

City of New Castle
Transportation Plan
Task 1

Identify Issues,
Opportunities
and Constraints

www.wilmapco.org/cityofnewcastle
February 10, 2021

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The map shows the City of New Castle and surrounding areas, including Wilmington, Farnhurst, Collins Park, Penn Acres, Hares Corner, Dobbinsville, and New Castle. Major roads like I-95, I-295, and US-13 are highlighted. The New Castle Airport is also shown. The map is overlaid with a blue gradient and text for the transportation plan task.

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Introduction

Project Purpose

The Wilmington Area Planning Council (WILMAPCO), City of New Castle, Delaware, and the Delaware Department of Transportation (DelDOT) are developing the City of New Castle Transportation Plan Update to update the 1999 City of New Castle Transportation Plan and will further analyze issues raised in the City of New Castle Comprehensive Development Plan. The study area includes the entire municipality, and will also consider transportation transitions to surrounding areas within New Castle County as appropriate.

The purposes of this Plan are to:

- Improve the multimodal transportation network, provide connectivity to communities and trails, enhance health and livability, reduce illegal truck traffic, and improve safety.
- Address flooding and sea-level rise impacts on land use and access to major transportation corridors.
- Improve gateways to the historic city.
- Develop a shared-parking analysis.

In addition, this Plan will develop recommendations to address transportation goals identified in the City of New Castle Comprehensive Plan, which include:

- Enhance bike and pedestrian connections and facilities throughout the City.
- Clarify regional and local traffic patterns throughout the City.
- Redesign streets and intersections to reduce speeding and cut-through traffic, while improving pedestrian safety in all City neighborhoods.
- Formalize and optimize the existing parking supply.

Additional relevant goals address land use and redevelopment, urban design standards, gateways, pedestrian-oriented commercial district design, and drainage and stormwater. While the 2009 Comprehensive Plan is currently being updated, public comments indicate that these goals are still largely relevant.

This project will include a Planning and Environmental Linkages (PEL) Study. PEL Studies are a collaborative and integrated approach to transportation decision-making that considers environmental, community, and economic issues early in the planning process. This information and analyses can then be utilized to inform the National Environmental Policy Act (NEPA) review process. PEL Studies are an Federal Highway Administration (FHWA) initiative used to help make better-informed project-level decisions and to shorten project delivery time, and they follow provisions set forth in 23 U.S.C. 168(b)(1)(A) and associated regulations under 23 CFR 450.212(d) and 450.313(e).

This report details the findings of Task 1: Identify Issues, Opportunities and Constraints. Task 1 included a comprehensive review of existing and planned conditions. The review contained in this report includes analysis and mapping of existing conditions data including:

- Land Use including existing zoning regulations, existing land use, currently planned land use, and other state and county land use policies.
- Demographics including current and projected population, employment and households.
- Transportation circulation maps and data including roads, sidewalks, bicycle, bus, rail. Transportation data includes traffic and congestion, safety and planned projects.
- Environmental and cultural features maps and data including historic resources, parks, wetlands, floodplain, sea-level rise.

Task 1 has been completed to inform future planning phases of existing conditions within the study area. Future tasks will merge this initial analysis with extensive community and stakeholder outreach, and technical assessment.

Planning Partners

The Plan will evaluate and make recommendations about a broad range of issues. Thus, the study is a collaborative effort between:

- **Wilmington Area Planning Council (WILMAPCO)**—WILMAPCO is the regional transportation planning agency for New Castle County, Delaware and Cecil County, Maryland. As the federally designated Metropolitan Planning Organization (MPO), WILMAPCO is charged with planning and coordinating transportation investments for the region based on federal policy, local input, technical analysis, and best practices. WILMAPCO will provide overall coordination for this project including public outreach, providing demographics information, producing maps, and developing the final report.
- **City of New Castle**-- Founded in 1640, the historic City of New Castle is situated along the Delaware River in New Castle County, Delaware with a current population of approximately 5,392. The City of New Castle provides transportation services such as local roads, parking, pathways, and sidewalks. In addition, the City is responsible for regulating land use and providing public works, police, and recreational services.
- **Delaware Department of Transportation (DelDOT)**—DelDOT is responsible for planning, designing, building and managing Delaware's statewide transportation system. DelDOT provides transportation and freight data, and will assist with development of transportation recommendations.
- **Delaware Transit Corporation (DTC)**—DTC, an operating division of DelDOT, seeks to design and provide the highest quality public transportation services that satisfy the needs of the customer and the community. Bus service in the area is provided by DART First State. DTC will provide input on existing transit conditions and potential improvements.

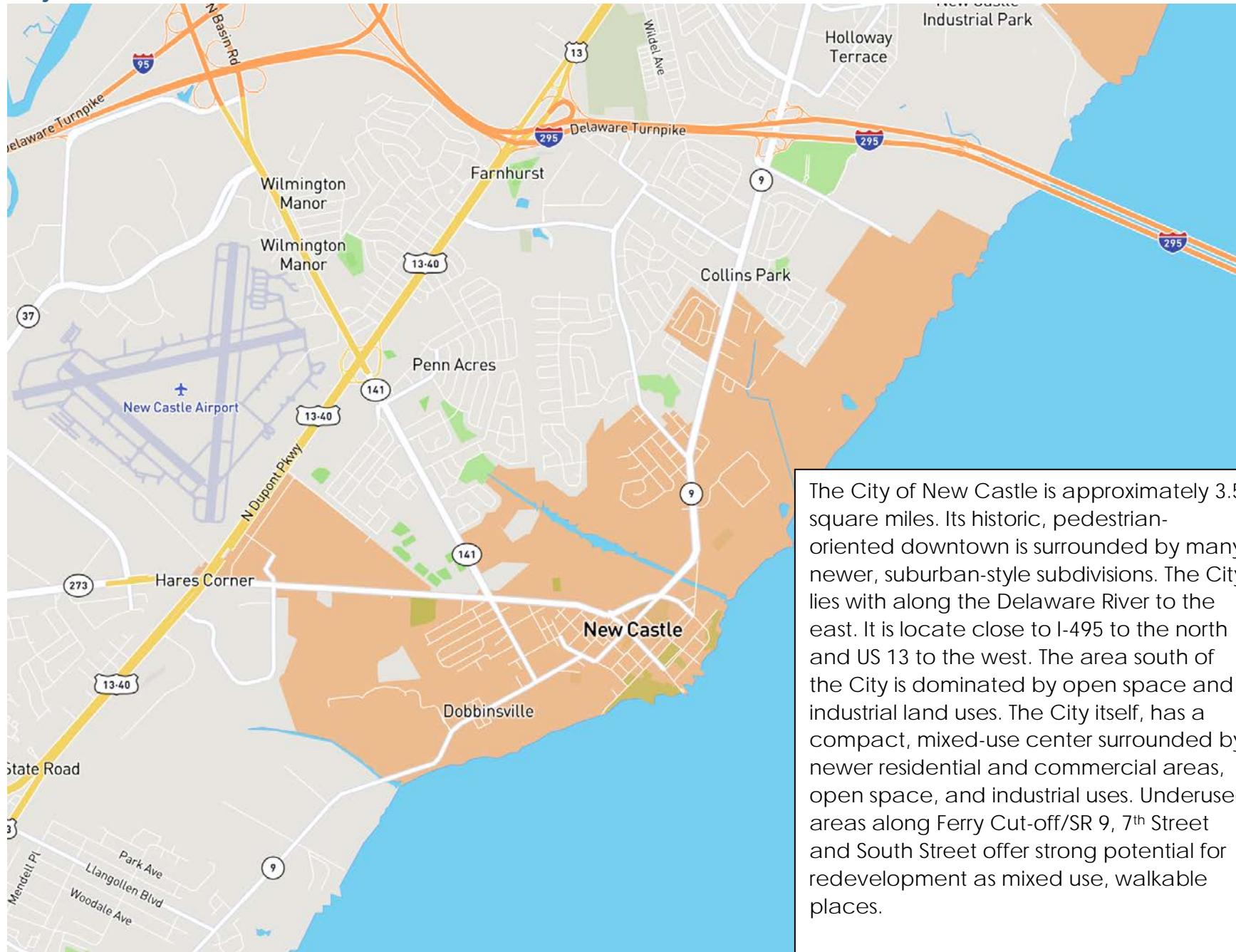
An Advisory Committee of civic and business stakeholders will provide input on issues, opportunities and constraints, and draft scenarios. Membership on the Advisory Committee might include:

- Land owners, businesses, civic entities and elected officials
- Trustees of The New Castle Common

- New Castle County
- Delaware Department of Natural Resources and Environmental Control
- Delaware Office of State Planning Coordination

Other Advisory Committee member may be identified as part of early outreach to the community, and all Advisory Committee meetings are open to all interested stakeholders and members of the public.

Project Area



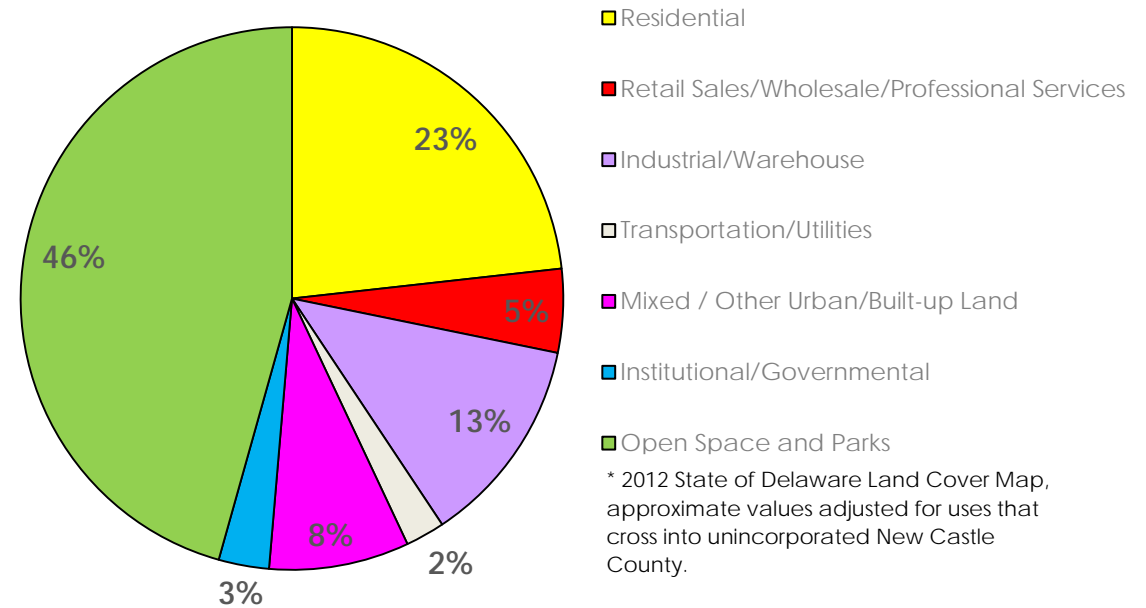
The City of New Castle is approximately 3.5 square miles. Its historic, pedestrian-oriented downtown is surrounded by many newer, suburban-style subdivisions. The City lies with along the Delaware River to the east. It is locate close to I-495 to the north and US 13 to the west. The area south of the City is dominated by open space and industrial land uses. The City itself, has a compact, mixed-use center surrounded by newer residential and commercial areas, open space, and industrial uses. Underused areas along Ferry Cut-off/SR 9, 7th Street and South Street offer strong potential for redevelopment as mixed use, walkable places.

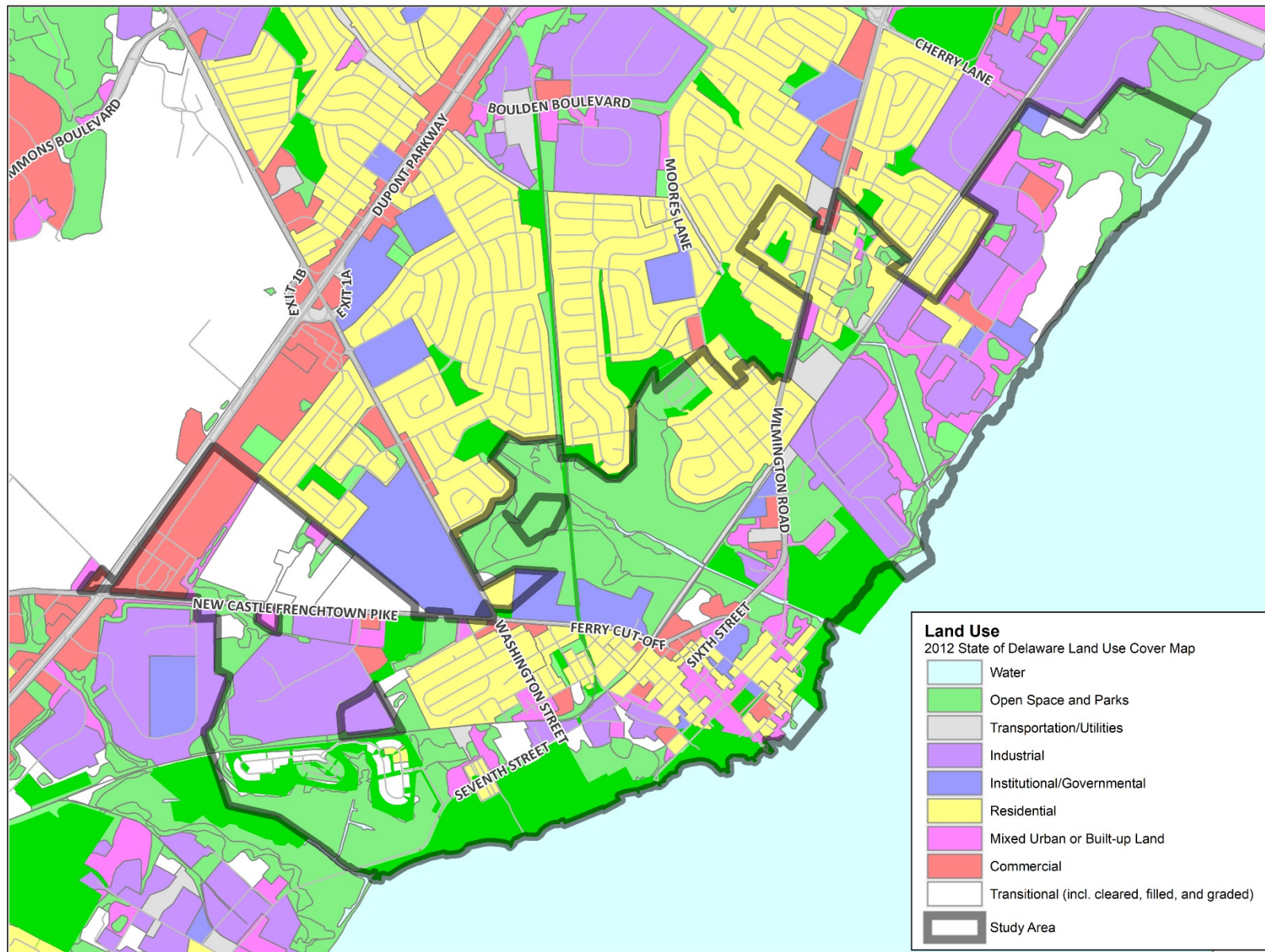
Land Use

Existing Land Use

The City of New Castle contains a mix of land uses, dominated by open space, residential, and industrial. Approximately 46 percent of the City's land cover, open space includes wetlands, forest, agriculture and parks, contributing to its character as a green, waterfront community. With approximately 23 percent of the land cover, residential uses range from modern apartments, historic row homes, and single family homes which account for the largest share of 43 percent. The remaining 31 percent of the City is a mix of mixed use, industrial, commercial, institutional, and utility uses.

Existing Land Use, City of New Castle*



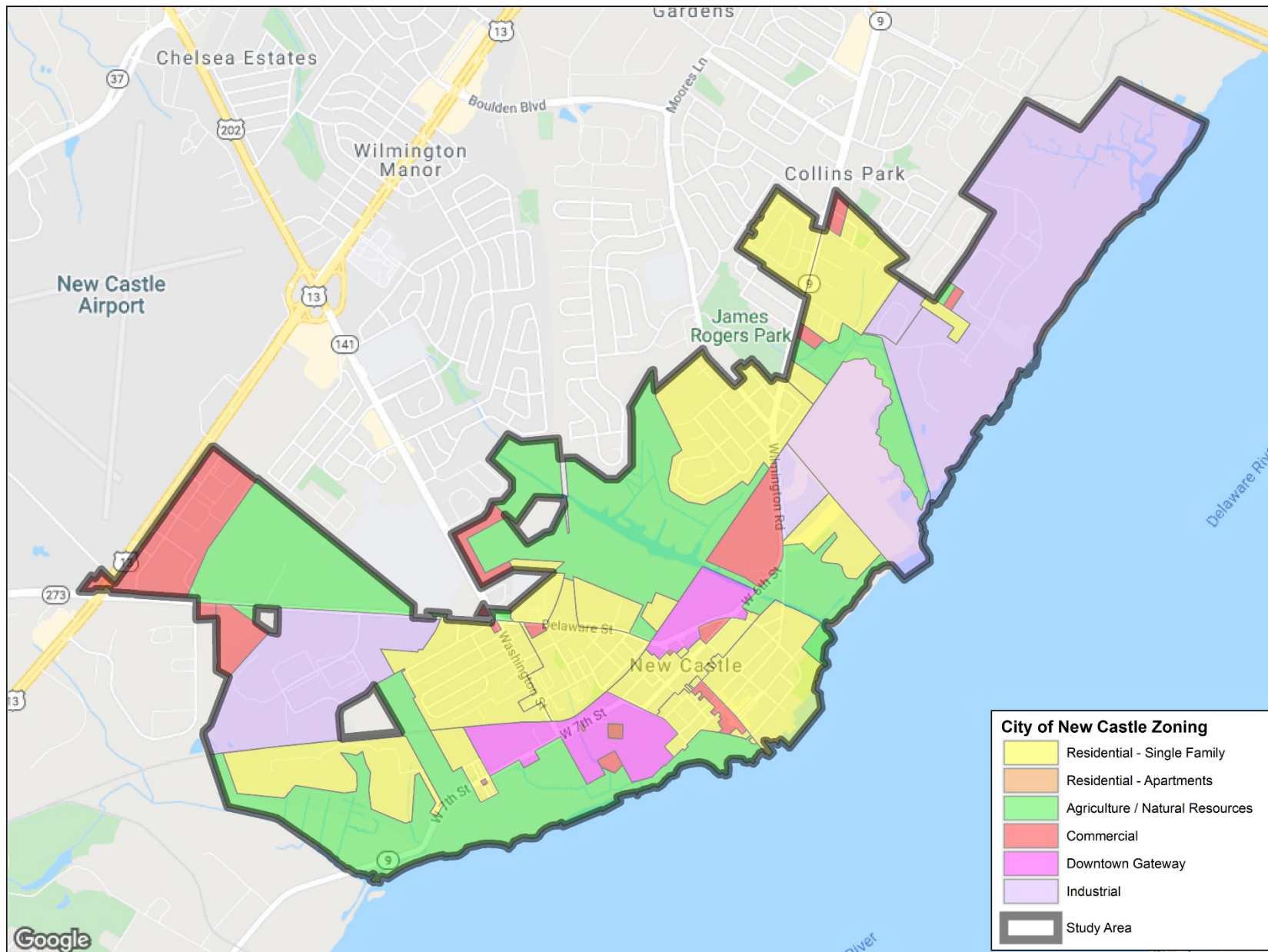


Existing Land Use for City of New Castle and the Surrounding Area

Existing Zoning

The official City Zoning Code can be found at: <https://ecode360.com/8875539> which includes a detailed map and descriptions of each district. Zoning districts by category are summarized below.

- Agriculture and Open Space
 - Open Space and Recreation District (OS&R) –provides for and protects permanent open spaces.
 - Agricultural – Horticultural District (AH) –provides for agricultural and horticultural activities, while protecting agricultural lands.
- Commercial
 - Historic Commerce District (HC) –preserves, promotes and protects the historic commercial heart of the City. Allows for mixed-use including small shops, bakeries, banks, restaurants, club and lodges, tourist homes, and a diversity of housing.
 - Retail Commercial District (RC) –provides areas in which the daily shopping and business requirements of nearby residents can be met. These areas are to be exclusively commercial.
 - Service Commercial District (SC) –provides for a wide range of commercial and service needs, usually with access to a main roadway.
 - General Commercial District (GC) –provides for local and regional shopping, office and business needs along a main roadway. Permitted uses include a variety of more intense commercial uses, offices, and institutional uses.
 - Downtown Gateway District (DG) –seeks to create a pedestrian-oriented neighborhood commercial district providing primarily local goods and services and presenting an attractive gateway worthy with the built form, character and scale of the historic district. Uses include a variety of commercial uses and residential dwelling unit types.
- Residential
 - Residential District (R-1) –provides and protects areas for single-family detached residential development for a pleasant, quiet, hazard-free residential environment.
 - Residential District (R-2) –permitted uses include single-family semidetached dwelling, two-family dwelling units and corner stores are allowed.
 - Residential District (R-3) –permitted uses include two-family semidetached dwellings, single-family attached dwellings, two-family attached dwellings and multiple dwellings.
 - Historic Residence District (HR) –preserves, promotes and protects the historic area, now predominantly residential. Development is subject to architectural review. Permitted uses include single family (detached, semidetached and attached), two-family dwellings (detached, semidetached and attached), tourist homes, and parks and playgrounds.
- Industrial
 - Light Industrial – Office District (LIO) –uses include offices, laboratories, and industrial research or testing facilities.
 - Industrial Office Park (IOP) –uses include offices, manufacturing, warehouse and distribution facilities, laboratories, retail and personal services, restaurants, and a variety of commercial uses.
 - Industrial District (I) –uses include offices, manufacturing, printing, truck terminals, and laboratories.
 - Telecommunications District (TD) –uses include telecommunication facilities.



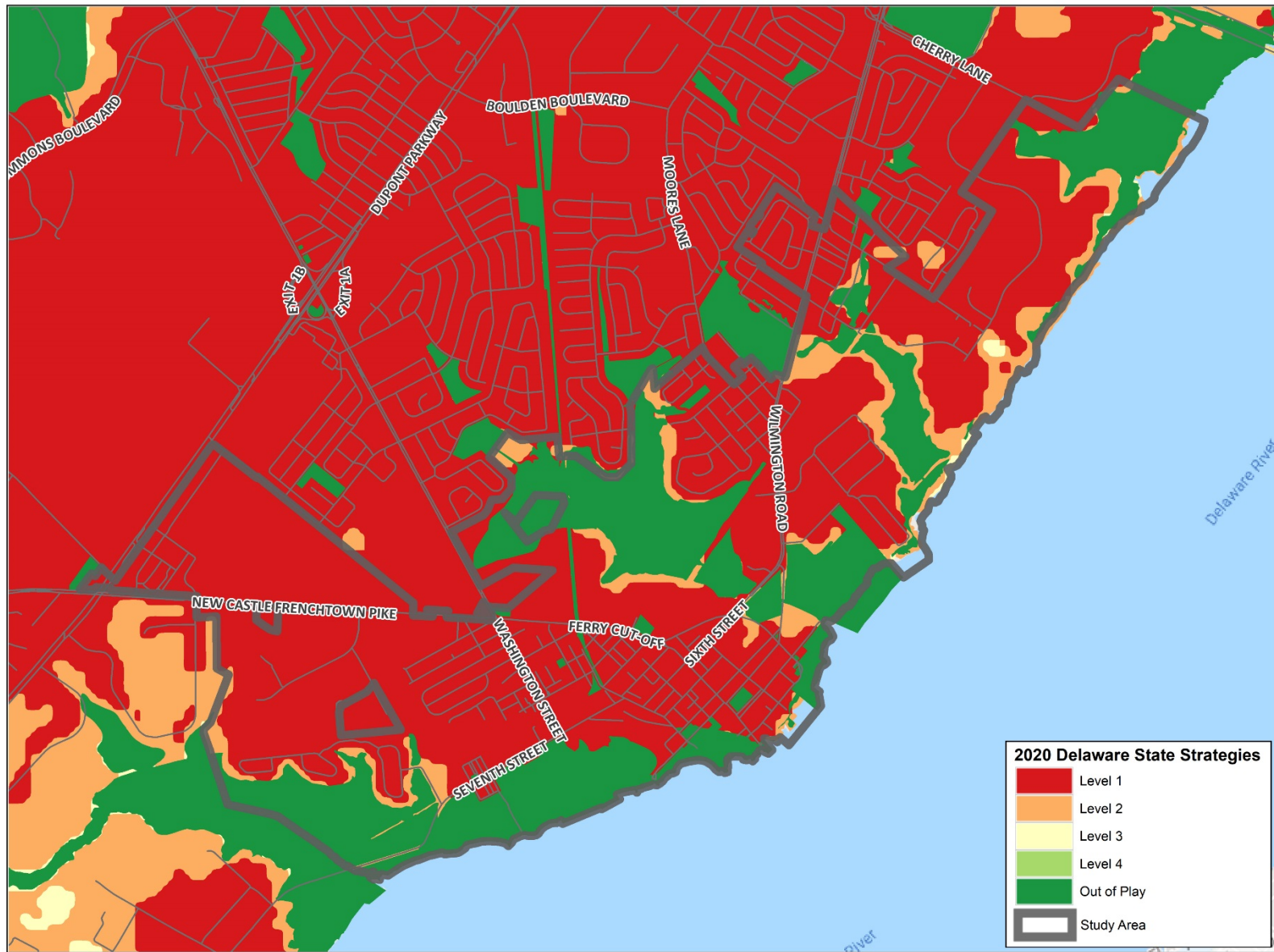
Potential Use

Strategies for State Policies and Spending

Required by Delaware code, the Strategies for State Policies and Spending purpose is to coordinate land-use decision-making with the provision of infrastructure and services in a manner that makes the best use of natural and fiscal resources. The study area is mostly designated as Investment Levels 1 where state policies will support growth and economic development activities. Level 1 areas are municipalities, towns, or urban/urbanizing places with higher density, transportation choices and mixed land uses.

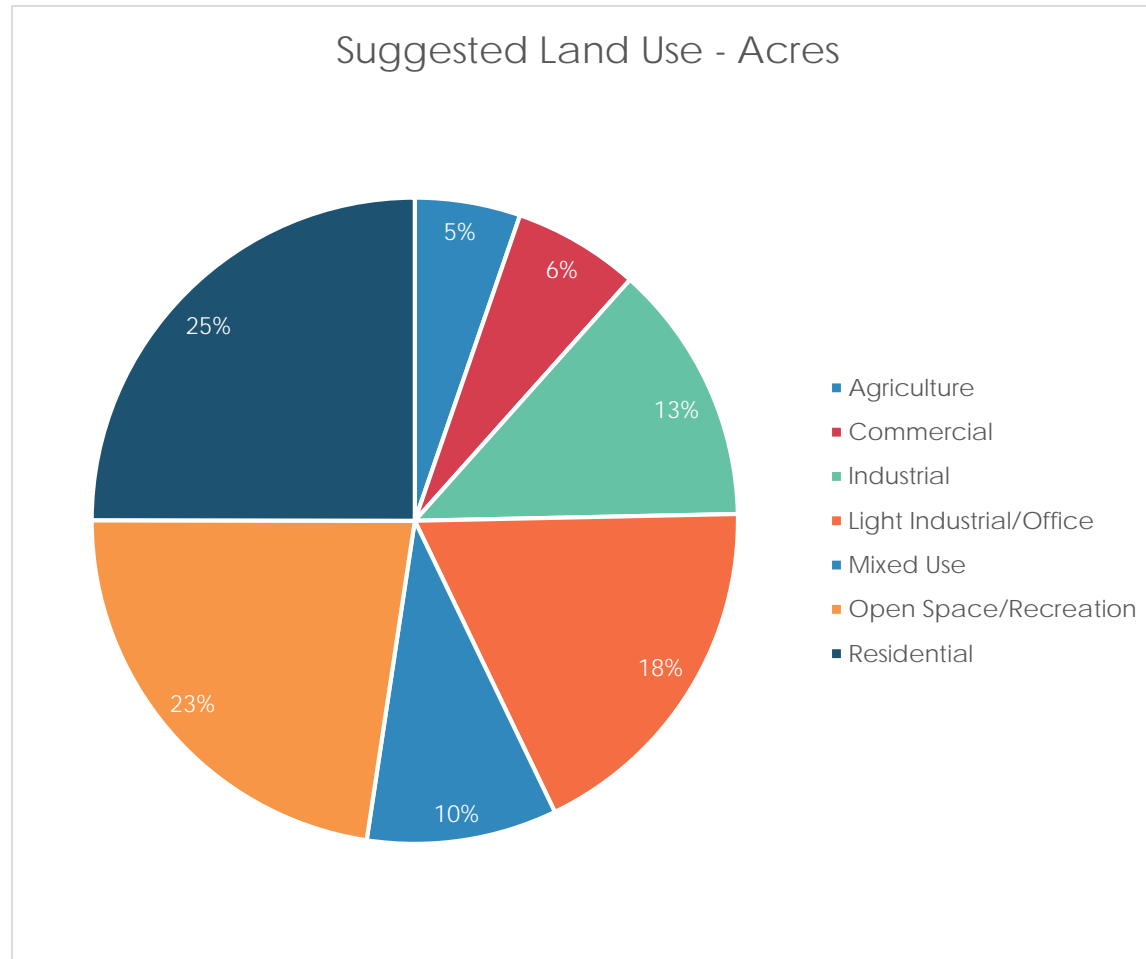
Level 2 areas provide a border between Level 1 and Out of Play land, and has diverse characteristics and can be composed of less developed areas within municipalities, rapidly growing areas in the counties that have or will have public water and wastewater services and utilities, and areas that are generally adjacent to or near Level 1 areas; they serve as transition areas between Level 1 and the state's more open, less populated areas.

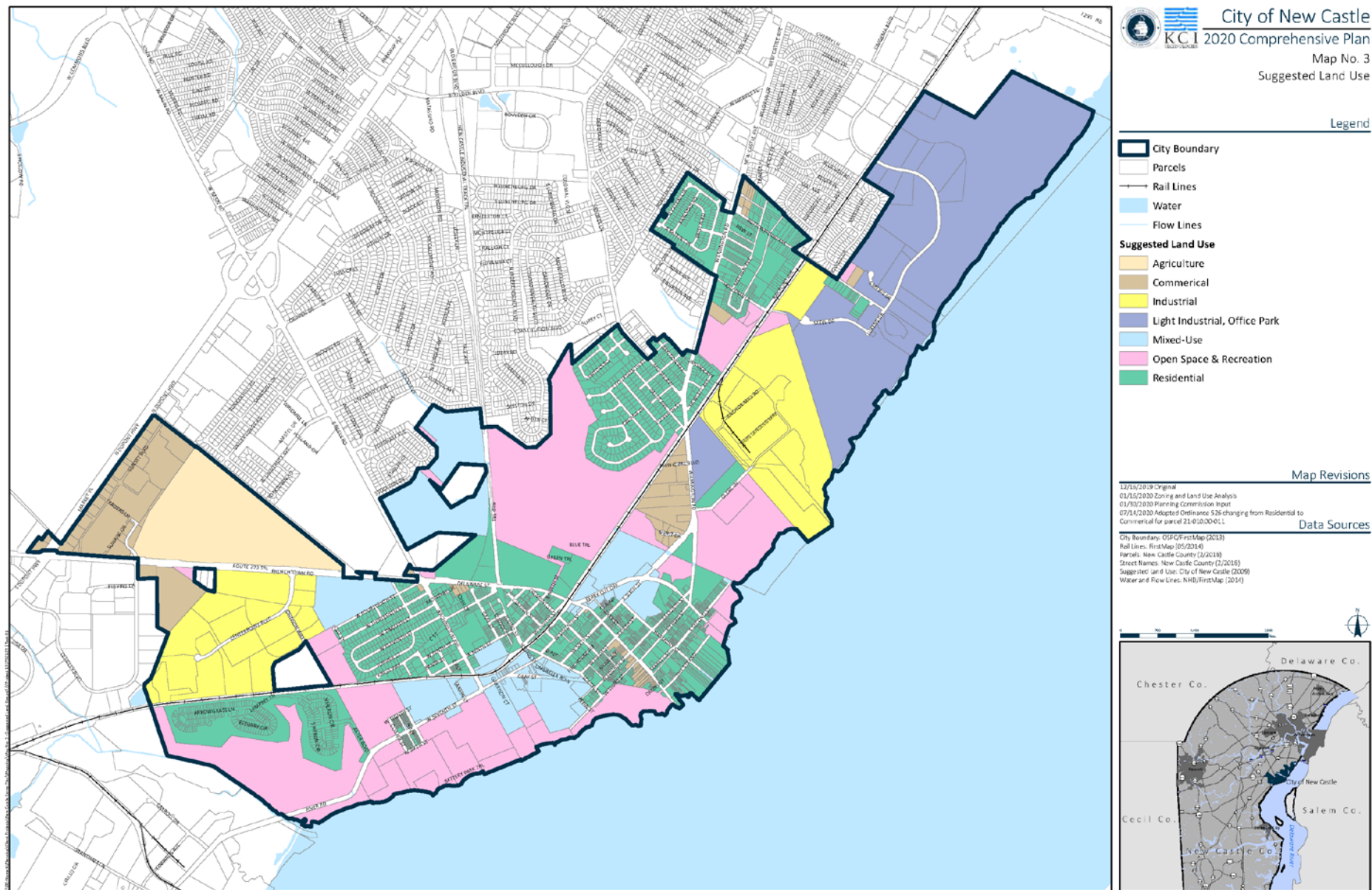
Other areas of the City are Level 4, or Out of Play. Out of Plan Areas are agricultural or opens space areas not well suited for significant redevelopment. These areas include natural habitats that are important for providing “ecosystem services” such as improving water quality and reducing flood risk.



2020 Comprehensive Development Plan (Draft)

The Draft 2020 Comprehensive Plan is currently out for public review and is expected to be adopted in 2020. The Comprehensive Plan documents the City's municipal development strategy including future population and housing growth within the jurisdiction, expansion of its boundaries, development of adjacent areas, redevelopment potential, community character, and the general uses of land within the community, and critical community development and infrastructure issues. The document is reviewed at least every five years and updated every ten years. The future Suggested Land Use map serves as the basis for future changes to land use and zoning.





Demographics

Population

According to American Community Survey data from the U.S. Census, the City of New Castle has a total population of 5,359 and 7,650 jobs. Compared with New Castle County overall, the City has a smaller share of youth population and a larger share of people aged 60 or older. Moderately dense suburban subdivisions surround the City.

WILMAPCO population projections show a small change is expected between 2020 and 2050 (1.8% increase) for the City and its surrounding area. WILMAPCO's employment projections for this period show a slight decrease in the greater City of New Castle area's number of jobs (-3.6% decrease).

Demographic Makeup - ACS 2014-2018

Population

Total population	5,359
Total housing units	2,740

Race

White alone	62.7%
Black or African American alone	24.8%
Hispanic or Latino (of any race)	8.5%
Asian alone	1.8%
American Indian and Alaska Native alone	0.4%
Two or more races	1.5%

Age

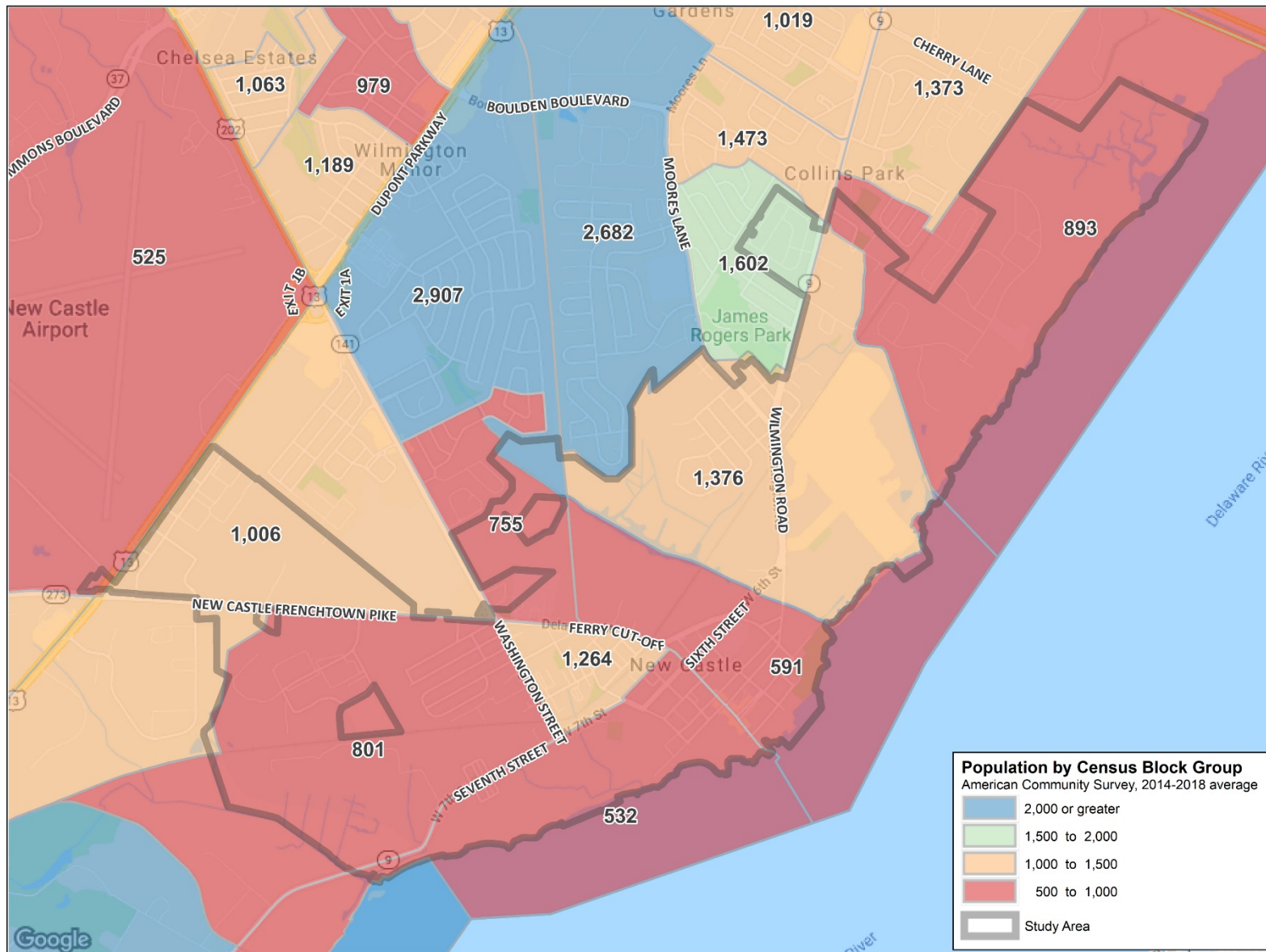
19 years and younger	12.1%
20 to 59 years	60.7%
60 years and older	27.2%

Income

Below 100 percent of the poverty level	4.1%
100 to 149 percent of the poverty level	5.7%
At or above 150 percent of the poverty level	90.2%

Commute

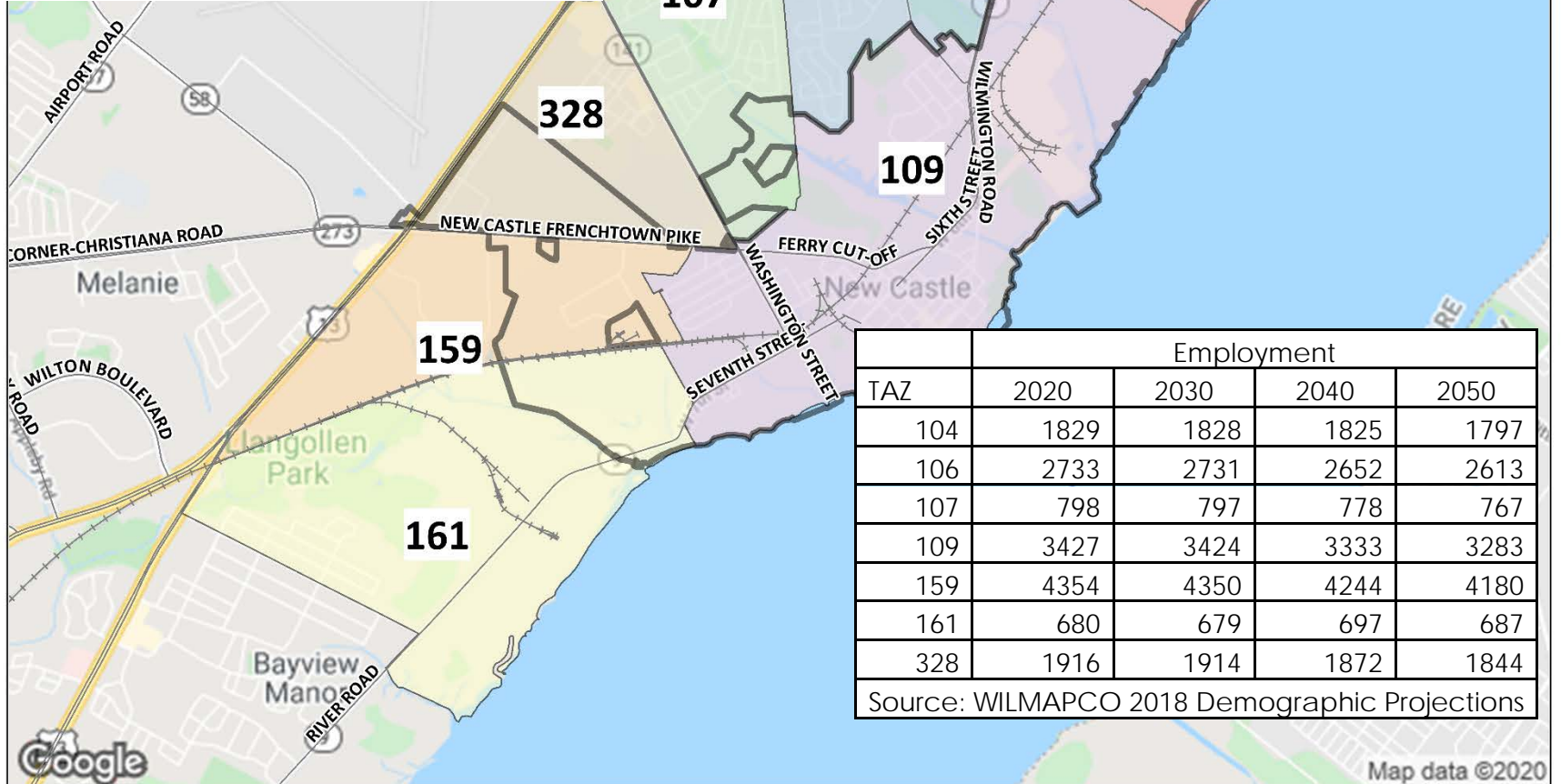
Drove alone	83.80%
Carpooled	9.40%
Public transportation	4.10%
Walked	1.60%
Bicycle	0%
Other	0.40%
Worked at home	0.70%



Population and Employment Projections

	Population			
TAZ	2020	2030	2040	2050
104	2257	2198	2200	2197
106	6237	6036	6024	6012
107	3513	3404	3399	3393
109	5065	5306	5500	5516
159	25	41	49	50
161	1177	1362	1472	1484
328	1289	1255	1256	1254

Source: WILMAPCO 2018 Demographic Projections



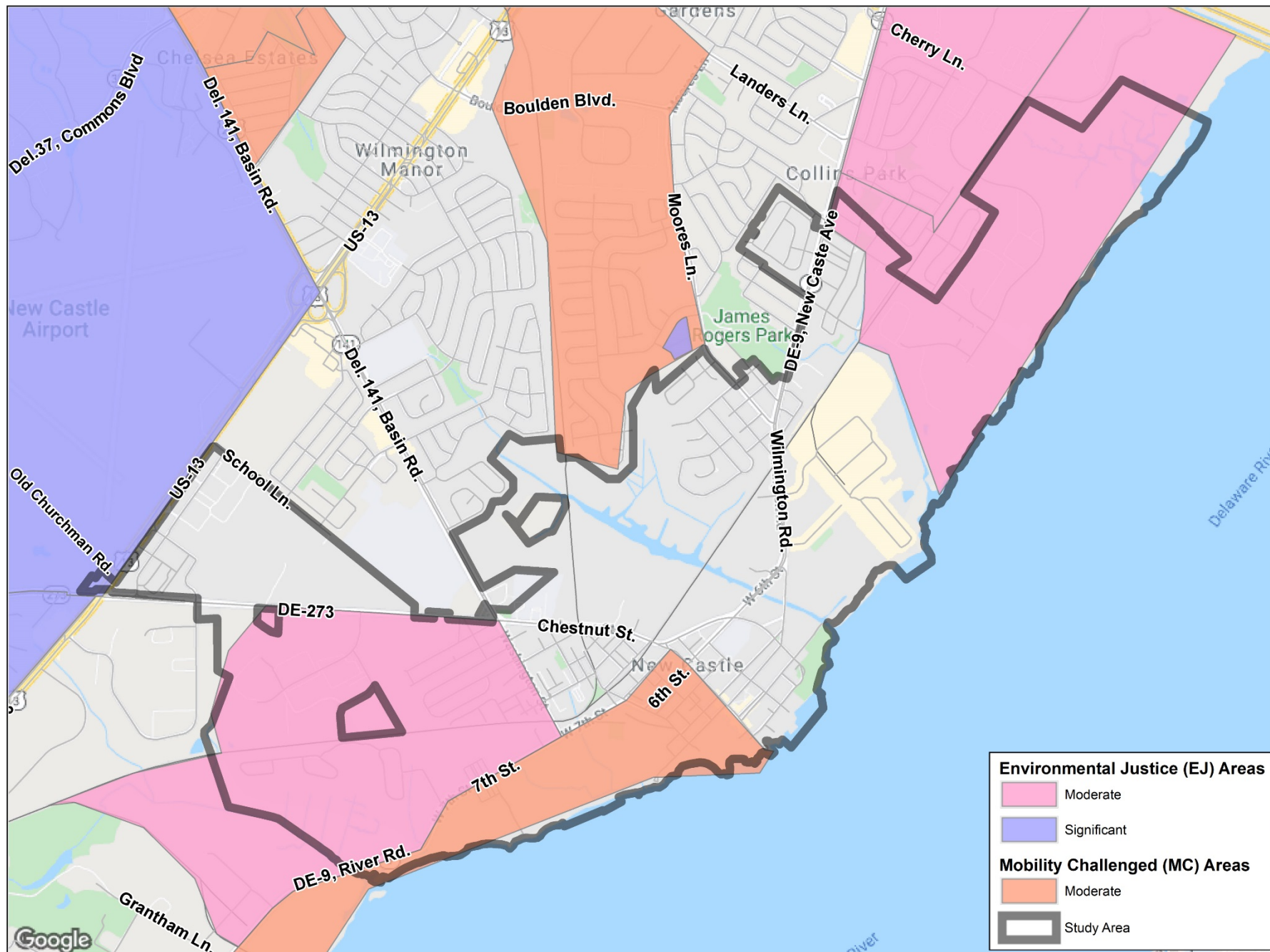
Transportation Justice

The WILMAPCO 2019 Transportation Justice Analysis identified areas with concentrations of population which benefit from enhanced planning for and provision of transportation to promote equity.

Environmental Justice areas have concentrations of Blacks, Hispanics, Asians, Whites and people living in poverty. EJ neighborhoods also include affordable housing developments, as well as school feeder zones with high concentrations of low income or minority students. The City of New Castle has two Census Block Groups which have moderate concentrations of EJ populations. The southwestern EJ area is also identified as a food desert with weak transit access to grocery stores.

Mobility Challenged neighborhoods represent concentrations of seniors, people with disabilities, and households without vehicles. The City has one Census Block Group with moderate concentrations of MC populations.

For more information, visit www.wilmapco.org/tj.



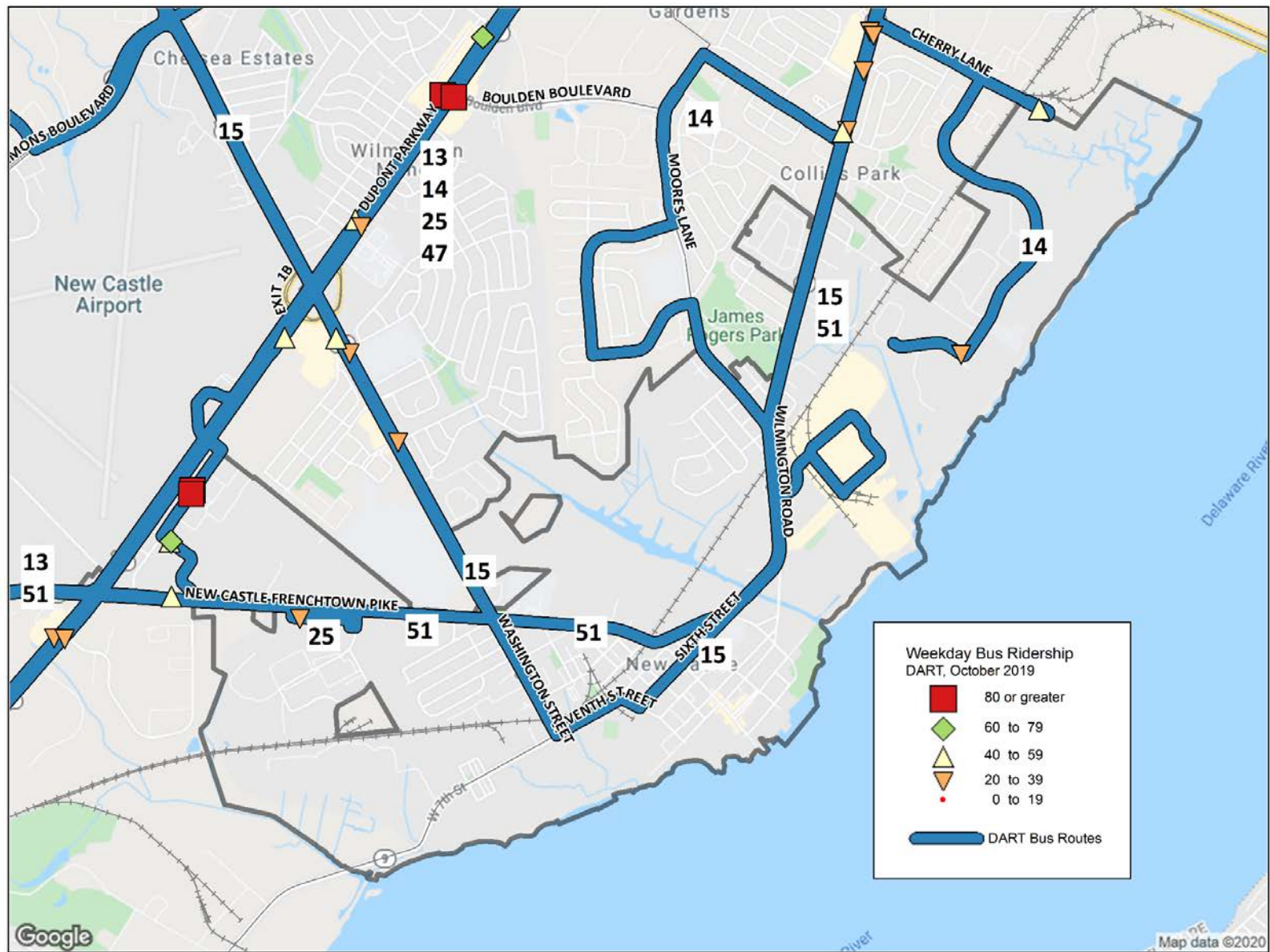
Transportation

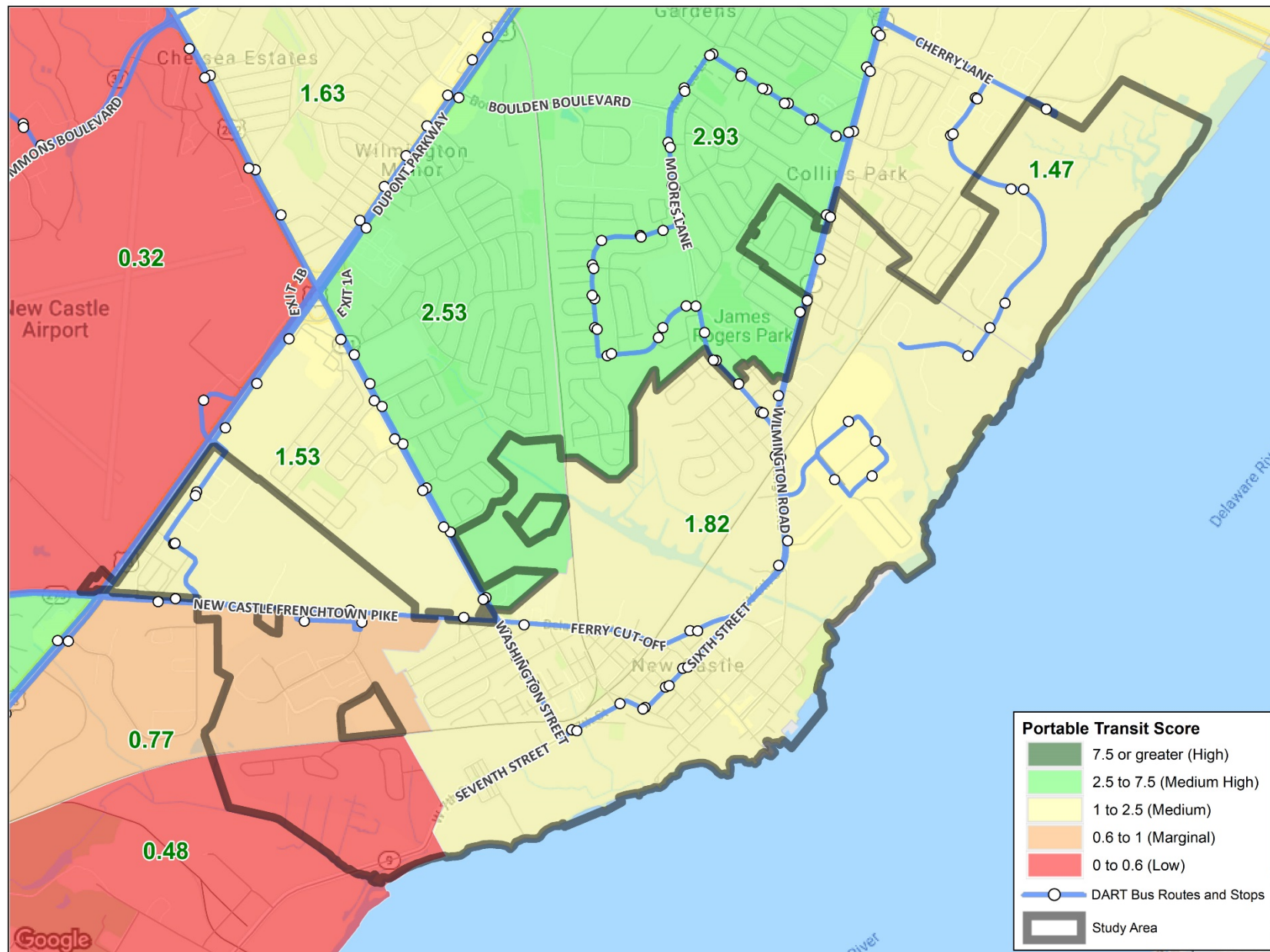
Transit

DART Route 15 and 51 travel through the City of New Castle--both connecting to the City of Wilmington and Christiana Mall. Route 14 connects areas in northern New Castle with Wilmington. Routes 13, 14, 25, and 47 travel along US 13. The City's busiest bus stop is at the Farmer's market. Other busy stops are along DE 273 in western New Castle, DE 9 in northern New Castle, and along US 13 outside of the City.

The Portable Transit Score assesses the current and future appropriateness of various intensities of transit service throughout the region based on population density, jobs, and zero-car households. Most of the City of New Castle is expected to support moderate levels of transit service. Areas immediately northwest of the City have higher scores in the medium-high range.

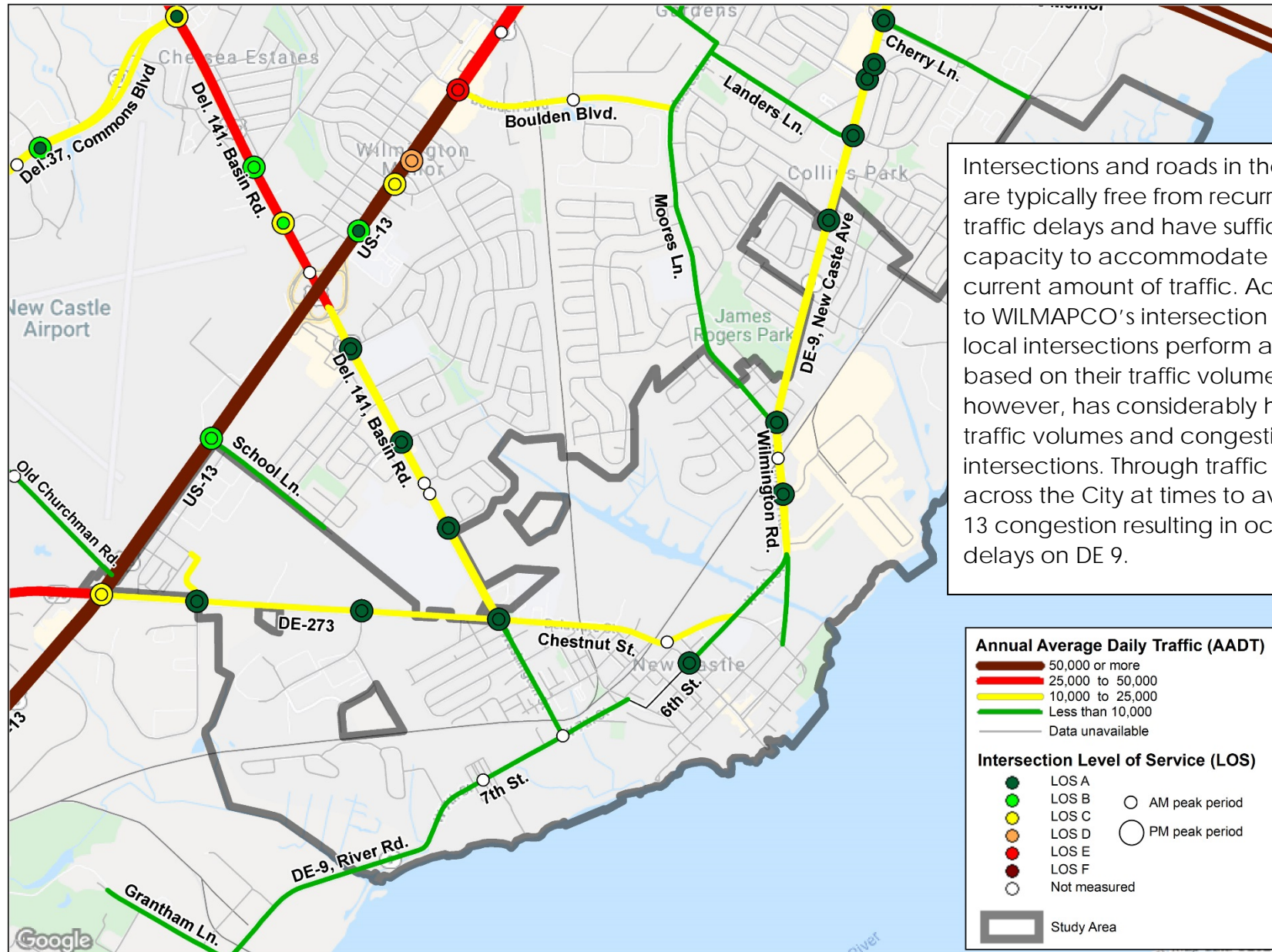
Short-term route changes have been proposed to help with transit operations during the upcoming I-95 construction project.





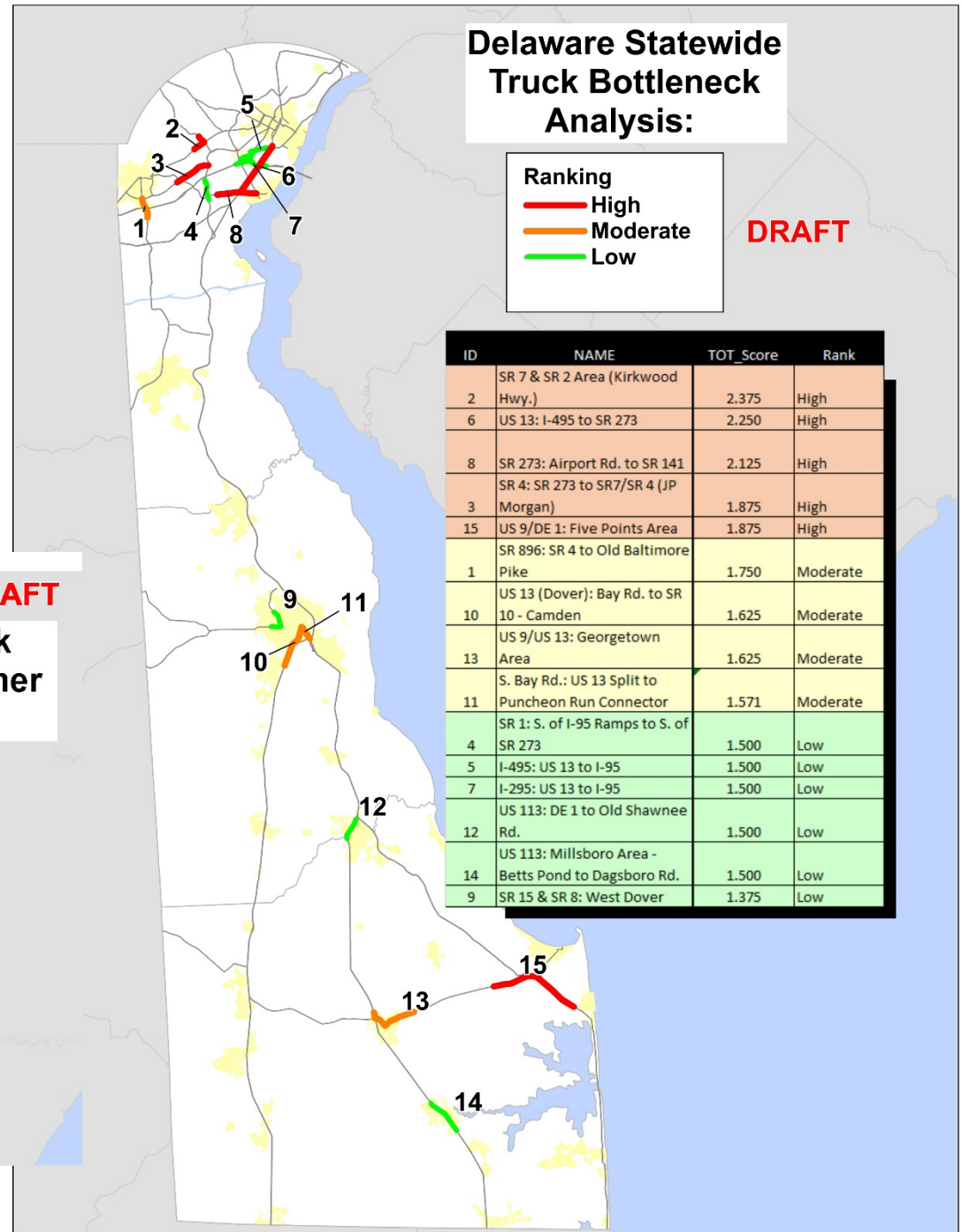
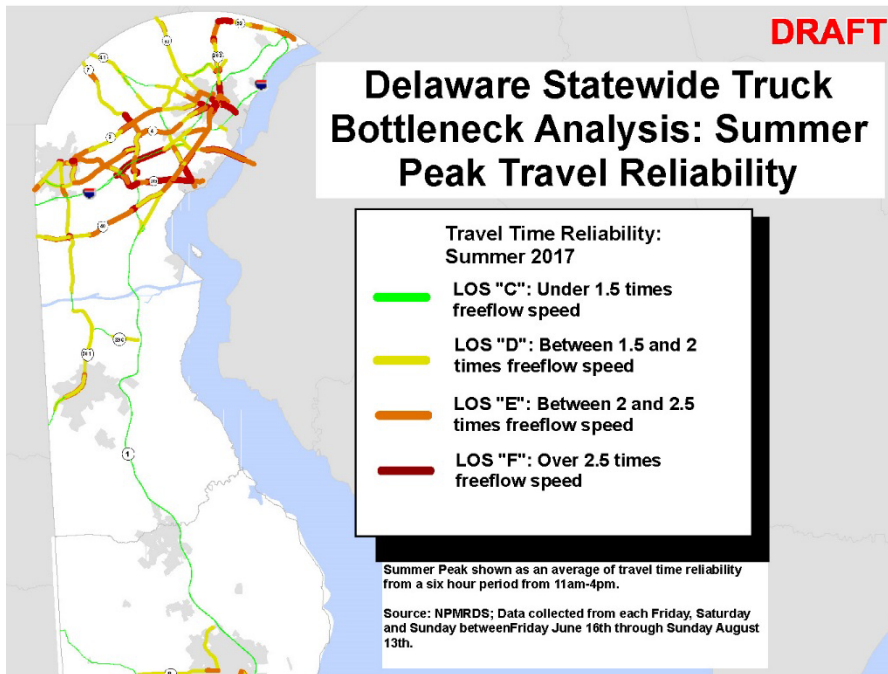
Roads

Roadway Volume and Intersection Level of Service.

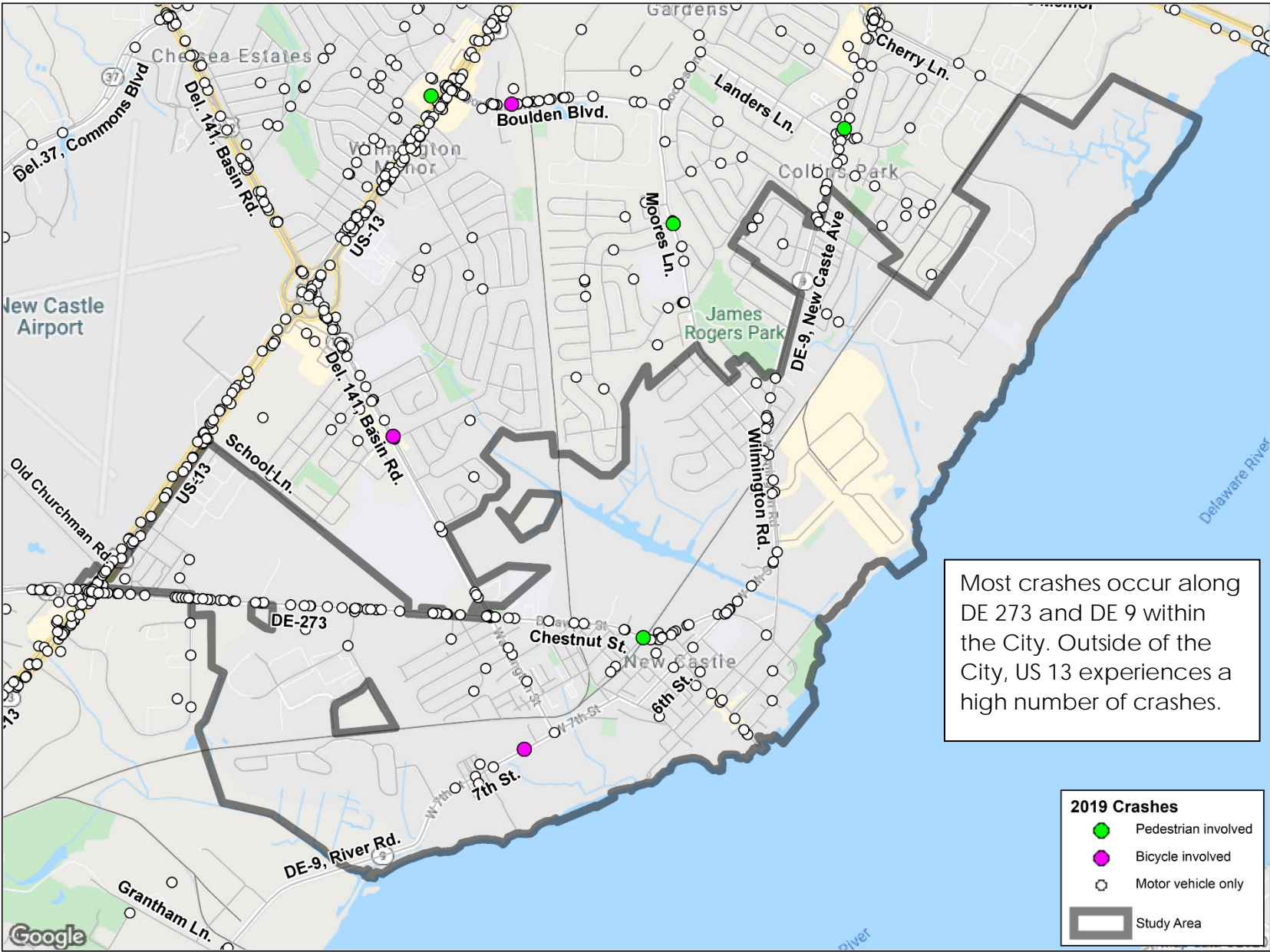


Freight

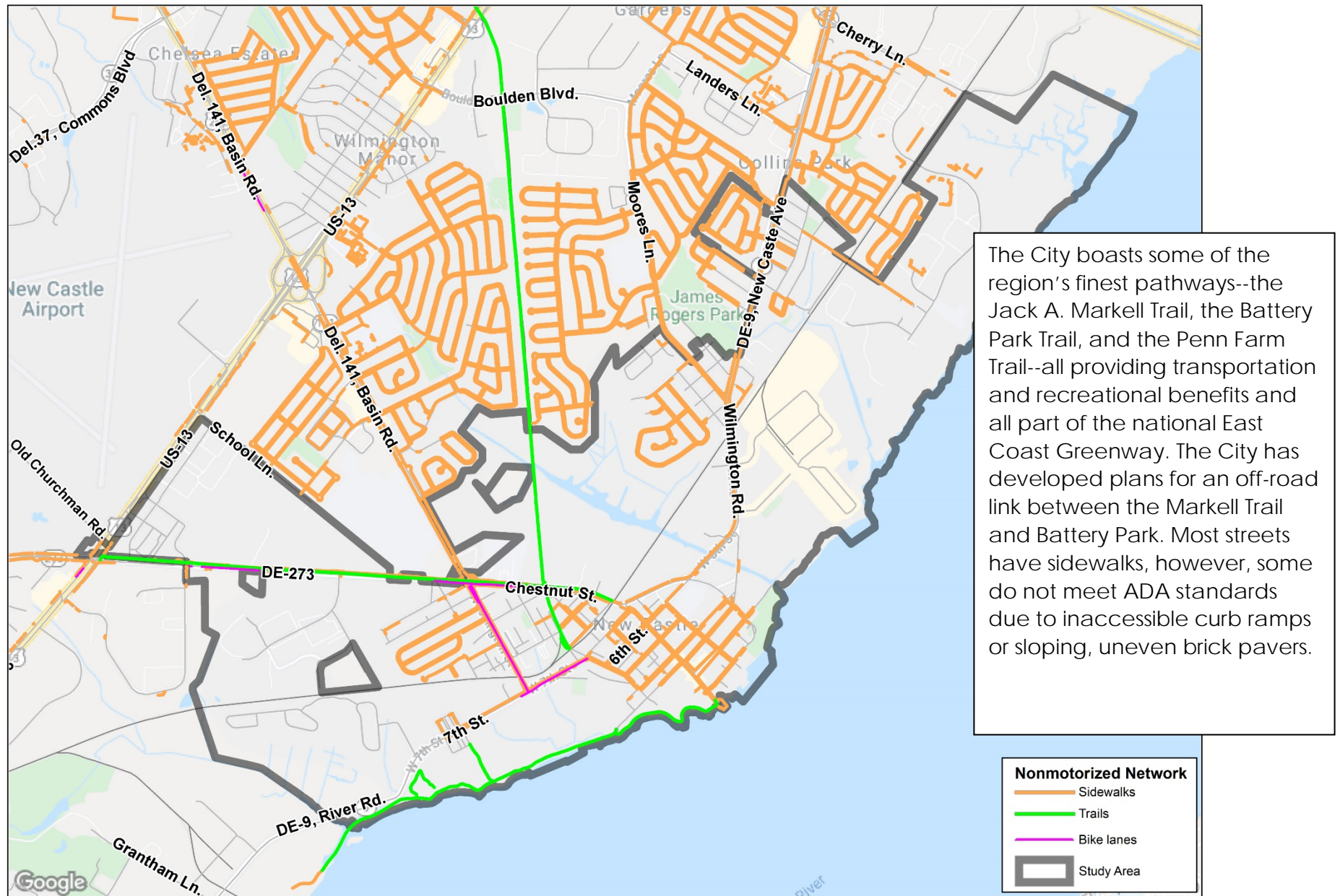
The City of New Castle area has several major freight routes, many of which experience reoccurring traffic congestion. US 13 from I-495 to DE 273 and DE 273 from Airport Road to DE 141 have been identified as high priority Truck Bottlenecks. Summer travel experiences additional delays as truck mix with beach traffic.



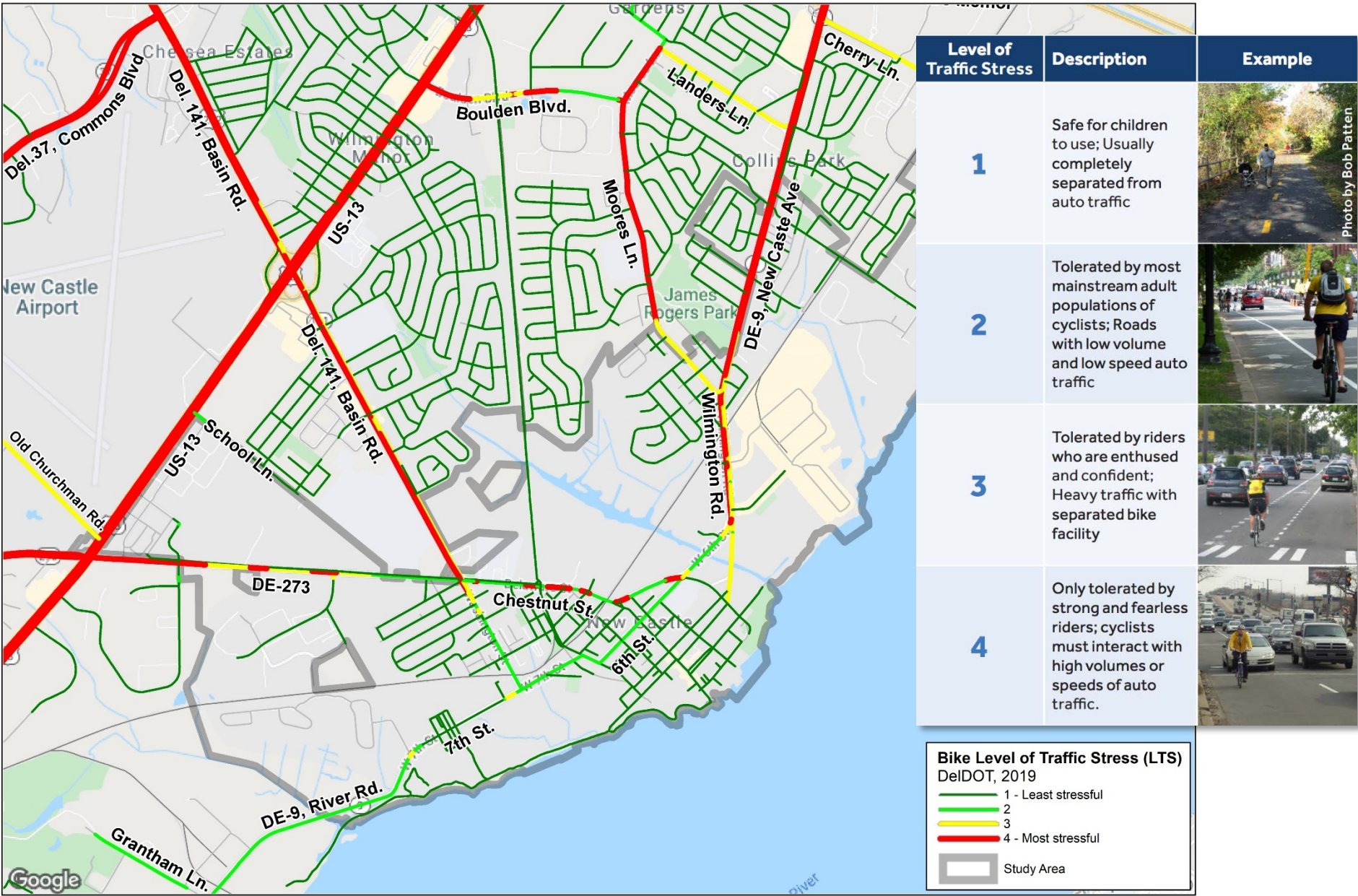
Crashes



Bicycle and Pedestrian



Local streets and pathways provide for comfortable bicycling for most people. Routes DE 273, DE 141, DE 9, and especially US 13 are more challenging for people walking and bicycling.



Greater New Castle Pedestrian & Bicycle Guide Map

Legend

- Shared use pathway
- Route with sidewalks
- Low-traffic road
- Moderately busy road, use extra caution
- Busy road, avoid when possible
- Bicycle lanes or shoulders present
- East Coast Greenway
- Parks, open space, and natural areas
- Historic New Castle
- Historic Attraction

Trail is complete to the south bank of the Christina River. Completion of the trail to the Wilmington Riverfront and ECG is undetermined at this time.

Route 9 / Interim ECG
Use extreme caution!
(No shoulders, unpredictable road conditions)

Underpass expected to open in 2016

Rt. 273/13 is a major intersection. It is advisable to walk bicycles through the intersection. Use extreme caution!

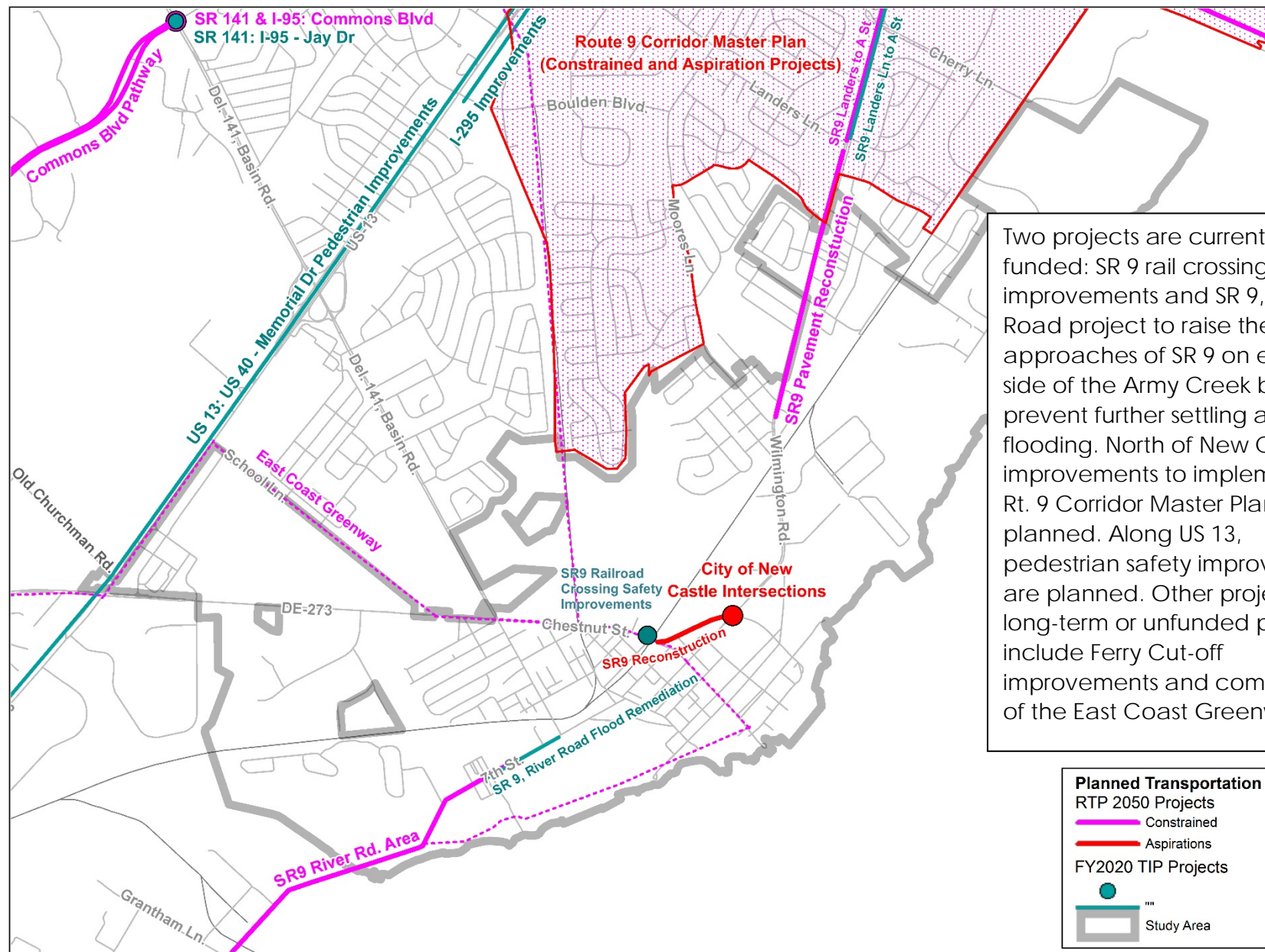
Must pass around gate

Route 273 Trail and at-grade crossing expected completion by 2014

Historic New Castle
See detail map inside

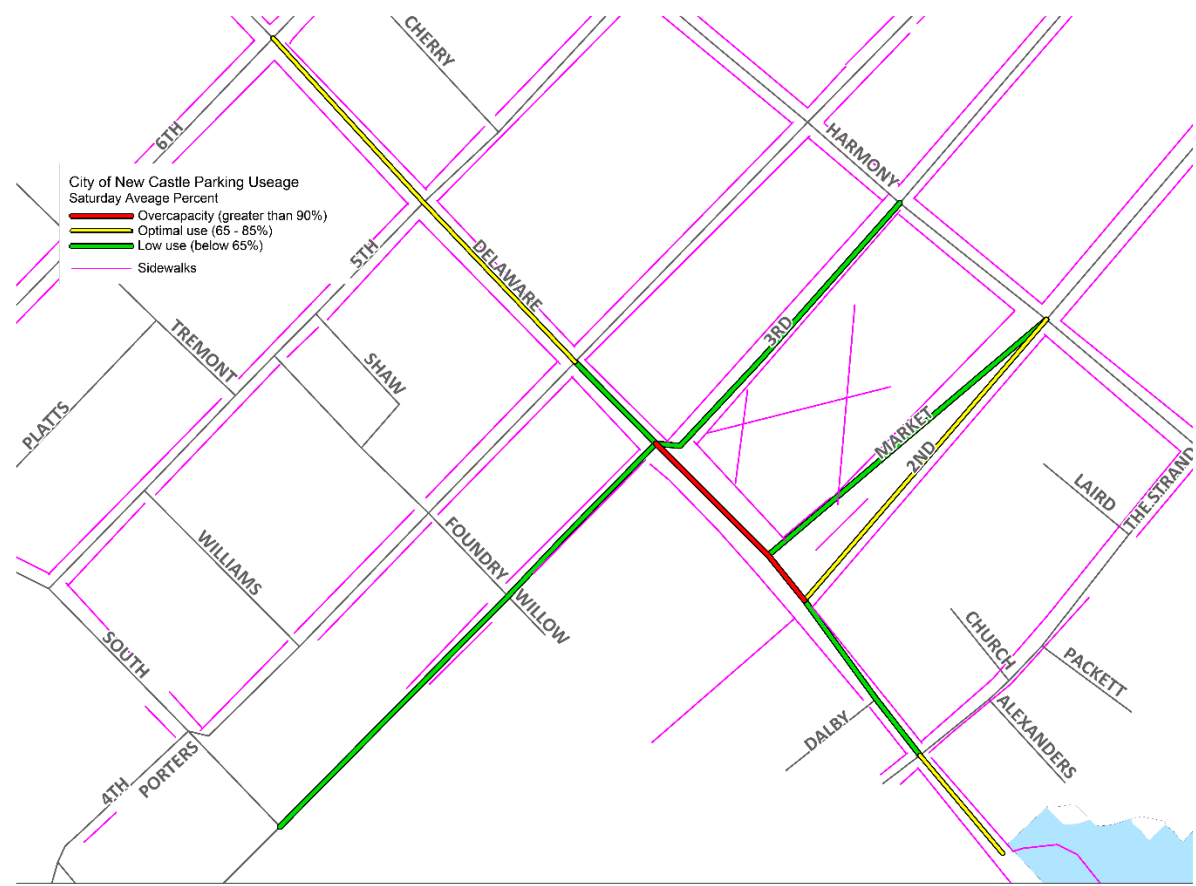


Planned Transportation



Two projects are currently funded: SR 9 rail crossing improvements and SR 9, River Road project to raise the approaches of SR 9 on either side of the Army Creek bridge to prevent further settling and flooding. North of New Castle, improvements to implement the Rt. 9 Corridor Master Plan are planned. Along US 13, pedestrian safety improvements are planned. Other projects long-term or unfunded projects include Ferry Cut-off improvements and completion of the East Coast Greenway.

Parking
2015 Usage



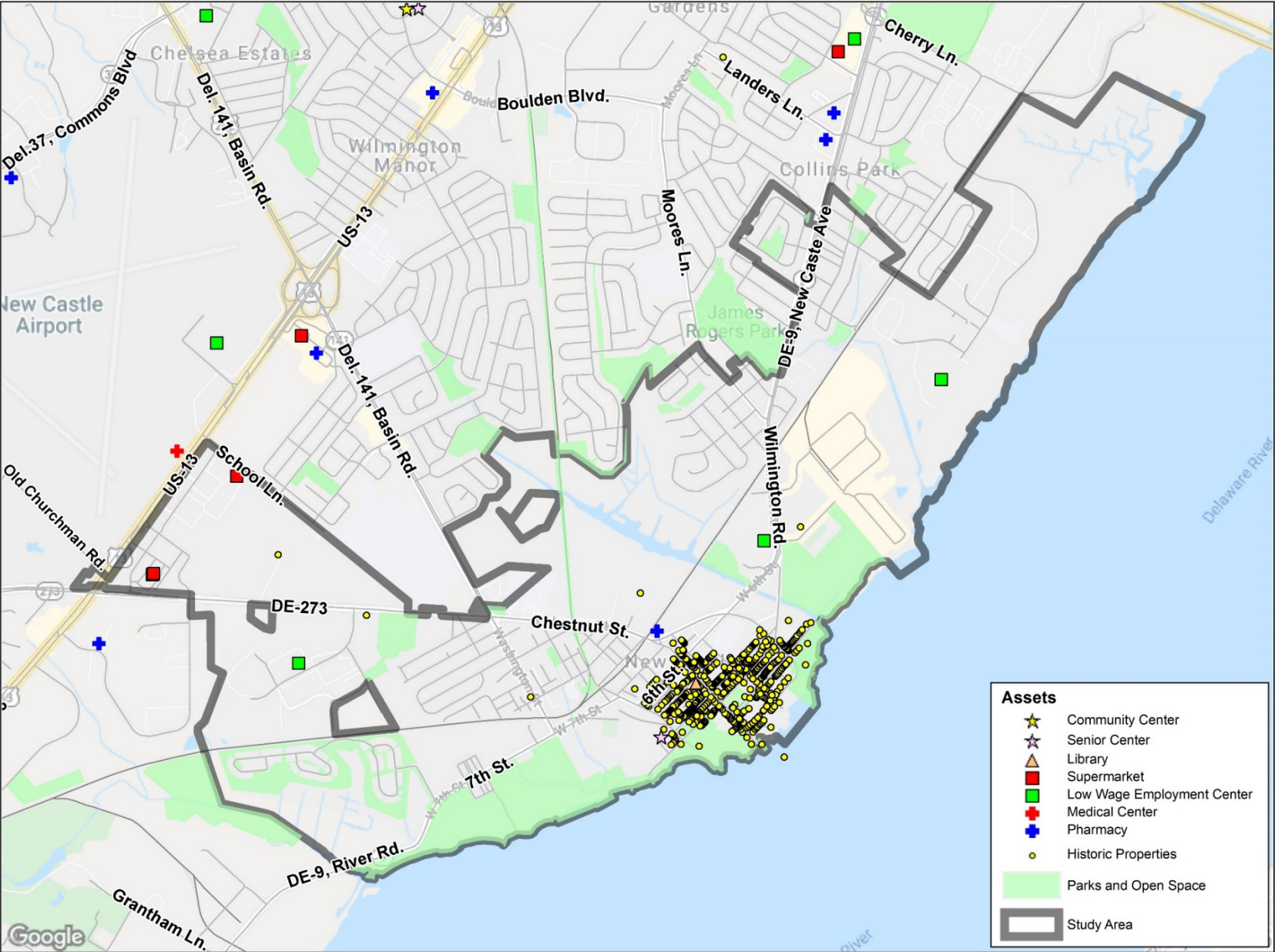
Environmental and Cultural Resources

Assets

The City is home to the First State National Historic Park and a national historic district, including numerous historic and natural sites of national and regional significance. The Park's headquarters is located at the New Castle Court House Museum. Two Delaware Byways, the Delaware Bayshore Byway and Harriet Tubman Underground Railroad Byway, pass through the City. Battery Park is enjoyed by local and regional visitors, one of the few recreational destinations along the Delaware River in New Castle County.

Community destinations in the heart of the City include a library, senior center, pharmacy, City Hall, post office, banks, places of worship, schools, and small shops and restaurants. The New Castle Farmers Market, a supermarket, Penn Farm and a variety of dining and larger shops are located on the western area of the City near DE 273/US 13. Just outside the City, the New Castle Airport is located in this area as well. Other commercial goods and services are located along DE 9 and DE 141, mostly outside City limits.

Community Destinations



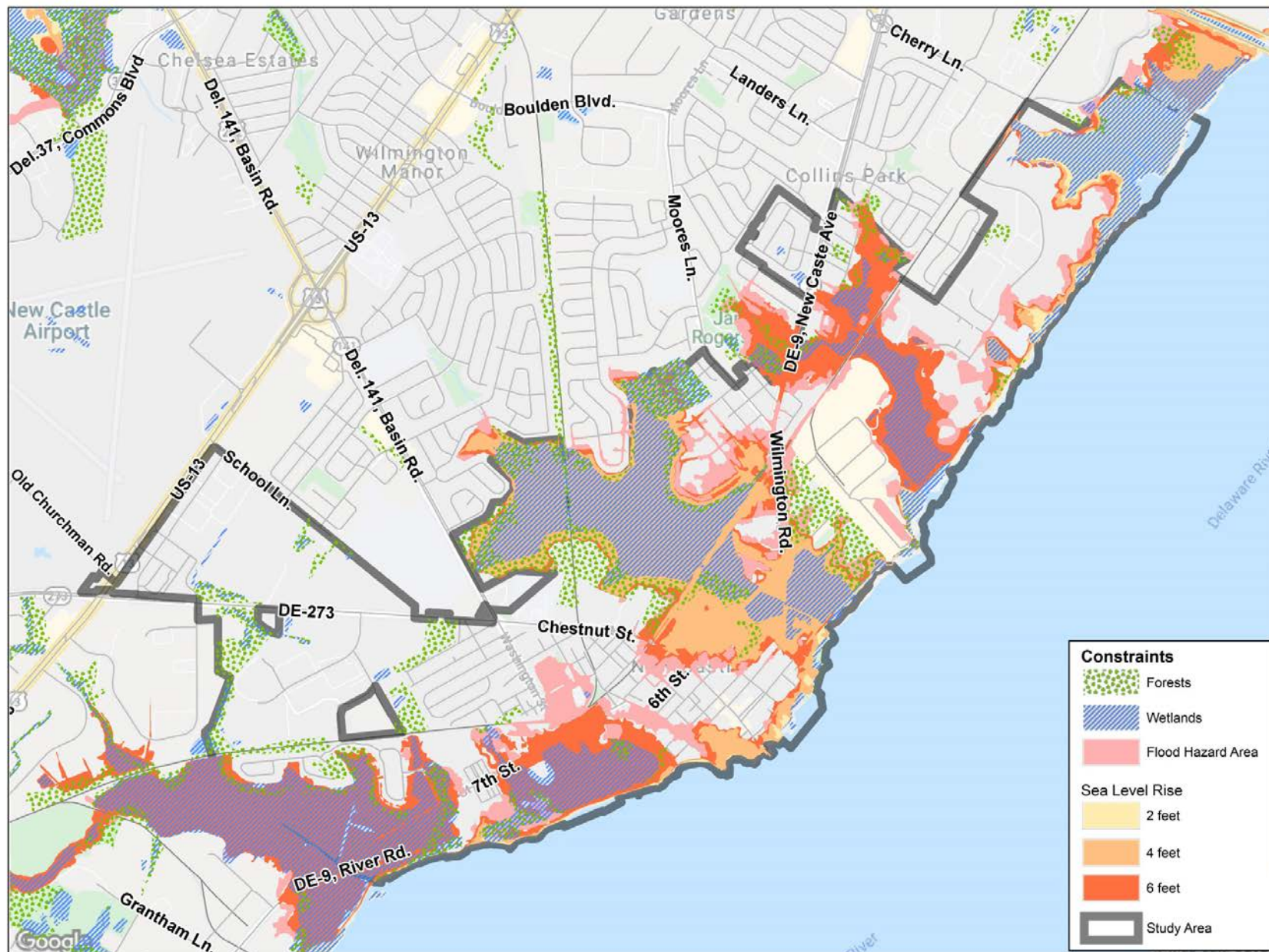
City of New Castle Transportation Plan – Task 1



Constraints

Environmental constraints are present throughout much of the study area. Wetlands comprise much of the City, including the 41-acre Gambacorta Marsh and 210-acre Broad Dyke Marsh, which form a natural barrier between the City's historic center and newer development. These have been improved through DNREC rehabilitation programs.

As a low lying, riverfront community, many roads and neighborhoods experience storm-related flooding and have projected Sea Level Rise impacts. The [2018 Vulnerability Assessment and Adaptation Plan](#) is a community-based plan to adapt the City to minimize the risks associated with flooding. Conservative projections suggest that an increase in sea level and flood elevations of 2 feet or more, with the neighborhoods of Buttonwood, Van Dyke Village, New Castle Manor, Bull Hill, the Strand, and the 7th and Washington The intersections of Delaware Street and Ferry Cut-Off, 6th Street (Route 9) and Ferry Cut-Off/Chestnut Street, and 7th Street (Route 9) and Washington Street are at risk of flooding and Sea Level Rise impacts, blocking access to emergency evacuation routes.



Next Steps

Future tasks include:

Task 2: Identify Transportation Issues and Opportunities

Work with stakeholders to identify issues and opportunities including traffic operations/system management, freight, transit, parking, and bicycle/pedestrian transportation.

- Kick-off Advisory Committee will present the Task 1 report and seek feedback regarding stakeholder outreach process.
- Committees will compile contacts for key community stakeholders and assist with outreach including civic associations and community Public Workshop.
- Work with Management Committee and Advisory Committee to prepare for and hold Public Workshop.
- Public Workshop will use an interactive approach to assess community preferences.

Task 3: Identify and Analyze Potential Multimodal Transportation Solutions

Identify and analyze potential strategies to address traffic operations/system management, freight, transit, parking, and bicycle/pedestrian transportation issues and opportunities.

- Potential strategies for analysis will be developed based on stakeholder and public outreach, identified economic, land use, transportation issues, environmental issues including flooding and sea-level rise, opportunities and constraints, and existing plans.
- Analysis should address roadway capacity needs, parking, pedestrian and bicycle infrastructure, freight, bus transit, green stormwater infrastructure, flooding and sea level rise, and interconnections with the surrounding transportation network.
- A Community meeting will be held to present and discuss potential strategies and the analysis, and get feedback on the preferred recommendations.

Task 4: Identify, Prioritize, and Document Preferred Recommendations

Work with stakeholders to reach an agreement on a transportation plan for the City of New Castle that includes the best set of multimodal solutions and a prioritized implementation plan.

- Based on stakeholder feedback, community outreach and technical analysis, preferred recommendations will be selected by the Management Committee.
- The preferred concept(s) will be compared to existing conditions, using measures of effectiveness such as level of service, bicycle level of stress, traffic diversion, and others as appropriate for the proposed design(s).
- Assessment will evaluate anticipated land use, demographic, environmental and transportation impacts of the proposed design(s).
- For high priority recommendations as appropriate, planning level cost estimates, potential funding sources, and next steps for implementation will be identified, especially regarding infrastructure needs, costs, and phasing that include compliance with National Environmental Policy Act (NEPA) standards to enable eligibility for future Federal funding, and will be documented in a final report.
- Draft report will be presented to the Management Committee, Advisory Committee and public.

