

**Preliminary Land Use Service (PLUS) Application
Municipal Comprehensive Plans**

Delaware State Planning Coordination
122 Martin Luther King, Jr. Blvd • Dover, DE 19901 • Phone: 302-739-3090 • Fax: 302-739-5661

Name of Municipality: City of Lewes	
Address: 114 E. Third Street PO Box 227 Lewes DE 19958	Contact Person: Paul Eckrich
	Phone Number: (302) 645-7777
	Fax Number: (302) 645-6406
	E-mail Address: peckrich@ci.lewes.de.us

Date of Most Recently Certified Comprehensive Plan: October 2005

Alice Erickson

Information prepared by:	
Address: 114 E. Third Street PO Box 227 Lewes DE 19958	Contact Person: Alice Erickson
	Phone Number: (302) 645-7777
	Fax Number: (302) 645-6406
	E-mail Address: aerickson@ci.lewes.de.us

Maps Prepared by: University of Delaware Institute for Public Administration	
Address: 180 Graham Hall Newark DE 19716	Contact Person: Nicole Minnie
	Phone Number: (302) 625-4353
	Fax Number: (302) 645-4332
	E-mail Address: nminni@udel.edu

Preliminary Land Use Service (PLUS) Application Municipal Comprehensive Plans

Delaware State Planning Coordination
122 Martin Luther King, Jr. Blvd • Dover, DE 19901 • Phone: 302-739-3090 • Fax: 302-739-5661

Comprehensive Plan / Amendment Checklist¹

Please check yes or no as to whether the following information has or has not been included in the comprehensive plan and indicate page numbers where information may be found.

Public Participation	Yes	No	Page # / Sections
Public Participation Summary and Results	<input type="radio"/>	<input type="radio"/>	

Population Data and Analysis	Yes	No	Page #
Past Population Trends	<input checked="" type="radio"/>	<input type="radio"/>	3
Population Projections	<input checked="" type="radio"/>	<input type="radio"/>	3-5
Demographics	<input checked="" type="radio"/>	<input type="radio"/>	3
Position on Population Growth	<input checked="" type="radio"/>	<input type="radio"/>	7

Housing	Yes	No	Page #
Housing Stock Inventory	<input checked="" type="radio"/>	<input type="radio"/>	39
Housing Pipeline	<input checked="" type="radio"/>	<input type="radio"/>	41
Housing Needs Analysis	<input checked="" type="radio"/>	<input type="radio"/>	42
Position on Housing Growth	<input checked="" type="radio"/>	<input type="radio"/>	42
Affordable Housing Plan	<input checked="" type="radio"/>	<input type="radio"/>	42

Annexation	Yes	No	Page #
Analysis of Surrounding Land Uses	<input checked="" type="radio"/>	<input type="radio"/>	52
Annexation Plan	<input checked="" type="radio"/>	<input type="radio"/>	52

Redevelopment Potential	Yes	No	Page #
Identification of Redevelopment Areas and Issues	<input checked="" type="radio"/>	<input type="radio"/>	37
Redevelopment Strategy	<input checked="" type="radio"/>	<input type="radio"/>	39
Community Development Strategy	<input checked="" type="radio"/>	<input type="radio"/>	38

¹ Please go to the following website for detailed checklist information:
<http://www.state.de.us/planning/services/circuit.shtml>

**Preliminary Land Use Service (PLUS) Application
Municipal Comprehensive Plans**

Delaware State Planning Coordination
122 Martin Luther King, Jr. Blvd • Dover, DE 19901 • Phone: 302-739-3090 • Fax: 302-739-5661

Community Character	Yes	No	Page #
History of the Town or City	<input checked="" type="radio"/>	<input type="radio"/>	1
Physical Conditions	<input checked="" type="radio"/>	<input type="radio"/>	36-42
Significant Natural Features	<input checked="" type="radio"/>	<input type="radio"/>	20
Community Character	<input checked="" type="radio"/>	<input type="radio"/>	34
Historic and Cultural Resources Plan	<input checked="" type="radio"/>	<input type="radio"/>	17
Community Design Plan	<input checked="" type="radio"/>	<input type="radio"/>	35
Environmental Protection Plan	<input checked="" type="radio"/>	<input type="radio"/>	27

Land Use Plan	Yes	No	Page #
Existing Land Use	<input checked="" type="radio"/>	<input type="radio"/>	38
Land Use Plan	<input checked="" type="radio"/>	<input type="radio"/>	51

Critical Community Development and Infrastructure Issues	Yes	No	Page #
Review of Community Conditions	<input checked="" type="radio"/>	<input type="radio"/>	8
Inventory of Community Infrastructure	<input checked="" type="radio"/>	<input type="radio"/>	10
Inventory and Analysis of Community Services	<input checked="" type="radio"/>	<input type="radio"/>	14
Water and Wastewater Plan	<input checked="" type="radio"/>	<input type="radio"/>	14
Transportation Plan	<input checked="" type="radio"/>	<input type="radio"/>	34
Community Development Plan	<input checked="" type="radio"/>	<input type="radio"/>	36
Community Facilities Plan	<input checked="" type="radio"/>	<input type="radio"/>	10

Intergovernmental Coordination	Yes	No	Page #
Description of Intergovernmental Relationships	<input checked="" type="radio"/>	<input type="radio"/>	55-58
Intergovernmental Coordination Strategy	<input checked="" type="radio"/>	<input type="radio"/>	55
Analysis and Comparison of Other Relevant Planning Documents	<input checked="" type="radio"/>	<input type="radio"/>	48

Economic Conditions	Yes	No	Page #
Economic Base / Major Employers	<input checked="" type="radio"/>	<input type="radio"/>	43
Labor Market	<input checked="" type="radio"/>	<input type="radio"/>	43-46
Income and Poverty	<input checked="" type="radio"/>	<input type="radio"/>	4-5
Economic Development Plan	<input checked="" type="radio"/>	<input type="radio"/>	47

Open Space and Recreation	Yes	No	Page #
Inventory of Open Space and Recreation Facilities	<input checked="" type="radio"/>	<input type="radio"/>	17
Open Space and Recreation Plan	<input checked="" type="radio"/>	<input type="radio"/>	19

**Preliminary Land Use Service (PLUS) Application
Municipal Comprehensive Plans**

Delaware State Planning Coordination
122 Martin Luther King, Jr. Blvd • Dover, DE 19901 • Phone: 302-739-3090 • Fax: 302-739-5661

Implementation Strategies	Yes	No	Page #
Evaluation of Current Codes and Ordinances	<input checked="" type="radio"/>	<input type="radio"/>	55
Zoning Map Revisions	<input checked="" type="radio"/>	<input type="radio"/>	55
Zoning and Subdivision Code Revisions	<input checked="" type="radio"/>	<input type="radio"/>	55
Implementation Plan	<input checked="" type="radio"/>	<input type="radio"/>	55
Coordination with Other Government Agencies	<input checked="" type="radio"/>	<input type="radio"/>	55

Other State Programs, Policies, and Issues	Yes	No	Page #
Total Maximum Daily Loads	<input checked="" type="radio"/>	<input type="radio"/>	29
Corridor Capacity Preservation Program	<input checked="" type="radio"/>	<input type="radio"/>	30
Agricultural Preservation Program	<input type="radio"/>	<input checked="" type="radio"/>	NA
Sourcewater Protection	<input checked="" type="radio"/>	<input type="radio"/>	12

Additional Comments:

~~Amended Subdivision & Land Development Ordinance adopted 10/21/2013~~ _____

~~Flood Plain Ordinance adopted 10/21/2013~~ _____

~~Amended Zoning Ordinance adopted 10/13/2011~~ _____

Summary:

~~Please see Executive Summary, page i~~ _____

City of Lewes 2015 Comprehensive Plan

**Drafted by
Lewes Planning Commission**

**Reviewed & Amended by
Lewes Mayor and City Council**

**Maps by
University of Delaware Institute for Public Administration Water Resources Agency**

EXECUTIVE SUMMARY

Overview

The City of Lewes enjoys a rich history, a small town ambiance, and beautiful beaches and marshes. This comprehensive plan (Plan) establishes land use policies intended to preserve and maintain Lewes's charm, fiscal health, and way of life now and in the future.

The Lewes Planning Commission (LPC) developed a draft of this Plan. The LPC held numerous meetings for well over a year, arranged for both in person and on-line citizen participation concerning important relevant issues, and developed detailed maps of current and future land use. While this Plan refines the LPC's draft in a number of respects, the LPC's document will be valuable as a resource for future planning. The City, its citizens, and its visitors owe a deep debt of gratitude to the LPC for its fine work. Lewes also appreciates the advice and guidance provided by the Office of State Planning.

After receiving the LPC's draft, Lewes's Mayor and Council reviewed the draft over the course of nine public meetings. A public hearing also was held at which interested citizens and others offered comments and suggestions. As the culmination of this extensive public process, Mayor and Council have adopted this Plan subject to review and approval by the Office of State Planning.

While this Plan addresses all required elements for a comprehensive plan, see 22 Del. C. § 702, several critical challenges facing the city need to be highlighted. Lewes borders the Delaware Bay, is bisected by a canal heavily influenced by tides and winds, and has numerous creeks and marshes. The city is working diligently to address, to the extent feasible, flooding and sea level rise and extreme weather event issues. The city also faces impacts from development beyond the city limits and resulting traffic and other challenges arising from development.

While Lewes can, and will, strive to address these issues, regional planning involving the city, the state, Sussex County, neighboring municipalities, developers, land owners, and interested citizens is necessary to craft durable, comprehensive plans for land use, transportation, environmental protection, and other issues. Lewes welcomes the opportunity to participate in regional planning.

POLICY AND RECOMMENDED ACTIONS

➤ COMMUNITY FACILITIES PLAN

Policy for Community Facilities: Lewes will continue to monitor its community services, facilities and structures, and make changes as needed to remain efficient and effective.

Recommendation: This Plan recommends that Mayor and Council consider reviewing the function and role of all City boards and commissions.

➤ UTILITY PLAN

Position on Key Infrastructure Issues: Lewes continues to work with the Board of Public Works to provide adequate infrastructure to residents and to the proposed annexation area. Lewes supports context sensitive transportation improvements to improve safety and flood evacuation.

Policy for Adequate Water and Waste Water Systems: Lewes will continue to work with the Board of Public Works to provide adequate facilities to residents and the proposed annexation area and will seek to protect its wellfield. Only the Board of Public Works can implement recommendations related to electricity, stormwater management, drinking water, and wastewater in Lewes.

➤ HISTORIC AND CULTURAL RESOURCES PLAN

Policy for Protection of Historic and Cultural Resources: Lewes values its historic resources and will continue to protect them through enforcement of relevant codes and supporting guidelines.

Recommendations: This Plan recommends that Mayor and Council consider reviewing the function and role of all City boards and commissions.

➤ OPEN SPACE AND RECREATION PLAN

Policy for Open Space and Recreation: Lewes is interested in protecting and considering open space opportunities within current and future municipal boundaries.

Recommendations: This Plan recommends that Mayor and Council consider:

- Pursuing a multi-party agreement to ensure the future cohesion and governance of the lands of George H.P. Smith Park and to settle any outstanding questions of ownership.
- Undertaking a project to encourage business opportunities on the beach side of the city along the Savannah Road corridor, as outlined in the ERM recommendations on Marine Commercial Zoning.
- Seeking ways to increase ecotourism opportunities, continuing support for a Water Taxi, and working with DNREC to extend canoe, kayak, hiking, and bicycle recreational opportunities.
- Proactively using the open space requirements in the Subdivision ordinance to align open space between adjacent developments to maximize open spaces.

➤ ENVIRONMENTAL PROTECTION PLAN

Policy for Protection of Environmentally Sensitive Areas: Lewes is very concerned about the health of the surrounding environmentally sensitive areas. Lewes strongly supports federal, state, and county efforts to protect these lands through acquisition, easements, regulations, and improved development rules. Lewes is working within its limited resources and authorities to consider, adopt, and implement, as feasible, plans, processes, and projects to mitigate the effects of flooding.

Recommendations: This Plan recommends that Mayor and Council consider:

- Annexing the City of Lewes well fields (which would necessarily require annexation of Cape Henlopen School District land because the well fields are not contiguous to the Lewes municipal boundary).
- Working with state and local authorities to raise road and bridge levels, including the Canary Creek Bridge and Savannah Road on the beach side, to reduce road flooding and improve evacuation capacity.
- Working with state and county authorities to protect the water quality of the Canary Creek watershed.
- Continuing to work on its long-term strategy on the effects of climate change based on the Quinn Report and the Hazard Mitigation Plan.
- Conducting public education related to flood-prone areas, evacuation procedures, property maintenance, and construction best practices.

➤ INFRASTRUCTURE AND TRANSPORTATION PLAN:

Position on Infrastructure Issues: Lewes continues to work with the Board of Public Works to provide adequate infrastructure to residents and to the proposed annexation area. Lewes supports context-sensitive transportation improvements to improve safety and flood evacuation.

Policy for Transportation: Lewes is interested in context-sensitive transportation solutions that respect the historic and small town character of the city. Lewes prefers that road improvements are focused on safety and flood evacuation rather than on roadway capacity improvements. Lewes is pursuing an agenda of public transportation, pedestrian, and bicycle options to improve mobility.

Policy for Other Elements which the Community Wants that Promote Health, Safety, Prosperity and General Public Welfare: Lewes is working to implement plans, processes, and projects to mitigate the effects of flooding, both coastal and inland, and sea-level rise. Lewes is actively working to improve its transportation network. Lewes is working to enhance its walkability and biking opportunities. Lewes is working to expand its existing business district and create ecotourism opportunities.

Recommendations: This Plan recommends that Mayor and Council consider:

- Continuing City efforts to support bicycling as a transportation option within the city.
- Working with Sussex County officials, DeIDOT, DRBA, property owners, and the Lewes Scenic and Historic Byway Committee to address and improve the City's transportation gateways.
- Encouraging internal interconnectivity of Lewes streets to keep Lewes linked and to ease traffic flow.
- Adding curbs and sidewalks to existing city streets, where appropriate and/or necessary.
- Creating a master design of signage for Historic Lewes, out to SR 1.

➤ **COMMUNITY DESIGN PLAN**

Position on Community Character and Community Design: Lewes values its small town and historic fabric, as stated in its Core Values. Existing Historic District regulations and guidelines, and proposed context-sensitive development and transportation improvements, will support Lewes's community character.

Recommendations: This Plan recommends that Mayor and Council consider:

- Adding curbs and sidewalks to existing city streets, where appropriate and/or necessary.
- Continue to update inventory of residential properties within the historic district.
- Initiate an updating of commercial properties within the historic district.

➤ **REDEVELOPMENT STRATEGY PLAN**

Position on Redevelopment Potential: Lewes has identified the Lewes beach commercial area as being in need of redevelopment. A study has been completed and the city has received the recommendations.

Recommendations: This Plan recommends that Mayor and Council consider:

- Undertaking a comprehensive project to encourage business opportunities on the beach side of the City, along the Savannah Road corridor, as outlined in the ERM recommendations on Marine Commercial Zoning.
- Coordinating with DNREC on ways to increase ecotourism opportunities.
- Adding a year-round public restroom at the Beach.
- Proactively using the open space requirements in the subdivision ordinance to align open space between adjacent developments to maximize open spaces available to residents and to enhance the safety, function, and beauty of roadway corridors, particularly along gateway roads and byways as lands along these are annexed and proposed for development.
- Opening communication with the Cape Henlopen School District about future land use to meet the needs of both the school district and Lewes.

➤ **HOUSING PLAN**

Position on Housing Growth: Lewes recognizes the importance of affordable housing within the greater Lewes area. As a nearly built-out coastal community, Lewes' ability to add affordable housing is limited.

Policy for Affordable Housing: Lewes recognizes the need for the development of additional, affordable/workforce housing in the greater Lewes area.

Recommendations: This plan recommends that Mayor and Council consider:

- Work to preserve existing affordable housing within the city limits.
- The city and county should work together to assure affordable housing is available within the greater Lewes area.

➤ **ECONOMIC DEVELOPMENT PLAN**

Policy for Economic Development: Lewes will maintain its historic business district and support major employers. The city has an interest in ecotourism opportunities and economic redevelopment.

Policy for Other Elements which the Community wants that Promote Health, Safety, Prosperity and General Public Welfare: Lewes is working to implement plans, processes and projects to mitigate the effects of flooding, both coastal and inland. Lewes is working to enhance its walkability and biking opportunities. Lewes is working to create ecotourism opportunities.

Recommendations: This Plan recommends that Mayor and Council consider:

- Working with Sussex County officials, DelDOT, DRBA, property owners, and the Lewes Scenic & Historic Byways Committee to address and improve the city's transportation gateways.
- Working on a regional tourism plan that would promote Lewes as a destination. This plan should take into account the projects and promotional opportunities afforded by the Delaware Tourism Office and should involve partners including Sussex County and neighboring communities.
- Undertaking a comprehensive project to encourage business opportunities on the beach side of the city, along the Savannah Road corridor, as outlined in the ERM recommendations on Marine Commercial Zoning
- Seeking ways to increase ecotourism opportunities.
- Positioning Lewes as the southern anchor of the state's Delaware Bayshore Initiative, linking the Lewes Scenic & Historic Byway to the Delaware Bayshore Byway.

➤ **FUTURE LAND USE PLAN**

Position on the General Use of Land: Lewes is primarily a residential community with considerable areas of open space and vacant land. In addition, Lewes has local businesses to serve residents and visitors.

Policy for Public and Private Uses of Land: The city will adhere to the Future Land Use Map in all decisions affecting land use within the city boundaries.

Recommendation: This Plan recommends that Mayor and Council consider:

- Initiating a Charter review and possible revision to ensure that BPW annexation agreements may be acted upon by the city of Lewes.
- Exploring redevelopment opportunities consistent with the changing needs of the city.

➤ **PROPOSED LEWES ANNEXATION PLAN**

Position on Expansion of Boundaries: Lewes is interested in expanding city boundaries in order to have more control over surrounding development and, where possible, to add areas that are now served by the Lewes Board of Public Works.

Policy for Annexation: Lewes is interested in expanding its boundaries in order to have more control over surrounding development and to protect its wellfield.

Recommendations: This Plan recommends that Mayor and Council consider:

- Annexing those lands that lay between Kings Highway and Savannah Road, out to Clay Road, to include Warrington Farm, Cape Henlopen High School, and the City of Lewes wellfields.
- Continuing to seek ways to make it more attractive to be a resident of the City as a way to encourage annexation of lands within the annexation area.
- Approaching the homeowners within the inholdings/enclaves to encourage them to annex into the City.
- Reviewing incentives, such as, tax abatement, fee reductions, and streamlining processes.

➤ **AREA OF CONCERN PLAN**

Position on Development of Adjacent Areas: Lewes is concerned that land use and environmental regulations in Sussex County are less stringent than those in Lewes. Lewes is strongly supportive of improving the MOU between the City and Sussex County governing development within the City's designated area of concern. Lewes is also interested in increasing intergovernmental coordination.

Recommendations: This Plan recommends that Mayor and Council consider:

- Working toward a regional planning initiative to develop a joint land use and transportation plan for the area.
- Reviving the MOU between the city and Sussex County regarding development activity around the city of Lewes (out to SRI).

Interpretative Guidance

Under 22 Del. C. § 702, a Comprehensive Development Plan “shall be the basis for the development of zoning regulations” and has “the force of law [such that] no development shall be permitted except as consistent with the plan.” Once a Comprehensive Development Plan is in effect, a municipality may only adopt zoning regulations “in accordance with [the] comprehensive plan . . .”

It is understood that the recommendations and the maps in the Plan have the force of law. In crafting and refining the Plan, the Commission and Mayor and Council have developed policy and recommendations that are reasonably likely to prove attainable. The Plan sets policies and recommends possible actions, but difficult implementation issues remain. Identification and prioritization of steps to implement the Plan and allocation of resources to that end, however, remain difficult and complex issues which the city and its citizens will consider over the ten-year period covered by the Plan.

**City of Lewes Officials
2014-2016**

MAYOR AND CITY COUNCIL Theodore Becker, Mayor
Fred W Beaufait, Deputy Mayor
Bonnie Osler
Dennis Reardon
Rob Morgan

Paul Eckrich, City Manager

BOARD OF PUBLIC WORKS C. Wendell Alfred, President
D. Preston Lee, Vice President
A. Thomas Owen, Secretary
Jack R. Leshner, Treasurer
Nancy R. Levenson, Asst. Treasurer

Darrin Edward Gordon, BPW General Manager

PLANNING COMMISSION Mike Mahaffie, Chair
Kay Carnahan, Vice Chair
Joe Hoechner, Secretary
James Linnen
Nina Cannata
Barbara Vaughan
Rich Kirschner
Joanne Ware
Tom Panetta
Bob Dillman (deceased)

Ex-Officio PC Members

Mayor	Theodore Becker
City Manager	Paul Eckrich
City Council Liaison	Bonnie Osler
BPW Member	Jack Leshner/A. Thomas Owen

CITY SOLICITOR Glenn Mandalas, Baird Mandalas Brockstedt LLC

**County and State Officials
2016**

SUSSEX COUNTY

County Administrator
County Council

Todd F. Lawson
Joan Deaver, 3rd District
Michael H. Vincent, 1st District
Samuel R. Wilson, Jr., 2nd District
George B. Cole, 4th District
Robert Arlett, 5th District

Planning Director

Lawrence Lank

STATE OF DELAWARE

Governor
Senate, 6th District
House of Representatives, 14th District
House of Representatives, 20th District

Jack Markell
Ernesto Lopez, Senator
Peter C. Schwartzkopf, Representative
Stephen T. Smyk, Representative

Office of State Planning Coordination

Constance S. Holland, AICP, Director

TABLE OF CONTENTS

Part I: Background and Community Profile	1
A. Location and History	1
B. Core Values	2
C. Comprehensive Plan 114 E. Third Street PO Box 227 Lewes DE 19958	3
D. Community Profile*	6
Projections*	
Population and Aging	
Part II: Services and Utilities	8
A. City governance and services	8
Community Facilities Plan*	10
B. Lewes Board of Public Works services and utilities	10
Utilities Plan*	14
C. Community and other government provided service	14
Part III: Existing Resources and Strategies for Conservation	16
A. Historic and Cultural Resources	16
Historic and Cultural Resources Plan*	17
B. Open Space and Recreation	17
Open Space and Recreation Plan*	19
C. Significant Natural Features*	20
Climate Change and Hazard Mitigation	23
Environmental Protection Plan*	27
D. Transportation Network	28
Transportation Plan	34
E. Community Character*	34
Community Design Plan*	35
Part IV: Community Development Plan*	36
A. Community Development Strategy* Quality of Life Issues	36
B. Existing Land Uses and Redevelopment	36
Redevelopment Strategy*	38
C. Housing	39
Housing Plan*	42
D. Economic Base and Major Employers*	43
Economic Development Plan*	47
E. Analysis and Comparison of other Relevant Planning Documents*	48
Part V: Future Land Use and Annexation	51

A. Future Land Use and Future Land Use Plan*	51
B. Annexation and Annexation Plan*	52
C. Area of Concern	53
<hr/>	
Part VI: Moving Forward	55
A. Implementation*	55
B. Zoning Code and Map*	55
C. Intergovernmental Coordination Strategy*	55
<hr/>	
Part VII: Appendices	
A. Comprehensive Plan Process and Public Participation, including Survey	59
B. Official Comprehensive Plan Maps	65
Map 1: City of Lewes Aerial View	
Map 2: Current Zoning	
Map 3: Certificate of Public Convenience and Necessity	
Map 4: Historic Resources and Open Space	
Map 5: Environmental Features	
Map 6: Preliminary Floodplains	
Map 7: Transportation	
Map 8: Existing Land Use	
Map 9: State Strategies for Policies and Spending	
Map 10: Future Land Use	
Map 11: Growth and Annexation Areas	
C. Lewes Historic Byway Enhancement Opportunity Map	66
D. Bibliography	67

***State-mandated plan elements. See 22 Del. Code sec. 702(b)**

List of Tables

Table 1. Population Trends	3
Table 2. 2000 & 2010 Racial Characteristics of Lewes, Sussex County & Delaware	3
Table 3. Profile of Age Demographics: Delaware, Sussex County & Lewes	4
Table 4. Selected Income Data for Lewes, Sussex County and Delaware	4
Table 5. Population Projections for Lewes Traffic Analysis Zone 1124	5
Table 6. Combined Population Projections for Surrounding Traffic Analysis Zones	5
Table 7. 2007 Commute to Work, 2009-2013 5-year Estimates	28
Table 8. Average Annual Daily Traffic Counts	29
Table 9. Existing Land Use 2013 & 2003	36
Table 10. Type of Housing Stock: Lewes, Sussex County, and Delaware	39
Table 11. Age of Housing Stock (by percent of total): Lewes, County, and State	40
Table 12. Selected Housing Characteristics	41
Table 13. Employment by Standard Industrial Code	44
Table 14. 2010 Selected Population Characteristics of Lewes	46

PART I. BACKGROUND AND COMMUNITY PROFILE

Delaware law requires that municipalities engage in comprehensive planning for the purpose of encouraging “the most appropriate uses of the physical and fiscal resources of the municipality and the coordination of municipal growth, development, and infrastructure investment actions with those of other municipalities, counties and the State”. This Plan complies with the requirements of a municipal development strategy as described in the Delaware Code for towns with population of greater than 2,000 people.

Specifically, a comprehensive plan must include “a municipal development strategy setting forth the jurisdiction’s position on 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 comprehensive planning process shall demonstrate coordination with other municipalities, the county and the State during plan preparation. The comprehensive plan for municipalities of greater than 2,000 population [such as Lewes] shall also contain, as appropriate to the size and character of the jurisdiction, a description of the physical, demographic and economic conditions of the jurisdiction; as well as policies, statements, goals and planning components for public and private uses of land, transportation, economic development, affordable housing, community facilities, open spaces and recreation, protection of sensitive areas, community design, adequate water and wastewater systems, protection of historic and cultural resources, annexation and such other elements which in accordance with present and future needs, in the judgment of the municipality, best promotes the health, safety, prosperity and general public welfare of the jurisdiction’s residents.” (22 Del. C. § 702 (a & b).)

State law requires that planning be an ongoing process and that municipalities identify future planning activities. This document is Lewes’s Municipal Comprehensive Development Plan as required by state law. It is intended to cover a ten-year planning period and be reviewed at least every five years.

A. LOCATION AND HISTORY

The City of Lewes is located in the northeast portion of Sussex County, Delaware, just east of the SR 1 corridor (Map 1: City of Lewes Aerial View). Lewes is approximately 40 miles southeast of Dover and about 40 miles northeast of Salisbury, Maryland, and is located within a division of land known as the Lewes and Rehoboth Hundred. The City lies along the southern portion of the Delaware Bay and is bordered to the east by Cape Henlopen, which marks the shoreline divide between the Atlantic Ocean and the Delaware Bay. The most northern of Delaware’s coastal resorts, the City is connected by water and highways to communities in Delaware, Pennsylvania, Maryland, and New Jersey.

The City is 4.6 square miles in area and extends for approximately five miles along the bay. Lewes has a beachfront area on the Delaware Bay – Lewes Beach – with the central business district located just off the Lewes and Rehoboth Canal, about one mile to the southwest of the beach.

With thousands of years of prehistoric settlement by Native American peoples, the first documented European to see Lewes’s coast was Henry Hudson in 1609. Hudson claimed the lands along Delaware Bay for the Dutch. Swanendael (as Lewes was originally known), the first European settlement in Delaware, was established in 1631. Though the settlement lasted less than a year, the establishment of the colony was critical in the formation of Delaware as a sovereign state and it is from this first settlement that Lewes and Delaware trace their heritage. Permanently re-established in 1659 and named Lewes by William Penn in 1682, the community quickly grew into an important port for coast-wise and

international shipping. Designated as the county seat of Sussex, Lewes remained so until 1791 when those functions were removed to the more central location of Georgetown.

Lewes's prominent position overlooking the mouth of Delaware Bay at the Atlantic Ocean has given it advantages as well as disadvantages over its nearly 400 years of recorded history. Pirates, including Blackbeard and Captain Kidd, visited and raided the town. During the American Revolution, naval battles were fought off its coast and fortifications were erected to protect the Lower Delaware Bay. During the War of 1812, Lewes was the site of important fortifications that were used to defend access to Philadelphia and it took part in what was referred to as the "Battle of Lewestown" in contemporary accounts, an important engagement that undermined British attempts to advance farther up the river. After the War of 1812, the first large new national public works project got underway off the coast of Lewes with the building of the Delaware Breakwater, starting in 1828. The Breakwater was the second largest such structure in the world and the biggest in the Western Hemisphere. In the 20th Century, World War II came to the dunes outside Lewes as Fort Miles, the largest state-side coastal military installation in the United States, rose from the beaches of Cape Henlopen.

Known as a fishing port during the late 19th and early 20th centuries, Lewes became the largest fishing port in the 1950s in the entire U.S. due to an abundance of menhaden, a small, oily, and bony fish prized for its oil with the residue used in fertilizers and other commercial enterprises.

After the closure of the menhaden factories in the 1960s, Lewes took advantage of its cultural, historic, scenic, and natural assets to transform itself into a top East Coast destination for heritage and eco-travel, keenly aware of and fiercely loyal to its proud history. Today, Lewes's significant, scenic, historic, natural, recreational, and archeological resources are so highly valued that the State of Delaware has designated its six major gateway roads as a State Scenic Byway, named the "Lewes Historic Byway." Lewes is also recognized as the southern end of the Delaware Bayshore and thus a focus of the Delaware Bayshore Initiative promoted by DNREC under Governor Markell.

B. CORE VALUES

Five core values were identified for Lewes as part of the Lewes Long Range Plan adopted in 1992. A sixth core value was added by the LPC as part of the comprehensive development plan adopted by City Council in 2005. Lewes's core values are:

- Core value #1: Lewes has a special and historic relationship with the sea.
- Core value #2: Lewes is a community of diversity.
- Core value #3: Lewes values its human town scale and sense of face-to-face intimacy that is characteristic of its quality of life.
- Core value #4: Lewes is a town of busy days and quiet nights.
- Core value #5: Lewes recognizes and maintains its internal communities.
- Core value #6: Lewes has unique historical origins and strives to highlight its heritage through building design and architectural preservation.

More information on the core values can be found in the 2005 City of Lewes Comprehensive Plan.

C. COMPREHENSIVE PLAN PROCESS AND PUBLIC PARTICIPATION

The LPC used both a set of public workshops and a long series of public meetings to gather public input for its draft comprehensive plan. The two public workshops were attended by a small but highly motivated and engaged number of Lewes residents. Despite that engagement, it is worth noting that the information gathered at these workshops represents the views of a small portion of the Lewes public. A bit more input came from a small online survey open to any resident and non-resident respondent. The LPC's continuing discussions of the Plan during a year-long series of public meetings have been open to the public and have included extensive public input and discussion. A full discussion of the public process followed in the development of this Plan including the results of the workshops and the online survey is set forth in Appendix XX.

D. COMMUNITY PROFILE

Population: In 2010, according to U.S. Census data, there were 2,747 persons living within the municipal boundaries of the City of Lewes. The total population for Sussex County in 2010 was 197,145 and 897,934 for the State of Delaware. Compared with the population in 2000, as shown in Table 1, there was a decrease of 6.3 percent in Lewes, while Sussex County and the State of Delaware were both growing at 25.9 percent and 14.6 percent, respectively.

Table 1. Population Trends

	1990	2000	2010	% change 2000-2010
Delaware	666,168	783,600	897,934	14.6%
Sussex County	113,229	156,638	197,145	25.9%
Lewes	2,295	2,932	2,747	-6.3%

Source U.S. Census 2000-2010

Several other beach communities have experienced a decrease in population similar to that of Lewes since 2000. The census counts people at their place of residence on April 1 of the census year. Therefore, relatively few seasonal residents, who greatly increase the population of Lewes and the coastal area during the summer, are included in the census count. The economic downturn of 2007-2008 may have contributed to this loss of population, but we can see from Table 3 that there are also fewer people living in each Lewes household than in 2000. There are now more vacation homes and fewer full-time owner-occupied homes than in 2010. Census data shows 36.1 percent residences used for seasonal use in 2000 versus 40.8 percent in 2010. This will be discussed further in the Housing section.

Racial Composition: Lewes has continued to become less diverse than either the county or the state since 2000. Conversely, both Sussex County and Delaware have experienced increases in their minority populations as indicated in Table 2.

Table 2. 2000 and 2010 Racial Characteristics of Lewes, Sussex County and Delaware

	2000			2010		
	White	black	other	white	black	other
Delaware	75%	19%	6%	69%	21%	10%
Sussex County	80%	15%	5%	79%	13%	8%
Lewes	87%	10%	3%	90%	7.5%	2.5%

Source: U.S. Census 2000 and 2010

Age Profile: As Table 3 shows, while the residents of all three jurisdictions are aging, according to almost every measure, the population of Lewes is aging at a faster rate than the other jurisdictions and its household size continues to drop, with almost 37 percent of households consisting of a person aged 65 years or older living alone.

Table 3. Profile of Age Demographics: Delaware, Sussex County and Lewes

	Delaware		Sussex County		Lewes	
	2000	2010	2000	2010	2000	2010
Pop 17 and younger	24.8%	22.9%	22.5%	20.5%	13.6%	8.3%
Pop 62 and older*	15.4%		18.5%		37.6%	
Pop 65 and older*		14.4%		20.8%		43.6%
Median Age	36	39	41	45	55	63
Total Households	298,736	340,308	62,577	77,995	1,338	1,392
Households with children under 18	35.4%	32%	30.8%	25.4%	15.1%	10.7%
Householder 65 or older living alone	9.1%	10.6%	24.3%	15.3%	14.4%	36.9%
Average Household size	2.54	2.62	2.45	2.57	1.99	1.86

Source: U.S. Census 2000 and 2010.

*The U.S. Census changed their age reporting parameters between the 2000 data and the 2010 data.

Education Profile: Comparing education levels of Lewes's population shows a few unique aspects of the City's residents. According to the 2010 Census, 91.9 percent of Lewes residents over 25 years of age were high school graduates. By comparison, 86.3 percent of Sussex County residents and 88.5 percent of Delaware residents reported that they had received a high school diploma. Further, 52.3 percent of Lewes residents had earned a college degree compared to 23.0 percent for Sussex County and 29.5 percent for the entire state. The Census 2010 information illustrates that Lewes's population continues to be more highly educated than that of the surrounding county and the state.

Income Profile: Table 4 contains income information for Lewes, Sussex County, and Delaware, indicating that Lewes's median household income in 2010 was higher than for Sussex County, and for the state as a whole. Likewise, the percentage of households receiving social security and retirement income was significantly higher in Lewes than in Sussex County or Delaware.

Poverty: While the great majority of Lewes residents do not live below the poverty level, Table 4 demonstrates that some of the City's residents, including a relatively high percentage of those under age 17, do live below the poverty level.

Table 4. Selected Income Data for Lewes, Sussex County and Delaware, 2010

	Delaware	Sussex	Lewes
Median household income	\$58,415	\$49,471	\$66,100
Households with wage and salary income	77.7%	70.4%	71.1%
Mean wage and salary income	\$74,442	\$61,064	\$66,317
Households with social security income	32.3%	43.2%	55.6%
Mean social security income	\$18,830	\$19,432	\$18,994

Households with retirement income	22.8%	28.0%	44.1%
Mean retirement income	\$23,373	\$26,261	\$38,518
Households with public assistance income	2.6%	2.5%	0.5%
Mean public assistance income	\$3,079	\$3,417	NA
Individuals 17 and under below the poverty level	17.4%	28.6%	29.2%
Individuals 18 to 64 below the poverty level	11.1%	11.9%	7.3%
Individuals 65 and older below the poverty level	7.4%	7.5%	1.5%

Source: U.S. Census 2010

Projections: The University of Delaware Center for Applied Demography and Research (CADSR) models population and employment projections using census data. In Sussex County, CADSR works with DelDOT's Division of Planning and the Office of State Planning Coordination (OSPC) to review and update this data. Because DelDOT is the primary user of the projections for traffic modeling, data is broken down into geographic units called Traffic Analysis Zones (TAZ).

The boundaries of TAZ #1124 are aligned with the current boundary of the City of Lewes but also include several currently undeveloped parcels in Sussex County. Thus, TAZ data is not an accurate predictor of future growth for the City because it largely reflects growth in areas beyond the City limits. Nevertheless, this information has been included for general informational purposes.

Table 5 shows population, households, jobs and worker projections for TAZ #1124 for years 2020, 2030, and 2040.

Table 5: Population Projections for Lewes Traffic Analysis Zone 1124

	2010	2020	2030	2040
Population	2,813	3,358	3,792	4,004
Households	1,318	1,528	1,750	1,870
Jobs	3,649	3,761	3,852	3,943
Workers	1,173	1,278	1,376	1,441

Source: DelDOT Planning, last updated by OSPC in 2011

*This data does NOT include seasonal jobs or residents

Lewes is surrounded by six more TAZs in Sussex County. Table 6 shows projections for population and households in those other six TAZs.

For both Tables 5 & 6, it is important to note that there are serious limitations in multi-year projections for a geographic area and population as small as Lewes. These projections are informative but should not be used as a basis for planning.

Table 6: Combined Population Projections for Surrounding Traffic Analysis Zones (1122, 1123, 1238, 1241, 1247 and 1249)

	2010	2020	2030	2040
Population	4,646	5,527	6,463	7,385
Households	2,069	2,513	2,982	3,447

Source: DelDOT Planning, last updated by OSPC in 2011

*This data does NOT include seasonal jobs or residents

Future Housing Needs: Understanding the significant limitations of the population projections, we can consider them as something of a general guide to expected population growth in Lewes. The expectation is that Lewes's population will increase and the average household size will decrease. This overview of future housing needs does not include the current demand for seasonal housing units.

Employment projections: *Table 5* also suggests that this projection model anticipates non-seasonal job growth to continue steadily into the future, with the number of available workers continuing to lag behind. Lewes has very little developable or redevelopable land available that is suitable for non-residential uses.

Population and Aging: Implications for the future: As a result of a number of factors, including walkability, safety and security, proximity to shopping, housing, health services, and recreation and cultural activities, in recent years Lewes has become a very desirable place to live for active seniors. According to 2010 Census data, *Table 3*, Lewes's median age was 63 years old, compared to 45 for Sussex County and 39 for the State of Delaware. In the same year, 43.3 percent of Lewes's population was 65 years old or older.

This demographic has been a real asset to the community in recent years, providing many services to the community as involved residents and volunteers serve on boards, committees, non-profit organizations, and a host of other activities.

While some retired residents who move to Lewes may plan to return to their states of origin as they approach their final years, a growing number are planning to age in place. Successful aging in place may require modifications to existing housing stock (such as wheelchair ramps and accessible bathrooms) and/or assistance with everyday tasks. Some of the City's older housing stock may be difficult to retrofit to make it easier to age in place. There may also be local rules and regulations that make retrofitting for aging in place more difficult. And, while new construction can take the needs of aging in place into consideration, some new homes may be too big, on lots that are too large, or they may be disconnected from the downtown area.

As the City's residents continue to age, their need for medical care, social services, transportation, and assistance with everyday activities increases, both on a day-to-day basis and during emergencies. According to the Delaware State Housing Authority, about 47 percent of people over 75 years of age also have a disability.

Some resources that have proven effective in other jurisdictions to allow the current population to age in place include:

- Training, affordable housing, and housing assistance for working people such as health care workers and emergency services personnel
- Housing options and flexibility such as assisted living facilities, co-housing, shared housing, mother-in-law suites, and accessory dwelling units
- Education and evacuation plans for people who need assistance evacuating, especially those living in high-hazard areas
- Monetary assistance for low- to moderate-income residents who need help with flood-proofing, maintaining, or retrofitting their homes
- Support for emergency and social service provider organizations as demand increases and volunteers dwindle such as the Fire Company, EMT/Paramedic services, and Meals on Wheels
- Automated calling or call in service, by subscription, similar to the New Castle County Police Senior Roll Call Lifeline Program. Seniors who sign on are called at the same time daily and if there is no answer, someone is dispatched to the home to check on that person.

These do not suggest the City adopt or provide any particular one, and certainly not all, of these possible resources.

There are some other initiatives taking place in Lewes that will help. For example, one Lewes-based initiative is the Greater Lewes Community Village. The Village is a nonprofit that helps older residents live independently and safely in their homes, as well as stay engaged with the social and cultural activities available. Other nonprofit and for profit organizations centered within and outside Lewes also offer services to seniors.

The Margaret H. Rollins School of Nursing at Beebe Healthcare is training nurses, and the medical center is certified as a Nurses Improving Care for Healthsystem Elders (NICHE) hospital by a New York University program that trains nurses in the particular needs of older patients.

- **Position on Population Growth:** Lewes will continue to grow primarily through annexation.

PART II. SERVICES AND UTILITIES

A. CITY GOVERNANCE AND SERVICES

Governance: The City is governed by its Mayor and four Councilpersons. The City has 32 full-time, one part-time, and 23 seasonal full-time employees as of August 31, 2015. Its annual budget is approximately \$5.7 million for the fiscal year ending March 31, 2017. The Mayor and Council are generally responsible for the health, safety, and welfare of city residents and for providing such services as trash collection, street repair and sweeping, parks, and police protection.

In addition to and separate from the City is the Lewes Board of Public Works (BPW). The BPW is authorized by an act of the General Assembly under a separate charter to establish, control, and regulate an electric light plant, water works, and sewer system. The BPW has its own board elected by BPW rate-payers and operates on the same fiscal year as the City. More information about the BPW can be found in the next section.

The LPC consists of up to nine appointed members plus four ex-officio members. The ex-officio members are the Mayor, the City Manager, and representatives from City Council and the Board of Public Works. Other officials who often attend are the BPW General Manager, City Solicitor, and Building Official. The LPC reviews land development and subdivision plans and amendments to the zoning ordinance and makes recommendations to City Council. The LPC is also responsible for developing Lewes's comprehensive plan and conducting the public process related to the plan. The Mayor and Council have the final decision-making authority for all land use decisions, including adoption of the comprehensive plan and implementation of its recommendations.

The last comprehensive plan, the City of Lewes Comprehensive Plan, was adopted in 2005 and approved by the State in 2006. Since 2005, approximately ten additional land use studies have been conducted. These studies are listed in Appendix XX: Bibliography, and have been incorporated into this Plan as appropriate.

A five-person appointed Board of Adjustment (BOA) hears and decides requests for variances or special use exceptions to the city code. The BOA also serves as a committee to hear appeals to the City's Housing Code. The Mayor and Council hear appeals concerning the Subdivision Code. There are two City officials who generally attend meetings of the BOA: the Building Official and the City Solicitor.

The City also has numerous standing and ad hoc committees that serve in an advisory capacity in dealing with city issues. Those related to land use and planning issues include:

1. **Commercial Architectural Review Commission (CARC):** Reviews proposals for the exteriors of new commercial construction or changes to existing commercial buildings.
2. **Historic Preservation Commission (HPC):** Reviews construction, reconstruction, alteration, demolition, and moving of residential structures within the Historic District or historic properties not within the district.
3. **Parks & Recreation Commission:** Reviews major development plans for open space issues and makes recommendations to the LPC.
4. **Greenways & Trails Committee:** Works to implement the Lewes Greenways Plan.
5. **Lewes Bicycle & Pedestrian Advisory Committee:** Recommends pedestrian and bicycle related improvements.
6. **Canalfront Park Marina Committee:** Makes recommendations to Mayor and Council regarding marina operations, including rate changes and budget needs, as well as policies and procedures.

7. Lewes Scenic & Historic Byway Committee: Works with DelDOT and Sussex County to implement the Lewes Scenic and Historic Corridor Management Plan (signed by DelDOT Secretary Jennifer Cohan on October 21, 2015). This Committee also works with DelDOT and Delaware Greenways to designate several corridors as Historic Byways.
8. Traffic Safety Management Advisory Committee: Makes recommendations to Mayor and Council regarding street conditions and vehicular traffic issues, including traffic flow, patterns, calming, related safety, signage, speed limits, and general traffic management.
9. Capital Projects Committee: A joint BPW and City Council committee charged with reviewing and overseeing plans for capital improvements in the City.
10. Finance Committee: Reviews and makes recommendations regarding the operation and fiscal standing of City - related to revenue sources and expenses for General Operating Funds and Capital Improvement Projects.
11. Mitigation Planning Team: Established as a result of Project Impact, this group is charged with developing a mitigation strategy that will continue to reduce the City's vulnerability to natural disasters.
12. Board of Health: Created by the City Charter, the BOH has broad powers that could conceivably affect land use and planning issues.
13. Housing Board of Adjustment & Appeals: Hears appeals of the Lewes Housing Code.

According to Section 33(a) of the Charter of the City of Lewes, the City has certain powers over "all the public or vacant lands contiguous to but outside the corporate limits," defined as "fronting on the bay between the point of Cape Henlopen on the south and Veasey's [Roosevelt] Inlet on the north," currently known as Lewes Beach. These lands are subject to the same laws as lands within the City, and Lewes is authorized to, and does, lease these lands to others. Lewes Beach residential leases are for 99 years. While there is no lease fee, other than legal fees, taxes are assessed on both the property and improvements.

Section 33(d) of the Charter also grants the City "full and exclusive authority and control" over the Great and Beach Marshes and the Cape and Cape Marshes owned by the state. It further grants Lewes the authority to sell grass, hay, sand, gravel, wood, and timber from these lands for profit. However, the City may not prevent fishing access to Lewes or Delaware residents along the Delaware Bayshore.

Lewes also leases lands along the Lewes and Rehoboth Canal by agreement with the United States Army Corps of Engineers. All current canal-side leases are set to expire in September 2025. The lease fee is determined according to the amount of road frontage.

In the fiscal year ending on March 31, 2015, the City's total receipts were approximately \$6.9 million. Property tax and real property transfer taxes were approximately 31% and 18% of this amount, respectively. The remaining receipts were generated from gross receipt rental taxes, parking meters, building permits, business and mercantile licenses, grants, donations, traffic tickets, land leases, parking violations, tax penalties, subdivision and zoning fees, reservation fees, and dock rentals. Only the BPW (not the City) has the power to collect impact fees.

Lewes residents enjoy relatively low taxes. The City's tax rate on real property is \$0.57 per \$100 in assessed value and the tax is based on 50% of assessed value as of the City's 2000 assessment. Lewes's citizens also paid \$3.8169 in taxes per \$100 of assessed value to Sussex County in 2015 (totaling school district, county, library, and vo-tech rates) (see <http://www.sussexcountyde.gov/sussex-county-annual-rates>), but these are based on 50% of the County's 1974 assessment.

Trash Collection, Street sweeping, Snow plowing, and Street Repairs: The City's Streets Department is responsible for street repairs, street sweeping, and snow plowing on all city streets exclusive of state-maintained roads. The City is currently responsible for 20.06 miles of municipal streets including streets in Savannah Place but not including streets in Canary Creek Subdivision and Highland Acres, none of which have yet been accepted by the City. There are additional streets in Cape Shores, the Jefferson Apartments, Pilot Point, and Port Lewes that the City does not maintain and has not been asked to accept. Routine repairs, plowing, mowing, and sweeping, as well as trash pickup, beach cleaning, signage, and curb painting, are completed in-house by a staff of nine full-time and three seasonal full-time employees. Larger projects are contracted out to private companies. The City provides regular collection of trash, recyclables, and yard waste from all neighborhoods, including those whose streets it is not responsible for, except for the Jefferson Apartments. The City also collects from non-profit organizations, but not from commercial establishments.

Lewes Police Department: The City enjoys a very low crime rate. The Lewes Police Department provides around-the-clock police service to Lewes residents. The department employs 17 full-time and seasonal officers as of August 1, 2015, and is fully staffed. Normally two officers are on patrol in vehicles at any given time. Officers have been trained and certified at the Delaware State Police Academy. The police department's operating budget is derived mainly from City revenues, with supplemental funds from various state and federal funding programs. The police department also employs ten seasonal lifeguards and a police dog. The City's parking meter reading staff are also part of the police department.

A public safety issue is encroachment onto public property and right-of-ways. Encroachment in this case is where property owners creep over their property lines by placing garages, trees, gardens, and other items on public property. This has been a particular problem along several streets on Lewes Beach, where emergency responders are unable to get through, and has led to several streets on the beach side of town having been designated as emergency access ways. It can also be a problem with encroachment into parks and has the potential to become a problem if Lewes adopts a stream and wetland buffer or setback ordinance.

➤ **COMMUNITY FACILITIES PLAN**

Policy for Community Facilities: Lewes will continue to monitor its community services, facilities and structures, and make changes as needed to remain efficient and effective.

Recommendation: This Plan recommends that Mayor and Council consider reviewing the function and role of all City boards and commissions.

B. LEWES BOARD OF PUBLIC WORKS SERVICE AND UTILITIES

The Lewes Board of Public Works (BPW) was established in 1901 by a charter separate from the Lewes charter and most recently updated in 2010 and 2015. The BPW is responsible for developing and maintaining mostly underground infrastructure, including electric, stormwater management, drinking water, and wastewater treatment. There are five publicly elected Board members, with officers elected annually by the Board including a President, Vice President, Secretary, Treasurer, and Assistant Treasurer. The Mayor serves in an ex-officio capacity. The BPW also has an ex-officio position on the LPC. The BPW employs 13 full-time and two part-time employees and has a budget of approximately \$13.2 million.

The BPW reviews proposed development plans for utility issues, and collects impact fees for sewer, water and electricity. Impact fees can only be used for capital improvements or debt on capital improvements, rather than operational or maintenance costs. The BPW does not have the power of eminent domain (the ability to purchase land for public use through condemnation). Since 2012, owners of lands outside the city limits who desire BPW utilities are required to sign an agreement with the City that provides for annexation of the subject property upon request by the City.

The Delaware Public Service Commission (PSC) issues Certificates of Public Convenience and Necessity (CPCNs) to utility providers in Delaware. CPCNs are issued by the PSC on a first come, first served basis, and define the physical boundaries of a service area. The BPW currently holds CPCNs to provide drinking water, sewer service, and electricity to the entire area within Lewes's boundaries, as well as certain areas outside of the City. Outside of city boundaries, the CPCNs for the three different utilities are not aligned and in some locations do not overlap at all (Map 3: Certificate of Public Convenience and Necessity). In these areas, many property owners may only receive one or two rather than all three utilities from the BPW. The CPCNs for water and wastewater services have been mapped. There is no CPCN map for the BPW's electric service areas that are outside of the City boundaries.

Electricity: BPW is an associate member of DEMEC (Delaware Municipal Electric Cooperative), a consortium of Delaware municipalities that generates power for their own usage and manages the portfolio of generation contracts for its members. The makeup of the BPW portfolio has renewable generation sources of wind power from the Laurel Hills Wind farm in Pennsylvania, solar power from the Dover sun farm, and the BPW also receives electricity from the University of Delaware wind turbine located in Lewes. The BPW receives power from the University wind turbine in a virtual net metering agreement where the BPW purchases the electricity that is generated above the needs of the University. The City is one of the nation's highest per capita areas of home solar installations. The BPW's distribution system currently has one substation within the city limits. The entire distribution system was upgraded to 12 kilovolts, and the carrying capacity of the system is now 45 megawatts. Since the long-range plan for electricity was last updated in 2005, the BPW has been implementing the recommendations to bring service upgrades on line to meet the projected growth. As a result, the BPW currently estimates that only about 60 percent of the currently available electrical capacity is being used at this time, with plenty of remaining capacity to serve future growth.

Stormwater Management: The citywide stormwater system, managed by the BPW, is composed of pipes, curbs, and gutters and about 900 storm drains. The majority of the system has been in place for many years. As a result, the stormwater management system drains untreated into the Canal, local streams, private catchments, or bioswales. During high tide periods, the system prevents tidal backflow by using flap gates and other control structures and devices. It is essential to diligently maintain this system, keeping drainage ways clear of debris, sedimentation, and other materials that block or reduce flow.

The maintenance of ditches, retention ponds, and bioswales on private property is the responsibility of individual property owners or of homeowners associations. There is also a private system of tax ditches in Lewes that is maintained by the Highland Acres Tax Ditch incorporated for that purpose. The BPW will notify appropriate officials if it observes problems with these private structures, but has no authority over them.

All new major development in Lewes is required to include on-site stormwater management techniques to manage both water quantity and quality, which are the responsibility of each homeowner's association to maintain. When possible, minor subdivisions are sometimes allowed to tie into the existing city system. Both the BPW and the Sussex Conservation District review all development proposals for stormwater management issues.

In 2015, the BPW completed a Stormwater Management Plan recognizing stormwater management as a utility. The Plan includes recommendations for possible uses of green technologies, prioritization of needed repairs, and a maintenance plan for storm pipes.

Drinking Water: Drinking water is pumped from a city-owned well field with five production wells located southwest of Cape Henlopen High School, outside city limits. There are approximately an additional 18 private wells that withdraw water from the same aquifer. In addition to the entire city limits, water is also provided to Cape Henlopen State Park, the high school, Wolfe Runne, and Wolfe Pointe. The Board has agreed to provide water also to Showfield.

The City's five wells draw water from the Columbia aquifer, classified by DNREC as "unconfined" -- close to the land surface and directly subject to precipitation and temperature. Because it is unconfined, the aquifer is susceptible to contamination from various sources at or below ground level, including sewage, animal waste, fertilizers, pesticides, commercial and industrial wastes and spills, and de-icing salts. In addition, saltwater intrusion is also a possibility, but difficult to predict. The BPW utilizes three test wells located between the bay and the city wellfield, which are monitored for saltwater intrusion.

In November 2013, the BPW opened a new water treatment plant located at the wellfield on Kings Highway and decommissioned the old treatment plant at the Schley Avenue site. It is anticipated that this new plant will serve the City's water treatment needs for the next 20 years. Lime, fluoride, and chlorine are added to the drinking water to meet state quality standards. A new standby diesel generator at the wellfield allows for emergency pumping from all five wells at the same time, if needed.

The wells are capable of producing at least four million gallons-per-day (gpd), with the 1951 storage tank having a capacity of 300,000 gallons. The City averages about 800,000 gpd during the off-season, and usage peaks at 1.6 million gpd during the summer, with about 460,000 gpd identified as being used for lawn and garden irrigation. Major industrial and commercial users including SPI Pharma and Beebe Healthcare use approximately 540,000 gpd on average. With the current pumping and distribution capacity, the BPW estimates that about 60 percent of available capacity is being used, leaving about 40 percent of capacity available for new customers.

The BPW has a ten-year plan for drinking water, *Lewes Water System Study*, which was updated by George, Miles & Buhr, LLC, in December 2010. The study called for the BPW to apply for a CPCN for the area approximately located between the existing city border and Black Hog Gut bordered by the railroad tracks to the south. Tidewater Utilities holds CPCNs for other nearby areas south of the town and along SR 1.

This new area plus existing developments was projected to require 22,810 gpd to serve an additional 1,060 homes. Usage rates were estimated at 210 gpd per EDU (Equivalent Dwelling Units). Overall, the 2010 study planned for a total of 3,310 EDUs with an equivalent usage of 695,100 gpd. Total required flow for the Lewes area was projected to be 2.3MGD with a peak flow of 4.13 MGD.

Although a new well is not needed at this time, the study identifies a target location for a new well on New Road in the vicinity of the entrance to the University of Delaware property. The study recommended the addition of a second 500,000 tank in the same New Road location as the proposed new wellfield. Finally, the study identifies a number of proposed improvements to the water infrastructure within the 2010 and proposed new CPCN area, which the BPW has been working to bring online as needed.

Wastewater: The BPW provides wastewater service only to properties within the city limits, except the Cape Henlopen High School, University of Delaware housing, First Baptist Church, and the P. Rodney Cunningham strip mall.

The original collection system was designed to handle both wastewater and stormwater. During the 1980s, the stormwater was removed, leaving the sewer pipes sized to handle additional growth. Untreated wastewater is pumped to the Wastewater Treatment Plant (WWTP) using a series of pump stations located throughout the town. Impact fees and developer agreements are being used to assist with funding the costs of adding new infrastructure as needed.

The BPW has a twenty-year plan for wastewater, *Lewes Sanitary Sewer Study*, which was completed by George, Miles & Buhr, LLC, in July 2007 and updated in 2015. The BPW has wastewater treatment capacity for an average daily flow rate of 1,500,000 gpd. Average flows in the wintertime are approximately 535,000 gpd; however, summertime flows commonly peak above 1,000,000 gpd.

The City of Lewes Howard Seymour Water Reclamation Plant (WWTP), opened in 1961 and rebuilt and expanded in 2008, is on American Legion Road near Lewes Beach. Approximately 30 pumping stations throughout the City pump wastewater to the treatment plant. The pumps are powered by electricity, with some also equipped with back-up generators. The BPW has contracted with Severn Trent to operate the treatment plant through December 2016. Treated wastewater is currently released into the Lewes and Rehoboth Canal, almost all of which flows into the Delaware Bay.

The BPW, in coordination with DNREC, is required to eliminate an agreed upon amount of nutrients from WWTP discharges entering the Rehoboth Bay, in order to meet the nutrient trade requirements of the Lewes BPW NPDES permit. In 2008, the BPW upgraded and expanded the wastewater treatment facility so that nitrogen concentrations in the facility's effluent stream are reduced to less than or equal to 5 milligrams per liter (mg/l) and phosphorus to less than or equal to 0.6 mg/l. The upgraded treatment facility utilizes a membrane filtration system combined with a nutrient removal system to achieve the best effluent results. The BPW also moved 330 tons of chicken manure out of the Lewes-Rehoboth watershed to meet the NPDES requirements for many years to come, and will continue to do so as needed.

The WWTP is located in the floodplain between the Delaware Bay and the Lewes and Rehoboth Canal off of Savannah Road. According to the 1999 Greenhorne and O'Mara Flood Mitigation Plan and quoted in the 2011 Hazard Mitigation and Climate Change Adaptation Action Plan:

"Potential damage to this facility poses a serious risk to the community. Access to this structure would likely be cut-off during a 100-year event. Damage to the facility could cause a break in service, which would affect all residents and shelters as well as emergency operations [services] at the Beebe Medical Center. Furthermore, flood damage could result in a failure at the plant that might lead to an overflow of the plants' contents, resulting in a serious health risk to the community." (pg. 41)

The BPW has had the WWTP evaluated and an elevation certificate was issued showing the plant to have nine feet of freeboard above the 100-year floodplain level. The highest flood experienced to date only reached three to four feet above 100-year floodplain. In the event of the access road being flooded, the BPW has a plan for critical staff to access the WWTP by boat.

The BPW estimates that, with recent upgrades, only about 70 percent of currently available sewer capacity is being used, leaving about 30 percent available for new customers in the CPCN. Sussex County also serves a portion of the lands outside the city limits and has allocated capacity to serve up to four residential units per acre with some commercial development. In addition, some properties just

outside the city limits are not located within a sewer service area and are therefore still dependent on septic systems.

➤ UTILITY PLAN

Position on Key Infrastructure Issues: Lewes continues to work with the Board of Public Works to provide adequate infrastructure to residents and to the proposed annexation area. Lewes supports context sensitive transportation improvements to improve safety and flood evacuation.

Policy for Adequate Water and Waste Water Systems: Lewes will continue to work with the BPW to provide adequate facilities to residents and the proposed annexation area and will seek to protect its wellfield. Only the Board of Public Works can implement recommendations related to electricity, stormwater management, drinking water, and wastewater in Lewes.

C. COMMUNITY AND OTHER GOVERNMENT PROVIDED SERVICES

Police: Delaware State Police Troop 7 provides back-up to the City and is located about two miles away on SR 1, although it plans to move its headquarters further inland. The Lewes Police and the State Police enjoy a strong and cooperative relationship. Additionally, University of Delaware police from the Hugh R. Sharp Campus and Delaware River and Bay Authority police from the Cape May-Lewes Ferry also provide back-up support to Lewes police as needed, and vice versa.

Fire, Ambulance, Paramedic: The Lewes Volunteer Fire Department, founded in 1796, operates out of the Fire Station 1 located at 347 Savannah Road. The department serves a wide geographic area, extending approximately eight miles south and west of the City. In addition to the headquarters, there are two substations, Substation 2 at Nassau and Substation 3 operating out of a building shared with Rehoboth Beach Volunteer Fire Company, located at Angola on Route 24, about five miles southwest of SR 1. The three stations house five ambulances operated by the fire department. Currently, the Lewes Volunteer Fire Department has over 150 members. In addition, there are thirteen full-time paid employees, who are primarily responsible for ambulance runs. The Lewes Fire Department receives funding from Lewes, the BPW, Sussex County, and the state, but the majority of funds come from donations from the corporate sector and from individuals in the community. Paramedic (EMS) service is also provided by Sussex County.

Education: Lewes is part of the Cape Henlopen School District. Three Cape District schools are located within the City boundaries. Richard A. Shields Elementary School (K-5) and the Lewes School are located at the intersection of Savannah Road and Sussex Drive. The Lewes School houses both the Sussex Consortium Program (K-12) for students with special needs and the Little Viking Learning Center. The Frederick Thomas School, formerly the school for African American students in the Lewes area, is located on Dupont Avenue and is occupied partly by offices of the Cape Henlopen School District and partly by the Osher Lifelong Learning Institute. Cape Henlopen High School and the main Cape Henlopen School District offices are located on Kings Highway, just outside of the City and adjacent to the City's well-field.

Additional educational centers in Lewes include the Margaret H. Rollins School of Nursing, part of Beebe Healthcare, and the University of Delaware College of Earth, Ocean and Environment campus. The University of Delaware also supports the Osher Lifelong Learning Institute.

Senior Services: Even though, as previously noted, Lewes is a destination for retirees, there is no senior center or CHEER Center located within the City limits. However, the Harbour Lights CHEER Center and the Lewes Senior Center are both located just outside the City. The CHEER Center, located adjacent to senior housing near Carpenter's Corner, offers weekday lunches, programs and a fitness center. Transportation for medical appointments and grocery shopping is available. The Lewes Senior Center is across Route 1 in the Nassau area and offers similar services to its members.

Social Services: The nearest State Service Center is located in Georgetown, about fifteen miles away. This full-service center offers a host of client services such as Medicaid, Food Stamps, long-term care assistance, utility assistance, rental assistance, and the Foster Grandparent Program. The state is currently considering a proposal to move this Service Center closer to the beach. The nearest federal Social Security Center is located on Old Vine Boulevard in Nassau.

Library: The Lewes Public Library, established in the early twentieth century, is currently located at 111 Adams Street on Kings Highway and operated by a nonprofit, Lewes Public Library Inc. An independently operated library, it has many partners and is run in compliance with the Sussex County Department of Libraries and the Delaware Division of Libraries. The state and county provide some funding, whereas the City of Lewes owns and maintains the building and land. The library currently has a staff of five full-time and 10 part-time employees who are assisted by almost 100 volunteers working 20 volunteer hours each day.

The current two story, 14,000 square foot, library building houses more than 55,000 books. In 2014, the library reported that it had approximately 145,000 visitors, averaging 500 a day, and nearly 12,000 registered borrowers and participates in a statewide interlibrary loan program. The library is connected to the Internet and currently has a modest number of computers for use by members. Two meeting rooms are available to the public.

The library has outgrown its current facility and is in the process of building a 28,000 square foot building on a tract of land adjacent to the current facility and Stango Park. The new location is across the railroad tracks from the current library and will be connected via an extension of Adams Ave. It is expected to open in the late spring of 2016. This major effort has received financial support from the State Division of Libraries, Sussex County, the City, DNREC, DeIDOT, the general public, and others. This tract will also include a trailhead and a portion of the Georgetown-to-Lewes Rail with Trail.

Postal Service: Postal services for Lewes and environs are provided via the Lewes Post Office in downtown Lewes with a smaller satellite office located near Five Points in Nassau. The regional sorting station is at Rehoboth Beach.

PART III: EXISTING RESOURCES AND STRATEGIES FOR CONSERVATION

A. HISTORIC AND CULTURAL RESOURCES

The City has a rich historic, cultural, and recreational fabric that greatly influences its character. Here is a short summary of resources in and near Lewes. Additional details can be found in the 2005 Lewes Comprehensive Plan.

Historic Resources and Open Space identifies historic resources in the City of Lewes - Map 4: Resources include 15 properties, including three districts, seven individual buildings, one structure, and two sites listed on the National Register of Historic Places. The Districts are:

- *Lewes Historic District* (established in 1977) and now with 629 contributing buildings and sites): The City has enlarged the Historic District several times to include areas such as Shipcarpenter Square and Jefferson Court. The District also includes nine properties on the beach side of town, encompassing one block of Market Street, which were added in 2005.
- *Cape Henlopen Archeological District* (1978): Includes oyster and clamshell middens 500 B.C. to 1600 A.D.
- *National Harbor of Refuge and Delaware Breakwater Harbor Historic District* (1989): Includes Breakwater Light and Harbor of Refuge Lighthouse; breakwaters completed in 1869 and 1901; and remains of the William Strickland light.

Lightship LV 118 (Lightship Overfalls): Located next to the Life -Saving Station, received National Register status in 1988 and National Landmark status in 2011. In 2014, the American Lightship Museum was dedicated and the renovation of the Monomoy boat used by the United States Coast Guard during World War II was completed along with a display annex near the ship.

Maritime History Signed Trail: Developed by an ad-hoc partnership with support from the National Park Service, extends from the University of Delaware campus to the Cape Henlopen Fishing Pier and features ten informational signs that address many aspects of the maritime history of Lewes.

National Register of Historic Places: Many of Lewes's historic resources are listed on the National Register of Historic Places. This designation provides no protection to the listed buildings or properties. A number of other historic resources in and near Lewes are not listed in the National Register but may be eligible, including an archeological site, several buildings and structures, railroad structures, and a traditional black historic district. The National Park Service has designated the Ryves Holt House to become part of the new First State National Historical Park.

Regulations for Historic Resources: Mayor and Council adopted an historic preservation ordinance in 2004 to protect residential structures within the historic district. Additionally, the Lewes Zoning Code relating to dwelling units specifically excludes historic buildings from the provisions of the housing code if safety is judged to be inadequate by the Building Inspector.

Historic Preservation Commission (HPC): The HPC was established by ordinance in 2004 to review exterior changes to dwellings in the Historic District and plans for infill construction in order to maintain the character and integrity of the District. HPC published and frequently updates the *User Guide for Home Renovation and Construction in the Historic District* which provides guidance to city homeowners. Any proposed demolition of all or part of a contributing dwelling requires a public hearing conducted by the HPC.

Commercial Architectural Review Commission (CARC): CARC reviews proposed changes or additions to buildings in the Commercial Districts, including historic buildings.

Lewes Historical Society (LHS): LHS was formed in 1962 to help preserve the historical heritage of Lewes. LHS has acquired a number of historic properties, nine of which are grouped on the historic complex at the corner of Shipcarpenter Street and Third Street. The Society owns the Life-Saving Station on land leased from the City near the Canal, the Cannonball House on Front Street, and the building located on the corner of Third Street and Savannah Road across from the Zwaanendael Museum. The Society also owns the Ryves Holt House, the oldest house in continuous use still standing in the State of Delaware and now designated to become part of the new First State National Historical Park, which serves as the Society's Visitor Center and Museum Gift Store.

LHS features a number of tours including the Historic Trolley, Maritime Trolley, Life in Lewes, Maritime, Eco-History, Haunted Lewes, and Kayak tours as well as History Happy Hours during summer months and Lewes Lunch and Learn Speaker Series during the cooler months. The Society has in the past sponsored the British Car Show in May, Family Boat Build weekend, and the Mid-Atlantic Sea Glass and Coastal Arts Festival in June, craft fairs in July and October, an antiques show in August, and the Christmas House Tour in December.

Delaware Certified Local Government Status: The Federal government provides financial and technical assistance through the Certified Local Government (CLG) program. The Delaware State Historic Preservation Office, in partnership with the National Park Service, administers Delaware's CLG Program. CLG grants are awarded on a 60:40 matching basis – the grant may constitute up to 60 percent of the project cost, while the applicant provides the remaining 40 percent through cash and/or donated services and materials. Lewes is considered a Certified Local Government and the HPC receives CLG grant money annually.

Preserve America: In 2008, the City applied to become a Preserve America city through the National Park Service. Both Milton and Lewes were accepted that year. This designation allowed the City to apply for grant money, the result of which was the Maritime History Trail. In that same year, an ad hoc committee sought funds for and designed what became the "Welcome to Lewes" signs on all the gateways into Lewes.

Scenic Byway: The State has designated the six major gateway roads in Lewes as a State Scenic Byway, the "Lewes Scenic and Historic Byway, Gateway to a Nation." The state, county, and city have adopted a Corridor Management Plan taking the Byway into account.

➤ **HISTORIC AND CULTURAL RESOURCES PLAN**

Policy for Protection of Historic and Cultural Resources: Lewes values its historic resources and will continue to protect them through enforcement of relevant codes and supporting guidelines.

Recommendations: This Plan recommends that Mayor and Council consider reviewing the function and role of all City board and commissions.

B. OPEN SPACE AND RECREATION

The City owns a number of parks and open space areas throughout the City, also shown on Map 4. Fifty-four percent of the City is open space. The Lewes Parks and Recreation Commission, a group of volunteers appointed by Mayor and Council, work together to protect the natural and cultural resources

in those parks while providing sustainable recreation access to the community. City staff, Lewes in Bloom members, local volunteers, and private contractors supplement the work of the Parks and Recreation Commission to maintain the Lewes parks. Volunteers in Lewes play a major role in the beautification of the parks, investing thousands of hours each year.

City Parks:

- 1812 Memorial Park
- Alfred A. Stango Park (2 acres)
- George H. P. Smith Park at Blockhouse Pond
- Lewes Canalfront Park (4.6 acres)
- Mary Vessels Park
- Otis Smith Park
- Zwaanendael Park (partly owned by State)

Maintained Open Space Areas:

- Canary Creek Open Space (25 acres)
- Great Marsh Park off of New Road (66 acres)
- Black Harry's Spring
- Prickly Pear Natural Area
- Public lands of the City of Lewes

Additional Park and Open Space Lands within the municipal boundaries that are owned by other government entities include:

- Beach Plum Island Nature Preserve and Trail (130 acres, state-owned)
- DeVries Monument (less than one-half acre, state-owned)
- Lewes and Rehoboth Canal (Army Corps of Engineers owns a 100-foot right-of-way)
- Lewes Beach (19 acres, state-owned, Lewes-maintained)
- Lewes Boat Ramp (state-owned and maintained, 128 parking spaces)

The City and the Orton Family own the 3.1-acre Little League Park, which is leased to the Little League, the Lightship Overfalls, and the Lewes Historical Society. The Cape Henlopen School District also owns and maintains recreation lands adjacent to schools within and adjacent to Lewes that are used by members of the public.

Other green spaces in Lewes that are privately owned and maintained include:

- St. Peter's Green
- The Commons at Shipcarpenter Square
- The Lewes Historic Complex
- The retention ponds and common areas at Bay Breeze, Pilottown Village, and Cape Shores.

Two other significant state-owned properties just outside of Lewes include Cape Henlopen State Park, which includes approximately 5,200 acres of beaches, camping, fishing, ball fields, and trails. In addition, the state owns over 2,450 acres of the Great Marsh, which the City administers through a lease to Great Marsh LLC.

Recreational opportunities in and around Lewes include:

- Boating on the many water bodies and waterways of greater Lewes
- Fishing, including local charter boats, head boats and cruises, as well as surf fishing
- Playing Little League baseball and softball for children and youth

- The Cape May-Lewes Ferry
- Walking or biking around the City and the Lewes area
- Driving or hiking the American Discovery Trail, a coast-to-coast driving and hiking trail which begins in Cape Henlopen State Park
- Driving the Coastal Heritage Greenway Auto Tour, with stops in Lewes, Cape Henlopen State Park, and Beach Plum Island Nature Preserve
- A new dog park and multi-purpose trail in Great Marsh Park
- The multi-purpose trail along Freeman Highway and its connections to the Junction and Breakwater Trail and the Gordon's Pond Trail
- Birding around the City's marshes and open areas
- Driving or biking the Lewes Historic Byway
- Other recreational and fitness activities

City Open Space Requirements: The Lewes Subdivision Code, section 170-26(B)(1)(b), requires that open space shall be provided within all major subdivisions totaling a minimum of 10 percent of the gross area of the subdivision. This requirement can be used, as appropriate, to plan new developments in such a way as to align required open space between adjacent developments to maximize open spaces available to residents. It can also be used in conjunction with DelDOT requirements to enhance the safety, function, and beauty of roadway corridors, particularly along gateway roads and byways as lands along these are annexed and proposed for development.

Parks & Recreation Commission: According to the Lewes Subdivision Code, the Parks and Recreation Commission reviews major subdivision proposals and submits a report to the Lewes Planning Commission (Section 170-19(C)). The LPC then considers these recommendations and advises Mayor and Council regarding approval of the proposed development (Sections 170-19(E), 170-20(C)(8)(c)).

Greenways & Trails Committee: This committee continues to work on additional possible trails, including trails at Green Hill Light and off Anglers Road.

The Importance of Open Space: The parks and open lands are heavily used, especially during the tourist season, by large numbers of out-of-town visitors. Additionally, the natural areas have been nationally recognized for their unique and ecologically important resources and character.

Preserving and expanding all open space lands in and around Lewes will be important in order for the City to address current and future flood storage and stormwater infiltration. See Section IV-C, Hazard Mitigation, for a more detailed discussion of flooding issues.

School properties: With relatively few school-age children living in Lewes, the Cape Henlopen School District may at some time move resources to other areas of the District, although the City is not aware of any such plans at present. Many residents and visitors use the fields around the schools in Lewes.

George H. P. Smith Park (Blockhouse Pond): This park is made up of several parcels owned by three separate entities: the Cape Henlopen School District, Beebe Healthcare, and Lewes. The City desires that all three parcels composing this park remain as open space.

➤ **OPEN SPACE AND RECREATION PLAN**

Policy for Open Space and Recreation: Lewes is interested in protecting and considering open space opportunities within current and future municipal boundaries.

Recommendations: This Plan recommends that Mayor and Council consider:

- Pursuing a multi-party agreement to ensure the future cohesion and governance of the lands of George H.P. Smith Park and to settle any outstanding questions of ownership.
- Undertaking a project to encourage business opportunities on the beach side of the City along the Savannah Road corridor, as outlined in the ERM recommendations on Marine Commercial Zoning.
- Seeking ways to increase ecotourism opportunities, continuing support for a water taxi, and working with DNREC to extend canoe, kayak, hiking and bicycle recreational opportunities.
- Proactively using the open space requirements in the subdivision ordinance to align open space between adjacent developments to maximize open spaces.
- Protecting areas currently zoned Open Space in/adjacent to flood prone areas to maintain flood holding capacity.

C. SIGNIFICANT NATURAL FEATURES

As discussed in the 2005 Lewes Comprehensive Plan, Lewes has an abundance of natural resources. Three sites especially worthy of mention are:

- **Beach Plum Island Nature Preserve:** A two-mile undeveloped wash over barrier island between the Delaware Bay and the Broadkill River, the preserve includes 129 acres of cordgrass marsh and dune. Beach Plum Island is a state-protected nature preserve within municipal boundaries and a satellite of Cape Henlopen State Park.
- **Great Marsh:** Over 17,000 acres of fresh and saltwater wetlands including Canary Creek and Old Mill Creek Marshes as well as intertidal mud flats and Atlantic White Cedar swamps; approximately 2,300 acres is protected within the Great Marsh Preserve containing shell mounds and Civilian Conservation Corps ditches, as well as a portion of the Ritter #1 archeological site. Nearby are remains of the Pagan Dike, a man-made fill containing native Indian artifacts. Other parts of the Great Marsh are protected within the Prime Hook National Wildlife Refuge (10,000 acres) as well as private lands protected through conservation easements (600 acres).
- **Cape Henlopen State Park:** With approximately 5,200 acres adjacent to Lewes and owned by the state, the park contains an accreting sand spit, the 80-foot-high Great Dune, migrating sand dunes, eroding shoreline, salt marsh, walking and stable dunes, and ancient recurved spit tops. The Gordon's Pond Wildlife Area features a unique saltwater impoundment. The park also includes the Wolf Neck Site, an immense shell midden near the Lewes and Rehoboth Canal, and the marshes of Wolf Glade and Holland Glade.

Together, these sites contain rare plant and animal species and serve a major ecological role as part of the East Coast Flyway – the primary migration route for American birds on the eastern seaboard as well as important nesting sites. Additionally, they provide protection to Lewes by storing floodwaters during major storm events.

The Lewes and Rehoboth Canal is an important environmental and economic resource that roughly bisects Lewes and has a long history as a working waterfront. It was originally a creek that was straightened. From its Delaware Bay origin at Roosevelt Inlet, the canal runs through Lewes for about two-and-one-half miles, then continues about five miles to the southeast, where it joins Rehoboth Bay. Land along the canal is among the most highly prized real estate in the city.

Wetlands: Lewes borders vast tracts of estuarine wetlands to the west (the Great Marsh) and east (Cape Henlopen). Estuarine wetlands are tidal wetlands that are semi-enclosed by land but have sporadic

access to the open ocean. These wetlands also extend into the City's boundaries (Map 5: Environmental Features). Within Lewes, there are undeveloped wetlands northeast of the canal between Savannah Road and Freeman Highway adjacent to the Waste Water Treatment Facility. Additionally, there are some estuarine wetlands on Lewes Beach extending approximately 200-800 feet northeast of the canal for the majority of the run of the canal between Route 9 and Roosevelt Inlet. The City is dependent on the health of its wetlands for flood mitigation, drinking water quality and quantity, as well as the local economy.

Water Recharge Areas and Wellhead Protection Areas: Two large Excellent Recharge Areas have been mapped to the southeast and southwest of Lewes. Combined with the Wellhead Protection Area surrounding the City's well field, Lewes is surrounded by a band of County-controlled land that is highly sensitive to pollution and with good infiltration potential. What happens on this land has the potential to directly affect the City's drinking water quantity and quality. The ability for water to freely recharge into underground aquifers is critically important for both drinking water and the health of the natural ecosystems surrounding Lewes. Water recharge is impacted by the characteristics of the soil and underlying geology, as well as by development and sea-level rise.

A review of Sussex County's regulations concerning Water Recharge areas finds the Sussex County regulations to be far less protective than Lewes's rules with Sussex allowing 35 percent to 60 percent impervious cover allowed and no use restrictions compared to Lewes's 20 percent to 50 percent impervious cover allowed with some restrictions on storage tanks and septic systems. With respect to wellheads, the Sussex regulations only protect to 100 feet maximum, compared to Lewes' 150 feet, with impervious cover limited to 20 to 50 percent between 150 feet and 300 feet.

In addition to being vulnerable to pollution from human activities, groundwater in Lewes is also vulnerable to salt water intrusion due to the proximity of the ocean. There is a natural balance between the freshwater of the underground aquifers and the saltwater from the ocean. As freshwater consumption increases, the pressure (or head) of the fresh water decreases, allowing an increase in salinization. At the same time, sea-level rise may also increase the pressure for saltwater to intrude into the aquifers making the water unfit for drinking and agricultural irrigation.

FEMA Flood Zones: In 1977, the City began participating in the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP). The City conducted a detailed flood insurance study, which is periodically updated, to analyze possible flood elevations for storms of varying intensities. A large portion of Lewes lies within the FEMA Special Flood Hazard Area designations (AE and VE), which are within the 100-year floodplain. These zones are shown on Map 6 and include the updates that went into effect in March 2015.

The 100-year floodplain is the flood elevation that has a 1-percent chance of being equaled or exceeded during any given year. A 100-year flood could, however, occur more than once in 100 years. Statistics indicate that a structure in a special flood hazard area within the 100-year floodplain has a 26 percent chance of suffering some flood damage during the term of a 30-year mortgage.

- *VE11 The Erosion/Wave Zone:* Structures on the seaward side of Bay Avenue are located in the Erosion/Wave Zone. This zone extends eastward to include buildings in the Pilot Point Townhomes. Most of the structures located in this zone are residential.
- *AE8 and AE9 Canal Flooding Zone:* During northeasters and tropical storms, elevated water levels in the Atlantic Ocean cause waters in the Delaware Bay and the Rehoboth Bay to rise. This, in turn, raises the water level in the Lewes and Rehoboth Canal, which floods much of the low-lying north side of Lewes. Houses in the Canal Flooding

Zone include homes south of Bay Avenue from Roosevelt Inlet to Route 9. Two high-risk areas in this zone include Cedar Street from Iowa Avenue to Illinois Avenue, and the Market Street vicinity. Most of the structures in the Canal Flooding Zone are residential. However, some commercial businesses and the City's wastewater treatment plant are also located in this flood zone.

The Floodplain Map also shows the 500-year floodplain, which has a 0.2 percent chance of occurring in any given year. With changes in the climate affecting the severity of weather events and sea-level rise, both the 100-year and the 500-year storms may begin to occur more frequently, causing more flooding.

Neither FEMA nor the State nor Lewes prohibits development within the FEMA flood zone areas. To participate in the NFIP, however, Lewes updated its codes to regulate development in the floodplains in accordance with the NFIP criteria. The City's Subdivision and Zoning Codes require that for properties within the flood zones:

- All new construction and buildings undergoing substantial improvements must be elevated so they are protected from damage by a 100-year flood.
- New floodplain development may not aggravate existing flood problems or increase damage to other properties.
- Structures in the floodplain must meet certain requirements, such as minimum freeboard requirements as defined in the Flood Plain ordinance.

The 2014 Flood Insurance Rate Map (FIRM) data show 736 structures still located within the 100-year floodplain and another 168 in the 500-year floodplain in Lewes. The majority of these structures are situated along the beach, inlet, and canal. Many of these structures were constructed using FIRM and FEMA flood-loss-prevention guidelines and are therefore less likely to experience flooding problems. It was also estimated in the 2011 *Hazard Mitigation and Climate Adaptation Plan* that 200 to 250 inland structures in Lewes were located within the 500-year floodplain and are not likely to have been built to FIRM and FEMA standards.

Coastal Building Line: DNREC regulations for dune protection, periodically updated, include a building line along the Delaware Coast and a Beach Area, shown on DNREC's Building Line Maps. No new construction, modification, or expansion of existing structures is permitted seaward of the Building Line or in the Beach Area without prior approval from the Division of Soil and Water Conservation. Any person applying for a construction permit in these areas must meet certain criteria as set forth in Part 3, Prohibited Activities, of the Regulations Governing Beach Protection and the Use of Beaches. However, the entire affected area is located within the FEMA and Lewes Flood Zones, and the DNREC regulations appear to be similar to the NFIP regulations, which Lewes has already adopted. As a result, any activities in this area are already regulated by the City and subject to required permitting by the state.

Coastal Zone Act: In the 1970s, the Delaware General Assembly passed the Coastal Zone Act (7 Del. Code C. 70). Implementing regulations were eventually adopted in the 1990s. This Act establishes an area of land along the Delaware River and Bay coastline within which new or expanded heavy-industrial uses or offshore activities are prohibited. The City, as well as most of the surrounding unincorporated area, is entirely located within this protected zone. In addition, state permits are required from DNREC for any new light-industrial or manufacturing activity proposed within this area. The permit process includes completion of an environmental impact statement, and any negative impacts must be addressed with an offset proposal approved by the department. The only current industry in Lewes affected by this regulation is the SPI Pharma plant. The City's wastewater treatment plant is exempt from the Coastal Zone regulations according to Title 7-5.20, which exempts Public Sewage Treatment Plants.

Total Maximum Daily Loads (TMDL): Lewes is situated within two watersheds, the Inland Bays watershed and the Broadkill River watershed. In 1998, the Delaware Department of Natural Resources and Environmental Control (DNREC) established Total Maximum Daily Loads (TMDLs), or pollution control limits, to reduce the total maximum allowable pollutants for the Inland Bays watershed. The northern part of the watershed, including and surrounding Lewes, has been determined to be in a low reduction area, meaning that targets have been set to reduce non-point source pollutants by 40 percent for nitrogen and by 40 percent for phosphorus. The Broadkill River watershed was also determined to be impaired for nitrogen, phosphorus and bacteria. Pollution control strategies have been developed by DNREC for both watersheds. BPW and Lewes have been working with DNREC to address issues, especially related to the sewer plant. Additional discussion can be found in the section related to city services and the wastewater treatment plant.

Climate Change and Hazard Mitigation: During a public hearing for the 2005 Comprehensive Plan, a resident of Lewes asked what was being done to address climate change. At that time, little data was available regarding the effects of climate change or plans to address it. Since then, Delaware, Sussex County, and Lewes have all been the subject of study regarding the effects of climate change.

In June 2011, The City of Lewes Hazard Mitigation and Climate Adaptation Action Plan was presented to the City. It was prepared by the Delaware Sea Grant College Program, ICLEI-Local Governments for Sustainability, the University of Delaware Sustainable Coastal Communities Program, the City of Lewes Mitigation Planning Team Pilot Project Subcommittee, and the City of Lewes Pilot Project Workshop Participants. This document provides an overview of natural hazards and regional climate change impacts for Lewes:

"Natural hazards identified as potential threats for the City of Lewes include, in order of significance to the City, coastal storms, flooding, severe thunderstorms, wind, winter storms, drought, extreme heat, wildfire, erosion, tornadoes and tsunamis." pg. 11

The plan's focus is on flooding as the hazard to which Lewes is most vulnerable as a result of these events, and goes on to say that:

"Flooding in Lewes can be coastal or inland in nature. Coastal flooding is caused by high tides and storm surge from several different storm events – coastal storms, thunderstorms and winter storms. Inland flooding is related to excessive precipitation, run-off and infiltration factors that are affected by general topographic drainage features and elevation of infrastructure relative to the floodplain throughout Lewes." pp. 15-16

The plan then delineates the effects of anticipated sea level rise:

"First, sea level rise will change flood patterns in the City of Lewes – causing current design flood events to occur more frequently. Additionally sea level rise will cause coastal flooding to reach farther landward, thus covering greater areas of land in the City of Lewes. These flood pattern changes can be applied to the many different hazardous events – coastal storms, severe thunderstorms, winter storms and tsunamis – that can cause flooding. Sea level rise will also cause certain dry areas in Lewes to become inundated, meaning that they will become permanently wet." pg. 35

"...the 100-year storm of today could become the 10-year or even 5-year storm event." pg. 45

To summarize, the key threats facing Lewes are coastal flooding and inland flooding as a result of coastal storms, sea-level rise and severe thunderstorms. Not only is flooding expected to occur more frequently, but its severity and scope are also expected to increase. Some additional effects include:

"...erosion, which will also be greater as sea levels rise. This effect applies to both chronic erosion and storm-induced erosion. Sea level rise is known to cause saltwater intrusion into coastal aquifers. This impact could exacerbate future drought threats in Lewes. Finally in addition to the effects that sea level rise will have on natural hazards, it was noted...that sea level rise will alter local habitats and natural systems."
pg. 35

The report also assesses vulnerabilities in Lewes and recommends some strategies:

"...two key vulnerabilities were identified. The first is Lewes' water system and the combined threats of saltwater intrusion into the aquifer and the destruction of water conveyance systems that it faces from sea level rise. The second vulnerability is the destructive impacts on homes and City infrastructure from increased flooding." pg. 37

The report also identifies 34 critical facilities, of which nine are located within a flood prone area. Several of Lewes's main roads (including evacuation routes) lie within the floodplain. As a result, during a major flood event, access to many residences and critical facilities would be minimized or eliminated. Of special concern is the City's wastewater treatment plant, located in the floodplain between the Delaware Bay and the Lewes and Rehoboth Canal off of Savannah Road. According to the 1999 Greenhorne and O'Mara Flood Mitigation Plan and quoted in the 2011 *Hazard Mitigation and Climate Change Adaptation Action Plan*:

"Potential damage to this facility poses a serious risk to the community. Access to this structure would likely be cut-off during a 100-year event. Damage to the facility could cause a break in service, which would affect all residents and shelters as well as emergency operations [services] at the Beebe Medical Center. Furthermore, flood damage could result in a failure at the plant that might lead to an overflow of the plants' contents, resulting in a serious health risk to the community." pg. 41

In addition, a release of untreated sewage into nearby waters "could not only harm the local ecosystem, but could also contaminate adjacent waterways and flooded properties." pg. 44. In fact, during Hurricane Sandy in 2012 the Howard Seymour Wastewater Treatment Plant did overflow and cause the release of a relatively small amount of untreated sewage into the surrounding wetlands and homes. Thereafter the BPW did additional "smoke tests" and took other steps to reduce intrusion into its stormwater system. There was no overflow during "Storm Jonas," the nor'easter in January 2016, despite its extreme high-tide.

The Hazard Mitigation Plan recommends that Lewes and BPW begin implementing six actions. The Mitigation Planning Team, as part of its current mitigation strategy, had already identified many of these actions. The six recommended actions:

1. Incorporate climate change concerns into the comprehensive plan and into future reviews of the building and zoning codes.
2. Improve outreach and education particularly focused on successful behavior changes related to home building and retrofits.
3. Ensure that aquifer information is integrated into all planning efforts.
4. Use elevation data to determine road levels and evacuation risk.
5. Evaluate the City and the Board of Public Works (BPW) infrastructure's flood vulnerability from direct flood impacts, as well as from indirect flood impacts to access routes.
6. Improve the City's level of participation in the community rating system (CRS).

The Quinn Report: In 2013, Lewes contracted with RC Quinn Consulting, Inc., to review its codes and regulations pertaining to flood mitigation with the objectives of improving the City's floodplain ordinance and potentially its rating in the Community Rating System (CRS) in the National Flood Insurance Program (NFIP). The Quinn report, *Lewes, DE: Evaluation of Existing Rules, Codes, Documents, and Plans*, includes specific recommendations to reduce future flood risk and improve the City's CRS rating.

Some of the recommendations include making revisions to the City Code that would prohibit fill, buildings, and outside storage of materials in the 100-year floodplain, adopting the 2012 International Building Code (IBC), and adopting the new Flood Insurance Rate Maps (FIRM) when released. The City has already acted on the first two recommendations. Now that the FIRM maps have become final on March 16, 2015 (see <http://www.riskmap3.com/node/4467>), the City may be expected to address that recommendation also. Other recommendations include:

- Conduct public outreach projects
- Promote flood insurance to residents
- Train staff
- Develop a 10-step Floodplain Management Plan
- Inspect and remove debris from public and private drainage systems
- Disseminate emergency warnings to residents and others

Many of these recommendations must be implemented by the BPW.

Climate Framework for Delaware: On September 12, 2013, Delaware Governor Jack Markell signed Executive Order 41: Preparing Delaware for Emerging Climate Impacts and Seizing Economic Opportunities from Reducing Emissions. Executive Order 41 directed state agencies to address both the causes and consequences of climate change by developing recommendations actionable by those agencies to reduce greenhouse gas (GHG) emissions that contribute to climate change, increase resilience to climate impacts, and avoid and minimize flood risks due to sea level rise. This led to the creation of the document *Climate Framework for Delaware*.

The document includes many recommendations for state agency implementation as part of this initiative. Some will be implemented by the individual state agencies. Others will require additional discussion and outreach with affected stakeholders and other interested parties. In addition, a mitigation target of 30 percent reduction in greenhouse gases from a 2008 baseline by 2030 was adopted for the state of Delaware, for which DNREC will develop an implementation plan. A few of the recommendations most relevant to Lewes include:

- The Department of Health and Social Services-Social Service Divisions should: Implement a statewide Smart-911 system and identify sites to be used as designated cooling and heating centers during extreme weather events.
- The Department of Natural Resources and Environmental Control should: Design and implement restoration activities to slow the current loss of coastal beach, marsh, and forest habitats and prepare to restore riparian buffers on wildlife areas, fishing and boating access areas, and private lands through voluntary incentive programs.
- The Department of Natural Resources and Environmental Control should: Consider relocating Fish and Wildlife facilities, including offices, education centers, boat ramps and equipment storage areas, and redesign or relocate facility access roads already at risk from flooding and storm surge.
- The Department of Natural Resources and Environmental Control should: Provide technical guidance and funding for appropriate climate adaptation measures, with priority to projects in

areas that have taken steps to adopt best practices and meaningful standards for drainage and floodplain management.

- The Department of Natural Resources and Environmental Control should: Assist local governments in developing strategies to protect wastewater treatment facilities from flooding and assist suppliers of drinking water from groundwater sources to develop strategies for the protection of wells from flooding and salt water.
- The Department of Natural Resources and Environmental Control should: Develop a plan to provide alternative evacuation routes, access roads and trails, and to ensure communication is available for emergency response.
- The Department of State should: Evaluate the specific costs and benefits of creating a category of historic preservation tax credits to offset the costs of adaptation and protection measures.
- The Department of Transportation (DelDOT) should: Conduct a comprehensive analysis of the state's roadways, bridges, and other infrastructure to identify critical infrastructure that may be vulnerable to climate impacts, and identify and assess existing chronic flooding and erosion problems that affect transportation infrastructure. DelDOT should also build transportation enhancements (pathways, trails, roadscapes, etc.) to accommodate impacts of climate change.
- The Delaware Economic Development Office (DEDO) should: Evaluate the possibility of establishing a joint marketing effort to instill a deeper awareness of the available public transportation to Delaware's attractions. DEDO should also focus a Delaware Tourism Office outreach effort on realtors and rental agents at the Delaware beaches to create awareness of the benefits of changing the current standard of what constitutes a "weekly rental" of beach properties.
- The Office of State Planning Coordination should: Provide technical support to local government to address climate change impacts in their Comprehensive Plans and local ordinances. Provide technical assistance to support integration of climate impacts and to reduce greenhouse gas emissions through adaptation and mitigation at the local level.

This document presents an important first step towards adapting to climate change in Delaware, and the initiatives it recommends are ambitious in scope. However, with money in short supply and little legislative interest in raising taxes, implementation may be slow and frustrating. Lewes will monitor the state's progress, participate in outreach opportunities, and advocate for resources and projects as appropriate. When appropriate opportunities arise to take advantage of state initiatives in support of enhancing Lewes's resiliency, the City will strongly consider participating.

Saltwater intrusion: The aquifer from which the BPW draws Lewes's drinking water is close to the ocean and therefore, potentially susceptible to saltwater intrusion. The BPW previously moved its wells in part because the profusion of wells drawing from the aquifer in the former location did cause some saltwater intrusion into the BPW wells. The more water pumped, the sooner intrusion could occur. Much of the aquifer is located in Sussex County; the City should consider annexing the well-fields to enhance their protection. Because the well-fields are not contiguous to the City, the City also would need to annex Cape Henlopen School District Land to create contiguity with the well-fields.

Possible strategies to address flooding and sea-level rise: Lewes cannot prevent flooding or reverse sea-level rise. Listed below are a number of possible approaches to address some of the effects of flooding and sea-level rise. Neither any one nor all would stem the flooding problems that periodically occur in flood zone areas. Furthermore, most of these ideas carry significant, indeed prohibitive, costs and many are within the purview of the state, the BPW, private land owners, etc. This discussion therefore is theoretical, includes actions that the state and private land owners but not the City might undertake and does not constitute an action plan or even a listing of what the City might be able to undertake even in the unlikely event that sufficient resources become available.

Overarching strategies:

- Educate the public on identifying areas prone to flooding, evacuation procedures, property maintenance, and construction best practices.
- Continue to study, monitor, and collect data.
- Address encroachments into right of ways, wetland buffers, the beach, or flood prone areas.

Coastal and inland flooding:

- Raise minimum floor elevations to a reasonable projected future flood elevation (assuming that number is higher than the existing three feet of required freeboard for construction in a FEMA flood zone).
- Protect and expand existing flood storage lands.
- Increase the flood holding capacity of marshes.
- Maintain stormwater management facilities and flood structures.
- Raise major roads and evacuation routes above the flood plain.

Coastal flooding and salt water intrusion:

- Engineering and technology techniques such as flood sensors.
- Limits on shoreline hardening.
- With other government agencies and NGOs, facilitate the moving of historic structures to less flood-prone areas.

Inland flooding:

- Green BMPs, residential rain gardens, and roof gardens.

New development and redevelopment: There is very limited opportunity for new development or redevelopment in Lewes in the time frame covered by this plan.

➤ ENVIRONMENTAL PROTECTION PLAN

Policy for protection of environmentally sensitive areas: Lewes is very concerned about the health of the surrounding environmentally sensitive areas. Lewes strongly supports federal, state, and county efforts to protect these lands through acquisition, easements, regulations, and improved development rules. Lewes is working within its limited resources and authorities to consider, adopt, and implement, as feasible, plans, processes, and projects to mitigate the effects of flooding.

Recommendations: This Plan recommends that Mayor and Council consider:

- Annexing the City of Lewes well fields (which would necessarily require annexation of Cape Henlopen School District land because the well fields are not contiguous to the Lewes municipal boundary).
- Working with state and local authorities to raise road and bridge levels, including the Canary Creek Bridge and Savannah Road on the beach side, to reduce road flooding and improve evacuation capacity.
- Working with state and county authorities to protect the water quality of the Canary Creek watershed.
- Continuing to work on its long-term strategy on the effects of climate change based on the Quinn Report and the Hazard Mitigation Plan.
- Conducting public education related to flood-prone areas, evacuation procedures, property maintenance, and construction best practices.

D. TRANSPORTATION NETWORK

The major transportation infrastructure in Lewes consists of roadways, sidewalks, public transit, freight railroad, and ferry service. Thanks to Lewes's dense grid of streets that are either sidewalk-lined or broad and lightly travelled, walking is very easy.

Table 7: Commute to Work, 2009-2013 5-Year Estimates
[Table 7 to be eliminated unless required by state]

	Delaware	Sussex County	Lewes
Car, truck, van –drove alone	80.6%	81.8%	75%
Car, truck van –carpooled	9.4%	9.2%	6.5%
Public transportation (not taxi)	3.2%	1.0%	0%
Walked	2.3%	2.0%	5.7%
Other means	1.2%	2.0%	1.1%
Worked at home	3.8%	4.0%	11.8%
Mean travel time to work	24.8 minutes	24.2 minutes	19.6 minutes

Source: US Census Bureau, American Community Survey

Streets: The major thoroughfares that provide access to and from Lewes are Kings/Freeman Highway (Route 9), Savannah Road (Business Route 9), and New Road (Route 266). These two-lane roads all run in a southwest to northeast direction and connect Lewes to Route 1 (Map 7: Transportation). Cape Henlopen Drive is another major two-lane road within Lewes that runs in an east-west direction and provides access to the Cape May-Lewes Ferry Port and Cape Henlopen State Park. With the increased development on the northern edge of the city, Fourth Street is emerging as a major crosstown thoroughfare. It provides a route from New Road into downtown Lewes and is used by employees of Beebe Healthcare, among others. It also provides an important pedestrian and bicycle connection for residents of the new parts of the City to reach the historic center of town. As development continues within the City and on County lands just outside of Lewes, traffic on this street may become a concern.

All of these roads (except for Freeman Highway and part of Cape Henlopen Drive, discussed below) are maintained by the state and are, therefore, the responsibility of the Delaware Department of Transportation (DelDOT). The state also maintains the two-lane Front Street/Pilottown Road, Cedar Street, and portions of Gills Neck Road. Park Road, through Great Marsh Park, has been upgraded to better connect New Road to Pilottown Road as a public thoroughfare and access to the public boat launch, and will be maintained partly by DelDOT and partly by the City.

All of Freeman Highway from Kings Highway, and the segment of Cape Henlopen Drive from Freeman Highway to the Ferry Terminal, are owned and maintained by the Delaware River and Bay Authority (DRBA). This control was accorded by agreements signed in 1964 between DRBA and DelDOT, and DRBA and the City of Lewes. DRBA owns and operates the nearby Cape May-Lewes Ferry and Terminal as well as the Delaware Memorial Bridge and several airports in Delaware and New Jersey. According to a 1967 deed record, DRBA is also responsible for the cost of any improvement to the railroad crossing within this stretch of road.

The City's Streets Department is responsible for 20.06 miles of municipal streets (not including streets in Canary Creek, Savannah Place, and Highland Acres that have not yet been accepted by the City). City staff and contractors conduct street sweeping, snow plowing, and street repairs on City streets.

Table 8 shows average annual daily traffic (AADT) counts provided by DelDOT, adjusted for summer and winter, on the major roads in and near Lewes. Although the City of Lewes is not a large town, during the summer tourist season the population can swell by 300 to 400 percent, causing some transportation problems in the region and in Lewes.

Table 8: Average Annual Daily Traffic Counts

Road	Adjusted Summer	Adjusted Winter	Actual August 2013
Kings Highway (Route 9)	19,959	16,723	30,000
Savannah Road (Bus. 9)	14,989	7,495	18,000
Old Orchard Road	10,369	8,687	
Theodore Freeman Highway	6,957	3,478	
New Road (Route 266)	4,555	3,816	6,300
Cedar Street	4,466	3,741	
Clay Road	3,296	2,761	
Gills Neck Road	3,281	2,749	1,600
Pilottown Road/Front Street	3,169	2,655	4,600
Cape Henlopen Drive			18,900

Source: DelDOT 2012; Lewes Historic Byway Traffic Management Report

The ERM Traffic Impact Study of 2016 updates these statistics.

On Saturday August 7, 2013, volunteers conducted traffic counts at nine locations for the Lewes Scenic and Historic Byway Corridor Management Plan. The same table shows that actual counts in 2013 were consistently higher than the adjusted estimates calculated by DelDOT in 2012. In addition, the City periodically places a radar-based traffic counter around town. The August 2013 counter data are 223 percent higher than data collected in February 2013 for Savannah Road.

Pedestrians and Bicyclists: For the most part, Lewes has an extensive sidewalk system, although it needs maintenance and improvements in many locations. Lewes has been recognized as a “Bicycle Friendly town,” having received bronze-level recognition by the League of American Bicyclists in 2013, and is working towards silver-level recognition.

As in most municipalities, adjacent property owners are responsible for maintenance and snow removal from sidewalks, according to the Charter of the City of Lewes. When complaints are received, the City inspects sidewalks and notifies owners when sidewalks need repairs and will take appropriate action if necessary. The Lewes Subdivision Code requires all new developments to provide sidewalks on both sides of the street.

The Lewes Historic Byway Transportation Management Plan counted bicyclists and pedestrians at nine intersections. Not surprisingly, both bicycle and pedestrian activity were heaviest along Savannah Road and Cape Henlopen Drive. Pedestrian and cyclist activity drops off farther away from Lewes Beach and Downtown. At present, the New Road corridor has no accommodations for pedestrians and bicycles. Bicycle traffic is significant in the summer along Cape Henlopen Drive due to the presence of the Cape Henlopen State Park and the Cape May-Lewes Ferry, which has an agreement to provide bicycle rentals at the terminal.

Walkability Survey: In June 2012, a grant from EPA supported a walkability audit along Pilottown Road, New Road and Fourth Street to observe and record pedestrian conditions. A number of sidewalk problems were identified including:

- Obstructions: overgrown landscaping, poorly located signage and street furniture
- Poor surface conditions: crumbling concrete, grass and weeds, uneven or missing pavers
- Excessive curb cuts: with difficult slope and cross-slope changes
- The lack of permanent bicycle racks in many areas
- American with Disabilities (ADA) conforming curb ramps and crosswalks are needed throughout town
- Improved street lighting for better visibility of and by pedestrians

It was determined that these problems are common throughout town. The study stated that property owners have a poor awareness of the relevant existing codes relating to sidewalks and landscaping. In addition, gaps were identified in the sidewalk system, as well as a need for better pedestrian connections to trails and the beach. The report identified specific locations of concern for pedestrians:

- Savannah Road and Front Street/Gills Neck Road intersection
- Pilottown Road corridor
- New Road corridor

Some of these issues may be corrected through enforcement and public education. Others may require adjustment to the codes in addition to money for improvements. The lack of ADA-compliant curb-cuts and crosswalks along Savannah Road has been greatly alleviated by work done by DelDOT in the summer and fall of 2015.

Lewes Comprehensive Pedestrian Plan: In 1998, the LPC adopted the Lewes Bicycle and Pedestrian Advisory Committee Comprehensive Plan. The plan was updated in 2005 and 2010. The purpose of the plan was "to create a community that encourages people to do more walking and bicycling and to provide a continuous, safe bicycle and pedestrian network that ensures a contemporary pedestrian-friendly environment for visitors and residents alike." The plan specifies policies for pedestrian crosswalk design and signage; sidewalk design, street furniture and curb ramps; planning coordination within the City; and education and enforcement regarding pedestrian and bicycle safety. There is a strong emphasis on preparing for and ensuring a safe summer tourist season.

Trails:

Rail to Trail: The recently completed Junction and Breakwater trail follows a four-mile section of the former Penn Central railroad connecting Lewes and Rehoboth Beach and providing off-road access to the outlets. This scenic trail is suitable for hikers, bikers, and strollers.

Rail with Trail: The State will construct the first section of the Lewes to Georgetown Rail with Trail beginning in March 2016. This 1.5 mile section will begin at Gills Neck Road and extend to Savannah Road at the edge of the City limits.

Other trails: There are a number of trails within Cape Henlopen State Park, including the Gordon's Pond trail between Lewes and Rehoboth.

Lewes Scenic and Historic Byway: The City of Lewes, Delaware Greenways, and DelDOT have joined together to designate the Lewes Scenic and Historic Byway. The Byway designation by the State provides official recognition of the special nature of a roadway corridor. It heightens awareness of the importance of that corridor and allows the City to work more closely with DelDOT as transportation improvements and development occur on a Byway corridor.

Lewes's multi-modal Historic Byways route consists of six road segments composed of the "Gateway Roads" of Lewes. The "Gateways from the Land" are Kings Highway, Savannah Road and New Road. They are of historical significance, serving as gateways into historic Lewes from SR 1 for most travelers. The "Gateways from the Sea" are Pilottown Road, Gills Neck Road, and Cape Henlopen Drive, which highlight the scenic views and natural beauty along the Lewes and Rehoboth Canal and the beach, extending to the coast at points farthest east and west along the Lewes coastline. The state has designated all six Gateways as State Scenic Byways. A map of Byway-related projects is included in the Corridor Management Plan, attached as Appendix C.

DelDOT will consult with the City on road improvements on these corridors, through the City's Scenic & Historic Byway Committee, and will work to use context-sensitive design standards and landscaping to minimize impacts on their scenic and historic nature. The Byway Committee will provide comments to DelDOT on behalf of the City on planned transportation improvements.

Scenic and Historic Byway designation carries with it one important regulatory restriction affecting signage: state-designated byways may not have any new off-site outdoor advertising or billboards. Existing advertising signs and billboards are grandfathered.

The Byway Corridor Management Plan has been approved by both DelDOT and the City of Lewes with ongoing discussion with Sussex County. The Plan includes recommendations regarding increased traffic along the Byway without sacrificing their scenic and historic character using context sensitive design standards, improving safety and mobility, completing a greenway and trail network, and enhancing tourism approaches based on Lewes' unique historic, scenic, and ecological resources. A map of Byway related projects is included in Appendix C.

Transit: DART First State, a division of DelDOT, currently has three all-year transit routes in Sussex County. The 212 route links Laurel and Seaford to Georgetown with six daily trips. The 303 route connects Dover to Georgetown with twelve daily trips. Of most interest to Lewes is the 206 route, linking Rehoboth Beach and Lewes to Georgetown via SR 9 Savannah Road and SR 1 with 10 daily trips. Transit stops on the 206 route include the Georgetown Service Center, Bayview Medical Center, Covey Creek, Huling Cove, Beebe Healthcare, Market Street at Second Street, as well as the SR 1 outlets and the Rehoboth boardwalk. Ridership on the 206 route has increased steadily, with total FY 2013 weekday ridership of almost 79,000 with another 2,000 summer weekend and holiday riders. With the hub in Georgetown, Lewes is connected all year to Dover, Laurel, Seaford, Milton, Milford, Rehoboth Beach, and Georgetown.

DART First State is also responsible for providing on-call paratransit service by appointment to eligible elderly, handicapped, and kidney-dialysis patients in Sussex County. Information and requirements for eligibility can be found online at www.dartfirststate.com. Additionally, DART First State provides transportation support through the 5310 Van Pool Program to seven Sussex County agencies that offer transportation to elderly and disabled riders. Many of the thirty vehicles are provided through CHEER Senior Centers. With a total Sussex County ridership in 2013 of 116,093, this program is clearly meeting a need.

During the summer season, DART First State adds an additional six Resort Transit routes, and served almost 242,000 riders in FY 2012. The Resort Transit Route 204 operates between the Rehoboth Park-and-Ride Lot and downtown Lewes every two and one-half hours from 6:00 a.m. to 12:00 p.m. Route 205 operates every hour from 10:00 a.m. to 2:00 a.m. In 2013 these two summer routes carried an average of 27,660 passengers daily. These routes travel the length of Savannah Road to Cape Henlopen Drive at the Dairy Queen.

DART First State continues to offer a discounted employee parking program during the summer for both seasonal and all-year employees. Employees are eligible, through their employer, to receive a substantially discounted parking rate during their work hours to park at DART First State's Park-and-Ride Lot located on Shuttle Road off of SR 1, north of Rehoboth Avenue. DART is moving forward on a new park-and-ride lot to be located on SR 1 south of Five Points.

The Cape May-Lewes Ferry operates shuttle service into Lewes, the DART Park-and-Ride lot, and the SR 1 outlets for foot passengers. The shuttles run in a continuous loop from 10:00 am to 6:00 pm on weekends during the shoulder season and daily mid-June through mid-September.

Lewes has explored the possibility of beginning a shuttle route during the summer season. After consideration, it was determined not to be economically feasible.

Railroad: The Delaware Coastline Railroad operates on a spur passing through Lewes, running parallel to Freeman Highway. The tracks are owned by the State of Delaware and managed by the Delaware Transit Corporation (a Division of DeIDOT). The tracks end at the SPI Pharma Chemical Plant. About one train per week carries in up to three cars of ingredients to the plant, and hauls out empty cars. The finished product is hauled out by truck. The line, which ends in Lewes, is 23 miles long, passing through Georgetown and connecting to the Norfolk Southern line. DeIDOT is creating a trail in this corridor in the Lewes area.

Cape May-Lewes Ferry: The Cape May-Lewes Ferry, operated by the Delaware River and Bay Authority, connects Lewes with Cape May, New Jersey. This journey across the Delaware Bay takes about 85 minutes. The ferry has been in continuous operation since 1964. Each ferry is equipped to handle approximately 100 vehicles and 800 passengers. According to the current schedule, the ferry makes 13 trips daily between Lewes and Cape May during the summer season (end of June through mid-September) and six to seven trips per day during the remainder of the year.

Annual ferry ridership represents a significant transportation impact. About 256,326 vehicles passed through the ferry's terminals in 2013 (down from 380,000 in 2002), with approximately 743,150 passengers (down from 1.3 million in 2002). Ridership has dropped sharply since the 2007/2008 recession; however, ridership was up in 2013 for the first time in many years. This traffic is highly seasonal, with the months of July and August accounting for about 34.1 percent of the vehicles and 41.5 percent of the total passengers. The four shoulder months of May, June, September, and October account for about 37.5 percent of total annual passengers, while the six off-season months account for the remaining 21 percent of the annual total. Assuming that these six off-season months represent the core users of the ferry, the rest can be presumed to be heavily tourist-oriented. This presents a possible economic development opportunity for Lewes and the region.

Lewes and Rehoboth Canal: The Lewes and Rehoboth Canal links the Delaware Bay (at Roosevelt Inlet) with Rehoboth Bay. It has been an important part of Lewes's cultural and economic life. The U.S. Army Corps of Engineers built and at one time maintained the canal. At present, the Corps only maintains Roosevelt Inlet, because of the oil recovery vessel docked at the University of Delaware Lewes campus. The canal is not listed as part of the inland waterway, but remains an important waterway for fishing, recreational boating, and scenic views, all of which are important parts of Lewes's tourism industry.

On the north side is a commercial marina, as well as head boat and charter boat services serving the tourism industry. The south side is lined with public and private boat slips. The Canalfront Park Marina

has 19 slips and the Otis B. Smith City Dock has another four slips available for use in addition to both seasonal and transient boat rentals.

The public boat launch was relocated west on Pilottown Road to state-owned property along the Broadkill River in 2007. The boat launch, adjacent to a Department of Natural Resources and Environmental Control (DNREC) facility, has 128 parking spaces available, including large vehicle parking. The new launch can now be easily accessed from SR 1 via New Road and the newly built Park Road, through an area of open space adjacent to the University campus. Boaters no longer need to tow their boats through the center of Lewes.

Water taxi service is available between the Lewes Canalfront and Dewey Beach during the summer months. The City continues to work with the City of Rehoboth Beach to find ways to increase use of the canal as an active part of the regional transportation network.

Transportation Strategies: Lewes has a problem with traffic congestion and lack of parking during the summer season. These two problems are integrally related as people in cars arrive in the crowded center of town and Lewes Beach areas, cannot find a parking spot, then circle around in the hopes that a space will become available. This problem can affect economic development opportunities. Obvious solutions such as widening the roads or creating additional surface parking require demolishing the very structures (and beach) that people come here to enjoy, are not an option for Lewes. The answer is to focus on moving people rather than cars. Get people out of their cars by placing a greater emphasis on pedestrian, bicycle, and transit networks.

What follows is a discussion of a variety of ideas that have arisen as the LPC, and others, have worked through these issues. This is intended to be an informative section in which a wide variety of options are considered. The formal "Transportation Plan Recommendations" that result from these discussions are contained at the end of this section.

Pedestrian Network: Lewes has a robust pedestrian network throughout the older areas of town, although sidewalk conditions vary greatly. The City needs to focus on several areas related to the pedestrian network. The existing network is being properly maintained, primarily through proactive enforcement of the existing regulations rather than waiting for complaints. Upgrades to the system must be made as needed; fill in gaps in the network and ensure all existing facilities have ADA-compliant curb ramps, as well as crosswalks. Expand the system into the newer areas of town, making connections where feasible.

Bicycle and Trail Network: Lewes already has some family-friendly bicycle and trail resources, and should continue to work with DeIDOT, DNREC, DRBA, and other groups to connect them into a safe and coherent network. Areas of particular concern for bicyclists include New Road, Cedar Street, Gill's Neck Road, and Second Street.

Transit and Other People Movers: Lewes should work with DeIDOT and DART to increase the visibility of existing bus stops and locate and provide bus shelters that are sensitive to Lewes's historic context. Use signage and technology to let potential riders know schedule information and when the next bus is expected.

Local Street Network: Similar to the pedestrian network, maintaining and appropriately expanding the local street grid is important. Lewes's local street network contributes greatly to the character of the town and residents are not interested in widening or modernizing these streets. City streets should be focused on maintenance of paving, sidewalks, curbs and gutters, removing hazards, installing ADA-compliant curb ramps, and completing gaps in the sidewalk system.

Parking: More parking is a universal need. The desire is for it to be inexpensive, easy to find, and next to the door. Businesses want parking for their employees and customers, residents want to be able to park at their homes and around town, and visitors want it to be readily available everywhere they go. When people cannot find parking, they may go elsewhere or circle around in their vehicles, contributing to traffic congestion. Lewes may wish to develop regulations to govern the design and location of parking lots.

➤ ***INFRASTRUCTURE AND TRANSPORTATION PLAN:***

Position on Infrastructure Issues: Lewes continues to work with the Board of Public Works to provide adequate infrastructure to residents and to the proposed annexation area. Lewes supports context-sensitive transportation improvements to improve safety and flood evacuation.

Policy for Transportation: Lewes is interested in context-sensitive transportation solutions that respect the historic and small town character of the City. Lewes prefers that road improvements are focused on safety and flood evacuation rather than on roadway capacity improvements. Lewes is pursuing an agenda of public transportation, pedestrian, and bicycle options to improve mobility.

Policy for Other Elements which the Community Wants that Promotes Health, Safety, Prosperity and General Public Welfare: Lewes is working to implement plans, processes, and projects to mitigate the effects of flooding, both coastal and inland, and sea-level rise. Lewes is actively working to improve its transportation network. Lewes is working to enhance its walkability and biking opportunities. Lewes is working to expand its existing business district and create ecotourism opportunities.

Recommendations: This Plan recommends that Mayor and Council consider:

- Continuing City efforts to support bicycling as a transportation option within the City.
- Working with Sussex County officials, DelDOT, DRBA, property owners, and the Lewes Scenic & Historic Byway Committee to address and improve the City's transportation gateways.
- Encouraging connectivity to keep Lewes linked and to ease traffic volume.
- Adding curbs and sidewalks to existing city streets, where appropriate and/or necessary.
- Creating a master design of signage for Historic Lewes, out to SR 1.

E. COMMUNITY CHARACTER

Parks and open space as well as historic and natural resources shape the visual character of a community. Lewes's character is essentially established, and policies and regulations have been put into place to protect it. Most people associate Lewes with the beach, the historic downtown district, and the many older residential neighborhoods that make up the core of the town. Although the buildings were constructed over four centuries, they share a pedestrian scale that physically and visually unites them into a uniform, identifiable whole. The Canal has historically served as a main street for maritime activity although few vestiges remain. Visitors may be less aware of the marshes to the east and west that also shape the character of Lewes in more subtle ways. The Delaware Bay, Lewes Creek Marsh, Great Marsh, and Cape Henlopen State Park have protected Lewes from outward growth, and have had a major impact on the visual and cultural character of the community.

Pedestrian and Bicycle Orientation: One reason why new development so often looks different from older development is the switch from a pedestrian to a vehicular orientation. It is possible to create new pedestrian-oriented developments without sacrificing vehicular convenience. Narrower streets, and the presence of sidewalks and street trees can contribute to pedestrian orientation. In addition, large parking lots and expanses of asphalt are very uncomfortable for pedestrians. The City can consider addressing this discomfort through the Zoning Code.

Gateways: Until recent years, agricultural lands have provided a gateway to Lewes from the south. More recently, suburban development has encroached on these agricultural lands, significantly changing the approach into Lewes. The Lewes Scenic and Historic Byway Corridor Management Plan seeks to address this change.

Signage and sign pollution: Signage is important to help people safely find their destination. However, too much signage or poorly designed or located signage can be confusing, ugly, and even dangerous. Lewes should work with DelDOT and DNREC to provide appropriate vehicular and trail signage and should consider developing guidelines to improve the aesthetics and historic character of signage in the old town area.

Preservation of Trees: Lewes has a tree ordinance addressing trees on public property. Some residents, however, have expressed concern regarding the loss of large trees on private property. Many jurisdictions across the country have tree ordinances involving permits, fees, fines, and tree retention/replacement requirements, but these ordinances can be cumbersome for both the property owner and the jurisdiction. If Lewes considers a tree ordinance governing private property, it should carefully study the issue.

Undergrounding Utilities: Similarly, overhead utility wires detract from Lewes's historic character. For many years, all new development has been required to put these utilities underground. Redevelopment projects should also be required to underground utilities at least from the pole to the building. A report was prepared for the BPW that estimated the cost to underground utilities throughout the City. The total cost was quite expensive; however, focusing on a few key corridors might be more manageable.

A Greener Lewes: Residents of Lewes are concerned about the environment in general and wish to preserve and protect their environmental assets. Additional strategies can be found in the Environmental Protection Plan.

➤ **COMMUNITY DESIGN PLAN**

Position on Community Character and Community Design: Lewes values its small town and historic fabric, as stated in its Core Values. Existing Historic District regulations and guidelines, and proposed context-sensitive development and transportation improvements, will support Lewes's community character.

Recommendations: This Plan recommends that Mayor and Council consider:

- Adding curbs and sidewalks to existing city streets, where appropriate and/or necessary.
- Continue to update inventory of residential properties within the historic district.
- Initiate an updating of commercial properties within the historic district.

PART IV: COMMUNITY DEVELOPMENT PLAN

- ***Position on Critical Community Development Issues (redevelopment and revitalization):***
Lewes has received a study from ERM, its planning consultant, regarding the redevelopment and revitalization of the Lewes Beach commercial area.

A. COMMUNITY DEVELOPMENT STRATEGY: Quality of Life Issues

A number of issues are important to the quality of life of Lewes's residents. Key issues include protection of natural areas and uncongested roads. Other issues include walkability, clean drinking water, stormwater management, aging in place, and visitor management. The population of Lewes is aging and there is a strong desire for services and housing that allow seniors to age gracefully and safely in place. All of these are discussed and recommendations can be found elsewhere in this document, but a few are worth noting here as well.

Part of the charm of Lewes is its historic streets, neighborhoods, and buildings, which give the City a human scale. Lewes encourages similar human-scale new development and redevelopment. This means that the design of new development in the City of Lewes should, wherever possible, match the historic character of the City.

Similarly, good multi-modal interconnectivity benefits everyone. Multiple modes of transportation can alleviate parking and traffic congestion because people can more easily walk or bicycle to their destinations.

B. EXISTING LAND USES AND REDEVELOPMENT

The Lewes Planning Commission contracted with the University of Delaware to conduct an on-site survey of the City of Lewes, which was completed in June 2013 and verified by the LPC in June of 2014. The information from this survey was compiled into a map (Map 8: Existing Land Use) and Table 9, below, and is used throughout this discussion. There have been changes to the city, by annexation, since this survey was conducted. This section does not reflect those changes. At the time of the survey, the City of Lewes covered 2,725.5 acres, comprising 2,787 individual parcels. The acreage represented a net gain of 380.8 acres and 133 parcels since 2003.

Canal/Open Space and Parks together comprise the single largest land use in Lewes, consisting of over 1,476 protected acres or 54.3 percent of the City's land area. In other words, over half of the land area of the City already is dedicated to open space. This is a gain of about 350 acres since 2003, most coming from the transfer from the University of Delaware to the State of Delaware of approximately 250 acres of undeveloped land, now dedicated to open space. Lands in these two categories are protected through zoning, government ownership, or deed restrictions. Some parcels categorized as Parks in 2003 were recategorized as Open Space in 2014.

Table 9: Existing Land Use 2013 and 2003

Land Use	2013 Parcels	2013 Acres	2003 Parcels	2003 Acres	% Total municipal land area 2013 (2003*)
Canal/Open Space	106	1,103	96	958.4	40.5% (40.9%)
Residential	2,113	537.4	1,938	415.1	19.7% (17.7%)

Parks	27	373.2	63	159.2	13.7% (6.8%)
Vacant Land	317	352.9	352	385.2	13.0% (16.4%)
Institutional	73	181.7	71	265.6	6.7% (11.3%)
Industrial	23	68.5	21	48.7	2.5% (2.1%)
Commercial	109	66.1	104	67.6	2.4% (2.9%)
Utilities	8	42.7	9	44.9	1.6% (1.9%)
Total	2,787	2,725.5	2,654	2,344.7	

*Excluding roads. Source: Field surveyed by UD CEOE June 2013, verified by LPC June 2014

Residential land uses make up the largest number of individual parcels, with over 2,110 individual lots comprising 19.7 percent of the City's land area. This is an increase of 175 parcels, some acquired through annexation and others through new development. Thus, less than 20% of Lewes is dedicated to residential development.

Institutional uses include City Hall, churches, schools, the Lewes Fire Department, the Army Reserve Center, Beebe Healthcare, the University of Delaware, and a DNREC facility. Total acreage, 181.7 acres, is about 85 acres lower than in 2003, partly as a result of the aforementioned transfer of UD lands to the State of Delaware for open space.

Vacant Land: There are 317 parcels comprising 352.9 acres that have been identified as vacant land within the current municipal boundaries of the City of Lewes. The vast majority are small tracts of less than one acre in size. There are 158 recorded but unbuilt residential parcels throughout town. Most of these lots were also identified as vacant in the 2005 Comprehensive Plan. Under current conditions, there are approximately 65 vacant residential lots scattered throughout the older sections of the City. Some residential land parcels throughout the City may become subject to further subdivision.

The following parcels appear to be among the most significant available for development, a total of about 205 acres currently within the city limits:

- Two long narrow parcels west of Shipcarpenter Square; 33.97 acres and 19.34 acres for a total of 53.31 acres, zoned R2. The parcels are presently wooded and have come to be known as the "Fourth Street Forest."
- The parcel to the southeast of and adjacent to Freeman Highway, bounded by Monroe Avenue and Giles Neck Road, encompasses 44.65 acres and is zoned R2. This property includes White's Pond, which covers approximately one third of the 44.6 acres. Some land immediately around the pond is in the 500-year floodplain, with a section of the northeast corner also in the 100- and 500-year floodplains.
- Several large parcels located on both sides of Gills Neck Road with two fronting the Canal. Four parcels in Lewes for a total of 61.91 acres Zoned R2, with several more parcels in Sussex County totaling about 80 acres, zoned AR-1/ES-1. The eastern portion and a small slice on the west are in the 100-year floodplain and most of these parcels are considered to be in the Excellent Recharge area.
- A large parcel off Freeman Highway, approximately half lies within Lewes, the remainder is situated in Sussex County. Total acreage is 85.55 acres, with the portion in the City zoned R2. The remainder is situated in Sussex County and zoned AR-1 (.75-acre lots and manufactured housing). Most of the parcel appears to be free of environmental constraints, although a portion of the Sussex county section is in the Excellent Recharge area.
- A narrow parcel off Savannah Road north of the high school; 16.45 acres, zoned R2.

- Several small parcels fronting Kings Highway just north of the high school. About 3 acres total, zoned for General Commercial.
- A narrow strip between Kings Highway and the railroad tracks; 3.64 acres, zoned R2 and R4.

The vast majority of the available vacant land in Lewes is zoned R2. Development of lands within the 100-year floodplain must comply with Lewes's floodplain ordinance. Incentives could be considered for developers to cluster development on other portions of the affected parcels.

Development of lands in the Excellent Recharge Areas need to be carefully designed to maximize water recharge. Development should, at a minimum, be required to recharge all on-site stormwater (no-net increase in runoff) for a 100-year storm.

Redevelopment Opportunities: Two locations have been identified as candidates for possible redevelopment in the near future-

- The Savannah Road beach corridor has the potential to be much nicer and more economically interesting. This location and the Marine Commercial zoning district have been the subject of study by the City's consulting planning firm. Suggestions for this corridor include multi-modal transportation improvements, beautification, and economic development assistance.
- The current Lewes Public Library property at 111 Adams Avenue is soon to be vacated. The City is currently determining the future use of the current Library building (14,500 square-foot building) located in Stango Park.

Lewes should also be thinking about the future of Cape Henlopen School District properties in the event that they are no longer needed for educational purposes.

Marine Commercial District: The Marine Commercial (MC) District was created as part of a comprehensive revision of the zoning code in 2011. The purpose of the new district, located along Anglers Road and the north end of Savannah Road, was to encourage a mix of uses to complement and support a marina, ensure that the character and scale of the district is compatible with a marina, and prohibit the establishment of industrial uses not compatible with the characteristics of the zone. However, in 2013, Mayor and Council approved an amendment creating a special exception to allow single family, multifamily, and townhomes within this zone. Since then, Mayor and Council have placed a moratorium on Special Exception requests. The City commissioned ERM to review the district and provide recommendations on how to better align the zoning regulations with the City's stated objectives for this area.

ERM noted that the only other zoning district that permits townhomes is R-5, which requires a 2.5-acre minimum lot size. ERM made a number of recommendations for alignment with the City's stated goals and objectives for the area.

- Require any residential development be part of a well-designed mixed-use development with retail storefronts, and limit the amount of residential allowed to no more than 50 percent of the total floor area. ERM includes specific code language in its report.
- Seek to create and maintain in perpetuity public access to a waterfront walkway at the canal.
- Develop an area plan and invest in streetscape improvement and signage in the Savannah Road corridor.

➤ **REDEVELOPMENT STRATEGY PLAN**

Position on Redevelopment Potential: Lewes has identified the Lewes beach commercial area as being in need of redevelopment. A study has been completed and the City has received the recommendations.

Recommendations: This Plan recommends that Mayor and Council consider:

- Undertaking a comprehensive project to encourage business opportunities on the beach side of the City, along the Savannah Road corridor, as outlined in the ERM recommendations on Marine Commercial Zoning.
- Coordinating with DNREC on ways to increase ecotourism opportunities.
- Adding a year-round public restroom at the Beach.
- Proactively using the open space requirements in the subdivision ordinance to align open space between adjacent developments to maximize open spaces available to residents and to enhance the safety, function, and beauty of roadway corridors, particularly along gateway roads and byways as lands along these are annexed and proposed for development.
- Opening communication with the Cape Henlopen School District about future land use to meet the needs of both the school district and Lewes.

C. HOUSING

The Census Bureau estimates that there were approximately 2,473 housing units in Lewes in the period between 2009 and 2013, an increase of only 105 units since 2000.¹ *Table 10* illustrates the composition of the housing stock in the City of Lewes, Sussex County, and the State of Delaware over this period. Lewes contains a higher percentage of single-family detached homes (76%) than either Sussex County (61.9%) or the state (58.4%). In all three jurisdictions, the percentage of single-family detached homes has increased since 2000; in Delaware and Sussex County, there was an increase of approximately three percent (3%), while in Lewes the increase was higher, at eight percent (8%).

Table 10. Type of Housing Stock: Lewes, Sussex County, and Delaware, 2009 - 2013, Five-Year Estimates

Housing Type	Delaware	% of total	Sussex County	% of total	Lewes	% of total
Single-Family, Detached	238,344	58.4%	76,868	61.9%	1,881	76%
Single-Family, Attached	60,267	14.8%	10,038	8.1%	127	5.1%
Multi-Family	71,715	17.6%	13,851	11.2%	418	16.9%
Mobile Homes	37,448	9.2%	23,387	18.8%	47	1.9%
Other	91	0.0%	44	0.0%	0	0.0%
Total	407,865	100%	124,188	100%	2,473	100%

Source: US Census Bureau, American Community Survey

The incidence of single-family attached homes in Lewes was higher than in Sussex County or the state, though the percentage of multi-family structures was lower in Lewes than statewide. However, in actual numbers of units, Lewes is estimated to have lost 146 single-family attached units, 29 multi-family units, and 52 mobile homes since the 2000 census. The percentages of single-family attached and multi-

¹ The US Census Bureau provides multi-year estimates of some data for the years between the decennial censuses. These estimates are for a specified time period, rather than a specific year.

family housing units have held steady in Delaware and increased in Sussex County. However, the number and percentages of mobile homes has declined in all three jurisdictions since 2000, and the number assigned to Lewes, 47, is believed to be too high.

Age of Housing Stock: *Table 11* displays the percentage of homes built in a particular year, grouped by decade. Buildings built prior to 1960 represent 30 percent of the housing stock compared to Sussex County at 12.1 percent and Delaware at 24.5 percent. The majority of housing that now exists in the state, 51.6 percent, has been built since 1980. In Sussex County, 68.5 percent was built during that time and 30.8 percent built since 2000. In the case of Lewes, less than half of the existing housing stock, 43.1 percent was constructed during this period with only 20.7 percent built since 2000.

**Table 11. Age of Housing Stock (by percent of total): Lewes, County, State
2009 - 2013 Five-Year Estimates**

Place	2010 or later	2000-2009	1990-1999	1980-1989	1970-1979	1960-1969	1950-1959	Pre 1949
Lewes	0.6%	14.7%	13.9%	13.9%	15.9%	11.1%	11.0%	19.0%
Sussex County	1.1%	29.7%	19.0%	18.7%	12.4%	6.9%	4.2%	7.9%
State of Delaware	0.9%	19.4%	16.2%	15.1%	12.4%	11.5%	10.4%	14.1%

Source: US Census Bureau, American Community Survey

Ownership and Vacancy: Like the other beach communities, Lewes has a relatively large number of seasonally occupied (40.8 percent) rental and owner-occupied homes. But compared to some of our other nearby beach communities, it has a greater number of full-time residents, with retirees constituting a growing portion of that segment.

Table 12 compares the percentage of vacant, owner-occupied, and renter-occupied units in Lewes with those of Sussex County and the state. While 21 percent of Sussex County's housing stock and 27.5 percent of the state's housing stock consists of renter-occupied housing units, Lewes's percentage of renter-occupied units was 18.1 percent.

Meanwhile, Lewes had an extremely high vacancy rate at 49.2 percent, compared to 38.4 percent in the county and 17.7 percent in the state. However, this number includes housing units, 40.8 percent, (compared to 36.1 percent in 2000) that are only used for seasonal, recreational, or occasional use. Subtracting out the seasonal rentals reduces Lewes's vacancy rate.

Housing Value and Affordability: *Table 12* also compares Lewes's median housing value with housing values in Sussex County and the State of Delaware. With an estimated median value for owner-occupied housing units of \$482,500 for the period from 2009 to 2013, Lewes has a much higher median housing value than the county (\$236,600) or state (\$235,800). Compared to the 2000 median housing values, Lewes housing values have increased by 100 percent, while the county and state have only increased by 93 percent and 81 percent, respectively. Clearly, not everyone who would like to, including the majority of those working in Lewes, can afford to own homes in the City.

There are 72 state-subsidized rental-housing units at the Jefferson Apartments on Kings Highway (40 assisted living units and 32 eligible for low income tax credits), and 66 assisted living units at Huling Cove on Savannah Road. Outside of Lewes, but nearby, are another 216 income-restricted (Low-Income Housing Tax Credit) rental units at Mills Landing (24), Savannah West (48), Savannah East

(72), and Harbour Towne (40). Many of these units are reserved for elderly people and are not available for workforce housing.

**Table 12. Selected Housing Characteristics,
2009 - 2013 5-Year Estimates**

Housing Units:	Delaware	Sussex County	Lewes
Total Housing units	497,865	124,188	2,473
Occupied housing units	82.3%	61.6%	50.8%
Vacant housing units	17.7%	38.4%	49.2%
Occupied units occupied by Owner	72.5%	79.0%	81.9%
Occupied units occupied by Renter	27.5%	21.0%	18.1%
Units for seasonal or recreational use (2010)	8.9%	28.3%	40.8%
Median Housing Value	\$235,800	\$236,600	\$482,500
Median gross rent	\$999	\$954	\$1,007
Units built before 1960	24.5%	12.1%	36.6%
Units built before 1940	9.3%	5.5%	21.5%

Source: US Census Bureau, American FactFinder DP-1 2007 - 2011 and American Community Survey

Affordable housing is generally considered to be affordable to a household with the median income for the area. Workforce housing is housing affordable to working professionals, such as teachers, nurses and emergency personnel. There are some affordable unsubsidized rental units available east of Route 1, including some apartments on Kings Highway. Housing is more affordable outside of Lewes, and generally decreases in price west of Route 1.

Hazard Mitigation: According to the Hazard Mitigation Plan, many homes in Lewes are at risk of damage or destruction due to a storm event.

- **Coastal and Inland Flooding:** 2015 Flood Insurance Rate Map (FIRM) data show 736 structures located within the 100-year floodplain and another 168 in the 500-year floodplain in Lewes. The majority of these structures are situated along the beach, inlet, and canal. Many were constructed using FIRM and FEMA flood-loss-prevention guidelines and are therefore less likely to experience problems. The City adopted a new Flood Plain Ordinance in 2015, which was approved by FEMA.

Many of the vulnerable properties along the beach, inlet, and canal are leased by Lewes to residents. Lewes Beach residential leases are for 99-years. All canalfront leases are on land located along Pilottown Road, zoned Open Space, and are slated to expire in September 2025, subject to City Council action.

- **Wind Hazards:** The 2000 Hazard Vulnerability Study by Greenhome and O'Mara, Inc., studies "found that residences constructed after 1980 were more likely to be heavily damaged [by strong winds] and uninhabitable than structures built before 1980" pg. 26. Regulations adopted by Lewes since 2003 contain updated and strengthened standards concerning wind resistant standards.

Housing Issues: According to the Office of State Planning Coordination's *Policies for State Strategies and Spending*, research indicates that demographic changes and consumer preferences will dramatically shift the demand for the style and type of housing in the next 20 years:

- "As baby boomers become empty nesters and retirees, they are drawn to compact, walkable neighborhoods. So are single adults and married couples without children.

- The aging population tends to favor down-sizing and moving near community amenities.
- Younger Americans do not share their parents' preference for large-lot, single-family lifestyles. They tend to prefer a community setting and more compact units.

According to the Delaware State Housing Authority's recently released needs assessment, homeownership has declined in the 25 to 44 age range – the prime home buying years – and the same people are having fewer children. There are also more single person households, many of them young professionals and elderly who do not want the responsibility of a large property. Additionally, economic projections are for growth in the medical and services sectors, typically medium to low wage jobs.

Housing Alternatives: Lewes is a vibrant community. Options to accommodate homes and rentals affordable to people of varying income levels may include cohousing and home sharing.

Lewes Zoning Code: The Lewes Zoning code has five Residential Districts (R-1, R-2/H, R-3/H, R-4/H and R-5) and some limited residential uses are also allowed in the Town Center District (TC/H). Minimum lot sizes range from 4,000 square feet to 20,000 square feet for a single-family detached unit, with no minimum lot size for multi-family units, townhomes and duplexes.

Projected Housing Needs and Current Availability of Lots: It has been projected that the TAZ, which includes Lewes, will need approximately 210 new dwelling units by 2020, with 222 additional units by 2030 to accommodate projected growth rates. This projection does not account for the needs of second homeowners, seasonal visitors and workers, nor does it take into account existing units that may be lost due to flooding or other storm events. Seasonal needs will fluctuate with the strength of the national economy and are therefore difficult to predict. There are no current projections for growth rates within the City itself.

Since the survey data in 2010, a number of housing units have been built in Lewes. Between 2011 and 2014, 177 new single family homes were built. Additionally, the Captain's Quarters Hotel has been converted into four condominium units. The Cape Henlopen Hotel has been torn down and the lot has been approved for nine townhouse units. The Angler's Motel was torn down and replaced by a combination of hotel, residential and commercial spaces.

There are 158 recorded but unbuilt residential parcels throughout town. Many of the lots, zoned R-2 or R-3, were purchased well before the 2008 economic collapse. Most of these lots were also identified as vacant in the 2005 Comprehensive Plan. There are also approximately 65 smaller vacant residential lots scattered throughout the older sections of town. These numbers do not include large residential lots that could be subdivided.

In addition to the opportunities for housing listed above, about 205 acres are available for development within the current boundaries of the City.

➤ **HOUSING PLAN**

Position on Housing Growth: Lewes recognizes the importance of affordable housing within the greater Lewes area. As a nearly built-out coastal community, Lewes' ability to add affordable housing is limited.

Policy for Affordable Housing: Lewes recognizes the need for the development of additional affordable/workforce housing in the greater Lewes area.

Recommendations: This plan recommends that Mayor and Council consider:

- Working to preserve existing affordable housing within the city limits.
- The city and county should work together to assure affordable housing is available within the greater Lewes area.

D. ECONOMIC BASE AND MAJOR EMPLOYERS

Lewes is located on the coastal side of Sussex County; therefore the local economy is heavily influenced by tourist activity. Elements of that activity include hotels and motels, beachfront commercial establishments, and non-commercial tourist attractions. Away from the beach, significant retail investment has occurred along SR 1. Farther west in Sussex County, the economy is more heavily oriented towards agricultural activity. The Lewes Chamber of Commerce and Visitors Bureau serves as the voice of the local business community.

Lewes Economy and Major Industry: Most of Delaware's coastal communities front on the Atlantic Ocean; however, Lewes is located on the Delaware Bay and is bordered on two sides by protected natural areas. As a result, Lewes tends to be quieter and more community oriented, giving it a character different from the other coastal towns. Predictably, much of Lewes's economy is oriented towards the water. While Lewes benefits from tourism, its economy is more diverse than other beach communities.

In addition to recreational activities associated with tourism and vacationers, Lewes's maritime industry includes storage and servicing of larger recreational boats, with slips during the summer and on land in winter. Lewes is the base of operations for the Pilots Association for the Bay and River of Delaware, the U.S. Coast Guard station, homeporting of an oil spill recovery vessel, the University of Delaware's College of Earth, Ocean and Environment, and SPI Pharma.

There is a small area of commercial development associated with tourists near the beach; however, Lewes also has a traditional central business district south of the canal, roughly bounded by Savannah Road, Front Street, Mulberry Street, and West Third Street. Eating and drinking establishments, as well as small shops selling specialty merchandise, are the principal retail operations. Some of the businesses are seasonal in nature, others are open all year. Most businesses operate out of historic buildings that have been retrofitted for their current use, with a few modern structures interspersed throughout.

Lewes is in the state-defined "Coastal Zone," so heavy industry is prohibited by state law in Lewes and any other industrial development is controlled by a state-level permitting process.

Employment Sectors: The U.S. Census collects employment data according to sectors of employment known as the Standardized Industrial Code (SIC). *Table 13* shows the composition of the TAZ economy, including the City, in the year 2011 by SIC. It is estimated that there were almost 3,650 full-time and part-time jobs, not including seasonal employment.

The major employment classification in Lewes is health, totaling 44 percent of all jobs in the City. Beebe Healthcare is located in Lewes and accounts for approximately 2,000 of those jobs. The hospital has expanded at its Lewes location, including the Margaret H. Rollins School of Nursing, while adding satellite medical service centers at various locations throughout the county. There are also a number of doctors and other allied medical services near the hospital. In addition, Harbor Healthcare employs approximately 220 people.

Professional/Business, Public Administration and TTU (trade, transportation and utilities) each account for another 12% of the City's jobs. Professional/Business is made up of jobs of a professional nature, as well as jobs providing services to businesses such as real estate agents. Public administration consists of government jobs, which includes employees of the Cape Henlopen School District (120), the University of Delaware College of Earth, Ocean, and Environment (180), the Delaware Department of Natural Resources and Environmental Control (DNREC) Field Station, and the City of Lewes (48). TTU includes all of the retail jobs found within the City.

Table 13: Employment by Standard Industrial Code

	TAZ 1124	% total jobs	Description
Resident Workers	1,173		Census 2010
Total Employment (Jobs)	3,649		
Standard Industrial Code*			
Health	1,613	44%	Jobs in the health care industry
Professional/Business	427	12%	Jobs of a professional nature and jobs providing services to businesses
Public Administration	442	12%	Jobs in government (City, County, State, Federal)
TTU	434	12%	Trade (including retail), transportation and utilities
Leisure/Hospitality	247	7%	Hotels, motels, restaurants, visitor attractions, etc
Information and Finance	170	5%	Jobs in information and finance
Construction	101	3%	Jobs in the construction industry
Manufacturing	99	3%	Jobs in manufacturing
Other Services	114	3%	
Natural Resources	2	0%	Jobs in natural resources including agriculture

SIC Codes, 2010 Source: DelDOT Planning, last updated by OSPC in 2011

*Seasonal jobs not included

The remaining jobs are split between several other sectors, with the only other major employer being the SPI Pharma plant. Not included on this table are another 440 employees of the school district who work at the high school just outside the municipal boundary.

In addition to the job estimates listed in *Table 13* above, Lewes has a high percentage of seasonal employment, including many jobs in retail sales, lodging, eating and drinking establishments, visitor attractions, health care, and government services. Several of these categories are important all year, but their job counts are much higher during the summer and the late spring and early fall periods. Alternatively, jobs in education tend to be fewer during the summer season.

Another interesting statistic highlighted in the table above is that there is estimated to be roughly three times as many jobs in Lewes as there are Lewes residents participating in the workforce. That means that the vast majority of the people who work in Lewes, in addition to most of the seasonal employees, are commuting into Lewes from somewhere else, increasing traffic on local roads and filling parking spaces.

Health Care: Beebe Healthcare has been at the center of Lewes geographically, and economically, since being founded in 1916. It was the first private hospital in the state of Delaware, outside of Wilmington. Beebe also has the only hospital-based Nursing School in the state. A recent expansion of the school will allow the enrollment to increase to 60 students.

As other year-round industries have fallen away, the importance of the hospital as an economic engine has grown. The hospital employs around 2,000 medical professionals and support staff among all sites, some of them highly skilled. Beebe and Harbor Health Care support and are integrated with many medical offices and service providers in the City. The many staff and employees of the hospital and related businesses patronize and support many downtown businesses.

At the same time, however, the growing population of older residents in and around Lewes places increasing pressures on the hospital. Beebe Healthcare is currently developing plans to expand the hospital's capacity and services. This will require a carefully developed master plan for the Beebe Healthcare property. This plan must be jointly developed by the City and hospital management to encourage this important center of medical services and economic vitality to remain in the City. In addition, the City and hospital management are working to combine the many parcels that make up the Beebe Campus. This process is expected to resolve a boundary concern between the hospital property and George H.P. Smith Park.

Tourism: According to the *Southern Delaware Official Visitors Guide and Vacation Planner 2011-2012*, the City has several inns, motels and B&Bs for a total of 164 rooms, plus another 232 rooms in the greater Lewes area. According to the 2010 U.S. Census, almost 52 percent of 2,472 housing units were vacant, with most of those devoted to seasonal or recreational use. At two people per hotel room and three people per dwelling unit (a very conservative estimate) on a busy weekend, these units combined could lodge about 4,650 visitors, in addition to the residential population of 2,747. Day visitors arriving by car, personal watercraft, resort transit, and the Cape May-Lewes Ferry can add a substantial number of people on a busy summer day.

There are three visitor centers in Lewes. The Lewes Chamber of Commerce and Visitors Bureau staffs a visitor center at 120 Kings Highway in the historic Fisher-Martin House, behind the Zwaanendael Museum. In addition, the Delaware River and Bay Authority staffs a visitor center at the Cape May-Lewes Ferry Terminal, and the Lewes Historical Society has a visitor center at the historic Ryves Holt house on Second Street in conjunction with the National Parks Service.

Cape Henlopen State Park and other maritime and fishing opportunities in and around Lewes attract many visitors. The park, located just east of Lewes on Cape Henlopen Drive, offers recreational facilities including campsites, ocean and bay beaches, nature programs, and hiking and biking trails, including new trail connections between Lewes and Rehoboth Beach. Lewes is popular for recreational fishermen because of its location along the bay, proximity to natural fisheries, and the availability of boat charters and rentals. Charter-boat and head boat fishing activities are available in Lewes. There are additional opportunities for boaters at the public boat ramp, and public slips for recreational boaters. In addition, there are private boat slips available along the canal.

Conference facilities are available in Lewes at the University of Delaware Virden Retreat and Conference Center, the Inn at Canal Square, Hotel Rodney, the Cape May-Lewes Ferry Terminal, and the DNREC facility adjacent to the boat ramp.

There are a number of events and activities throughout the year that bring visitors into Lewes:

- The *Lewes Chamber of Commerce and Visitors Bureau* offers walking tour maps and brochures to sites of historical interest. It sponsors a number of annual events, including the Great Delaware Kite Festival at Cape Henlopen State Park, the Lewes British Motorcar Show, the Tulip Festival, the Lewes Garden Tour, the Boast the Coast Maritime Festival in conjunction with the University of Delaware's Coast Day, and the Lewes Christmas Parade.

- The *Lewes Historical Society* has a number of walking tours including the Historic Trolley, Maritime Trolley, Life in Lewes, and Maritime and Eco-History tours. The Lewes Historical Society sponsors the Cape Henlopen Craft Fairs in July and October, Antique Market in August, offers History Happy Hours during summer months, and the Lewes Lunch and Learn Speaker Series during the cooler months. The Historical Society also sponsors Family Boat Build weekend, the Mid-Atlantic Sea Glass and Coastal Arts Festival in June, and the Christmas House Tour in December.
- The *City of Lewes*, along with sponsors and grant funding, offers the Lewes Summer Concert Series from June through August in Stango Park.
- The *Friends of Canalfront Park* provide an annual Picnic in the Park in June, yoga and zumba in the park from May through August, as well as, Cinema by the Canal and Concerts by the Canal in July and August.
- The *Historic Lewes Farmers Market* operates each Saturday from May through November.
- The *City of Lewes, Lewes Historic Society, State Division of History and Cultural Affairs, and the Lewes Chamber of Commerce* jointly sponsor Chautauqua during the third week of June.

Resident Customer and Worker Base: According to Table 13, Lewes is a net importer of employees. With approximately 3,650 all-year jobs in Lewes and only about 1,170 residents in the workforce, the majority of the Lewes area employees commute to Lewes for work.

Table 14, below, presents selected characteristics of Lewes’s residents. Note that residents are very well educated and less likely to be disabled or living below the poverty level than are other state or county residents. More interestingly, a very low percentage of the adult population participates in the labor force (41.1 percent or 1,173 people), and of those who do, a higher than normal percentage (11.5 percent) are self-employed.

Table 14: 2010 Selected Population Characteristics of Lewes

Selected Characteristics	Delaware	Sussex County	Lewes
Population 25 and over with High School Diploma	88.5%	86.3%	91.9%
Population 25 and over with College Degree	29.5%	23.0%	52.3%
Population 18 and over Disabled	42.6%	43.2%	NA
Population 18 and over Civilian Veteran	10.8%	12.6%	18.6%
Population 16 and over in labor force	64.0%	58.2%	41.1%
Population 5 years and over who speak English less than very well	4.7%	5.2%	0.6%
Workers who did NOT drive alone to work	19.1%	18.6%	23.9%
Workers self-employed as sole-proprietors	4.0%	6.9%	11.5%

Source: U.S. Census 2010

In conclusion, the residents of Lewes are older, wealthier, more highly educated, less likely to be in the workforce, less likely to be disabled, and more likely to be self-employed than the general population. Lewes also has a large population of daytime workers, many of whom are highly educated professionals who should be considered part of the customer base.

Employment Projections: The City anticipates non-seasonal job growth to continue steadily into the future with the number of available workers continuing to lag behind. Lewes has very little developable or redevelopable land available that is suitable for non-residential uses.

Marketing: The State of Delaware has designated Lewes the southern end of its "Delaware Bayshore Initiative." DelDOT approved on October 21, 2015, the Lewes Scenic and Historic Corridor Management Plan that, among other things, encourages the designation and protection of Scenic and Historic Byway in and near Lewes.

Jim Klein of Lardner of Klein Landscape Architects, in a memo to the Lewes Scenic & Historic Byway Committee makes the observation:

"Marketing a scenic and historic byway in a community where the major destination at the end of the byway already attracts 2.5 million visitors, 70% of which come in the summertime, seems rather superfluous. In contrast to traditional tourism marketing, a community that has an abundance of visitors during peak periods, needs to focus their marketing needs on specific goals designed to better manage visitors and focusing on those markets that will help to spread out the concentration of visitors and to extend the timing of their visit to fill out the less traveled places and times."

He goes on to recommend marketing strategies to help achieve the goal of spreading out visitation:

- 1. Increase interest and awareness of Greater Lewes' natural areas, recreation opportunities and history*
- 2. Help position Lewes as a destination for heritage and nature-based travelers*
- 3. Spread out visitors beyond the beach*
- 4. Utilize the [proposed] byway to manage visitation"*

Economic Development Opportunities: Lewes has many natural strengths to be marketed:

- **Eco-tourism:** Lewes is ideally situated to be marketed as a base for ecotourism. The Bay, beaches, marshes, and location along the East Coast Flyway are all opportunities to market for birding, fishing, hiking, biking, canoeing, camping, and other outdoor pursuits with related support businesses.
- **Bicycle Tourism:** The coast-to-coast American Discovery Trail begins in Lewes. As this Plan is being written, the state has completed a Rail to Trail bike route between Lewes and Rehoboth Beach. The Georgetown to Lewes Rails with Trails phase one will begin construction in March 2016. Construction of the rest of the trail will be subject to future funding. The trail could ultimately continue past Georgetown and connect to the East Coast Greenway. Lewes is a great place to begin a vacation for long-distance bicycling enthusiasts. As other facilities, events and support businesses are put in place around town, Lewes can become a real destination for other bicycle enthusiasts as well. Many of the same people who enjoy cycling also enjoy hiking in natural areas, as well as canoeing, kayaking and paddle-boarding.
- **Arts Opportunities:** The 2011 Delaware by Hand Artists and Artisans Driving Tour Map shows a nice cluster of artists producing and showing work in and around Lewes. There is an opportunity for some public art and related art events. There are also opportunities to partner with the Rehoboth Art League for events in Lewes.

➤ **ECONOMIC DEVELOPMENT PLAN**

Policy for Economic Development: Lewes will maintain its historic business district and support major employers. The City has an interest in ecotourism opportunities and economic redevelopment.

Policy for Other Elements which the Community Wants that Promotes Health, Safety, Prosperity and General Public Welfare: Lewes is working to implement plans, processes and projects to mitigate the effects of flooding, both coastal and inland. Lewes is working to enhance its walkability and biking opportunities. Lewes is working to create ecotourism opportunities.

Recommendations: This Plan recommends that Mayor and Council consider:

- Working with Sussex County officials, DelDOT, DRBA, property owners, and the Lewes Scenic and Historic Byway Committee to address and improve the City's transportation gateways.
- Working on a regional tourism plan that would promote Lewes as a destination. This plan should take into account the projects and promotional opportunities afforded by the Delaware Tourism Office and should involve partners including Sussex County and neighboring communities.
- Undertaking a comprehensive project to encourage business opportunities on the beach side of the City, along the Savannah Road corridor, as outlined in the ERM recommendations on the Marine Commercial Zoning
- Seeking ways to increase ecotourism opportunities.
- Positioning Lewes as the southern anchor of the state's Delaware Bayshore Initiative, linking the Lewes Scenic and Historic Byway to the Delaware Bayshore Byway.

E. ANALYSIS AND COMPARISON OF OTHER RELEVANT PLANNING DOCUMENTS

This section highlights relevant details of a number of other planning documents that could have an influence on Lewes' future.

Delaware Strategies for State Policies and Spending 2010: The Cabinet Committee on State Planning Issues and the Office of State Planning coordination updated the *Strategies for State Policies and Spending* in 2010. Map 9: State Strategies for Policies and Spending shows that most of the City of Lewes, as well as most of the unincorporated lands to the south, are located in Investment Level 1. In Investment Level 1 areas, Delaware supports the highest level of investment and development.

"In Investment Level 1 Areas, state investments and policies should support and encourage a wide range of uses and densities, promote other transportation options, foster efficient use of existing public and private investments, and enhance community identity and integrity. Overall, it is the state's intent to use its spending and management tools to maintain and enhance community character, to promote well-designed and efficient new growth, and to facilitate redevelopment in Investment Level 1 Areas."

Within the City there are some wetlands on Lewes beach designated as Investment Level 4, a small area of Investment Level 3 at the far end of Pilottown Road, and some wetlands surrounding the wastewater treatment plant designated as Out of Play. Outside of the city limits, most of the unincorporated lands farther than one-quarter mile west of New Road are designated as Investment Level 3. Most of the marshlands northeast and west of Lewes are designated as Out of Play.

The state will only consider investing in Level 3 areas after Levels 1 and 2 have been substantially built out. Level 4 investments and policies are intended to preserve open spaces, natural resources and farmlands, and support farm related industries, with new construction being discouraged in these areas. Out of Play lands consist of publicly-owned lands, lands for which serious legal and/or environmental constraints on development are identified, and lands in some form of permanent open-space protection.

Sussex County Comprehensive Plan and Zoning Code: Lewes is fortunate to be surrounded on three sides by environmental buffers (the Great Marsh, Delaware Bay, and Cape Henlopen State Park); however, as a result, any growth outside of Lewes will have to occur to the south, currently under the jurisdiction of Sussex County. Sussex County's Comprehensive Development Plan, adopted in 2008,

shows the same area that the state calls Investment Level I, to be within the Environmentally Sensitive Developing (ESDDOZ) area of the county. Additionally, there are some small areas designated as Mixed Residential Areas along Savannah Road.

As a result, according to Sussex County's zoning code, any development proposals of 50 or more homes occurring within the unincorporated county lands in the Lewes area are expected to include information, analysis and proposed mitigation measures concerning the proposed development's environmental impact. The majority of the land within this area is zoned by Sussex County as AR-1 or Agricultural Residential; however, single-family homes may be built here by right, on lots as small as 7,500 square feet under the new cluster ordinance. The ESDDOZ is an opportunity for Sussex County to bring proposed development more into line with the environmental realities of the area.

The Sussex County Comprehensive Plan also lists an Intergovernmental Coordination Strategy:
"Expand coordination with the County's 25 towns and cities, with particular focus on annexation, municipal zoning, future utility service areas, road improvements, large development applications, and historic preservation." (pg. 10-7)

Rehoboth Beach Comprehensive Plan: Adopted in 2009, two issues are outlined in this plan that directly relate to Lewes – the Lewes and Rehoboth Canal, and development activity in Sussex County.

Rehoboth Beach considers the Canal to be their second waterfront, having great potential for both recreation and as a link to Lewes via water-taxi. Rehoboth is concerned that the Army Corps of Engineers has not been properly maintaining the canal resulting in silt from run-off, discharge, and bank erosion impeding its navigability and interfering with proper flushing. Although some improvements have been made, the City feels that further improvements and better maintenance are necessary. Since Rehoboth adopted its Comprehensive Plan, the Corp of Engineers has disclaimed responsibility for maintaining the Canal. The Rehoboth plan includes the following City Policies for the Protection of the Inland Bays, Canal, and waterways:

- *"The City will give development and implementation of a comprehensive stormwater management plan a high priority and will develop up-to-date and effective regulations and enforcement measures.*
- *In collaboration with its neighboring municipalities, communities, and developments, the City will work with federal and State agencies to ensure the maintenance, bank stability, and navigability of the Lewes and Rehoboth Canal.*
- *The City should continue to view the Canal as a 'second' Rehoboth waterfront and promote its development as such."*

In addition, Rehoboth Beach, to enhance development and the aesthetic appeal of a proposed Canal Walk Park, is interested in seeking an annexation or a memorandum of agreement with the Corps of Engineers. The intent of the agreement would be to give the City control over the development of Corps land on the west side of the Canal to SR 1.

Rehoboth recognizes that even with the best planning practices, their city is greatly impacted by planning decisions and development just outside the border in Sussex County.

"One cannot look at Rehoboth without considering the residential and commercial explosion that is occurring on SR 1. On the one hand, this growth offers added reasons for visitors to vacation in the region. On the other hand, the growth taxes the transportation infrastructure and competes with downtown commerce and weakens its base of activity."

Rehoboth, much like Lewes, would very much like to have a more cooperative relationship with Sussex County to ensure that growth is carefully planned and coordinated “*consistent in both character and scale, governed by compatible land use regulation, and appropriately served by utilities, roads, police, and other emergency services.*”

Rehoboth is especially interested in entering into an MOU with the county, and their plan goes on to outline specific elements they would like to have addressed including developing a Subarea Plan in cooperation with the other coastal communities. One of Rehoboth’s priority goals is:

“The City, with the support of other beachfront communities in the region, will seek to establish a cooperative agreement for planning with Sussex County that assures an awareness of all the parties of the impacts of their actions and a voice for all in future planning.”

Henlopen Acres Comprehensive Plan: Henlopen Acres adopted a Comprehensive Development Plan in 2004, which was recently updated in 2015, but as of February 2016 has not received state certification. Like Rehoboth Beach, Henlopen Acres is concerned about the Canal and adjacent lands. Specific issues include pollution, runoff and other stormwater issues related to the Canal, and the preservation of wetlands along the west side of the Canal. Additionally, they have some concern regarding specific properties surrounding their town, including the Canal, as well as the State Division of Parks and Recreation property that now contains the Rehoboth Beach Deauville Park.

Regional Planning and Coordination: In 2012, a report was prepared for the Sustainable Coastal Communities Initiative at the University of Delaware entitled *Regional Planning and Coordination: Opportunities for Enhancing Economic Prosperity and Social Well-Being for Sussex County, DE*. This paper lays out arguments in favor of a more regional approach to planning. It includes a discussion of the anticipated benefits and possible approaches. It recommends that the Cape area, centered on Lewes would be a good place to start, and the area municipalities, including Lewes, have indicated support for a coordinated approach. Regional planning continues to be a goal of the City of Lewes.

PART V: FUTURE LAND USE and ANNEXATION

A. FUTURE LAND USE AND FUTURE LAND USE PLAN

Overall, the City of Lewes has expressed the desire to remain primarily a residential community. The Future Land Use Map (Map 10: Future Land Use) anticipates no major changes in land use within the current boundaries of the City. The primary institutional land uses continue to be Beebe Healthcare, the Cape Henlopen School District, the University of Delaware and the City of Lewes with no significant changes. Commercial uses remain primarily in the core district at Second Street and the area along Savannah Road between the beach and the Canal with a few parcels on the outskirts of town. A planning consultant has recently reported to the City on possible changes elsewhere (including King's Highway, Freeman Highway at Monroe extended, Cape Henlopen Drive, New Road and Pilottown Road). The Savannah Road/Beach area might see adjustments as those recommendations are developed. The planning consultant is also reviewing other land use issues of interest to the city.

Lewes's new floodplain protection ordinance will make a difference within the City. However, Lewes should continue to work, as appropriate, with the state and non-government organizations to protect lands with conservation easements or purchase of lands. Development of lands within the 100-year floodplain must comply with Lewes's floodplain ordinance. Incentives could be considered for developers to cluster development on other portions of the affected parcels.

Development of lands in the Excellent Recharge Areas, whether annexed into the City or remaining in Sussex County, must be carefully designed to maximize water recharge into the ground and minimize the risk of pollutants. These lands are not suitable for business or other uses involving chemicals, chemical storage or use or storage of other pollutants due to the risk of contamination of the aquifer. Development should, at a minimum, be required to recharge all on-site stormwater (no-net increase in runoff) for a 100-year storm and potentially recharging storm water for the 500-year storm or water from off-site as well.

As lands are developed, whether annexed into the City or remaining in Sussex County, Lewes has a strong interest in maintaining significant usable open space that integrates with the Scenic and Historic Byway and transportation plans, providing trails and connecting to other trails, greenways, neighborhoods and downtown. Open space should also be preserved and maintained to assist with city wide flood mitigation and infiltration efforts.

Future Land Use of undeveloped parcels within the current city limits: Lands near the center of town are an ideal location for small parcels. The Showfield properties on the far side of Freeman Highway should be monitored with a concern for density of development adjacent to the city limits. Development of lands around the outskirts of town is more appropriate for lower densities, but might be best in connection with the cluster option. This might allow additional land to be conserved as open space and dedicated to stormwater infiltration. Cluster-style development will also help provide greenbelt style buffering of major transportation corridors.

Zoning: The vast majority of the available vacant land in Lewes is zoned R2. The Commission has discussed using a cluster ordinance when annexing in excellent recharge areas. The 2005 Comprehensive Plan and Quinn Report recommended the adoption of a +5 acre zoning district. This type of large-lot zoning is not appropriate within the current boundaries of the City of Lewes but may be appropriate in parts of nearby Sussex County, perhaps in the water recharge area.

➤ **FUTURE LAND USE PLAN**

Position on the General Use of Land: Lewes is primarily a residential community, with considerable areas of open space and vacant land, and local businesses and services to serve residents and visitors, as well as several major professional employers.

Policy for Public and Private Uses of Land: The City will adhere to the Future Land Use Map in all decisions affecting land use within the City boundaries.

Recommendation: This Plan recommends that Mayor and Council consider:

- Initiating a Charter review and possible revision to ensure that Board of Public Works annexation agreements may be acted upon by the City of Lewes.
- Exploring redevelopment opportunities consistent with the changing needs of the city.

B. ANNEXATION AND ANNEXATION PLAN

Two previously developed areas, Savannah Place and Highland Acres, have been annexed into Lewes during the last ten years. A significant amount of new development is occurring on lands outside the City's boundaries. Annexing lands to the southeast, south and southwest of Lewes would give the City greater control over new development that will impact Lewes. Therefore, Lewes will need to continue to work closely with Sussex County, developers and property owners for these strategies to be effective.

When considering annexing lands into Lewes priority should be given to:

- Enclaves (lands surrounded or nearly surrounded by Lewes) and parcels that are split by the municipal boundaries.
- The City's wellfields and lands within the recharge area, to have greater control over development of the lands and the ability to protect the wellfields and aquifer. To ensure that all existing and proposed development in these recharge areas is connected to public water and wastewater, and to remove existing septic systems and private wells.
- Lands within BPW's existing CPCNs, to provide consistency with other city services and utilities.

Since 2012, owners of lands outside the city limits who desire BPW utilities have been required to sign an agreement with the City of Lewes that allows for annexation of the subject property upon request by the City. Section 3(a & b) of the Charter provides that annexation proceedings may be initiated by the property owner(s) and the subject property must be *contiguous to the then existing corporate limits of the City* (emphasis added). In addition, all annexations are required by state law to be consistent with this certified municipal comprehensive plan, follow a multi-jurisdictional public process, be zoned at the time of annexation, and include a plan of services for the parcel certifying that capacity exists to provide all needed public services. The plan of services must be accepted as complete by the Office of State Planning Coordination in order for the annexation to move forward.

There are many benefits to homeowners who live within Lewes rather than just outside the boundaries:

- The opportunity to have greater and more convenient access to local government including a stronger voice in local development and other city issues, and the privilege to vote in Lewes elections, run for office and be involved on appointed boards and commissions where decisions are made.
- More efficient trash, yard waste and recycling collection, as well as snow removal, resulting in fewer commercial trucks on the streets.

- Street repairs and maintenance are completed by city staff. Lewes has high standards for street construction.
- City sewer, water and electricity cost less inside the city boundaries. City residents are free of septic system maintenance and the major expense of replacing failing septic systems or drilling new, deeper wells to avoid contaminants.
- Increased property values.

➤ **PROPOSED LEWES ANNEXATION PLAN**

Position on Expansion of Boundaries: Lewes is interested in expanding city boundaries in order to have more control over surrounding development and, where possible, to add areas that are now served by the Lewes Board of Public Works.

Policy for Annexation: Lewes is interested in expanding its boundaries in order to have more control over surrounding development and to protect its wellfield.

Recommendations: This Plan recommends that Mayor and Council consider:

- First priority be given to annexing those lands that lay between Kings Highway and Savannah Road, out to Clay Road, to include the Warrington Farm, Cape Henlopen High School, and the City of Lewes wellfields. (Map 11)
- Continuing to seek ways to make it more attractive to be a resident of the city, as a way to encourage annexation of lands within the annexation area.
- Approaching the homeowners within the inholdings/enclaves to encourage them to annex into the city.
- Reviewing incentives, such as tax abatement, fee reductions, and streamline processes.

C. AREAS OF CONCERN

The City of Lewes, the BPW, the LPC, and some residents of the City of Lewes are intensely interested in and concerned about any activities on lands between Oyster Rocks Road and Cape Henlopen State Park, extending south all the way to SR 1 (Map 11). Much of this area lies within the water recharge area or is veined with wetlands and floodplains. Development and other activities on these lands have the potential to degrade Lewes's drinking water, exacerbate flooding problems and increase transportation congestion.

The majority of the land within this area is zoned by Sussex County as AR-1 or Agricultural Residential, meaning that single-family homes may be built here by right. Sussex County's Comprehensive Development Plan shows the same area to be within the Environmentally Sensitive Developing (ESDDOZ) area of the county. There are also a few small areas designated as Mixed Residential Areas along Savannah Road.

Because development in this area has the potential to impact the City of Lewes, the city is strongly interested in revisiting the existing Memorandum of Understanding (MOU) with Sussex County. A new MOU would also set the stage for a regional planning initiative to develop a joint land use and transportation plan for this area. Other partners in this initiative might include DelDOT, DNREC, DEDO, University of Delaware Sustainable Coastal Communities Initiative, and other nearby coastal communities. Lewes would like the Area of Concern to develop in an environmentally sensitive way that provides for a variety of housing, appropriate commercial, transportation, and employment options to meet the needs of a variety of people. Recognizing the issues and risks in the region related to

flooding and sea-level rise, Lewes would also like to work with Sussex County and DNREC to strengthen the ESDDOZ regulations.

➤ **AREA OF CONCERN PLAN**

Position on Development of Adjacent Areas: Lewes is concerned that land use and environmental regulations in Sussex County are less stringent than those in Lewes. Lewes is strongly supportive of improving the MOU between the city and the Sussex County governing development within the city's designated area of concern. Lewes is also interested in increasing intergovernmental coordination.

Recommendations: This Plan recommends that Mayor and Council consider:

- Working toward a regional planning initiative to develop a joint land use and transportation plan for the area.
- Reviving the MOU between the city and Sussex County regarding development activity around the City of Lewes (out to SR1).

PART VI: MOVING FORWARD

A. IMPLEMENTATION

The City of Lewes has a number of tools at its disposal to implement the recommendations discussed in this Plan. A number of the recommendations may require changes to the Subdivision Code, Zoning Code or other laws and ordinances of the City of Lewes – these are outlined in Section B. Several of the land use recommendations may require changes of the Zoning Map in order to implement. The City may be able to accomplish some of the recommendations through partnerships with other agencies and organizations – these opportunities are discussed in more detail in Section C. For many of the recommendations in this document, implementation requires finding and allocating substantial sums of money well beyond the City’s current fiscal capacity.

B. ZONING CODE AND MAP REVISIONS

Within 18 months from the date of adoption of this Plan the City will make changes to the Zoning Map to bring it into agreement with this document.

C. INTERGOVERNMENTAL COORDINATION STRATEGY

The City of Lewes Mayor, Council, and Planning Commission will require assistance and coordination from many other agencies and organizations to successfully implement many of the recommendations outlined in this Plan. The City and BPW are already working with many of these agencies on many of these issues and will need to continue as well as expand those efforts. Some of the agencies and organizations whose support will be needed include:

Board of Public Works of the City of Lewes (BPW): BPW is another government entity in the City of Lewes; it has a different funding mechanism. BPW can collect impact fees, which cover the capital costs of providing service. Lewes and BPW maintain a good working relationship.

There are a number of issues identified within this Plan where coordination and cooperation is needed for the good of the community. Issues related to land use planning and development include better coordination with BPW to provide incentives for the right kind of development. Lewes can support the BPW by annexing the wellfields into the City, as well as supporting BPW’s efforts to consolidate their three CPCNs into a more cohesive area of interest.

Since storm water management is within the purview of BPW, Lewes supports BPW in addressing the flooding issues outlined in this Plan, the Hazard Mitigation Report and the Quinn Report. Lewes can also assist BPW in applying best practices to new and redevelopment, finding and acquiring land for stormwater projects if needed, and possibly helping with enforcement of stormwater maintenance of facilities that are not under BPW control. Both BPW and Lewes need to work together on public education efforts and emergency planning related to flooding and stormwater management.

Sussex County: Development in Sussex County has increased City costs and threatens drinking water quality and quantity. The coastal area is a major economic driver for Sussex County and what happens to this area in future years has the potential to greatly affect the County. Sussex has begun to recognize this relationship with the adoption of their ESDDOZ regulations, but more cooperation with the County is needed.

The biggest issue of concern to Lewes is the need for regional planning and coordination. Planning issues include zoning and land use, better protection of the water recharge areas and other environmental resources, transportation congestion and gateways into town. The entire coastal area, including Sussex County and the other coastal towns needs to educate residents and visitors with respect to flooding, development best practices, sea-level rise and emergency planning. Although this could be done as an individual effort by Lewes and for Lewes, public education would be much more effective and efficient if all the local governments joined together in this effort.

State of Delaware: Delaware has a number of different agencies that can provide assistance in addition to the General Assembly. Lewes and BPW already coordinate with many of these agencies on a number of issues, but should continue to actively seek out partnerships in order to accomplish the best outcomes.

- **The Delaware General Assembly:** Lewes area Representatives and Senators can provide funding for transportation and trails programs through the capital budget as well as funding assistance for individual projects using legislator discretionary funds. Also, Lewes and other local governments need state-level funding and support for regional planning, clean water, flooding and sea-level rise education and initiatives. Specific laws include changes to Delaware's real estate disclosure laws to provide information related to flooding and sea-level rise.
- **Office of State Planning Coordination (OSPC):** Provide assistance and leadership in bringing the parties together for regional planning in the coastal area.
- **Delaware Department of Transportation (DelDOT):** Assistance is needed in developing and implementing a regional transportation plan including multi-modal improvements, gateways, signage, and context sensitive street designs. Improvements to evacuation routes are a major concern due to flooding making them impassable in several locations. Lewes can use information related to Transportation Enhancements and other sources of funding for bicycle and pedestrian facilities, as well as information related to appropriate street dimensions, bicycle facility design standards, Transportation Improvement Districts (TID), and the possibility of adapting the TMP parking app for city use. DART First State coordination and assistance would focus on transit service and appropriately located and designed shelters.
- **Department of Natural Resources and Environmental Control (DNREC):** Assistance is needed for trail development and funding, as well as trail signage and information regarding off-road trail design standards. Support and coordination will be needed to increase recreational access to Beach Plum Island and the Greenhill Light site. Lewes and BPW may also require coordination and technical assistance regarding the implementation of wetland and riparian buffers, as well as public education regarding safe bicycling, and issues related to flooding.
- **Delaware State Housing Authority (DSHA):** Can provide technical assistance and resources related to affordable housing issues, including research on best practices related to Cohousing, and model code language for accessory dwelling units.
- **Delaware Emergency Management Agency (DEMA):** Provide technical assistance and funding related to flooding and sea-level rise, including improvements to evacuation routes, emergency planning, and public information.

- **Delaware Economic Development Office (DEDO):** Provide assistance and support for regional planning as well as coastal initiatives related to flooding and sea-level rise in order to preserve the economy of the coastal area.

Federal Government: In addition to advocating with the congressional delegation to provide funding for all forms of transportation, and flooding and sea-level rise initiatives, Lewes needs to continue to seek out assistance and coordination from several other Federal agencies:

- **Federal Emergency Management Agency (FEMA) and National Flood Insurance Program (NFIP):** Provide assistance and funding for improvements to evacuation routes and assistance with flooding and sea-level rise initiatives.
- **United States Army Corps of Engineers (USACE):** Provide assistance and coordination on Canal-related initiatives including flooding and water quality. They also regulate certain types of wetlands.
- **United States Geological Service (USGS):** Provide technical assistance and information related to aquifer monitoring for saltwater intrusion and flooding initiatives.
- **National Park Service (NPS):** Coordinate management of the First State National Historic Monument.

Quasi-governmental organizations:

- **Delaware River and Bay Authority (DRBA):** Provide assistance and coordination related to Freeman Highway pedestrian crossings and multimodal facilities, as well as the City's gateways. Other issues for coordination include bicycle and pedestrian safety improvements on Cape Henlopen Drive from Lewes Beach to the park, and DRBA shuttle coordination. Lewes may need to seek the assistance of its State legislators for best results.
- **Cape Henlopen School District (CHSD):** Coordinate and communicate information related to all area school properties including Blockhouse Pond, and cooperation related to annexation of the high school and city wellfields.
- **University of Delaware Sustainable Coastal Communities Initiative:** May be able to provide assistance with flooding and sea-level rise technical issues, such as coastal zone resiliency, and public education. The SCCI can also continue to support regional planning issues.
- **University of Delaware T² Institute:** May be able to provide information and training regarding the ADA Transition Plan and other transportation issues.
- **Sussex Conservation District (SCD) and Natural Resources Conservation Service (NRCS):** May be able to provide technical and funding assistance for flooding and sea-level rise issues, projects and implementation. The SCD also has the authority to regulate stormwater management.
- **Sussex County Cooperative Extension Service:** Sometimes provides assistance with public education.

Non-Government Organizations: There are a number of other local organizations that may advocate or be able to provide assistance and serve as partners in accessing other sources of funding. Some to consider include:

- **The Delaware Nature Society:** May be able to provide assistance with Community Habitat certification including public education, and is a possible partner for grants related to flooding and sea-level rise.
- **Lewes Chamber of Commerce:** Market Lewes events and attractions.
- **Greater Lewes Foundation:** Possible assistance with fundraising and general support.
- **Delaware Greenways:** Support for transportation improvements, and possible assistance with grant writing and fundraising.
- **Lewes in Bloom:** Possible assistance with public education and fundraising.

- **Delaware Center for the Inland Bays:** May be able to provide assistance with public education, and a possible partner for grants related to flooding and sea-level rise.
- **Sussex County Association of Towns (SCAT):** Provide support for legislative initiatives and regional coordination.
- **Delaware League of Local Governments (DLLG):** Provide support for legislative initiatives and regional coordination.
- **Greater Lewes Community Village:** May be a possible source of support for housing ordinances and assistance with senior issues.

APPENDIX A: Comprehensive Plan Process and Public Participation

Summary of the Process

The LPC kicked off the process at their regular meeting in September 2013. Fall 2013 and Spring 2014 were spent reviewing existing documents, developing maps and background material related to the existing situation, and identifying and analyzing pertinent issues. Two public listening sessions were held in June 2014, facilitated by the University of Delaware Sustainable Coastal Communities Initiative. From August 2014 through March 2015, the LPC held a series of biweekly meetings to discuss specific issues and map out a path forward. All meetings were advertised and open to the public, with plan materials posted on the City's website in advance of all meetings.

Public Workshops

The LPC held two public workshops in June 2014 (Wednesday June 11 and Saturday June 14) to gather public input regarding the future of the town. Joe Farrell and Ed Lewandowski of the University of Delaware Sustainable Coastal Communities Institute led these workshops. They used an Audience Response System to gauge the importance of the Core values and identify key issues of concern to those attending. About 75 people attended one or both of the sessions. Not everyone who attended was a citizen of Lewes.

On Wednesday evening June 11, approximately 50 people attended the meeting, with three-fourths being residents of the City of Lewes. Approximately twenty-four percent owned a business in Lewes. Eighty-nine percent were greater than 51 years old (58 percent over 65). The Saturday morning session on June 14 was attended by approximately 25 people, with ninety-six percent being residents of the City of Lewes. Approximately seventeen percent own a business in Lewes. One hundred percent were greater than 51 years old (65 percent over 65).

Rating the Core Values: All participants were asked to rate the importance of the core values. The Wednesday results:

- Relationship with the sea: 96% rated very important or extremely important
- Community of diversity: 63% rated very important or extremely important
- Town scale and intimacy: 85% rated very important or extremely important
- Busy days and quiet nights: 69% rated very important or extremely important
- Internal communities: 77% rated very important or extremely important

The results from the Saturday workshop:

- Relationship with the sea: 100% rated very important or extremely important
- Community of diversity: 55% rated very important or extremely important
- Town scale and intimacy: 82% rated very important or extremely important
- Busy days and quiet nights: 69% rated very important or extremely important
- Internal communities: 69% rated very important or extremely important
- Historic heritage and preservation [*this question was not asked on June 11*]: 78% rated very important or extremely important

Lewes' relationship with the sea was consistently ranked as the most important core value, with Lewes' town scale and intimacy also ranking very highly. Both groups ranked community of diversity the least important of the core values.

Biggest Challenges: Next the participants were shown a list of issues and asked to identify the three biggest challenges facing Lewes today. Here are the top challenges, from most important to least, from the Wednesday night meeting:

- Annexation
- Coastal and inland flooding
- Transportation and parking
- Aging population
- Demographics and diversity
- Future economic health
- Open space
- Historical preservation

Here are the top challenges from most important to least, from the Saturday morning meeting:

- Coastal and inland flooding
- Land use/annexation
- Aging population
- Demographics and diversity
- Open space
- Transportation and parking
- Future economic health
- Historical preservation

The top two challenges were identified as annexation/land use issues and coastal and inland flooding. Other issues were not considered to be nearly as important.

Quality of Life: Participants were shown another list of issues and asked to choose the most important three quality of life issues facing the City. Here are the issues from most important to least, from the Wednesday meeting:

- Protected natural areas
- Uncongested roads
- Affordable housing
- Safe neighborhoods
- Affordable cost of living
- High quality of schools
- Live close to services
- Bike and footpaths
- Employment opportunities
- Low property taxes

Here are the issues from most important to least, from the Saturday meeting:

- Protected natural areas
- Uncongested roads
- Affordable cost of living
- Live close to services
- Safe neighborhoods
- High quality of schools
- Affordable housing
- Employment opportunities
- Low property taxes
- Bike and footpaths

The top three issues for both groups were protected natural areas, uncongested roads and affordable housing.

City of Lewes, Delaware Comprehensive Plan Update Survey

This section is based on a report to the Planning Commission that was prepared by Chairman Mike Mahaffie after completion of an experimental online survey. The results of this survey should be taken as part of a larger conversation; the response rate for the survey was low (82 responses) and Mr. Mahaffie was careful to note that it was never intended to be taken as a scientific survey.

Background: The Lewes Planning Commission used Google Documents to create an online survey to collect input for the 2015 update of the Lewes Comprehensive Plan. The Survey was available for public responses from May through the end of June (though it was not taken down until July 12). The survey was also used to advertise the two public workshops in June of 2014.

The survey was intended to be a small part of a larger effort to gather public input for the plan. This effort included regular discussion with the public about the draft plan during Planning Commission meetings, a series of public workshops focused on the draft plan, and formal public hearings on the final draft of the plan.

It is important to note that this was not a scientific survey. It was intended only to provide additional input into the planning process.

The Survey Questions: The survey was a simple online form that asked respondents about Lewes itself, the challenges facing the city, and the Lewes Core Values.²

The survey began with three questions to be answered using a text box:

1. What makes Lewes special to you?
2. What do you think is the biggest challenge facing Lewes right now?
3. What do you think will be the biggest challenge facing Lewes in the next 10 years?

The survey then listed the six Lewes Core Values and asked respondents to rank each by their importance to the respondent, on a scale of 1 to 6. Though the survey uses the term “rank,” respondents were not limited to putting the Core Values into rank order; respondents were free to label each Value as a “6” (More Important) if they liked. The survey also asked respondents to suggest an additional Core Value.

Finally, the survey asked respondents to identify whether they were residents of Lewes, of “Greater Lewes,” or of Coastal Sussex, or if they were visitors to the area. This question was intended to highlight the Commission’s interest in a wide variety of opinions and the importance of hearing from those from within and from outside of the city.

Survey Results: There were 82 responses to the survey between May 17 and July 7, 2014. One response was completely blank and four were exact duplicates of other responses, suggesting user error and/or software problems. Removing these records left a total of 77 responses for analysis. Three quarters (75%) of the 77 responses (58) were from persons who identified themselves as residents of the city of Lewes. Another 20 percent (16) were from persons who identified themselves as residents of “greater Lewes.” The remaining 5% identified themselves as residents of coastal Sussex (2) or visitors to Lewes (1).

The full responses, including the duplicate responses, are included as an appendix to this report and were made available to Planning Commission members as part of their information-gathering work.

² The survey form, as it appeared online, is included as an appendix to this Plan.

Respondents spoke of issues around population and specifically the growth in Lewes' residential and seasonal populations. They spoke of parking and traffic concerns are at their height in the summer months and expressed concerns about dealing with the increasing age of Lewes' population; both the challenges faced by an older population and the need for activities geared to an older population.

Respondents also identified issues of property and land rights. They spoke of the need to protect the city's sense of community. And they called for management of and limits on growth.

What do you think will be the biggest challenge facing Lewes in the next 10 years?: Many respondents answered this question with the same thoughts as they did in response to the previous question.⁴ Some copied-and-pasted their earlier responses into this field and some simply said "same as above."

The word "growth" was used more frequently in response to this question than "development." Respondents called for controlling growth and development and noted concerns for growth both within the City and on surrounding lands controlled by Sussex County. There was some discussion of using annexation as a method to control growth on lands outside the present city limits.



Respondents spoke of traffic and infrastructure and services issues such as water supply and of population growth and the aging of the population.

The issues of sea level rise and coastal storms were also mentioned in response to this question. There were also discussions of future taxes and the need to manage growth.

How Would You Rank the Existing Lewes Core Values?: Survey respondents were presented with the six existing Lewes Core Values and were asked to rank each on a scale of one to six, based on their importance to the respondent. The table below presents the averaged results of these rankings by the self-identified geographic starting point of the respondents.⁵

The value scores recorded by Lewes residents tracked closely with those for all respondents. This is not surprising, given the high percentage of Lewes residents among respondents. For both groups, Core Value #3 (Human Town Scale) was most valued. Core Value #1 (Relationship with the Sea) was second

⁴ In hindsight, it might have been more useful to ask what challenges the city will face in 20 years, instead of 10. This might have helped respondents look farther into the future and separate their thinking from the issues of today.

⁵ Because of the small number of respondents identifying themselves as Coastal Sussex residents or as visitors, these two categories have been combined for analysis.

most valued, followed by Core Value #6 (Historic Preservation), Core Value #4 (Busy Days/Quiet Nights), Core Value #5 (Internal Communities) and Core Value #2 (Diversity).

Among residents of greater Lewes, Core Value #1 (Relationship with the Sea) and Core Value #6 (Historic Preservation) were tied for most valued.

Among Coastal Sussex residents and visitors (combined), Core Value #1 (Relationship with the Sea) was most highly valued.

Among all respondents, and among all groups when broken out, Core Value #2 (Diversity) consistently was ranked the lowest.

	Value	All	Lewes Residents	Greater Lewes	Coastal Sussex/Visitors
1.	Lewes has a special and historic relationship with the sea	5.17	5.16	5.31	4.75
2.	Lewes is a community of diversity.	4.13	4.22	4.13	2.50
3.	Lewes values its human town scale and sense of face-to face intimacy that is characteristic of its quality of life.	5.27	5.47	5.00	3.00
4.	Lewes is a town of busy days and quiet nights.	4.87	5.02	4.56	3.50
5.	Lewes recognizes and maintains its internal communities	4.53	4.47	4.69	4.50
6.	Lewes has a unique historical origin and strives to highlight its heritage through building design and architectural preservation	5.13	5.14	5.31	4.25

What would you add to the Lewes core values?: Aside from the word “Lewes,” respondents most often used the word “community” or “communities” in response to this question.

Respondents spoke about the needs and various roles of Lewes’ current and future residents. They mentioned a need to value ethics in city business. They highlighted the spirit of volunteerism and civic activity in Lewes.



They mentioned small town values and spoke about both the lack of diversity in present-day Lewes and the need to promote this existing core value.

Respondents mentioned walkability as a goal and called for common-sense growth controls. They noted the need to protect the environment and preserve open spaces. [End of Survey Summary]

Role of Lewes citizens

Lewes is fortunate to have an engaged and active citizenry. Many citizens have weighed-in during the preparation and discussion of this document. And, in order to implement the strategies outlined herein, it will be important for members of the public to continue to help with implementation through leadership and being vocal in their support or opposition to projects and programs.

Lewes Comprehensive Plan Survey

The Lewes Core Values

The Lewes Comprehensive Plan is based on a set of Core Values, established more than twenty years ago and regularly reviewed. The existing Core Values are listed below. Please use this page to rank the existing Core Values based their importance to you.

Lewes has a special and historic relationship with the sea.

1 2 3 4 5 6

Less Important More Important

Lewes is a community of diversity.

1 2 3 4 5 6

Less Important More Important

Lewes values its human town scale and sense of face-to-face intimacy that is characteristic of its quality of life.

1 2 3 4 5 6

Less Important More Important

Lewes is a town of busy days and quiet nights.

1 2 3 4 5 6

Less Important More Important

Lewes recognizes and maintains its internal communities.

1 2 3 4 5 6

Less Important More Important

Lewes has a unique historical origin and strives to highlight its heritage through

Lewes Comprehensive Plan Survey

The Lewes Planning Commission is rewriting the City's Comprehensive Plan, which is a guide to issues that the City will face over the next 10 years. We need your input. Please take a moment and answer a few questions; your answers will help us craft a meaningful Plan for the City.

What makes Lewes special to you?

What do you think is the biggest challenge facing Lewes right now?

What do you think will be the biggest challenge facing Lewes in the next 10 years?

Continue »



33% completed

APPENDIX B: COMPREHENSIVE PLAN MAPS

(To be appended after this page)

Map 1: City of Lewes Aerial View

Map 2: Current Zoning

Map 3: Certificate of Public Convenience and Necessity

Map 4: Historic Resources and Open Space

Map 5: Environmental Features

Map 6: Preliminary Floodplains

Map 7: Transportation

Map 8: Existing Land Use

Map 9: State Strategies for Policies and Spending

Map 10: Future Land Use

Map 11: Growth and Annexation Areas

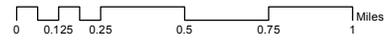


-  City of Lewes
-  Major Routes
-  Rail lines
-  Railroad crossing
-  Major Rivers
-  Water Bodies

City of Lewes, Delaware

Aerial View

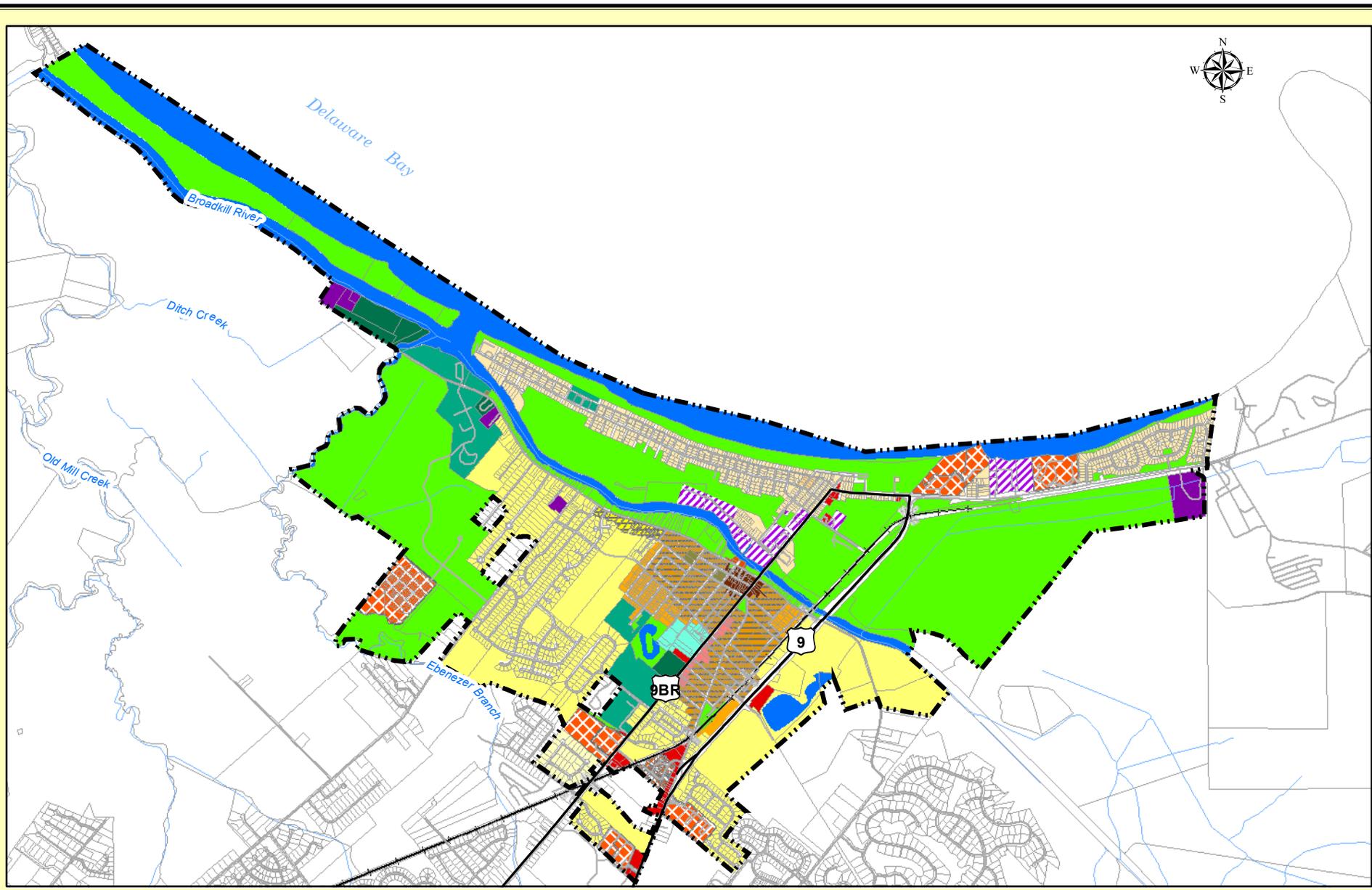
DRAFT - July 2015



Sources:
 Orthophotography - DEMAC 2013.
 Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 06/15.
 Road and Rail Network - Delaware Department of Transportation, FirstMap 02/15.
 Hydrology - USGS and EPA, FirstMap 02/15.

Note: This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.





Zone2015	<ul style="list-style-type: none"> Open Space Open Space (Water) Suburban Residential Low Density Residential Low Density (Historic) Residential Beach Residential Beach (Historic) Residential Medium Density Residential Medium Density (Historic) Mixed Residential 	<ul style="list-style-type: none"> Limited Commercial (H) Cultural/Historic Community Facilities Community Facilities (Educational) Community Facilities (Health Care) Town Center Town Center (Historic) Marine Commercial General Commercial Industrial 	<ul style="list-style-type: none"> Municipalities Major Routes Parcel Boundaries Centerline Roads Rail lines Railroad Crossing Rivers and Streams
-----------------	--	---	---

City of Lewes, Delaware

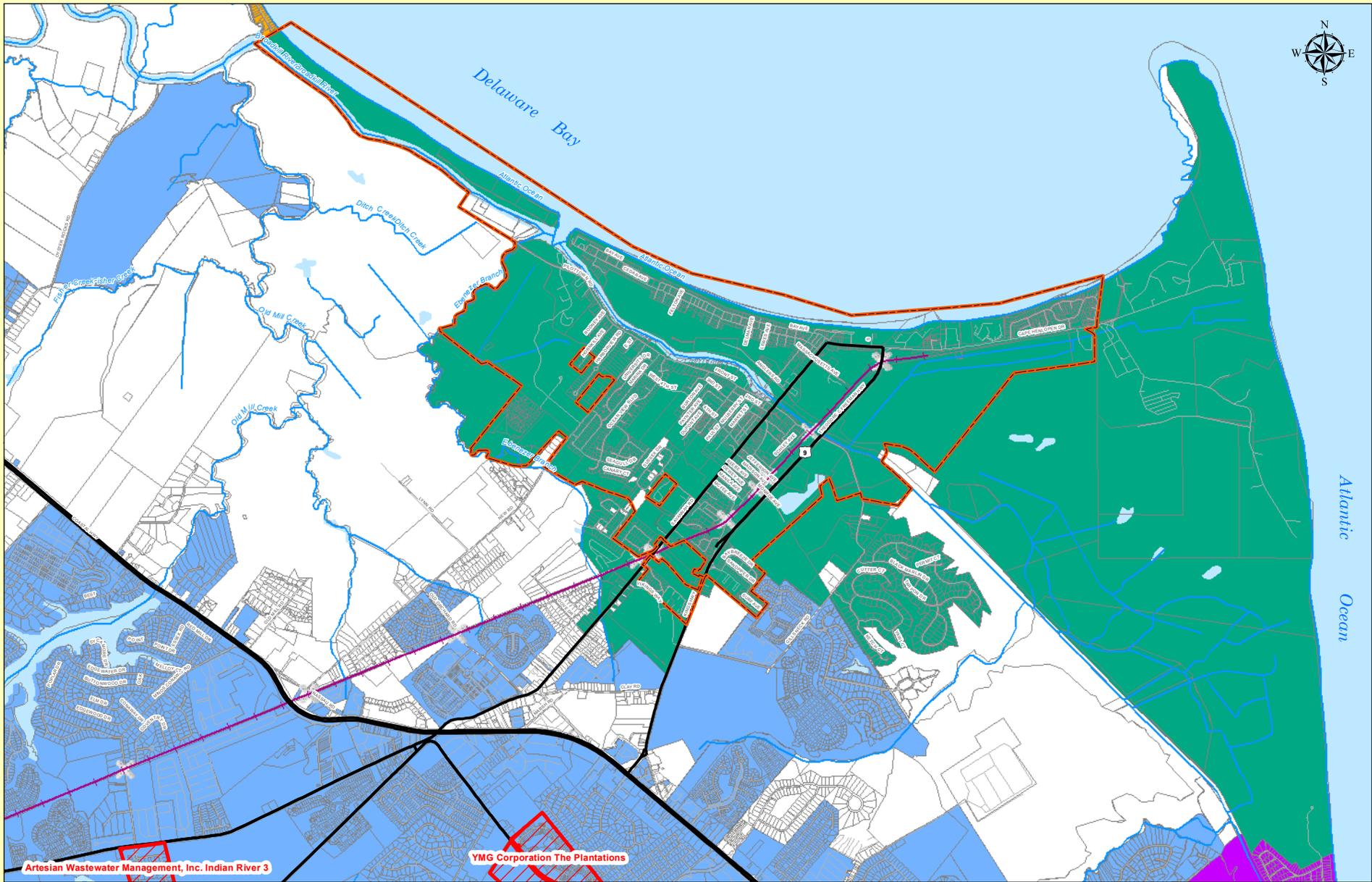
Current Zoning

DRAFT - July 2015



Sources:
 Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 06/15.
 Current Zoning - City of Lewes, Delaware 01/23/15.
 Road and Rail Network - Delaware Department of Transportation, FirstMap 02/15.
 Parcels - Sussex County Mapping and Addressing Department, 09/14.

Note: This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.

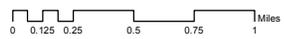


- | | |
|---|--|
|  Wastewater CPCNs |  Parcel Boundaries |
| Water Company |  Major Routes |
|  Lewes Board of Public Works |  Railroads |
|  J.H. Wilkerson & Son |  Railroad Crossings |
|  City of Rehoboth |  Rivers & Streams |
|  Tidewater Utilities |  Water Bodies |
|  City of Lewes | |

City of Lewes, Delaware

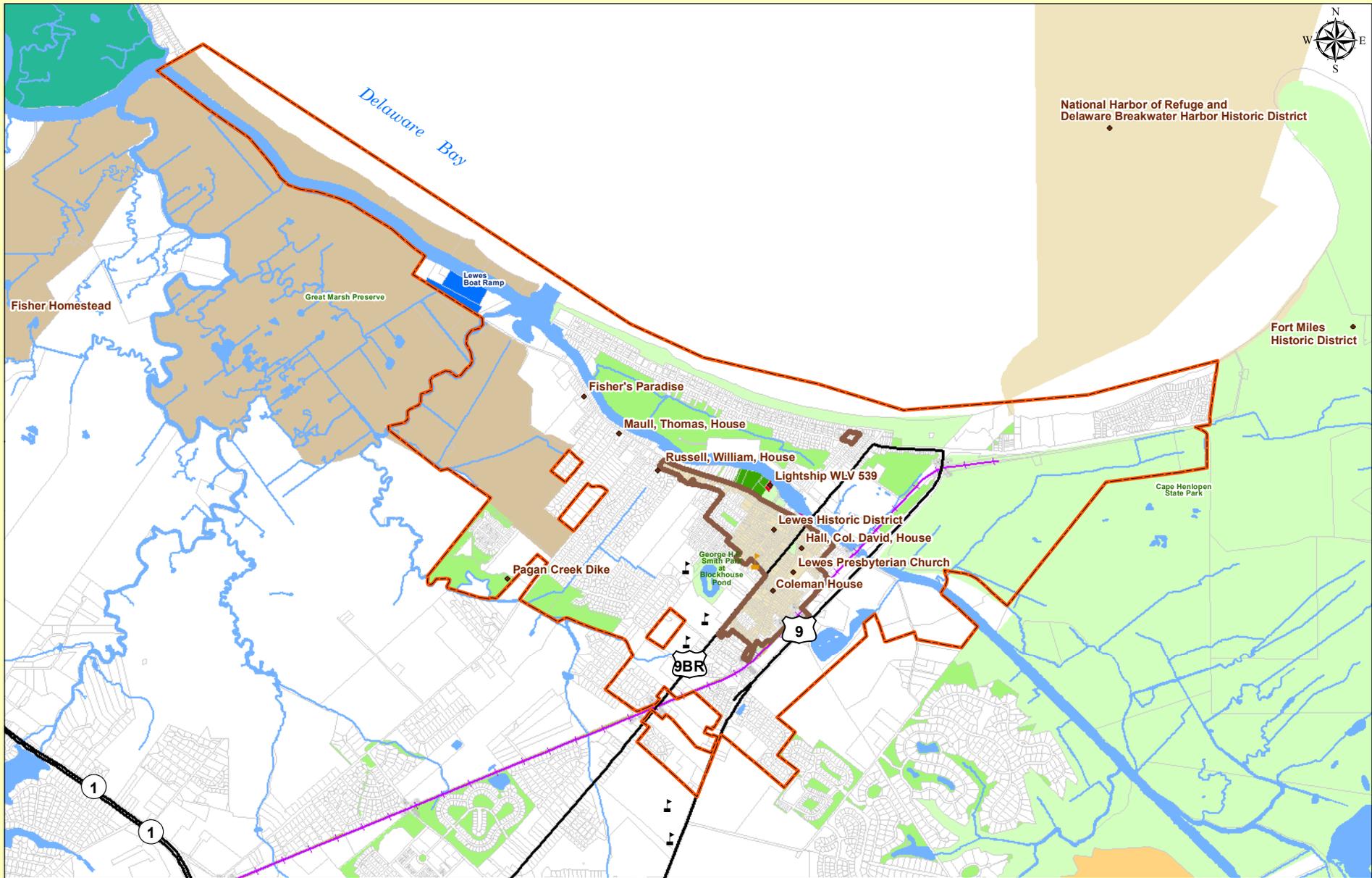
Certificate of Public Convenience and Necessity (CPCN)

DRAFT - July 2015



Sources:
 Municipal Boundaries - Delaware Office of State Planning
 Coordination, FirstMap 02/15.
 Certificate of Public Convenience and Necessity - Delaware
 Public Service Commission, 11/14.
 Parcel Boundaries - Sussex County Mapping and Addressing, 02/15.
 Roads and Railroads - DelDOT, FirstMap 02/15.

Note: This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.



National Harbor of Refuge and Delaware Breakwater Harbor Historic District

Fort Miles Historic District

Cape Henlopen State Park

Fisher Homestead

Great Marsh Preserve

Lewes Boat Ramp

Fisher's Paradise

Mauil, Thomas, House

Russell, William, House

Lightship WL 539

Lewes Historic District

Hall, Col. David, House

Lewes Presbyterian Church

Coleman House

Pagan Creek Dike

George H. Smith Park at Blockhouse Pond

DBR

9

1

1

- | | | |
|-------------------------------------|------------------|-------------------|
| City of Lewes | Boat Ramp | Major Routes |
| Local Historic District | Historical Site | Parcel Boundaries |
| National Historic Register District | Nature Preserve | Rail lines |
| Historic Locations | Open Space | Railroad Crossing |
| Private Schools | Park | Major Rivers |
| Schools | Pier or Dock | Water Bodies |
| Outdoor Recreation Inventory | Spray Irrigation | |
| Baseball Fields | Trail Corridor | |
| | Wildlife Area | |

City of Lewes, Delaware

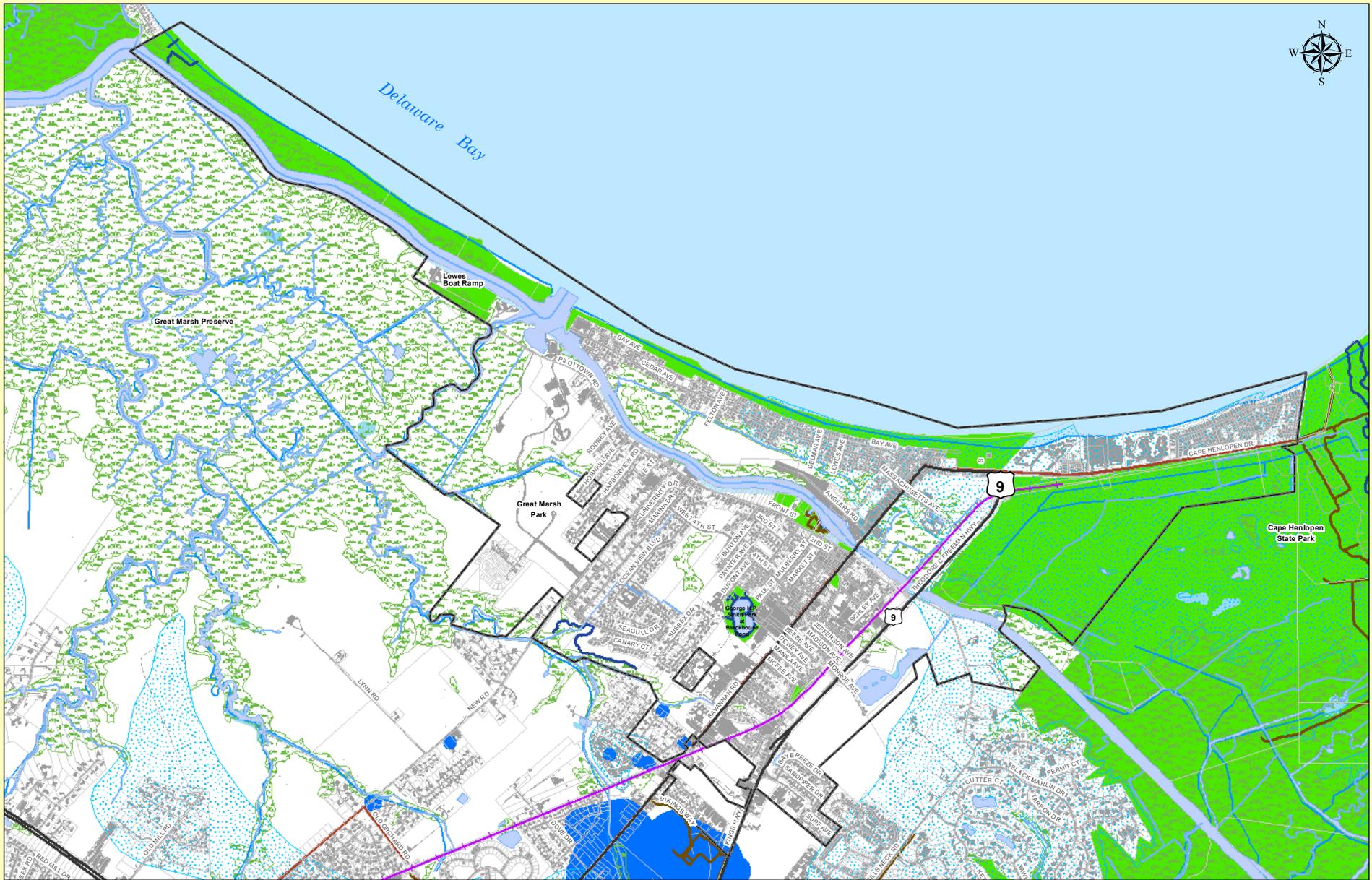
Historic Resources and Open Space

DRAFT - July 2015



Sources:
 Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 06/15.
 Outdoor Recreation Inventory - DNREC, Division of Parks and Recreation, 05/13.
 Historic Locations - Delaware Division of Historical and Cultural Affairs, downloaded 04/14.
 School locations - Delaware Department of Education, FirstMap 02/15.
 Road and Rail Network - Delaware Department of Transportation, FirstMap 2015.
 Parcel Boundaries - Sussex County Mapping and Addressing, 03/15.

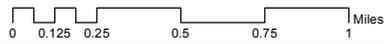
Note: This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than that which it was intended.



- | | | |
|---------------------------|--|-------------------|
| City of Lewes | Pedestrian Trail | Railroad Crossing |
| Excellent Recharge Areas | Multi-Use Trail or Pathway | Rail lines |
| Public Protected Lands | Multi-Use Trail with Horseback Riding | |
| Wellhead Protection Areas | Pedestrian Trail with Horseback Riding | |
| Wetlands | Beach Vehicle Crossing | |
| Pervious | Parcel Boundaries | |
| Impervious | Major Routes | |
| | Water Bodies | |
| | Major Rivers | |

City of Lewes, Delaware Environmental Features Map

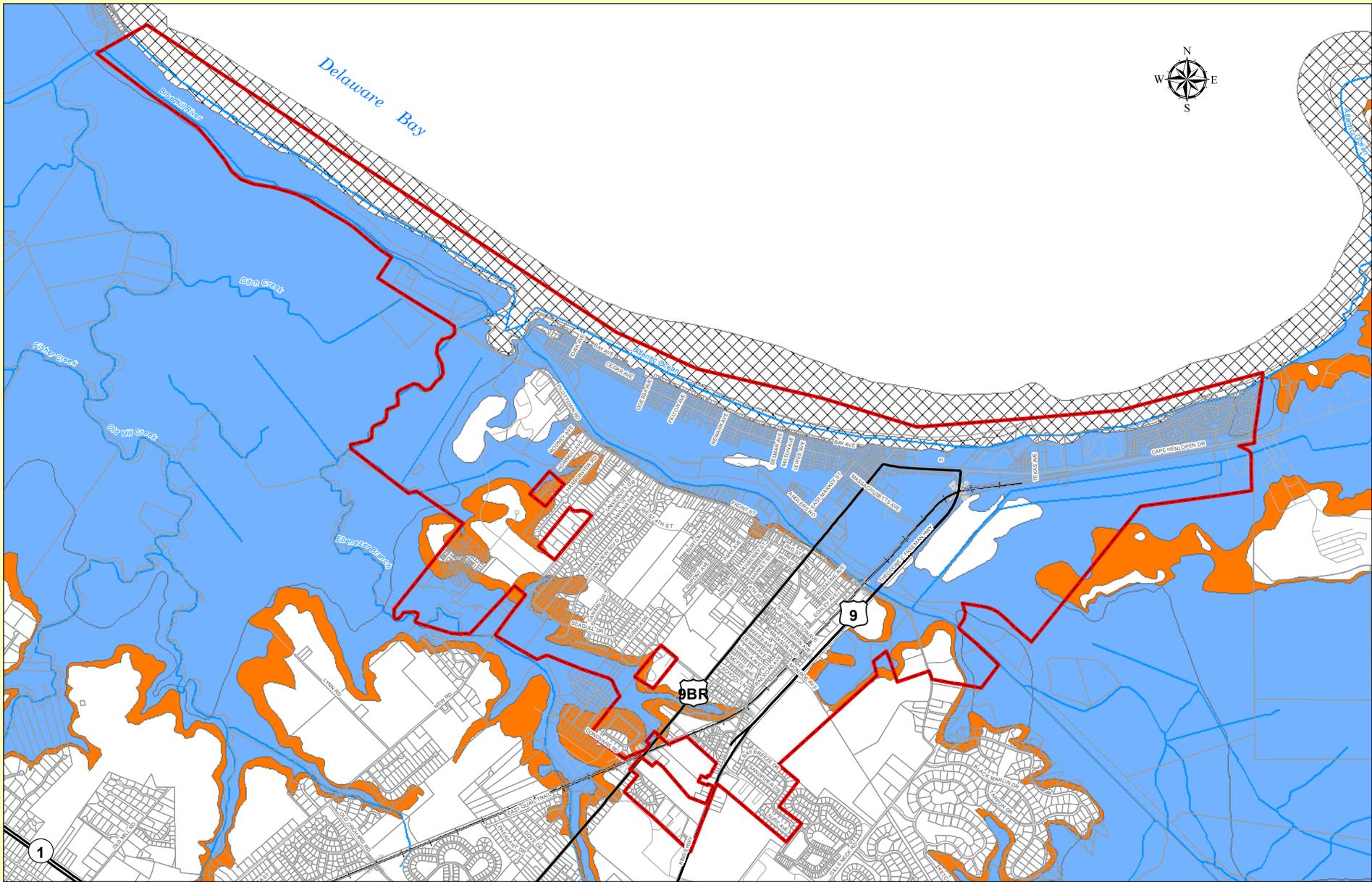
DRAFT - July 2015



Sources:
 Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 06/15.
 Statewide Wetlands Mapping Project - DNREC, Division of Water, Wetlands & Subaqueous Lands Section, FirstMap 12/14.
 Wellhead Protection Areas - DNREC, Division of Water, downloaded 02/14.
 Excellent Recharge Areas - Delaware Geological Survey, 1993.
 Hydrology - USGS and EPA, FirstMap 02/15.
 Road and Rail Network - Delaware Department of Transportation, FirstMap 02/15.

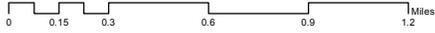
Note: This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.





- | | |
|---------------------------------------|--------------------|
| City of Lewes | Major Routes |
| Flood Zone | Minor Roads |
| A | Parcel Boundaries |
| AE | Rivers & Streams |
| AE - Floodway | Railroads |
| VE | Railroad Crossings |
| X, 0.2 PCT annual chance flood hazard | |

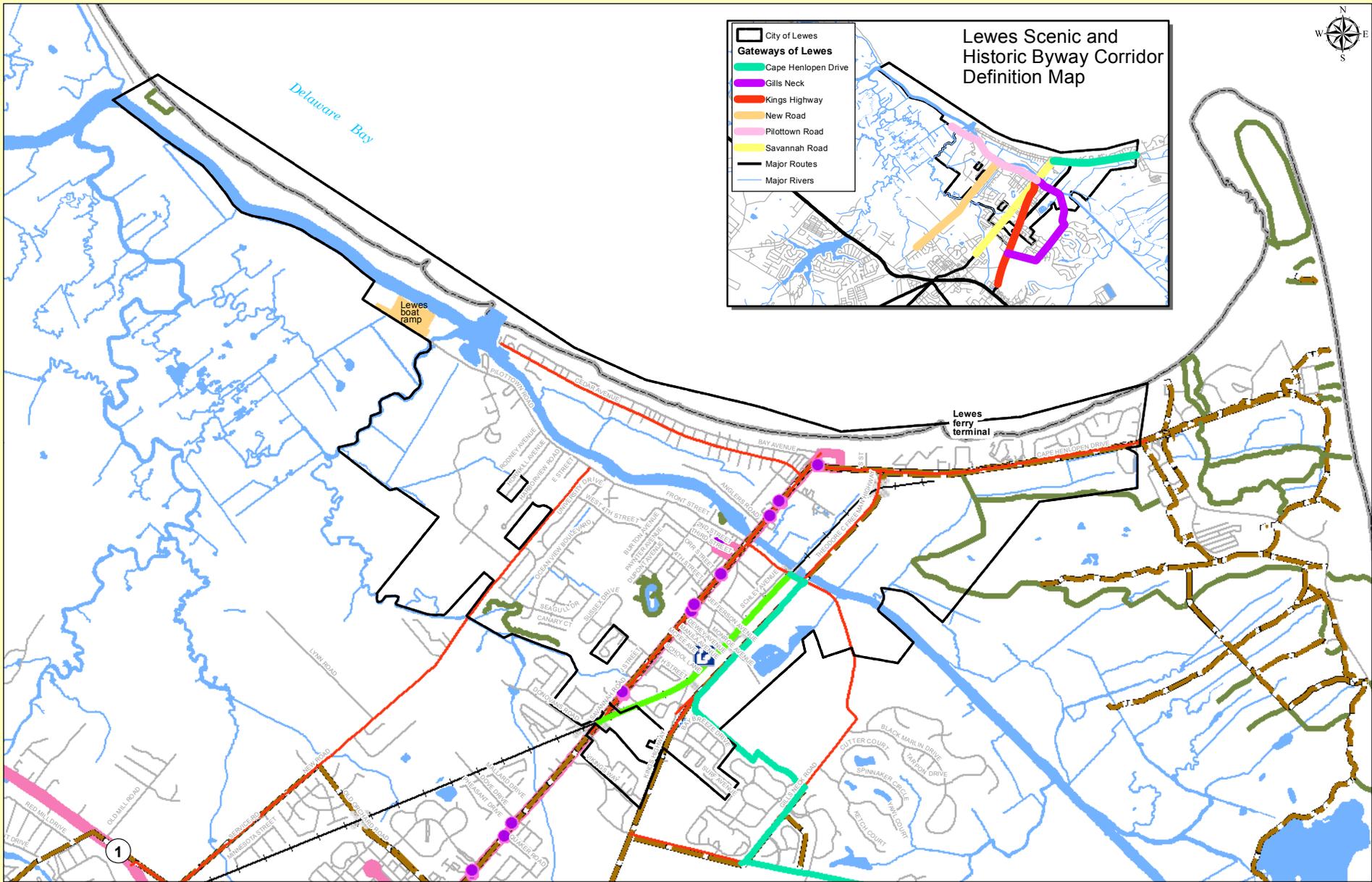
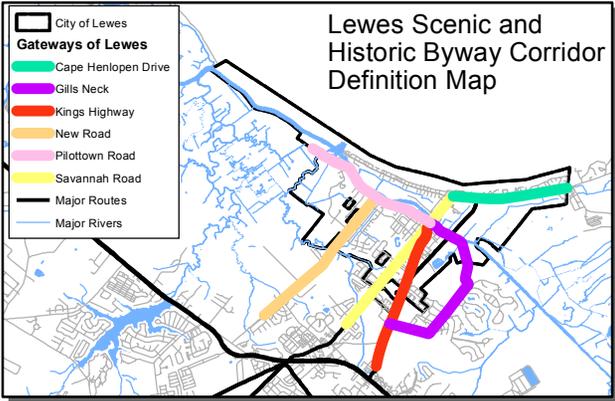
City of Lewes, Delaware
Preliminary Floodplains
 DRAFT - July 2015



Sources:
 Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 06/15.
 Preliminary Floodplains - DRAFT Delaware FIRM data, DNREC, updated monthly.
 Road and Rail Network - Delaware Department of Transportation, 03/13.
 Parcel Boundaries - Sussex County Mapping and Addressing Department, 03/15.

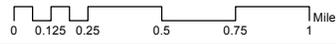
Note: This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.





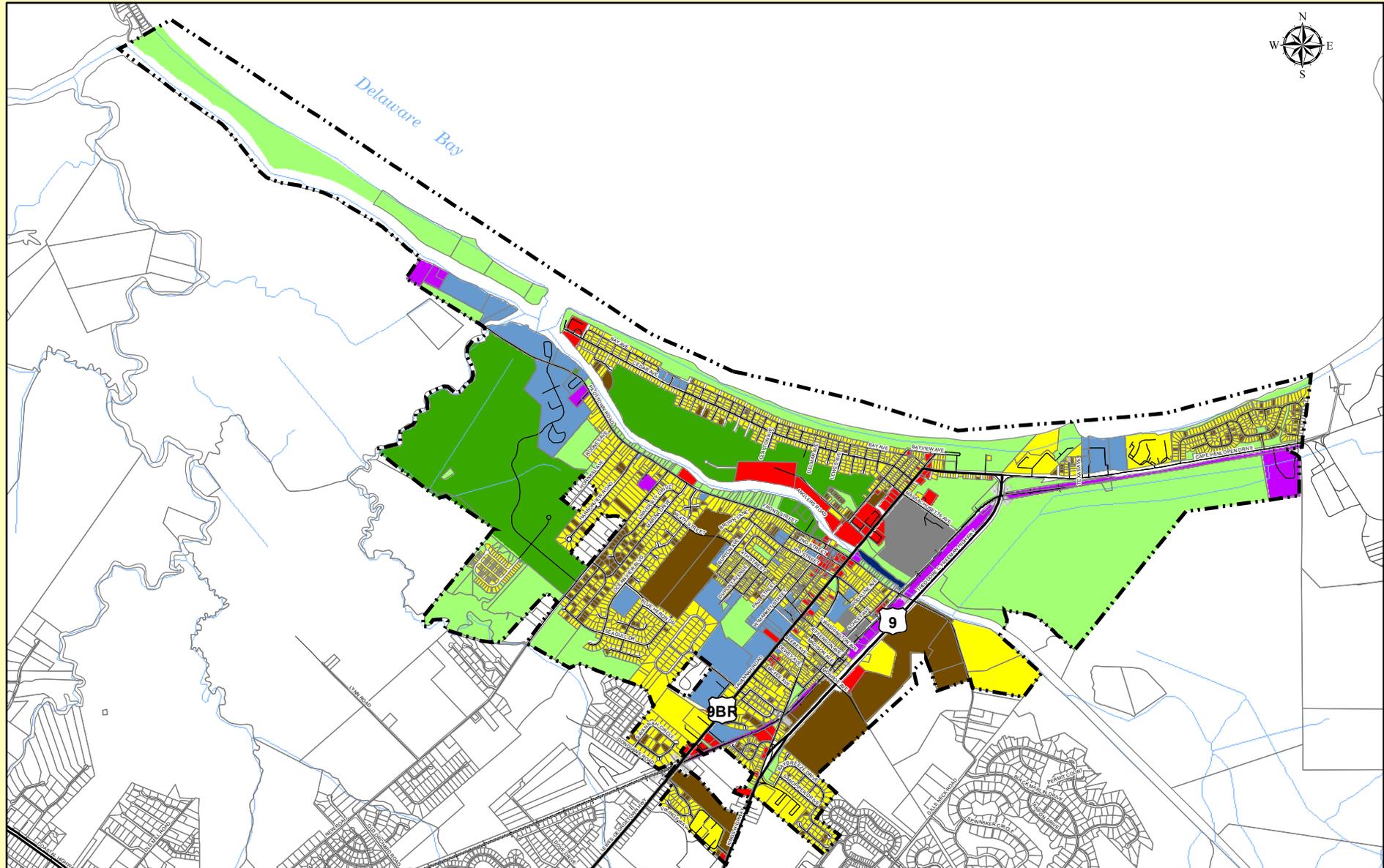
City of Lewes, Delaware Transportation Map

DRAFT - July 2015



Sources:
 Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 06/15.
 Road and Rail Network - Delaware Department of Transportation, FirstMap 05/15.
 Gateways of Lewes - Delaware Scenic and Historic Highway Submitted by Delaware Greenways, Inc., January 2009.
 Critical Roads - Defined by the City of Lewes, February 2011.
 Evacuation Routes - DelDOT, FirstMap 02/15.
 Transit Route - DART, 06/12.
 Trails - DNREC, Division of Parks & Recreation, 06/15.
 Hydrography - National Hydrography Dataset (NHD), USGS and EPA, FirstMap 02/15.
 Note: This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.



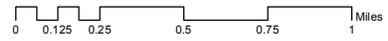


- | | | |
|--------------------------|-------------------|--------------------|
| City of Lewes | Open Space | Major Routes |
| Existing Land Use | Parks | Roads |
| Residential | Utilities | Rivers and Streams |
| Commercial | Canals/Streams | Railroads |
| Industrial | Vacant Land | Railroad Crossings |
| Institutional | Parcel Boundaries | |

City of Lewes, Delaware

Existing Land Use

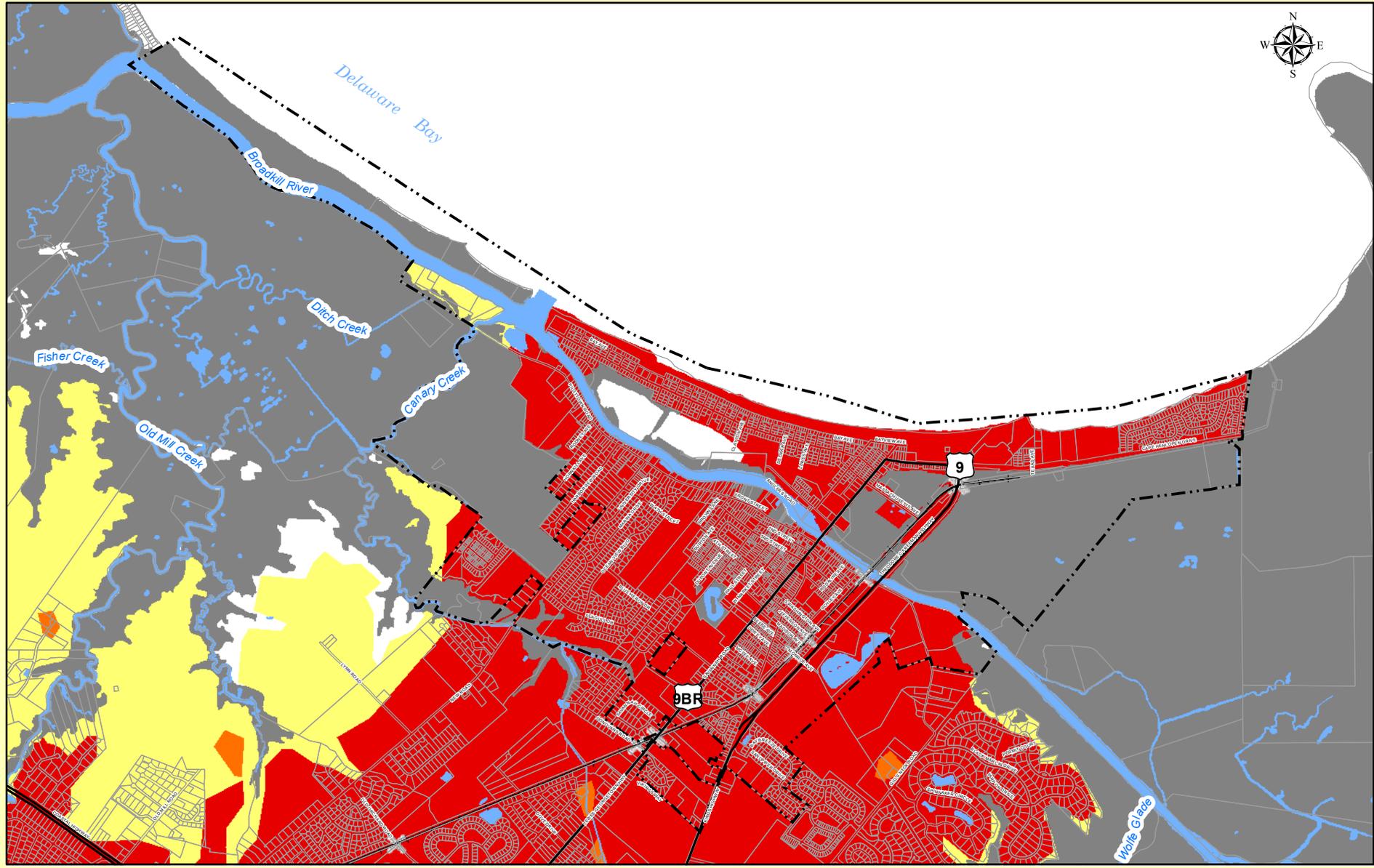
DRAFT - July 2015



Sources:
 Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 06/15.
 Existing Land Use - Field surveyed and developed by UD CEDE student in 06/13,
 verified by the City of Lewes, 10/24/15.
 Road and Rail Network - Delaware Department of Transportation, 03/13.
 Parcels - Sussex County Mapping and Addressing Department, 03/15.

Note: This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.





City of Lewes

2010 State Investment Strategies

- Level 1
- Level 2
- Level 3
- Level 4
- Out of Play

- Major Routes
- Parcel Boundaries
- Major Rivers
- Water Bodies
- Rail lines
- Railroad Crossing

City of Lewes, Delaware

State Strategies for Policies and Spending

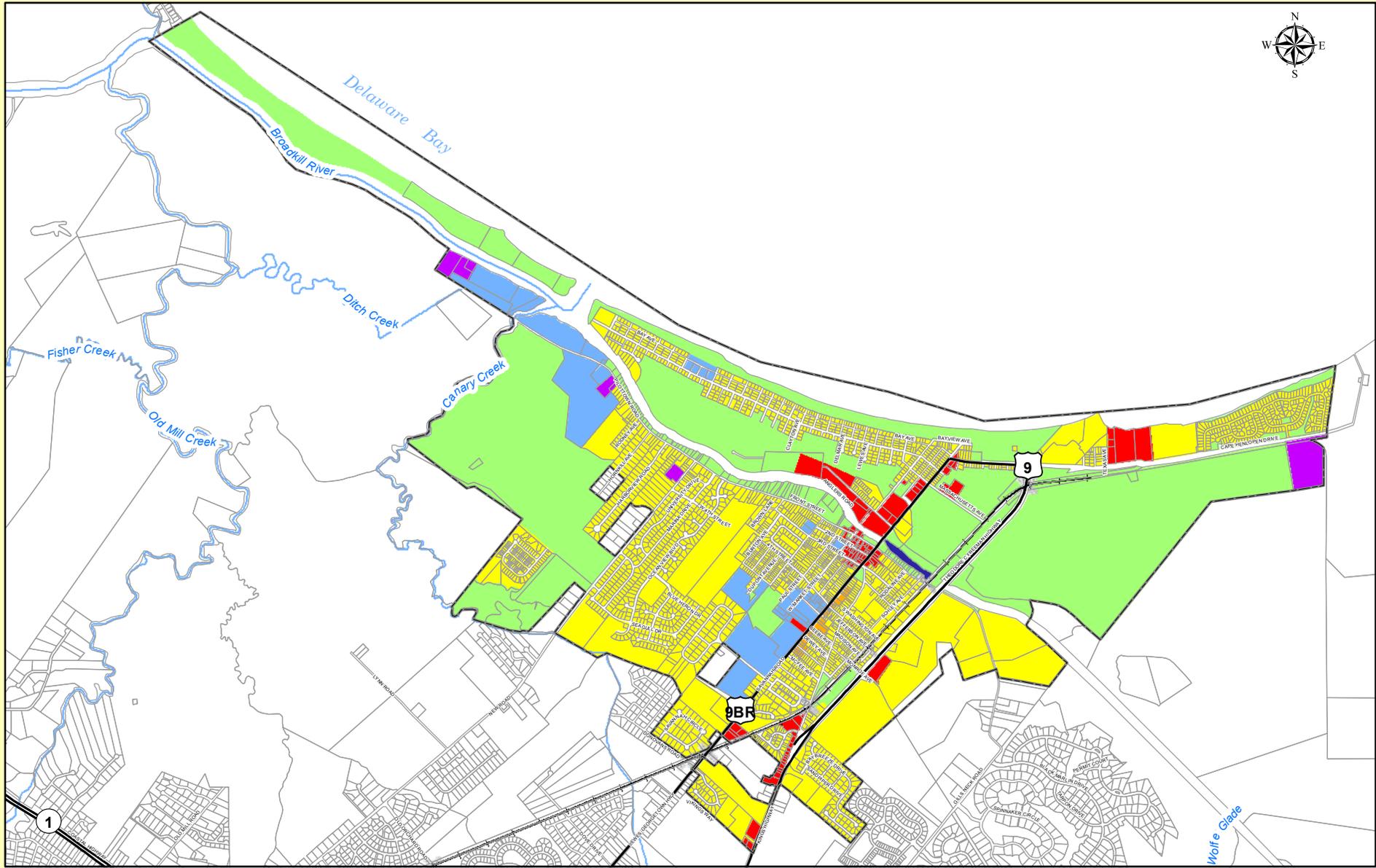
DRAFT - July 2015



Sources:
 State Strategies for Policies and Spending - Delaware Office of State Planning Coordination, FirstMap 03/10.
 Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 06/15.
 Future Land Use - City of Lewes, Delaware 06/15.
 Road and Rail Network - Delaware Department of Transportation, 03/13.
 Parcels - Sussex County Mapping and Addressing Department, 03/15.

Note: This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.



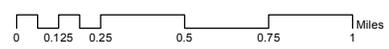


- | | |
|------------------------|-------------------|
| Future Land Use | Municipalities |
| Residential | Major Routes |
| Commercial | Parcel Boundaries |
| Mixed Use | Major Rivers |
| Industrial | Rail lines |
| Institutional | Railroad Crossing |
| Open Space | |
| Canals/Streams | |

City of Lewes, Delaware

Future Land Use

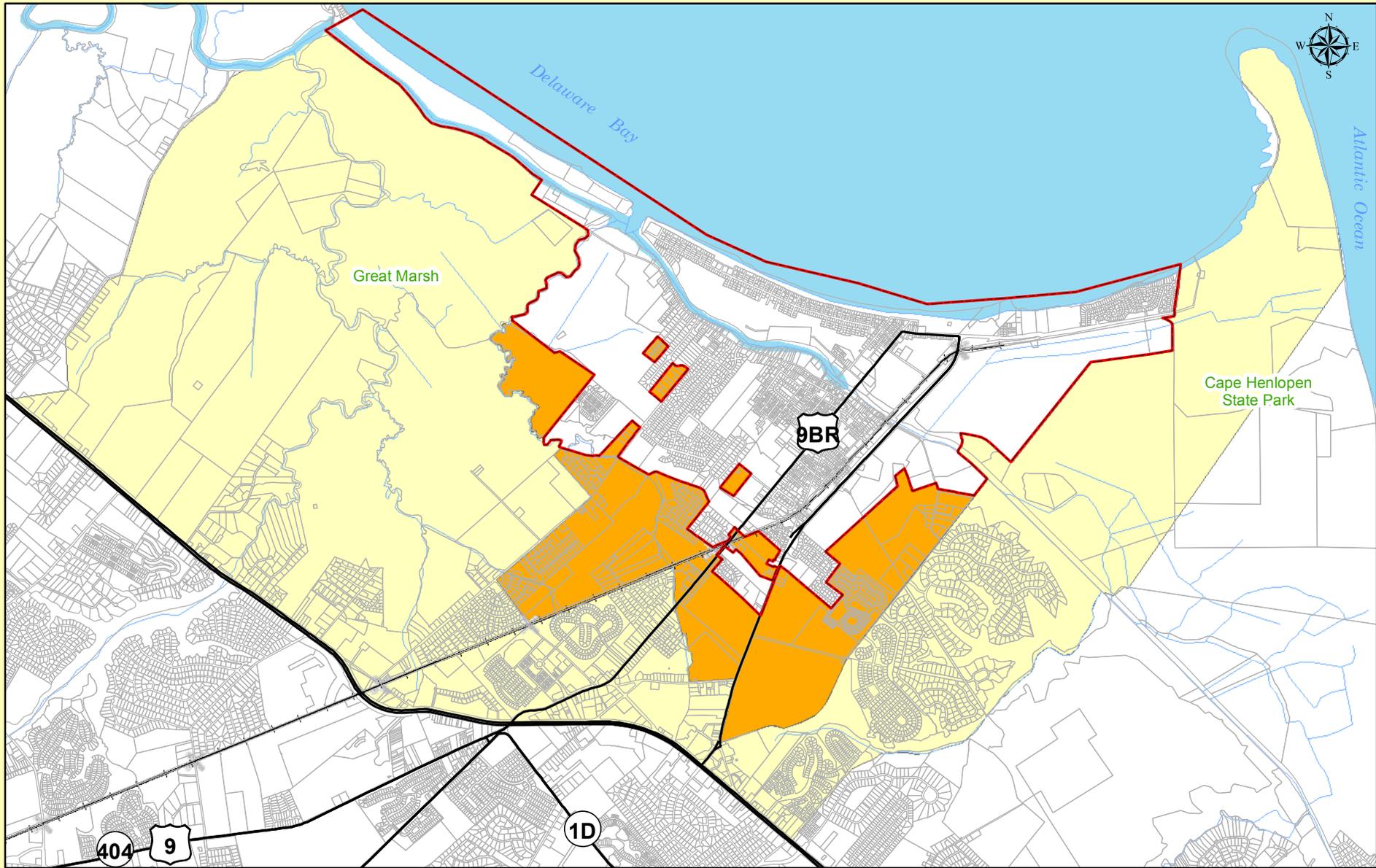
DRAFT - July 2015



Sources:
Municipal Boundaries - Delaware Office of State Planning Coordination, 02/15.
Future Land Use - City of Lewes, Delaware 07/01/15.
Road and Rail Network - Delaware Department of Transportation, 03/13.
Parcels - Sussex County Mapping and Addressing Department, 03/15.

Note: This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.





Annexation Areas

- Annexation Area
- Area of Concern
- Municipalities
- Major Routes

- Parcel Boundaries
- Railroads
- Railroad Crossings
- Rivers and Streams

City of Lewes, Delaware
Growth and Annexation Areas

DRAFT - July 2015



Sources:
Municipal Boundaries - Delaware Office of State Planning Coordination, 02/15.
Growth and Annexation Areas - Defined by the City of Lewes, digitized by
University of Delaware's Institute for Public Administration, 02/15.
Road and Rail Network - Delaware Department of Transportation, FirstMap 02/15.
Parcels - Sussex County Mapping and Addressing Department, FirstMap 03/15.

Note: This map is provided by the University of Delaware,
Institute for Public Administration (IPA) solely for display and
reference purposes and is subject to change without notice.
No claims, either real or assumed, as to the absolute
accuracy or precision of any data contained herein are
made by IPA, nor will IPA be held responsible for any use
of this document for purposes other than which it was intended.

APPENDIX C.

**MAP OF PROPOSED LEWES SCENIC & HISTORIC BYWAY SCENIC VIEWS,
GATEWAYS, DESTINATIONS AND ENHANCEMENT OPPORTUNITIES
JUNE 2015**

(To be appended after this page)

Lewes Historic Byway

Scenic Views, Gateways, Destinations and Enhancement Opportunities

June 2015

Map prepared by **L/KLA**
Lardner/Klein Landscape Architects

in association with:
Heritage Strategies, LLC and
Fitzgerald and Halliday



- Lewes Byway
 - - - Proposed Byway Extension
 - Roads
 - Existing Trail ● Proposed Trail
 - Municipal Boundary
 - Parcel
 - Public Land (ORI Inventory 2012)
 - Protected Land (ORI Inventory 2012)
 - Other Open Space
- Type of Open Space
- Wetland
 - Forest
 - Beaches, Sandy Areas, River Banks
 - Pasture, Rangeland, Fields
- Potential Byway Gateway
 - Potential City Gateway
 - Potential Gateway option
 - Potential Trailhead Gateway
 - Potential Point of Interest/Destination
 - ~ Potential Streetscape Enhancement
 - ← Scenic View
 - - - Important Open Space



GIS data sources: DNREC, SussexCounty.gov, Delaware.gov

Esri, DeLorme, GEBCO, NOAA/NGDC, and other contributors. Sources: Esri, GEBCO, NOAA, National Geographic contributors

APPENDIX D. BIBLIOGRAPHY

- Booth and Associates, Inc., *Board of Public Works, Lewes, Delaware 2005 Long-range Plan Update*, April 2005.
- Delaware Cabinet Committee on Climate and Resilience, *Climate Framework for Delaware, Executive Order 41 Summary of Recommendations*, December 2014.
- Delaware Greenways Inc., and Historic Byway Ad-Hoc Committee, *Delaware Scenic and Historic Highway Nomination Application*, January 2009.
- Delaware Greenways Inc., and Historic Byway Ad-Hoc Committee, *Lewes Historic Byway: Gateway to the Nation Corridor Management Plan Report No. 1 Transportation Management Report*, December 2013.
- Delaware Sea Grant College Program, ICLEI-Local Governments for Sustainability, and University of Delaware Sustainable Coastal Communities Program, *The City of Lewes Hazard Mitigation and Climate Adaptation Action Plan*, June 2011.
- Delaware Sea Level Rise Advisory Committee, *Preparing for Tomorrow's High Tide: Recommendations for Adapting to Sea Level Rise in Delaware*, August 2013.
- Environmental Resources Management, and Arenson and Associates, *City of Lewes Marine Commercial Zoning District Assessment Issues and Options*, October 2014.
- EPA-NOAA Smart Growth Implementation Assistance for Coastal Communities, *Protecting Water Quality with Smart Growth Strategies and Natural Stormwater Management in Sussex County, Delaware*, January 2009.
- Floodplain and Drainage Advisory Committee, *Final Summary Report with Standards and Recommendations*, June 2012.
- George, Miles and Buhr, LLC, *Lewes Sanitary Sewer Study for Lewes Board of Public Works*, July 2007.
- George, Miles and Buhr, LLC, *Lewes Water System Study*, December 2010.
- Greater Lewes Foundation, *Lewes Futurescan 2007-2017*, November 2008.
- Klein, Jim, Lardner/Klein Landscape Architects, P.C., *Memo to the Lewes Scenic and Historic Byway Ad Hoc Committee*, September 9, 2014.
- Kristl, Kenneth Esq. and Widner University School of Law's Environmental and Natural Resources Law Clinic, *Assessing the Legal Toolbox for Sea Level Rise Adaptation in Delaware*, 2014.
- Kusha, Gerhard F., Ph.D., and Marisa Von Hoven, *Regional Planning and Coordination: Opportunities for Enhancing Economic Prosperity and Social Well-Being for Sussex County, DE*, May 2012.
- Lewes Bicycle and Pedestrian Committee, *Lewes Comprehensive Bicycle Plan*, July 2010.
- Lewes Greenways and Trails Committee, *Master Plan*, June 2007.

Lewes Historic Preservation Commission, *User Guide for Home Renovation and Construction in the Historic District*, Undated.

Mastran, Shelly S., *Report on Resource Inventory of Greater Lewes*, January 2002.

McDuffie, Mary Joan, and John Stapleford, *Implications of the Gray Wave Crashing into Delaware*, The Caesar Rodney Institute, 2012.

Office of State Planning Coordination, *Strategies for State Policies and Spending*, 2010.

RCQuinn Consulting, Inc., *LEWES, DE: Evaluation of Existing Rules, Codes, Documents, and Plans*, April 14, 2014.

University of Delaware, Institute for Public Administration, *City of Lewes Comprehensive Plan*, October 2005.

University of Delaware, Sustainable Coastal Communities Initiative, *City of Lewes, Delaware Comprehensive Plan Update Survey Draft*, July 2014.

U.S. Environmental Protection Agency, Sustainable Communities Building Blocks, *Walkability Audit City of Lewes, Delaware Next Steps Memorandum*, August 2012.