

## **2.0 EXISTING CONDITIONS**

This section describes the major characteristics of the study area, lists recent studies performed in the region and describes the regional goals and objectives.

### **2.1 DESCRIPTION OF THE STUDY AREA**

The project study area encompasses the portions of New Castle County, north of the Chesapeake and Delaware Canal and into neighboring Maryland. As a practical matter, potential monorail corridors are being considered in a corridor approximately 3 to 5 miles north and south of I-95. The area of influence of any future transit connection would have an impact beyond this area and so a broader geographic area is considered as necessary. At the same time, the territory directly affected by any future monorail is encompassed in the more limited area shown in Figure 2.1-1.

The subsections that follow provide study area highlights and a more detailed discussion is contained in the Task 2 Feasibility Analysis Technical Memorandum.

#### **2.1.1 Major Roads**

The State of Delaware is mostly rural, resulting in few limited-access highways. The exception to this is northern New Castle County. Here, major highways connect Delaware to regional, national, and even international destinations. Starting at the highest tier, I-95 is one of the most traveled interstates in the United States, linking Miami to Maine and the Atlantic Provinces of Canada.

On the regional level, New Castle County is considered part of the Philadelphia tri-state area (Pennsylvania, New Jersey, and Delaware). Interstates and limited-access highways provide linkages within this metropolitan area. Major regular highways include US 13, US 40 (connecting Maryland and New Jersey), and US 202. The latter of the three routes is a vital regional corridor housing the biggest employers and retail facilities in the region.

#### **2.1.2 Major Rail Lines**

Considerable freight traffic travels by rail along the Northeast Corridor. Over 21 million tons of freight was carried across the state. Norfolk Southern, CSX, and Conrail are three of the five freight railroads operating on the state's 218 miles of track. Two smaller railroads, the Maryland & Delaware Railroad and the Wilmington & Western Railway, also operate in the state<sup>1</sup>.

Passenger service is available at four passenger rail stops in the area: Wilmington, Newark, Churchman's Crossing, and Claymont. The National Railroad Passenger Corporation (Amtrak) serves the Wilmington station with Acela Regional and Express Service. The Southeastern Pennsylvania Transit Authority (SEPTA) serves all four stations with connections to Philadelphia, suburban Pennsylvania, and New Jersey.

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<sup>1</sup> Association of American Railroads, Jan. 2002.

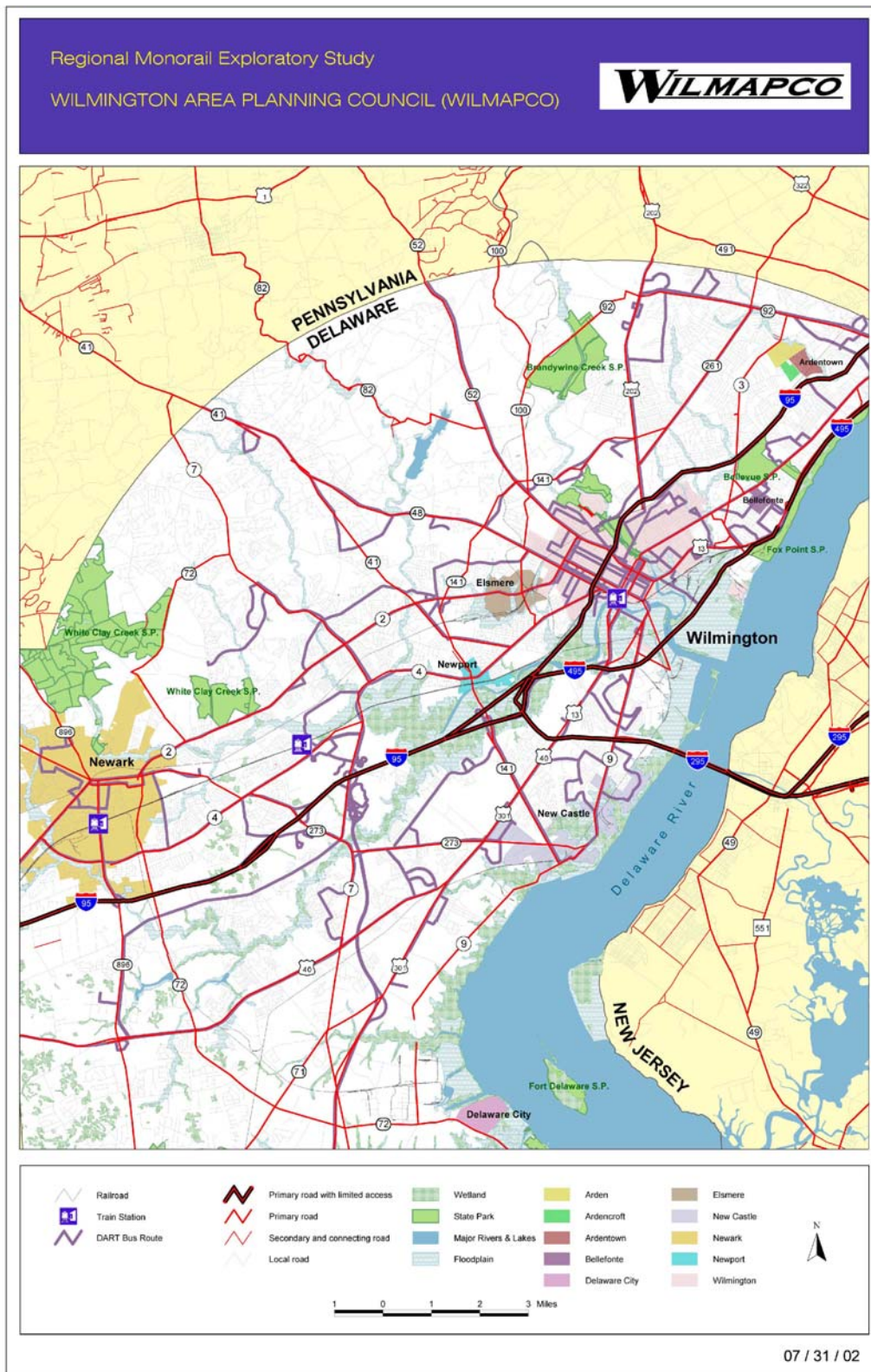


Figure 2.1-1: Environmental Features

### **2.1.3 Demographic and Housing Characteristics**

New Castle County's population accounts for the majority of the state's population at around 500,000 persons<sup>2</sup>—64 percent of the state's population. This number is projected to increase approximately 54,000 by the year 2025<sup>3</sup>. Year 2000 Census information shows that this area is the densest of the three counties. At the county sub-region levels, the highest densities are also located in New Castle County.

### **2.1.4 Major Environmental Features**

Northern Delaware, with its woodlands and water bodies, is home to several environmental features as shown in Figure 2-1. This section, addresses three major features that indicate the complexity of the ecosystem contained in this area and represent the most relevant potential environmental obstacles. Should this study lead to future Environmental Impact Statement, a detailed environmental analysis would be performed. State Parks represent protected land in the region, while flood regions represent regional protected wetlands and waterfronts. Finally, air quality gives an idea of how the previous two features can be affected (negatively and positively) should it remain at its present state. The corridor evaluation considers the level of impact a particular alignment would have on each of these environmental features.

#### **2.1.4.1 State Parks**

Nine Delaware State Parks are located in New Castle County. Among the largest is White Clay Creek Park north of Newark, with approximately 3,200 acres. Brandywine Creek Park is located near the busy 202 Corridor with approximately 900 acres. Fox Point Park (approximately 500 acres) is along the Delaware riverside adjacent to the SEPTA/Amtrak line just south of the Claymont Station. Fox Point Park is near Bellevue Park to the West. Wilmington State Parks are the newest addition to the State Park System and include the Brandywine Zoo, Alapocas Woods, Rockford Park and others.

#### **2.1.4.2 Wetlands and Flood Region**

Small, fragmented wetlands areas encompass the areas south of the Northeast Corridor Rail line. One large cluster is located in the City of New Castle and between New Castle and Delaware City along the riverside. Another cluster is along I-95 near the 95/295 interchange. The flood region takes up much space along the Christiana River, reaching its widest point at the Port of Wilmington (2.8 miles). From there inland, the flood region gradually narrows, but grows again and encompasses the entire 95/295 interchange. After this point, the flood region breaks into two paths in tandem with the two rivers and reaches a width of about 1,300 feet.

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<sup>2</sup> WILMAPCO indicates a population of around 487,000, while the US Census Bureau calculates 500,265.

<sup>3</sup> From WILMAPCO. The Delaware Population Consortium predicts the population of New Castle County to be over 94,000 by 2030.

### 2.1.4.3 Air Quality

New Castle County, as well as neighboring Cecil County, Maryland, is located in a severe non-attainment area due to unsatisfactory levels of ozone. This problem not only applies to these two counties, but the entire Consolidated Metropolitan Statistical Area, which stretches from Wilmington across Philadelphia to Trenton, New Jersey. This unsatisfactory designation is issued by the Environmental Protection Agency (EPA) for not reaching the desirable levels of air quality as outlined in the National Ambient Air Quality Standards (NAAQS). WILMAPCO has submitted its Air Quality Conformity Determination for the FY 2003-2005 Transportation Improvement Program (TIP) for the 2025 Metropolitan Transportation Plan (MTP), and it has been approved by the State of Delaware as conforming to the State's Clean Air Act Implementation Plan with approvals pending from the EPA, FHWA, and the FTA.

## 2.2 RECENT STUDIES

A review of existing transportation and land use plans and studies was conducted to obtain an understanding of the long-range transportation planning issues facing the region. The key interrelated challenges are traffic congestion and its impact on ambient air quality along with the variety of socioeconomic impacts that result from suburban sprawl.

The studies listed below propose an intermodal approach to these growth challenges. These approaches involve significant enhancements to the regional transit network. These studies are described in the Task 2 Feasibility Analysis Technical Memorandum

Regional Parking and Land Use Study for WILMAPCO prepared by Edwards & Kelcey, Inc., July 1996.

Churchman's Crossing Study, prepared by WILMAPCO, DelDOT, and New Castle County, April 1997.

Wilmington Area Planning Council Transit Service Needs Study, Final Report prepared by SG Associates, Inc., and Michael Baker Jr., Inc., December 1997.

Application for New Start – Wilmington Trolley, Wilmington, Delaware, prepared by Delaware Transit Corporation, July 1999.

WILMAPCO 2025 Metropolitan Transportation Plan, February 2000.

Route 40 Corridor 20-Year Transportation Plan prepared by DelDOT and New Castle County and WILMAPCO, July 2000.

DTC's 2025 Long Range Plan prepared by Parsons Brinckerhoff, December 2000.

DTC's Five-Year Business Plan 2002-2006 prepared by Parsons Brinckerhoff, December 2000.

Blue Ball Properties Master Plan prepared by Wallace Roberts & Todd, LCC, January 2001.

Update to Innovative Transportation Opportunities for Delaware In the 21<sup>st</sup> Century prepared by Representative David Ennis, November 2001.

DTC Passenger Rail Engineering Study prepared by DMJM + Harris, January 2002.

### 2.3 REGIONAL GOALS AND PLANS

As part of examining Monorail/AGT feasibility in northern New Castle County, this assessment evaluates how the recommended alignment/technology would help meet the following regional goals. The Monorail/AGT system would have particular impact on goals 2 through 5. The WILMAPCO 2025 MTP outlines the following goals for the region:

1. **Better and more predictable planning**, with land-use and transportation linked.
2. **Sustain a healthy and growing economy** that is built on our geographic advantage and the skills of the population.
3. **Improved quality of life**, emphasizing a sound environment, less congestion, better and more appropriate use of land, instilling a sense of security, and providing opportunities for employment and better education.
4. **Enhancement and re-emergence of traditional communities and municipalities** as the location of commerce, culture and mixed-use housing for the area.
5. **Improved mobility, accessibility, and transportation alternatives** to provide efficient movement of people and goods.
6. **Achieve more effective intergovernmental coordination**, at the **federal**, state, regional, and local levels, and better public/private communication and understanding on issues of development and transportation.