opportunities, normally provided in English, should be accessible to persons who have a limited ability to speak, read, write, or understand English.

In addition to language access measures, other major components of the PPP include: public participation design factors; a range of public participation methods to provide information, to invite participation and/or to seek input; examples to demonstrate how population-appropriate outreach methods can be and were identified and utilized; and performance measures and objectives

to ensure accountability and a means for improving over time.

Bay Aging established a public participation plan or process that will determine how, when, and how often specific public participation activities should take place, and which specific measures are most appropriate.

Bay Aging will make these determinations based on a demographic analysis of the population(s) affected, the type of plan, program, and/or service under consideration, and the resources available. Efforts to involve minority and LEP populations in public participation activities may include both comprehensive measures, such as placing public notices at all transit stations, stops, and vehicles, as well as targeted measures to address linguistic, institutional, cultural, economic, historical, or other barriers that may prevent minority and LEP persons from effectively participating in our decision-making process (see Appendix D)..

VIII. LANGUAGE ASSISTANCE PLAN FOR PERSONS WITH LIMITED ENGLISH PROFICIENCY (LEP)

Introduction and Legal Basis

LEP is a term that defines any individual not proficient in the use of the English language. The establishment and operation of an LEP program meets objectives set forth in Title VI of the Civil Rights Act and Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency (LEP). This Executive Order requires federal agencies receiving financial assistance to address the needs of non-English speaking persons. The Executive Order also establishes compliance standards to ensure that the programs and activities that are provided by a transportation provider in English are accessible to LEP communities. This includes providing meaningful access to individuals who are limited in their use of English. The following LEP language implementation plan, developed by Bay Aging is based on FTA guidelines.

As required, Bay Aging developed a written LEP Plan (below). Using 2010 and American Community Survey (ACS) Census data, Bay Aging has evaluated data to determine the extent of need for translation services of its vital documents and materials.

LEP persons can be a significant market for public transit, and reaching out to these individuals can help increase their utilization of transit. Therefore, it also makes good business sense to translate vital information into languages that the larger LEP populations in the community can understand.

Limited English Proficiency Assessment

PROCESS OF ANALYSIS

Census information and community profile was pulled for each county to obtain the racial make-up of each county. This data was entered in the assessment tool provided. This data was used to determine the LEP ratios for each county as well as the total population of foreign nationality.

The name and telephone numbers were obtained for each county: 1) Major employers in the county, 2) human services agencies, 3) county offices, 4) school systems and 5) churches. A poll by telephone calls was made to at least 3 – 5 resources on each list.

Conversations took place with the drivers and dispatcher of the local public transportation service, asking about the number and frequency of encounters with individuals exhibiting limited English speaking skills.

SUMMARY FOR NEW KENT & CHARLES CITY COUNTIES

Using the results of conversations with bus drivers and dispatchers; responses to the telephone calls made to sources listed above; and the census and profile data collected, the following summary was compiled:

Total Population	25,045	
Population of foreign nationality	508	2% of total population
Total Population over 5 years of age	19,209	
Total number of population w/LEP	80	0.4% of population over 5 yrs of age

One encounter with LEP situation in the last 12 months was recalled by dispatchers & drivers.

There were two responses of "yes" (one local business and the elementary school) during the survey made to local businesses and community resources. The languages specified were Spanish, Korean, Tai, and Malaysian.

SUMMARY FOR THE COUNTIES OF THE MIDDLE PENINSULA

Using the results of conversations with bus drivers and dispatchers; responses to the telephone calls made to sources listed above; and the census and profile data collected, the following summary was compiled:

Total Population	81,475	
Population of foreign nationality	1,878	2% of total population
Total Population over 5 years of age	40,105	
Total number of population w/LEP	396	1% of population over 5 yrs of age

Encounters with riders (Spanish, Russian & Japanese) in need of language assistance are experienced routinely by dispatchers & drivers.

With exception to the local churches, there were consistent responses of "yes, there is a need for Spanish language assistance programs" during the survey made to local businesses and community resources. Several county offices and schools have interpreters on staff for the Spanish speaking clients/students.

SUMMARY FOR THE COUNTIES OF NORTHERN NECK

Using the results of conversations with bus drivers and dispatchers; responses to the telephone calls made to sources listed above; and the census and profile data collected, the following summary was compiled:

Total Population	63,134	
Population of foreign nationality	2,008	3% of total population
Total Population over 5 years of age	56,681	
Total number of population w/LEP	367	0.6% of population over 5 yrs of age

Dispatchers and drivers reported occasional regular riders or seasonal migrant workers would benefit from a language assistance program.

There were consistent responses of "yes, a need for Spanish language assistance programs" during the survey made to local businesses and community resources. Several county offices, schools and churches have interpreters or staff fluent in Spanish for the Hispanic population.

CONCLUSION

Data and poll indicates there is a limited need for a formal language assistance program in this geographic area at this time. However, since the need for Spanish speaking assistance appears to be increasing, Bay Transit is setting goals to do the following as a result of the needs assessment:

1. Provide a Spanish script to each dispatcher and driver that will assist them in communicating with callers and passengers with limited English proficiency.
2. Translate the company brochures into Spanish.
3. Make available a link on the web site to a Spanish translation of how to schedule a ride.
4. Have at least one staff person fluent in Spanish should the need arise for an interpreter.

IX. MINORITY REPRESENTATION ON PLANNING AND ADVISORY BODIES

Title 49 CFR Section 21.5(b)(1)(vii) states that a recipient may not, on the grounds of race, color, or national origin, "deny a person the opportunity to participate as a member of a planning, advisory, or similar body which is an integral part of the program."

Bay Aging has transit-related, non-elected planning boards, advisory councils or committees, or similar committees, the membership of which we select.

1. ***Please provide a description of your selection process, including recruitment efforts made to encourage the participation of minorities on such committee(s)***
   It is Bay Aging's experience that it has been difficult to retain members on our planning and advisory committees. We recruit from the populations listed below and strive to maintain a balance when possible to ensure inclusive representation:

   a. Older individuals (including minority individuals and older individuals residing in rural areas) who are participants or who are eligible to participate in programs assisted under this Act
   b. Family caregivers of such individuals
   c. Representatives of older individuals
   d. Service providers
   e. Representatives of the business community
   f. Local elected officials
   g. Providers of veterans' health care
   h. General public.
   i. Health care provider organizations,
   j. Supportive services providers organizations
   k. Persons with leadership experience in the private and voluntary sectors.
   l. Private transportation providers

2. ***Please provide a table(s) depicting the racial breakdown of the membership of those committees (see Appendix E)***

Appendix A

Title VI Notice to the Public; List of Locations

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance. Specifically, Title VI provides that "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" (42 U.S.C. Section 2000d).

Bay Aging/BayTransit is committed to ensuring that no person is excluded from participation in, or denied the benefits of its transportation services on the basis of race, color, or national origin, as protected by Title VI in Federal Transit Administration (FTA) Circular 4702.1B. If you feel you are being denied participation in or being denied benefits of the transit services provided by Bay Aging/Bay Transit or otherwise being discriminated against because of your race, color, national origin, gender, age, or disability, our contact information is:

Name: Ken Pollock
Title: Transit Director
Agency Name: Bay Aging/Bay Transit
Address: PO Box 610, , VA 23175
City: Urbanna, VA 23175
Telephone Number: 804-758-2386 ext. 1210
Email address: kpollock@bayaging.org.

Title VI notices are posted on the agency's website and in posters on the interior of each vehicle operated in passenger service and agency's facilities, and are also included within Bay Transit's brochures.

Appendix B

Bay Aging/Bay Transit's Title VI Complaint Form

Section I:				
Name:				
Address:				
Telephone (Home):		Telephone (Work):		
Electronic Mail Address:				
Accessible Format Requirements?	Large Print		Audio Tape	
	TDD		Other	
Section II:				
Are you filing this complaint on your own behalf?		Yes*	No	
*If you answered "yes" to this question, go to Section III.				
If not, please supply the name and relationship of the person for whom you are complaining:				
Please explain why you have filed for a third party:				
Please confirm that you have obtained the permission of the aggrieved party if you are filing on behalf of a third party.		Yes	No	
Section III:				
I believe the discrimination I experienced was based on (check all that apply): [ ] Race [ ] Color [ ] National Origin Date of Alleged Discrimination (Month, Day, Year): _____ Explain as clearly as possible what happened and why you believe you were discriminated against. Describe all persons who were involved. Include the name and contact information of the person(s) who discriminated against you (if known) as well as names and contact information of any witnesses. If more space is needed, please use the back of this form.				
Section IV				
Have you previously filed a Title VI complaint with this agency?		Yes	No	

Section V
Have you filed this complaint with any other Federal, State, or local agency, or with any Federal or State court?

[ ] Yes [ ] No If yes, check all that apply: [ ] Federal Agency: _____ [ ] Federal Court _____ [ ] State Agency _____ [ ] State Court _____ [ ] Local Agency _____
Please provide information about a contact person at the agency/court where the complaint was filed.
Name:
Title:
Agency:
Address:
Telephone:
Section VI
Name of agency complaint is against:
Contact person:
Title:
Telephone number:

APPENDIX C

Investigations, Lawsuits and Complaints Document

List of Investigations, Lawsuits and Complaints

	Date (Month, Day, Year)	Summary (include basis of complaint: race, color or national origin)	Status	Action(s) taken
Investigations				
1. None				
Lawsuits				
1. None				
Complaints				
1. None				

APPENDIX D

Summary of Outreach Efforts

- **Determining and identifying what meetings and program activities lend themselves to client public participation.**
- **Scheduling meetings at times and locations that are convenient and accessible for minority and LEP communities..**
- **Coordination with community and faith-based organizations, educational institutions, and other organizations to implement public engagement strategies that reach out specifically to members of affected minority and/or LEP communities.**
- **Radio and newspaper ads on stations and in publications that serve LEP populations.**
- **Customer surveys to get feedback on transit services from minority and LEP populations**

APPENDIX E

MINORITY REPRESENTATION ON COMMITTEES BY RACE

Committee	Black or African American	White/ Caucasian	Latino/ Hispanic	American Indian or Alaska Native	Asian	Native Hawaiian or other Pacific Islander	Other *Note	Totals
Bay Aging Advisory Board	7	16						23
Middle Peninsula-Northern Neck Coordinated Human Service Mobility Team	**3**	**10**	**1**					**14**

APPENDIX E: HISTORY OF EXPENSES AND REVENUES

APPENDIX E: HISTORY OF EXPENSES AND REVENUES

Table E-1 3-Year Retrospective of Expenses and Revenues

		FY 2013	FY2014	FY2015
Operating and Maintenance	Expenses			
	Operating Costs	$2,745,713	$2,744,983	$2,758,836
	Funding Sources			
	Federal	$1,292,647	$1,292,467	$1,284,795
	State	$506,890	$546,024	$508,120
	Farebox	$137,393	$197,813	$182,450
	Local Government	$749,744	$706,023	$731,762
	Other	$59,219	$1,101	$51,709
Capital	Expenses			
	Capital Costs	$60,554	$4,059,238	$1,825,423
	Funding Sources			
	Federal	$48,000	$2,651,587	$1,281,434
	State	$9,600	$1,093,112	$438,078
	Local Government	$2,954	$314,538	$105,911

Historic values were obtained from previous TDP updates.


CTG
Connetics
Transportation
Group

Kimley»Horn

DRPT
Virginia Department of Rail and Public Transportation

BayTransit