



Year-long, Campus-wide focus on one community



Full access to depth of knowledge  
and experience of UMD's faculty



Innovative, low-cost assistance,  
customized to a local government's specific needs

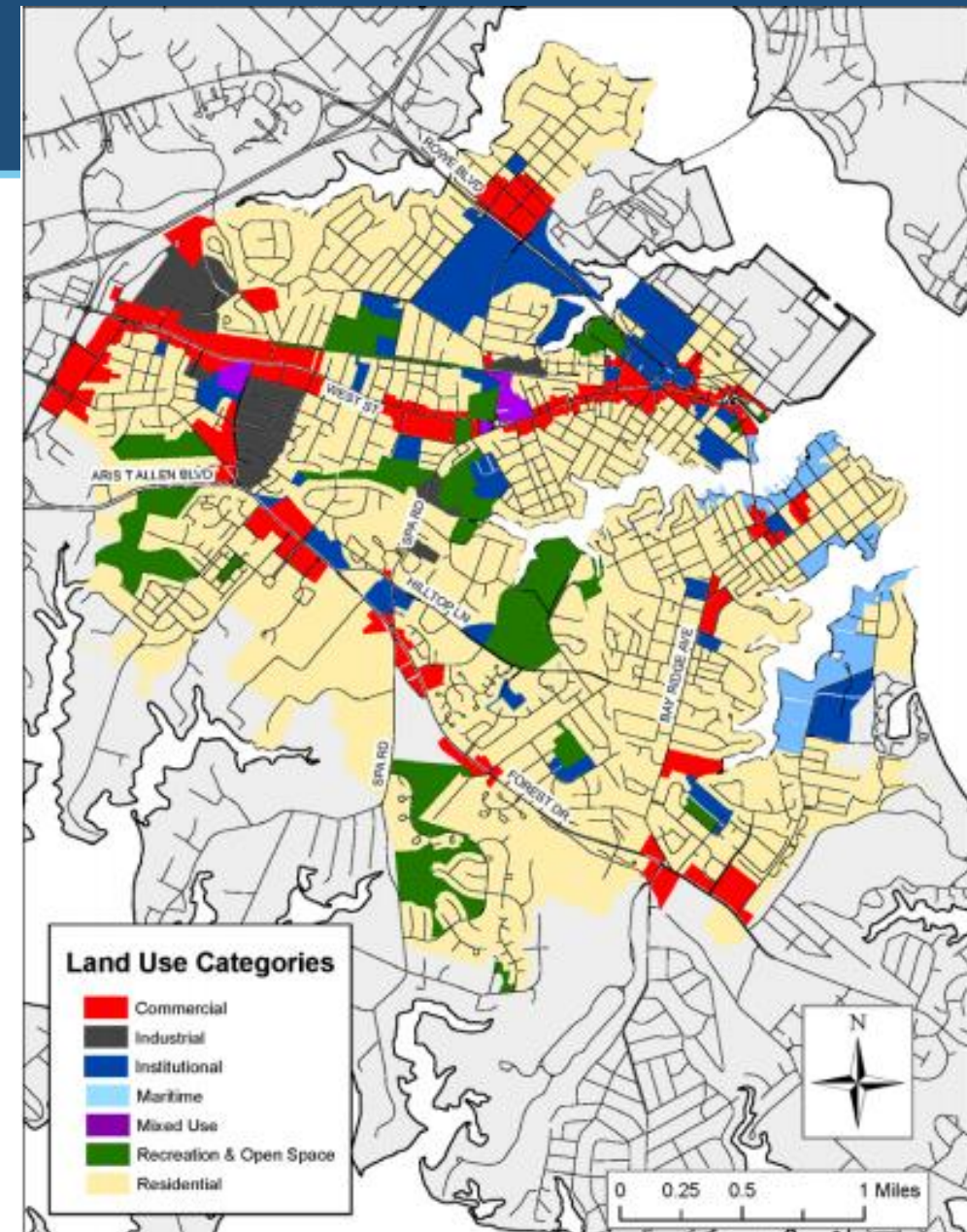
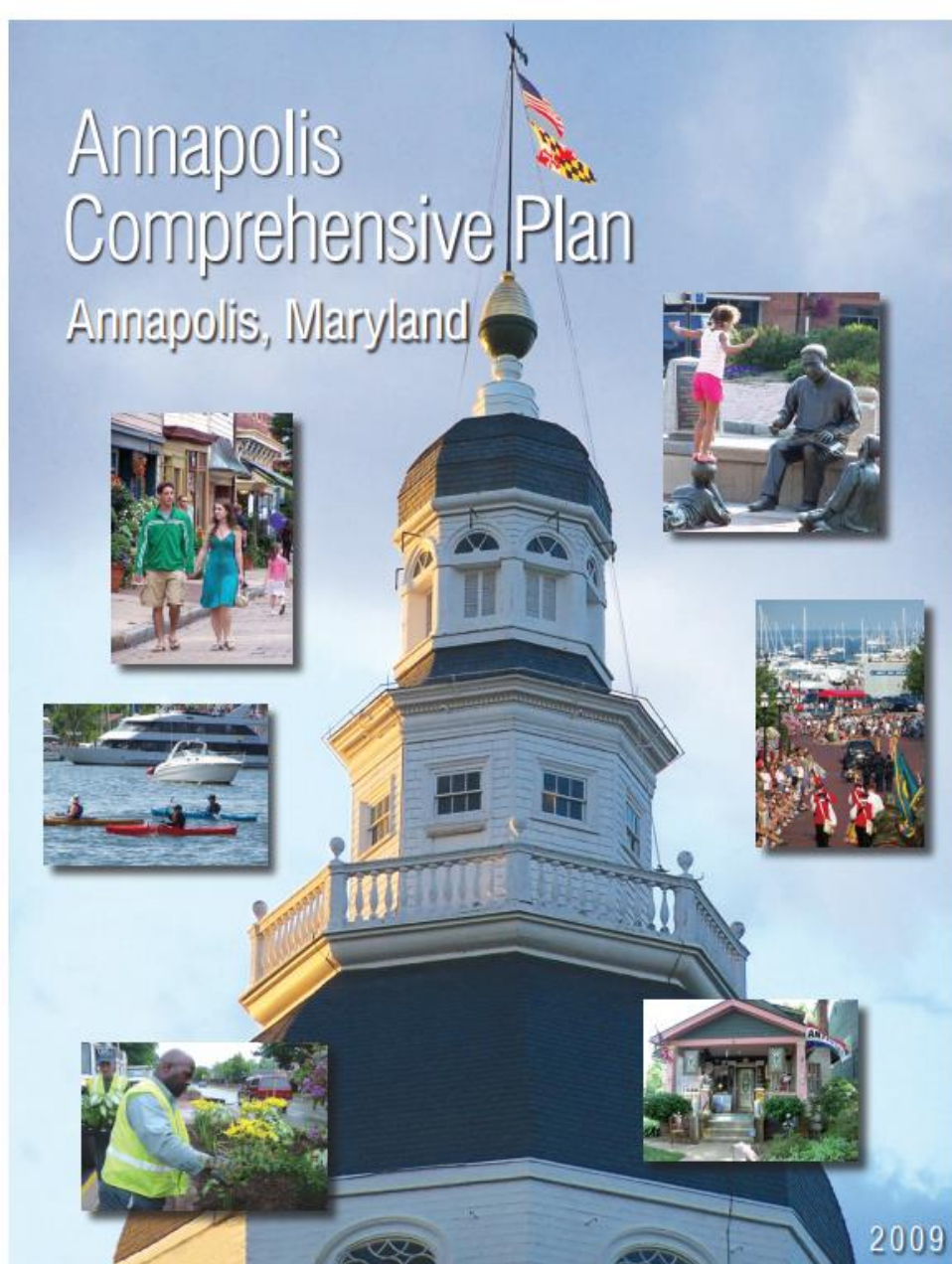


All of UMD's resources aimed at advancing  
environmental, economic and social  
sustainability in Maryland communities



# Annapolis Comprehensive Plan

Annapolis, Maryland





# Tackled Seven Diverse Projects

- Historic City Dock Sea Level Rise Design, [Victoria Chanse](#), [Landscape Architecture](#)
- Spurring Maritime Innovation in Annapolis, [Scott Dempwolf](#), [Urban Planning](#)
- Eastport Historic Survey, [Richard Marciano](#), [iSchool](#)
- Land Use Inventory Database and Analysis, [Chao Liu](#), [Urban Planning](#)
- Land Use/Transportation Evaluation for the Forest Drive Corridor, [Uri Avin and Chao Liu](#), [Urban Planning](#)
- Healthy Annapolis, [Charlie Bailey](#), [Dr. Jennifer Roberts](#), [Public Health](#)





# Historic City Dock Sea Level Rise Design Investigations, Victoria Chanse

This advanced studio created conceptual plans and design solutions to help absorb coastal storm surges and address sea level rise in ways that preserve the area's historic waterfront character and role as a tourist magnet.





# ANNAPOLIS MARITIME HARBOR

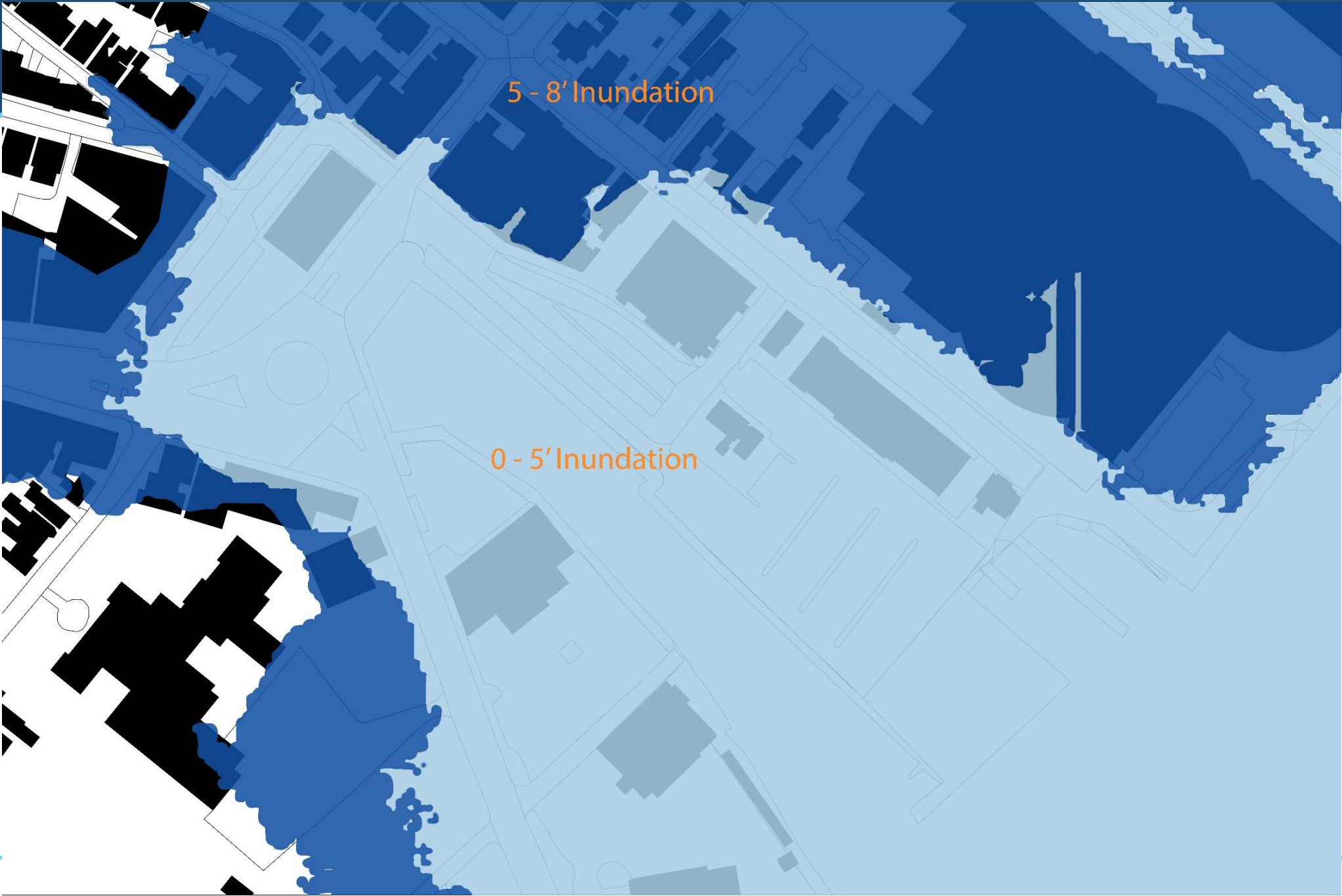
City Dock, Annapolis



Source: [http://www.noaanews.noaa.gov/stories2014/20140728\\_nuisanceflooding.html](http://www.noaanews.noaa.gov/stories2014/20140728_nuisanceflooding.html)

**How can we protect the culture and people of the City Dock area?**

Maria Espinoza|Fall2016|Larc748|Dr.Chanse





## Wetland Park

- The wetland park is at the end of the dock and could have room for expansion depending on the what is the Naval Academy is doing to their shoreline





# Spurring Maritime Innovation in Annapolis, Scott Dempwolf

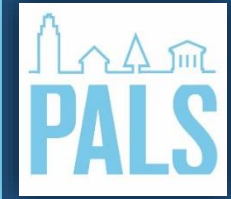
The Fall 2016 Community Planning Studio class was tasked with reviewing previous economic studies of Annapolis' maritime industry and updating the studies' recommendations with new approaches.

The class examined ways to revitalize the City's maritime industry, focusing especially on how innovation-driven economic development tools could be applied in Annapolis and implications for zoning.









# Eastport Historic Survey, Richard Marciano

This GIS-based inventory of historically significant properties in this waterfront neighborhood included detailed background research, field visits, and photo documentation to support preservation and a national district nomination.





# #1 Field Work

- ▶ Methodology
  - ▶ Obtained GIS layers from Shawn Wampler:
    - ▶ R2-NC zoning district + OCD district
  - ▶ Created a PALS Eastport Property Inventory to determine which houses to photograph (817 polygons -- 624 parcels)
  - ▶ Traveled to Eastport and photographed in teams of two
  - ▶ Assigned file names using the format Grid#-Address-View-Date
  - ▶ Uploaded images into Box in folders by street name
  - ▶ Compared present images to 2002 EHT Traceries survey descriptions
  - ▶ Recorded in PALS Inventory the differences in property descriptions and current images



# Final Products

- ▶ **Digitized & Searchable City Directories:**
  - ▶ 1910, 1924, 1928-29, 1939, 1956
  - ▶ with Eastport “datafied”
- ▶ **New GIS layers:**
  - ▶ Hopkins Atlas of AAC Eastport map: 1878
  - ▶ Integrated Sanborn GIS layers for Eastport:
    - ▶ 1903, 1908, 1913, 1921, 1930, 1959
- ▶ **Complete Photo Inventory of Eastport**
- ▶ **Complete Updated Architectural Survey**
- ▶ **Deep Chain of Ownership Documentation & Methodology for subset of properties**
- ▶ **Complete 1940 Digitized & Searchable Individual Household Census records for Eastport:**
  - ▶ 1930, 1920, 1910 & 1900 in progress

- ▶ **ArcGIS Online Demo & QGIS Desktop Demo**
- ▶ **Integrated Eastport Inventory of Properties Form**

- ▶ Location / Parcel map / Owner / Tenants / Profession / Race (pre-1940s) / Legal desc. / Architectural desc. / Chain of ownership / Photo

District - 06 Subdivision - 000 Account Number - 06853900  
505 BURNSIDE ST


| Map  | Grid | Parcel | Sub-District | Subdivision | Section | Block | Lot | Assessment Year | Plat No. | Plat Ref. |
|------|------|--------|--------------|-------------|---------|-------|-----|-----------------|----------|-----------|
| 0520 | 0015 | 0405   |              | 000         |         |       |     | 2015            |          |           |

| Owner Information           |  |  |  |
|-----------------------------|--|--|--|
| <b>Owner Name:</b>          | RICHARDSON ERIC                            |  |  |
|                             | RICHARDSON JENNIFER                        |  |  |
| <b>Mailing Address:</b>     | 505 BURNSIDE ST<br>ANNAPOLIS MD 21403-3214 |  |  |
| <b>Use:</b>                 | RESIDENTIAL NO                             |  |  |
| <b>Principal Residence:</b> |  |  |  |
| <b>Deed Reference:</b>      | 130643/ 00491                              |  |  |

| Transfer Information              |                            |                         |  |
|-----------------------------------|----------------------------|-------------------------|--|
| <b>Seller:</b> WEBSTER STEPHEN S  | <b>Date:</b> 02/14/2017    | <b>Price:</b> \$550,000 |  |
| <b>Type:</b> ARMS LENGTH IMPROVED | <b>Deed:</b> 130643/ 00401 | <b>Deed:</b>            |  |
| <b>Seller:</b> TULLIER JEAN C     | <b>Date:</b> 09/24/2016    | <b>Price:</b> \$625,000 |  |
| <b>Type:</b> ARMS LENGTH IMPROVED | <b>Deed:</b> 129737/ 00366 | <b>Deed:</b>            |  |
| <b>Seller:</b> NEWKIRK MATTHEW R  | <b>Date:</b> 12/23/2009    | <b>Price:</b> \$436,000 |  |
| <b>Type:</b> ARMS LENGTH IMPROVED | <b>Deed:</b> 121876/ 00332 | <b>Deed:</b>            |  |






# Land Use Inventory Database, Chao Liu

A special summer effort was launched to execute this very ambitious product, the City's top priority. All land uses were classified at the parcel level in GIS, using various data sources, becoming the basis for other PALS projects.

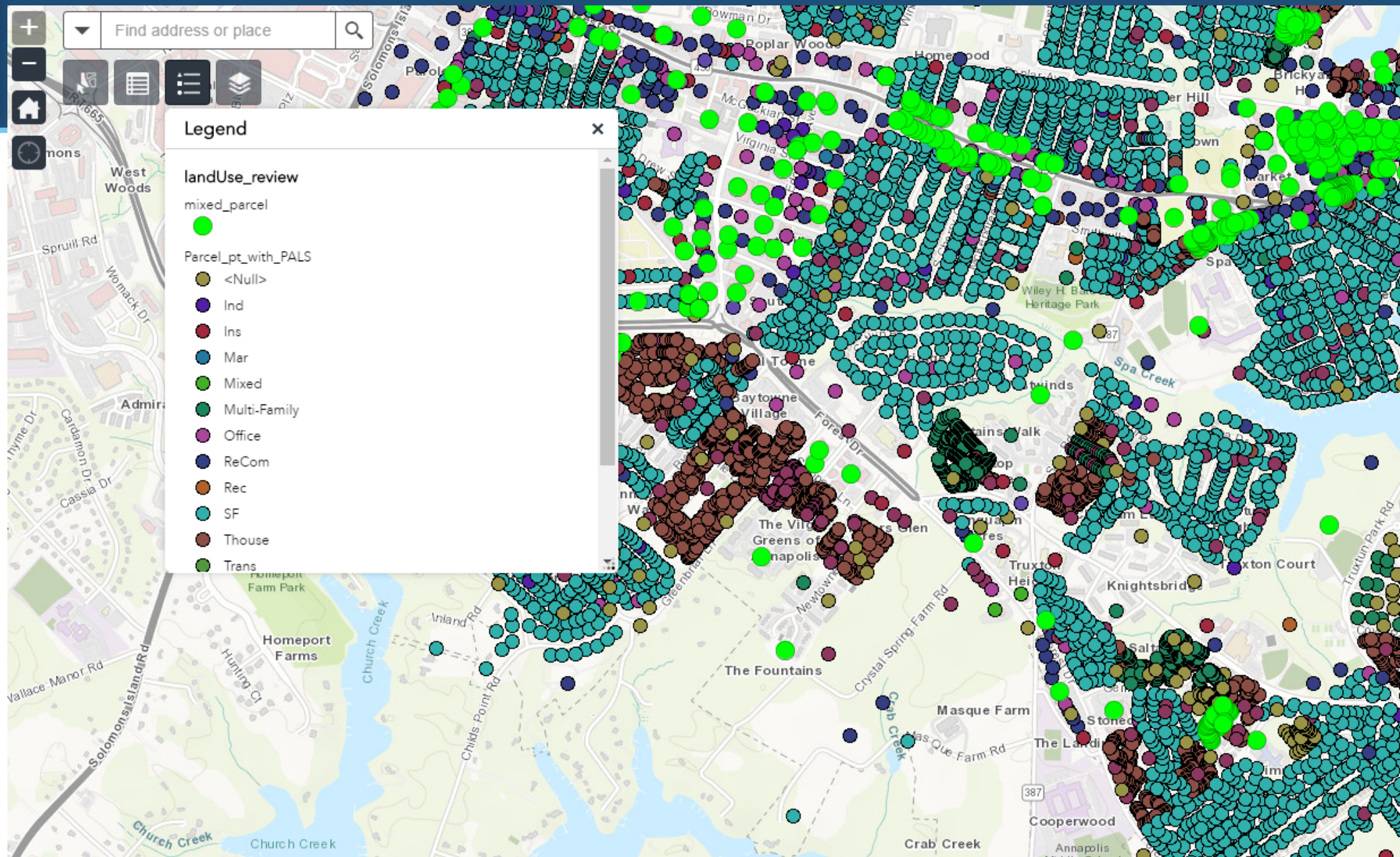




|    | A                         | B                                  | C   |
|----|---------------------------|------------------------------------|---|
| 1  | <b>Primary</b>            | <b>Secondary</b>                   | <b>Definition</b>   |
| 2  | Undeveloped               |                                    | Land that is unimproved and has the possibility of being developed at some point in the future.   |
| 3  | Retail/Commercial         | Shopping Mall                      | An enclosed space containing several retail and/or service outfits.   |
| 4  |                           | Major Retail                       | An unenclosed retail space (i.e. strip or standalone) with big box, anchor, or other "big" retail anchor.   |
| 5  |                           | Local Retail                       | An unenclosed retail space (i.e. strip or standalone) providing neighborhood or local service with no big box, anchor, or "big" retail anchor. Includes grocery stores, banks (no headquarter offices), child care centers (not converted), funeral homes (not converted), bowling alleys, bingo centers, automotive race tracks, automotive drag strips. |
| 6  |                           | Residential Retail                 | A standalone retail space, generally converted from a single-family home. Can include a home occupation.  |
| 7  |                           | Hotel                              | An establishment offering overnight accommodations and may include hotel, motel, inn, extended-stay, and the like.  |
| 8  | Office                    | Office Park                        | A complex consisting of more than one office building, whether it exists on one or more lots.   |
| 9  |                           | Office Building                    | A standalone office building.   |
| 10 |                           | Residential Office                 | A standalone office space, generally converted from a single-family home. Can include a home occupation.  |
| 11 | Industrial                | Manufacturing                      | An industrial space where goods are produced using machinery or manual labor.   |
| 12 |                           | Warehouse/Distribution             | A building for the storage and/or distribution of goods, merchandise, etc. Includes outside storage of contractor materials and/or fleet vehicles.  |
| 13 |                           | Flex                               | Industrial space that can be interchanged between offices, warehouse, and other uses based on tenancy. Generally speaking has some amount of office in the front and  |
| 14 |                           | Mining Operation                   | Sand and gravel mining, etc.  |
| 15 |                           | Landfill/Waste Management          | Public and private landfill, waste transfer station, convenience center, recycling center, etc. Includes closed landfills.  |
| 16 | Marina                    | Community marina                   | Marina is available to residential HOA.   |
| 17 |                           | Yacht Club                         | Private marina available to members of yacht club.  |
| 18 |                           | Commercial marina                  | Marina serves members of the public as well as various commercial functions. Includes light, general, and heavy commercial marinas.   |
| 19 | Single-Family Residential | Rural Residential                  | Detached single family home on lot > 5 acres.   |
| 20 |                           | Large Lot Residential              | Detached single family home on lot > 1 acre to 5 acres.   |
| 21 |                           | Medium Lot Residential             | Detached single family home on lot between 1/4 and 1 acre.  |
| 22 |                           | Small Lot Residential              | Detached single family home on lot < 1/4 acre.  |
| 23 |                           | Mobile Home Residential            | Mobile home or trailer park sites, whether on shared or individual lots.  |
| 24 | Townhouse Residential     |                                    | Townhouse, semi-detached, and duplex dwellings.   |
| 25 | Multi-Family Residential  |                                    | Multi-family residential, apartment, condo complex that is not SF or TH.  |
| 26 | Mixed Use                 | Retail & Retail/office             | Primary ground floor use is retail, upper is office.  |
| 27 |                           | Retail & Retail/residential        | Primary ground floor use is retail, upper is multi-family.  |
| 28 |                           | Retail & Retail/Office/Residential | Primary ground floor use is retail, upper is office and multi-family.   |
| 29 |                           | Office & Office/Retail             | Primary ground floor use is office, upper is retail.  |
| 30 |                           | Office & Office/Residential        | Primary ground floor use is office, upper is multi-family.  |







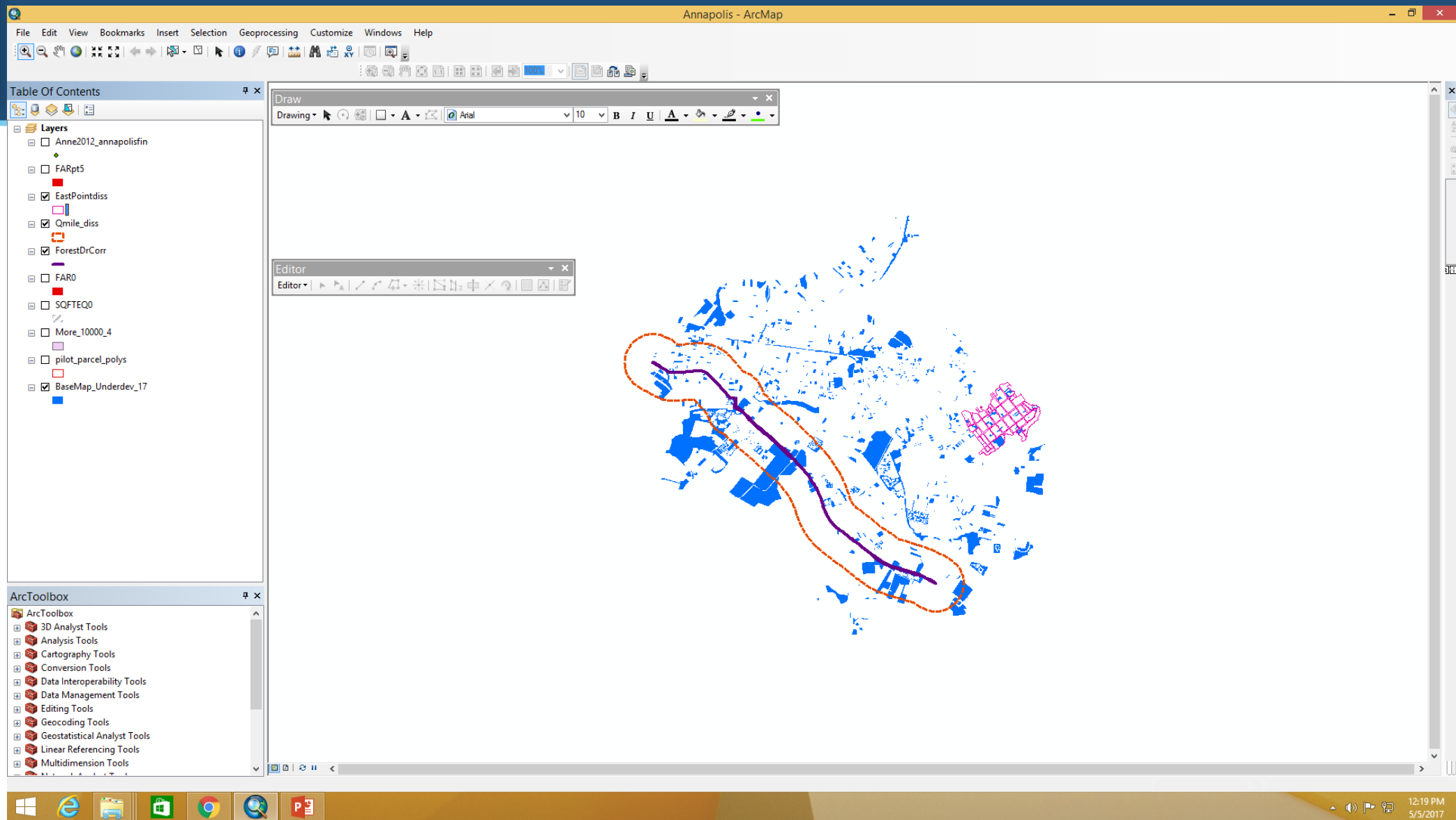


# Land Use Analysis for the City of Annapolis, Chao Liu

The new land use database was mined to assess land use and market trends over the past decade and to identify redevelopment opportunities using factors like underdevelopment, land/improvement values, and age.







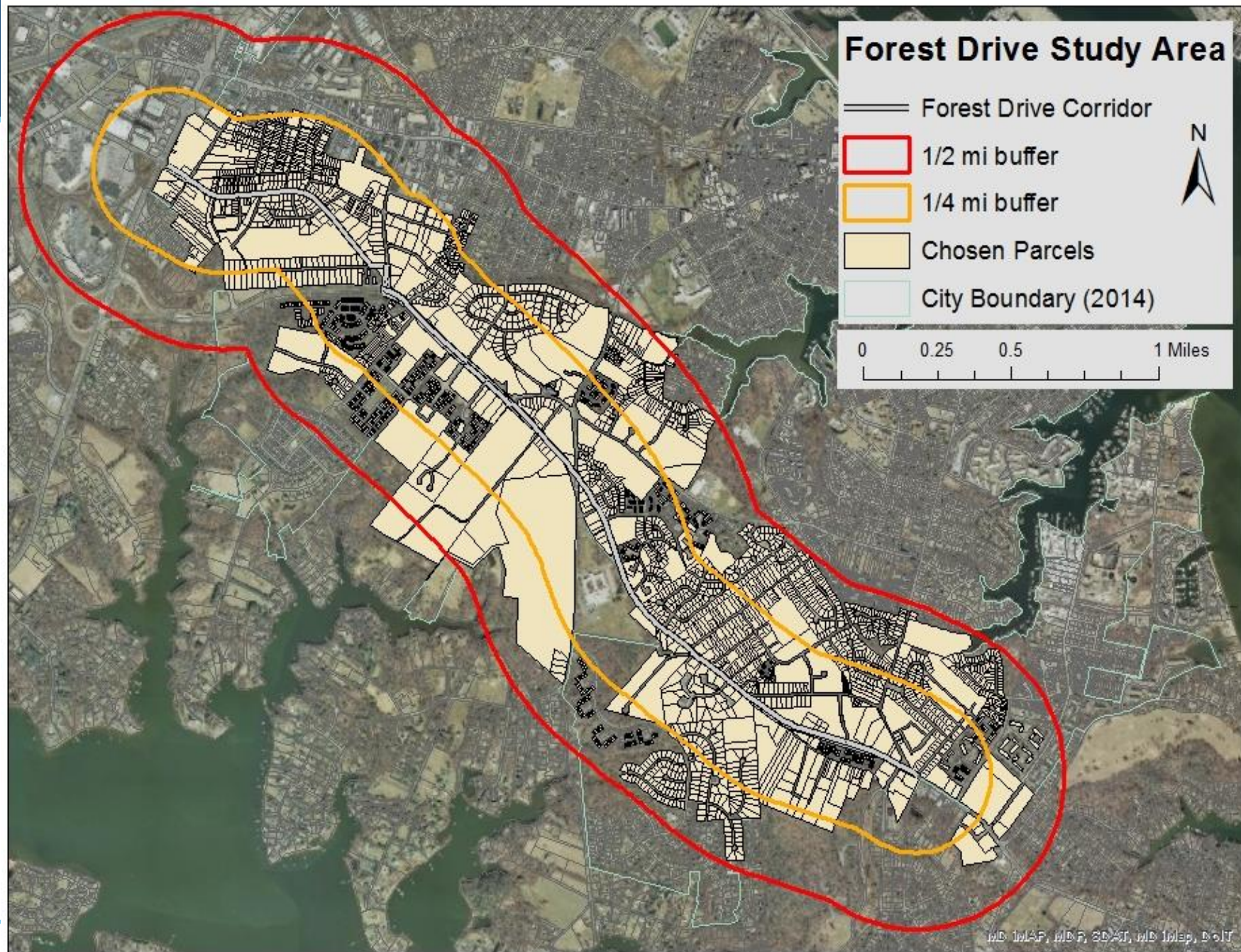


# Land Use/Transportation Evaluation for the Forest Drive Corridor, Uri Avin (methodology) and Chao Liu (GIS techniques)

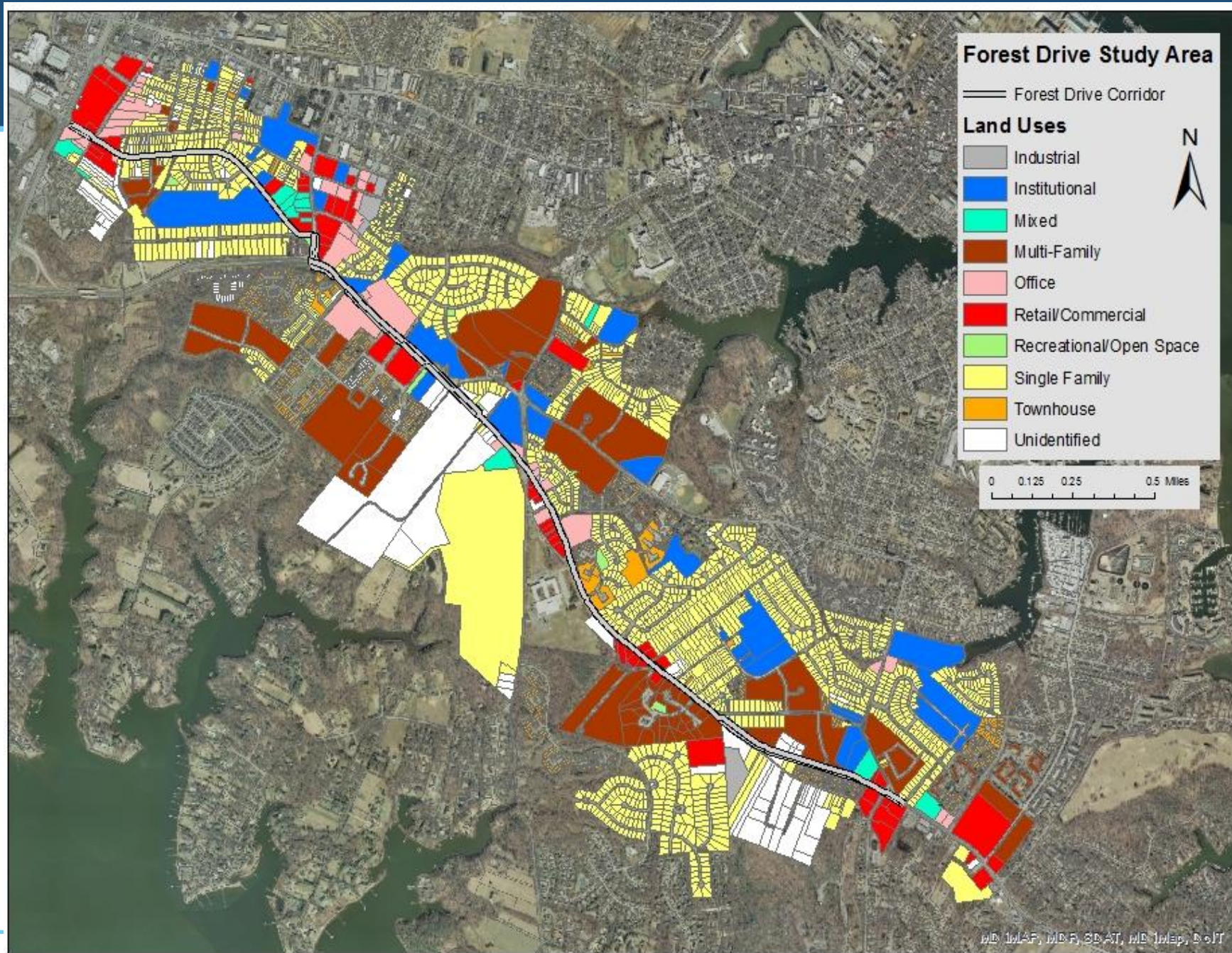
What land use changes might occur along this four-mile corridor and can traffic impacts be managed? Software training and scenario analysis using CommunityViz and the new land use database provided answers as well as a generic tool.







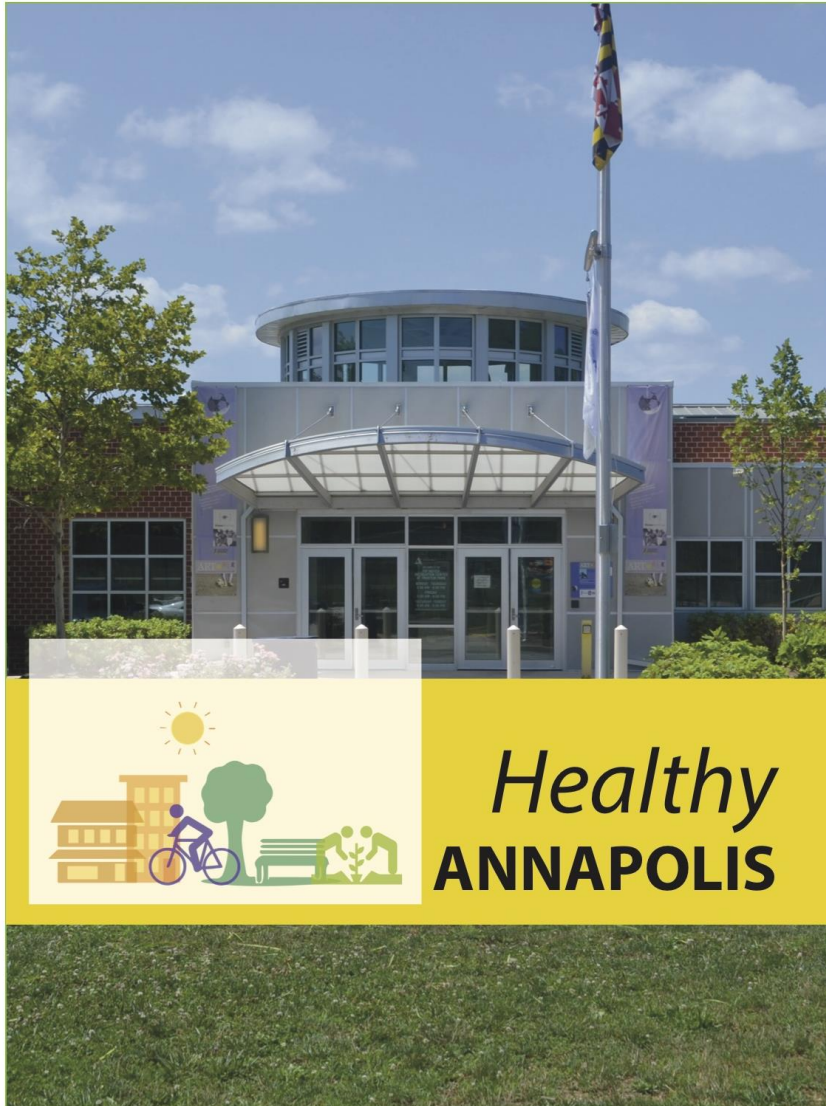








# URSP 705 Urban Planning Studio, Summer 2017



Nicole Akpedeye  
Christine Dunham  
Jennifer Hopkins  
Daniel Kellman  
Alyssa Kurien  
David Lipscomb  
Diane Patterson  
Kacy Rohn  
Samantha Sperber  
Arica Thornton  
Claire Warner



# Project Goals



let's **m**🍏**ove**  
**cities, towns & counties**

## Four Areas of Focus

1. Healthy City Guidelines
2. Parks and Open Space
3. Bicycle Infrastructure
4. Urban Agriculture

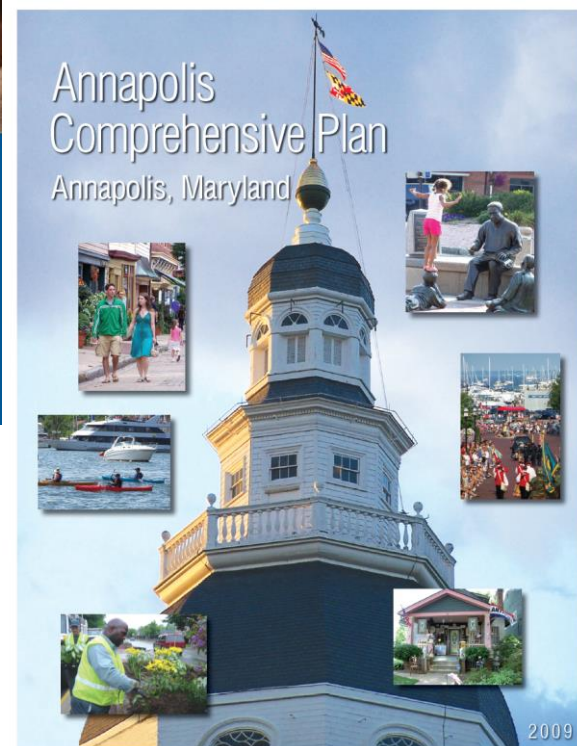


A photograph of a historic city street. The street is paved with red bricks and has several cars parked along both sides. The buildings are multi-story, made of brick and stone, with various architectural details like dormers and bay windows. A Maryland state flag is visible on a building on the right. In the background, a church with a tall, pointed steeple is visible against a cloudy sky. A semi-transparent white box with the text "HEALTHY CITY GUIDELINES" is centered over the image.

# HEALTHY CITY GUIDELINES



# Evaluating the Comprehensive Plan



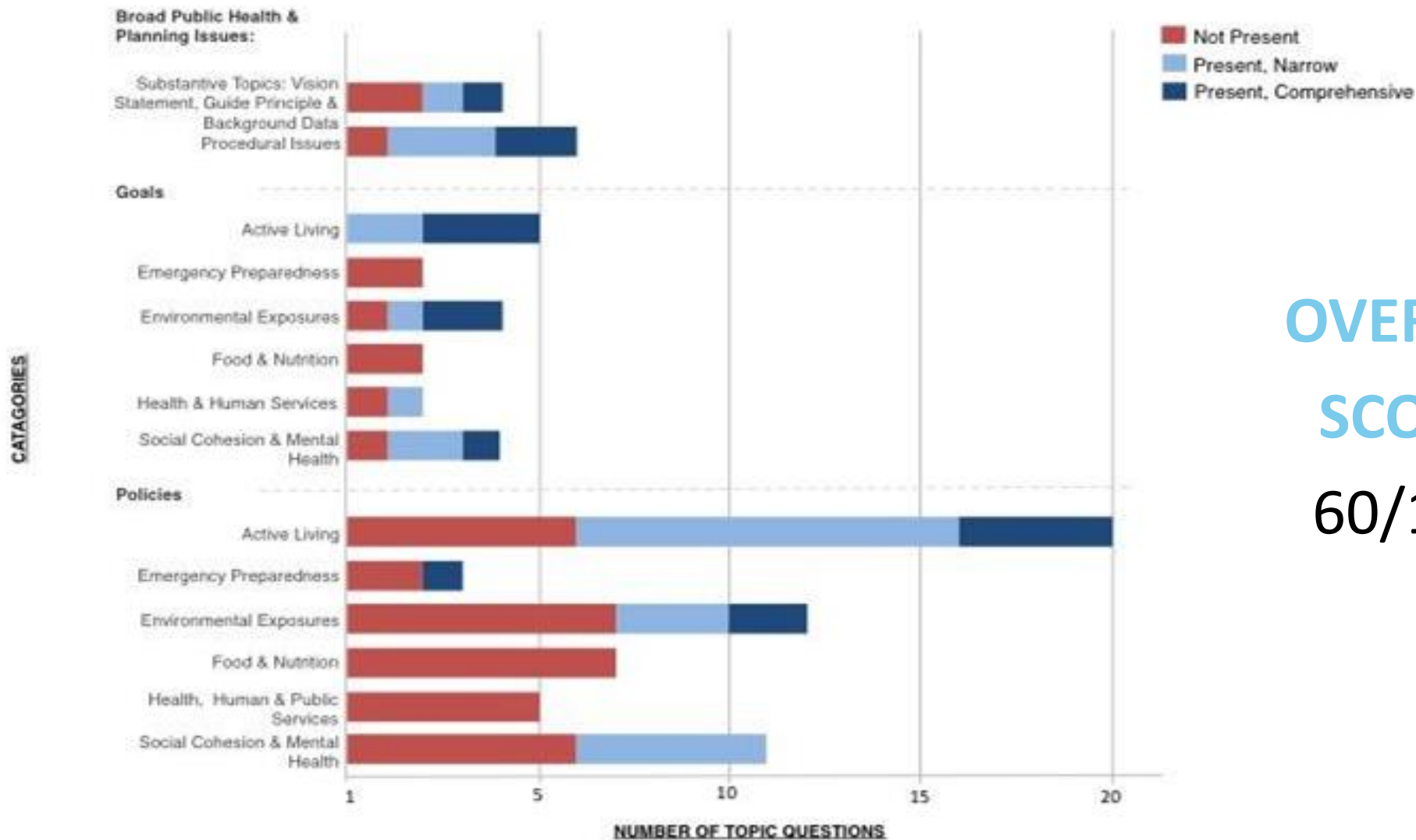
## Evaluation Table

| Score | Rating                 | Definition  |
|-------|------------------------|---|
| 0     | Not present            | Absence of health-related goal or policy  |
| 1     | Present, narrow        | Goal is limited spatially and comprehensively OR Policy is lacking specificity and action |
| 2     | Present, comprehensive | Goal is spatial and comprehensive OR Policy is specific and action-oriented               |





# Results



**OVERALL  
SCORE  
60/158**



# Chapter 3: Land Use & Econ Development

**Mixed-Use occupies only 20 acres, or close to 0% of current total city land use**

To catalyze more walkable mixed-use areas in the Upper West Street opportunity area, begin with nodes at intersections of Upper West Street and cross streets.







# Chapter 8: Housing

**Health Policies relating to the built environment, including air quality, are lacking.**

Coordinate with partners to disseminate information on indoor health hazards

Educate and encourage use of green building strategies

Incorporate Crime Prevention Through Environmental Design (CPTED) into zoning code



High Point, a Seattle Housing Authority community, was redeveloped in 2000.



A photograph of a park scene. In the foreground, there is a playground with green and yellow equipment on a dark rubber mat. To the left, a blue bench sits on a grassy area. In the background, there are large green trees and a brick building. A semi-transparent white box with the text "PARKS AND OPEN SPACE" is centered over the image.

# PARKS AND OPEN SPACE





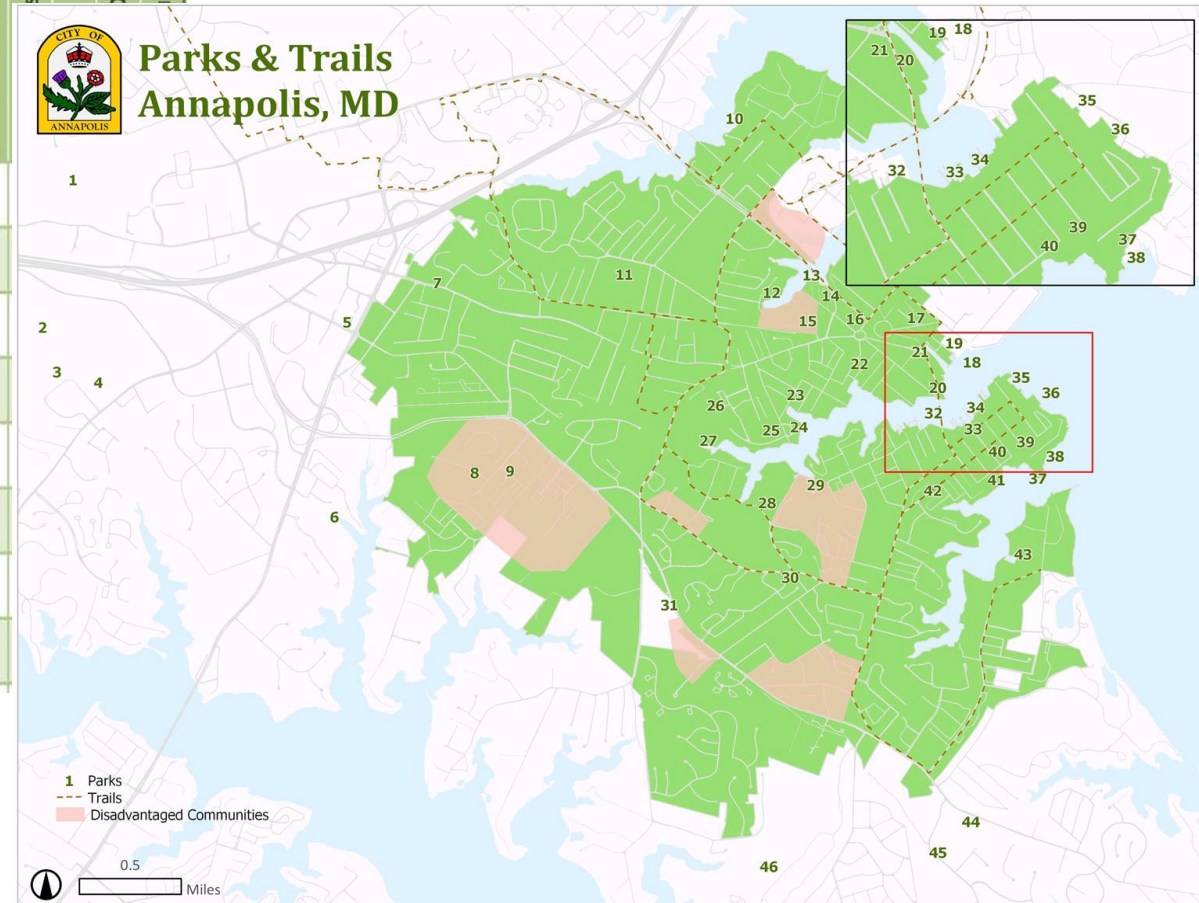
# Park Inventory



## Park Amenities

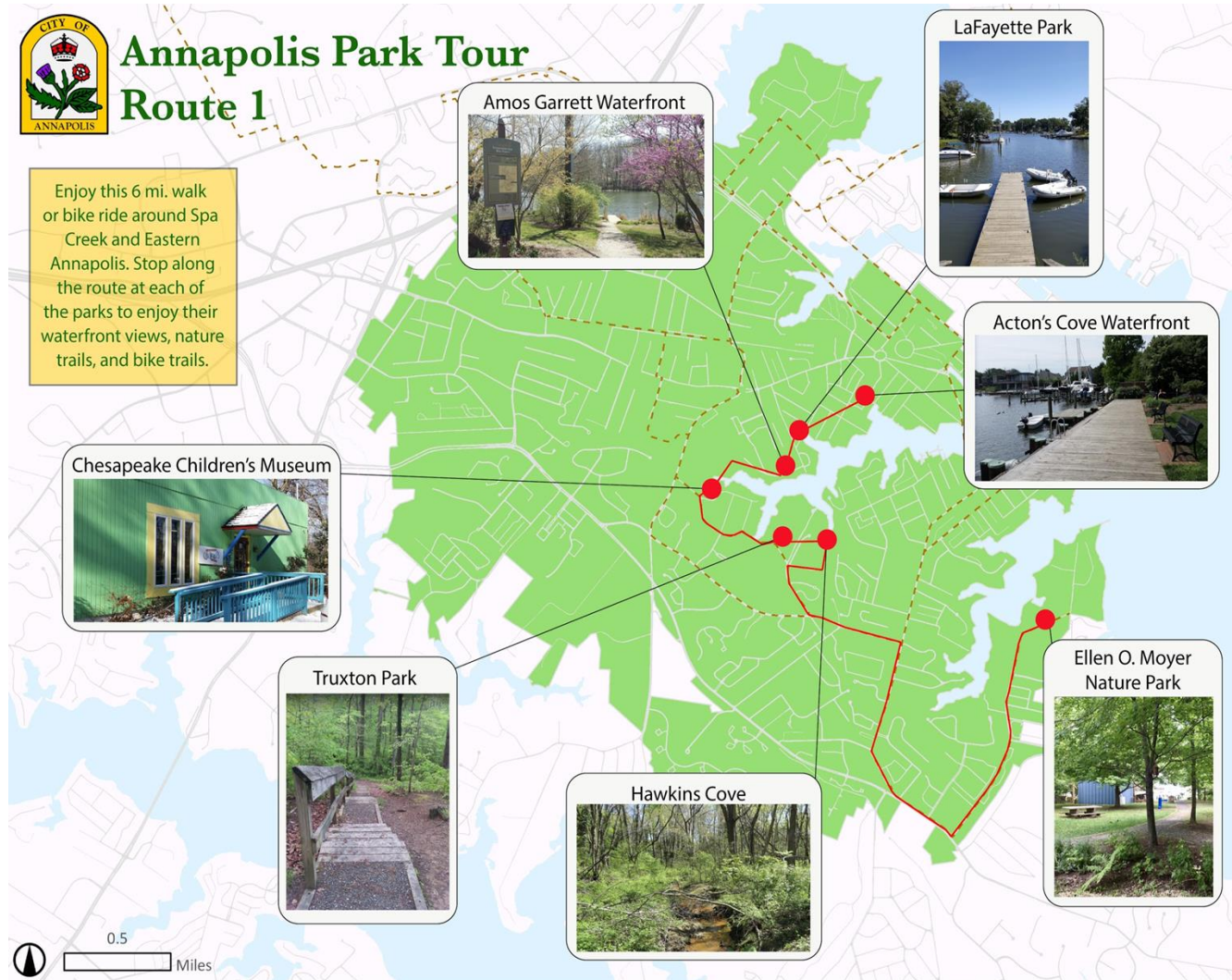
City of Annapolis, MD

|   |                                 |                        | Restrooms | Playground | Baseball Field | Basketball Field | Multipurpose Field | Tennis Court | Outdoor Track | Hiking | Swimming | Picnic Pavilion | Benches | Water Access | SS | Rock | Grass |
|---|---------------------------------|------------------------|-----------|------------|----------------|------------------|--------------------|--------------|---------------|--------|----------|-----------------|---------|--------------|----|------|-------|
| 1 | Waterworks Park                 | 260 Defense Hwy        | ✓         |            |                |                  |                    |              |               | ✓      |          | ✓               | ✓       |              |    |      |       |
| 2 | Broad Creek Park                | 1A Harry S Truman Pkwy |           |            |                |                  |                    |              |               | ✓      |          |                 | ✓       |              |    |      |       |
| 3 | Annapolis High School           | 2700 Riva Rd           | ✓         |            | ✓              | ✓                | ✓                  | ✓            | ✓             |        |          |                 | ✓       |              |    |      |       |
| 4 | Arundel Olympic Swim Center     | 2690 Riva Rd           | ✓         |            |                |                  |                    |              |               |        | ✓        |                 | ✓       |              |    |      |       |
| 5 | Forest Plaza Parole Green Space | 2207 Forest Dr         |           |            |                |                  |                    |              |               |        |          |                 |         | ✓            |    |      |       |
| 6 | Homeport Farm Park              | 11 Home Port Dr        |           | ✓          |                |                  |                    |              |               |        |          |                 |         | ✓            |    |      |       |
| 7 | Chambers Park                   | 933 Davis Ln           |           | ✓          |                | ✓                |                    |              |               |        |          |                 |         | ✓            |    |      |       |
| 8 | Kingsport City Park             | 823 Bywater Rd         |           | ✓          |                |                  |                    |              |               |        |          |                 |         | ✓            |    |      |       |





# Maximizing Current Assets



Resident and visitor awareness of park resources could be enhanced.

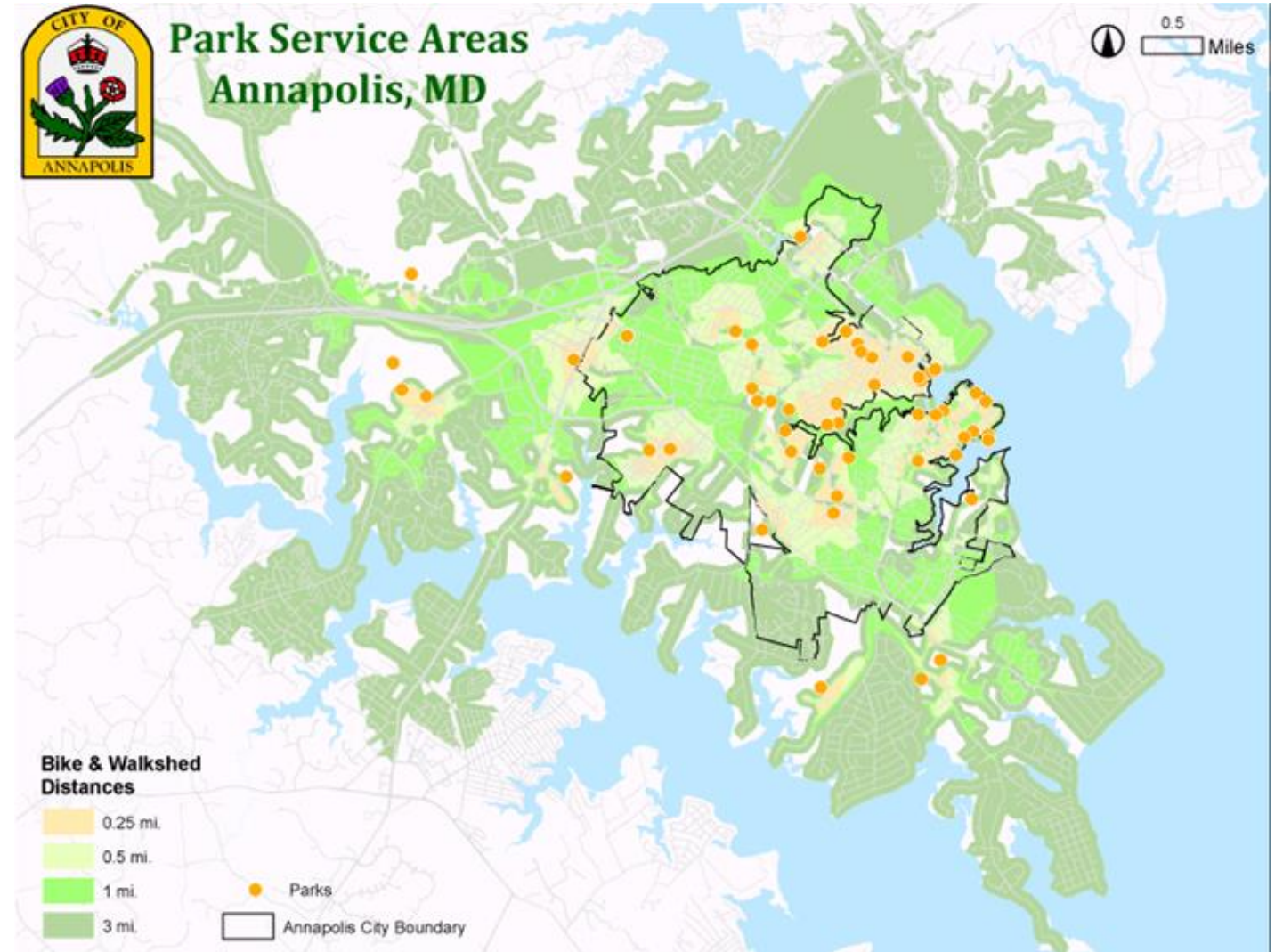






# Improving Park Accessibility

Need for better data to  
assess accessibility to parks  
for city residents





# Adequate Public Facilities Ordinance (APFO)

## Current APFO lacks definitions of key terms used in the parks and recreation section

Need to specifically define “recreational facilities” to avoid ambiguity  
-- private gyms, pools, community centers, etc.?

Need to identify what in-lieu-of fees would be sufficient to offset inadequate facilities resulting from new development

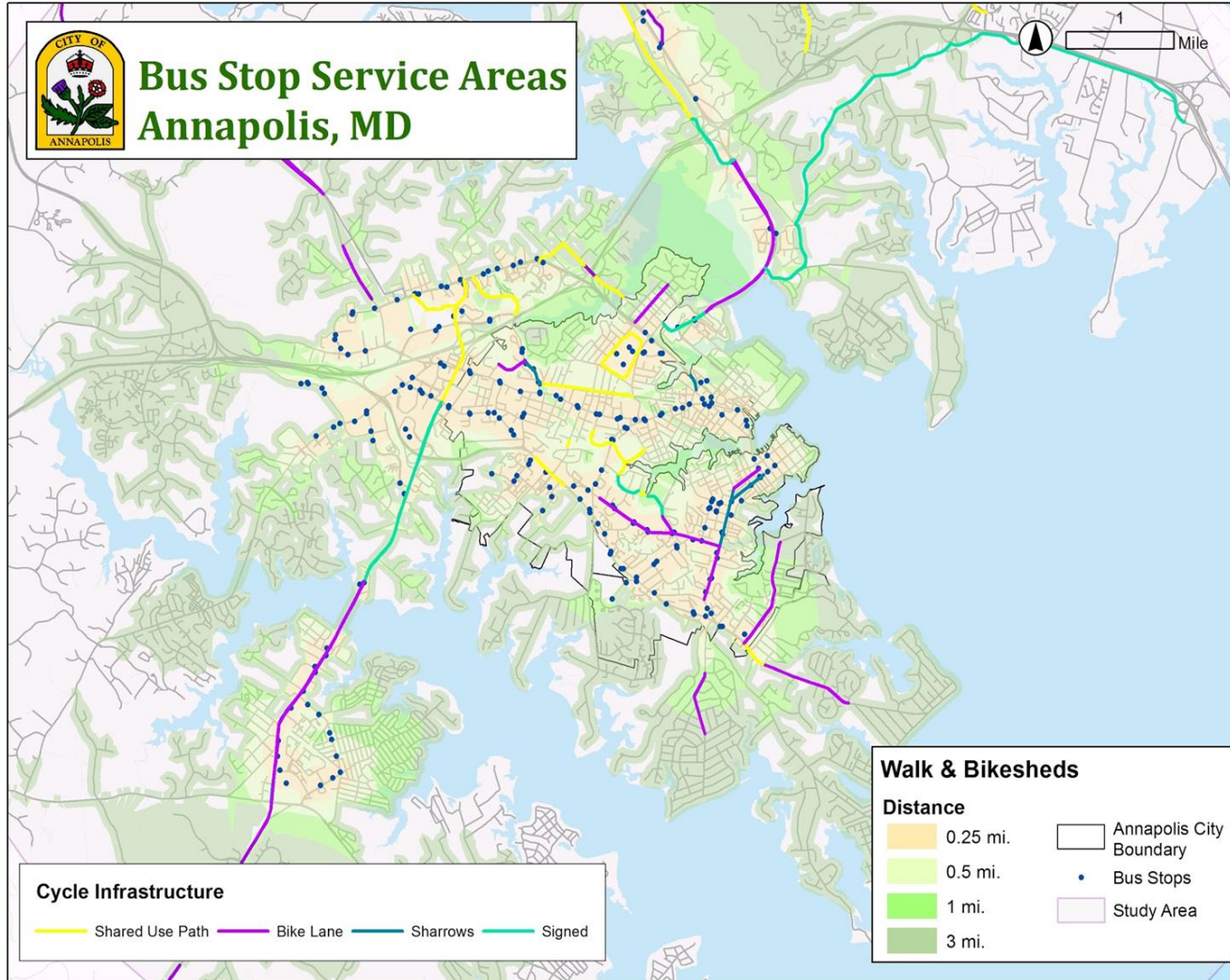




# BICYCLE INFRASTRUCTURE

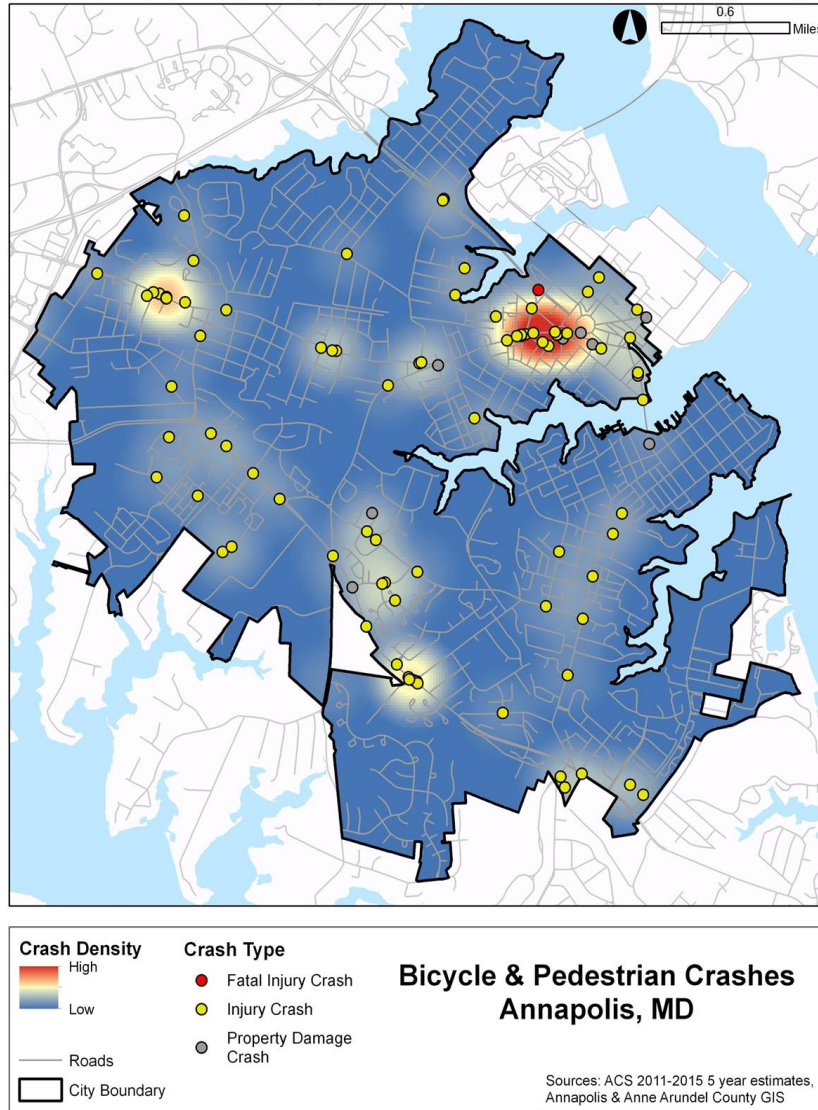


# Assessing Current Conditions



The 3-mile bikeshed around bus stops covers just under 75% of residential and mixed-use addresses





Many main roads are large thoroughfares that are currently unsafe for non-auto travel

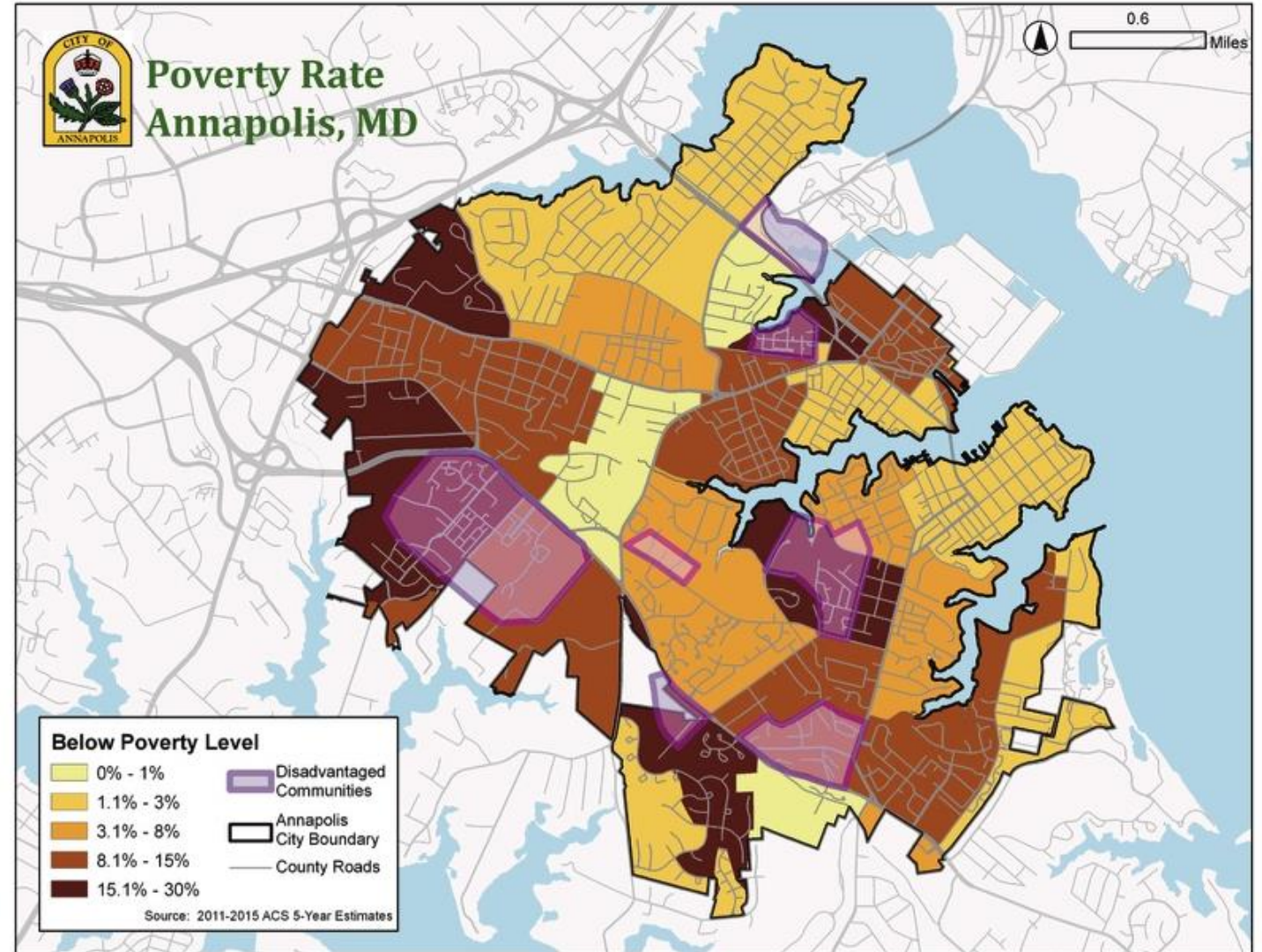
Implement traffic calming strategies, such as a complete streets model, to increase safety for all non-auto transit

Coordinate scheduled repaving projects with bicycle infrastructure improvements and installation

# Infrastructure and Connectivity

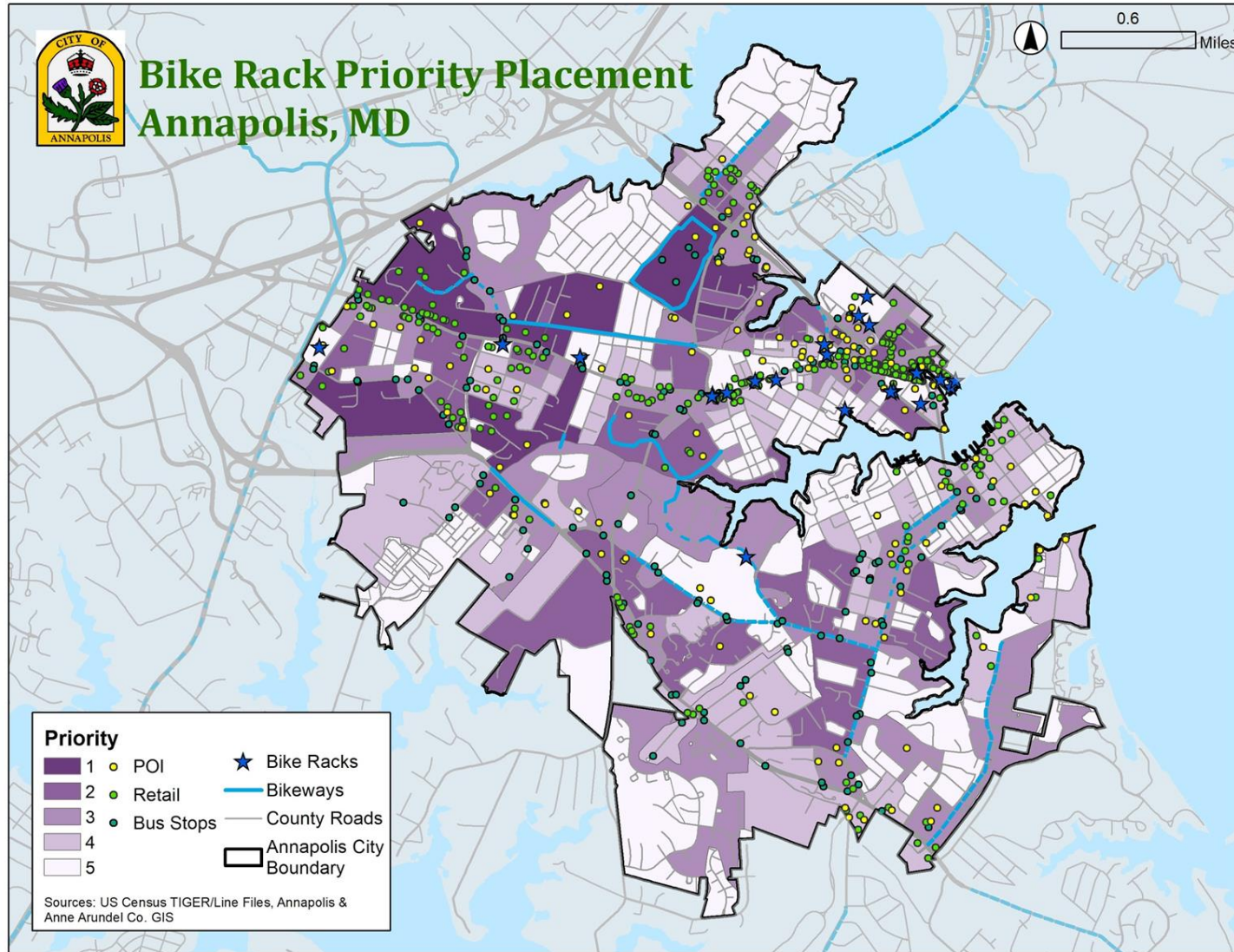
There is a lack of connected infrastructure in disadvantaged communities

Bicycle infrastructure increases opportunity through inexpensive access to transportation





# Priority Bike Parking Locations



There is limited bike parking in areas outside the historic district

Target areas with high concentrations of important destinations (or points of interest), retail, transit, and existing bikeways

In the non-auto transportation section of the APFO, add bike parking requirements and reference guide to bike parking to ensure proper installation



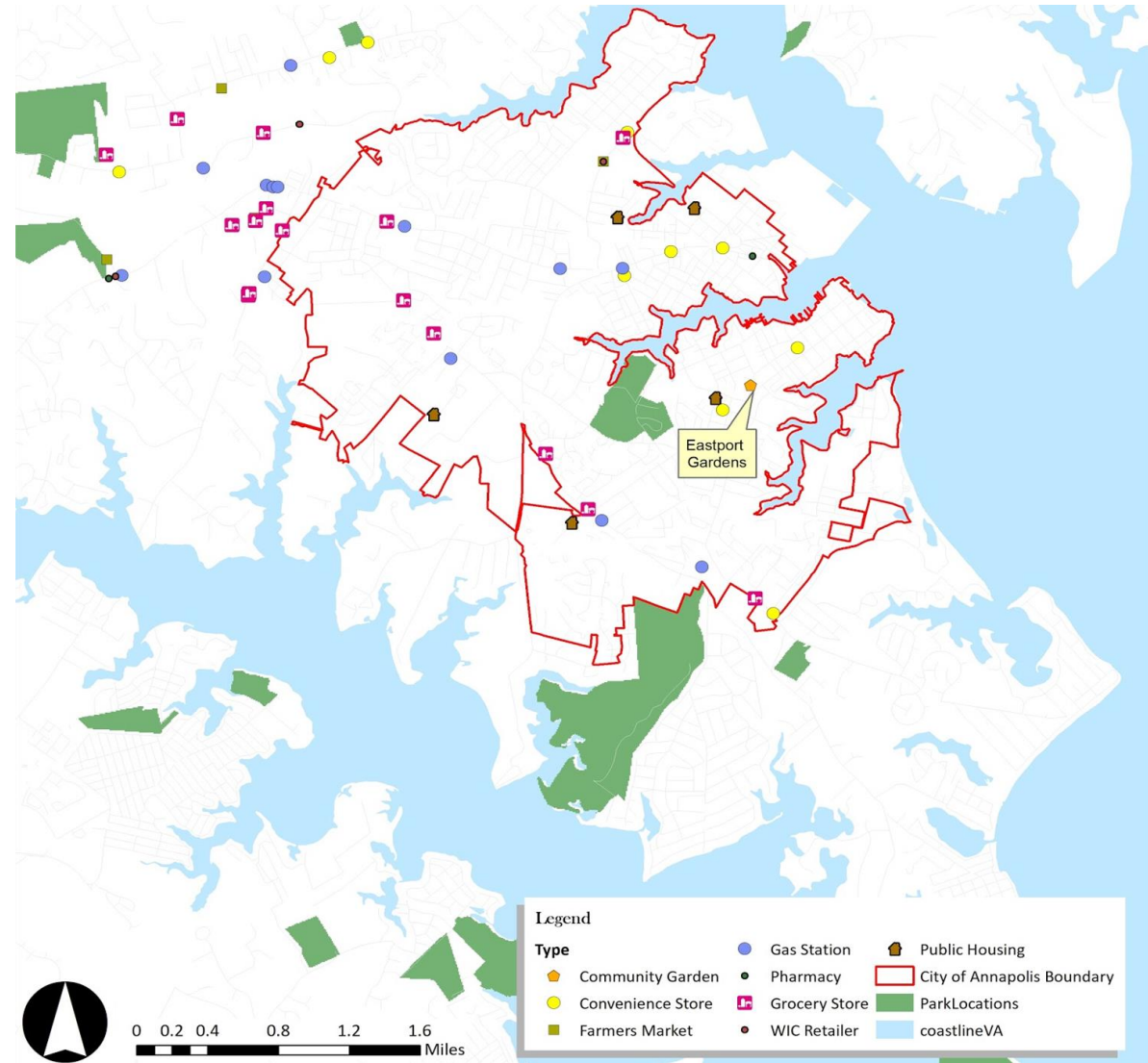


# URBAN AGRICULTURE



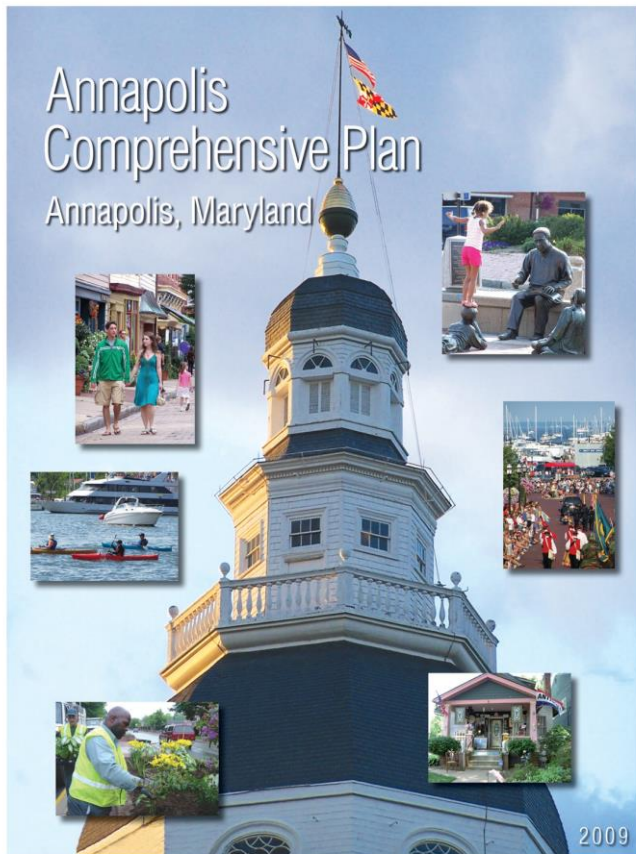
# Existing Gardens and Food Retailers

## Grow Annapolis Community Garden



# Current City Policies Omit Urban Agriculture

No existing language in the Comprehensive Plan or zoning ordinance to encourage or guide urban agriculture



## Annapolis Comprehensive Plan

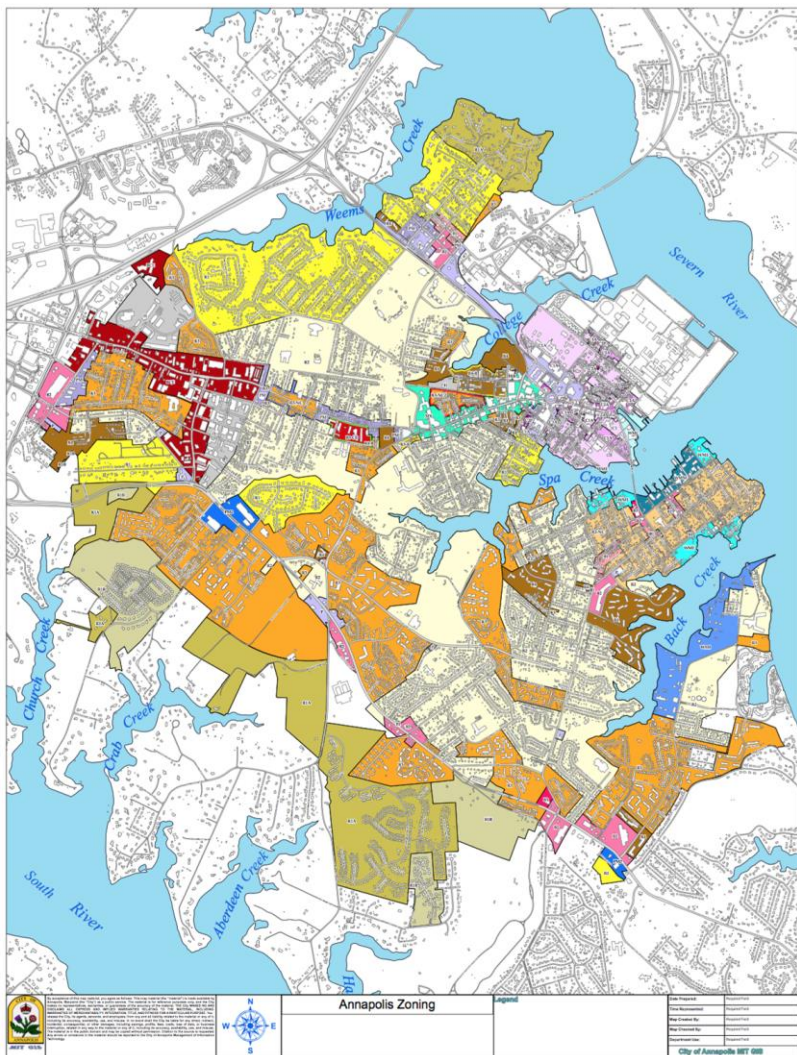
### Chapter 3 - Land Use and Economic Development

**Policy 12.** Support the development of urban agriculture within the City in order to promote public health, economic development, community connections, and environmental sustainability.

- 12.1 Foster the stability and longevity of community gardens by protecting current community gardens on public land with long-term lease agreements, and by incentivizing private landowners to do the same.
- 12.2 Conduct a vacant land and open space inventory to identify prospective sites for community gardens and share this inventory publicly.
- 12.3 Incorporate community garden space in future redevelopment plans for Housing Authority of the City of Annapolis (HACA) properties and encourage private developers to include gardens in new affordable dwelling units.
- 12.4 Prioritize the inclusion of community gardens in plans for current and future opportunity areas.
- 12.5 Revise zoning regulations to establish home and community gardens as a permitted use in all residential and open space districts. Update commercial and industrial, office and mixed use, and waterfront maritime district use tables to indicate status of community gardens.
- 12.6 Establish site design requirements, operating standards, and guidance on accessory uses to provide clarity to the operations of community gardens.



# Updated City Code



*Proposed Home Garden Definition:* A home garden is a garden located on single or multifamily residential property that is intended to be used by that property's residents and guests for the cultivation of flowers, fruits, vegetables, herbs, and other food crops.

*Proposed Community Garden Definition:* A community garden is a garden located on private or public property that is used for the collective cultivation of flowers, fruits, vegetables, herbs, and other food crops by multiple individuals. Community gardens may be divided into separate plots for individual users and can include common areas for shared harvesting or passive enjoyment.

## Suggested Zoning Table

|                   | Residential | Industrial | Commercial | Mixed- Use | Office | Waterfront Maritime | Open Space |
|-------------------|-------------|------------|------------|------------|--------|---------------------|------------|
| Home Gardens      | P           | P          | P          | P          | P      | S-Std               | P          |
| Community Gardens | P-Std       | P-Std      | S-Std      | P-Std      | S-Std  | S-Std               | P-Std      |

P = Permitted Use; S = Special Exception Use; -Std = Use Subject to Standards (Chapter 21.64);  
A = Accessory Use; Blank = Not Permitted

## Site Design Requirements Operating Standards







# Land Availability and Cost

Competition for limited undeveloped land makes space for gardens expensive and difficult to obtain

Incentivize private landowners through property tax reduction or abatement

Dedicate community gardens on public park land

Include community gardens in public housing redevelopment plans



The Housing Authority of the City of Frederick (HACF) runs a successful community garden program.





# Towards a Healthy Annapolis

Share Knowledge and Resources

Maximize Existing Assets

Reduce Health Disparities

Adopt a Health-Oriented Comprehensive Plan and City Code

