Planning in A Virtual World:

GIS Advancements to Support Planning Activities

James Cannistra, GISP, CP
Planning Division Chief – Information Management
Maryland-National Capital Park and Planning Commission

James.Cannistra@ppd.mncppc.org

The Maryland-National Capital Park & Planning Commission

- "*created by the Maryland General Assembly in 1927 to develop and operate public park systems and provide land use planning for the physical development of the great majority of **Montgomery** and **Prince George's Counties**, and to operate the public recreation program in Prince George's County.*"

Background

- Population – 909,536
  - Demographic Diversity
- Size – 499 sq. miles
- 27 Municipalities
  - Laurel independent zoning
- Median Household Income - $73,447
- 290,000 parcels

Information Management Division (IMD)

- Information Management (25 persons)
  - Network and Technology Services Section
  - Data Systems Section
  - GIS Section
    - GIS Specialists
    - Planning Analyst
    - Demographic Data Analyst

GIS Layer Maintenance

- Over 250 Layers Maintained

- Enterprise SDE

- Property, Zoning, Planimetrics, Address Points are key

- Map Services Hosting
  - Internally for Analysis
  - External (map services)
  - Internal (selected map services)

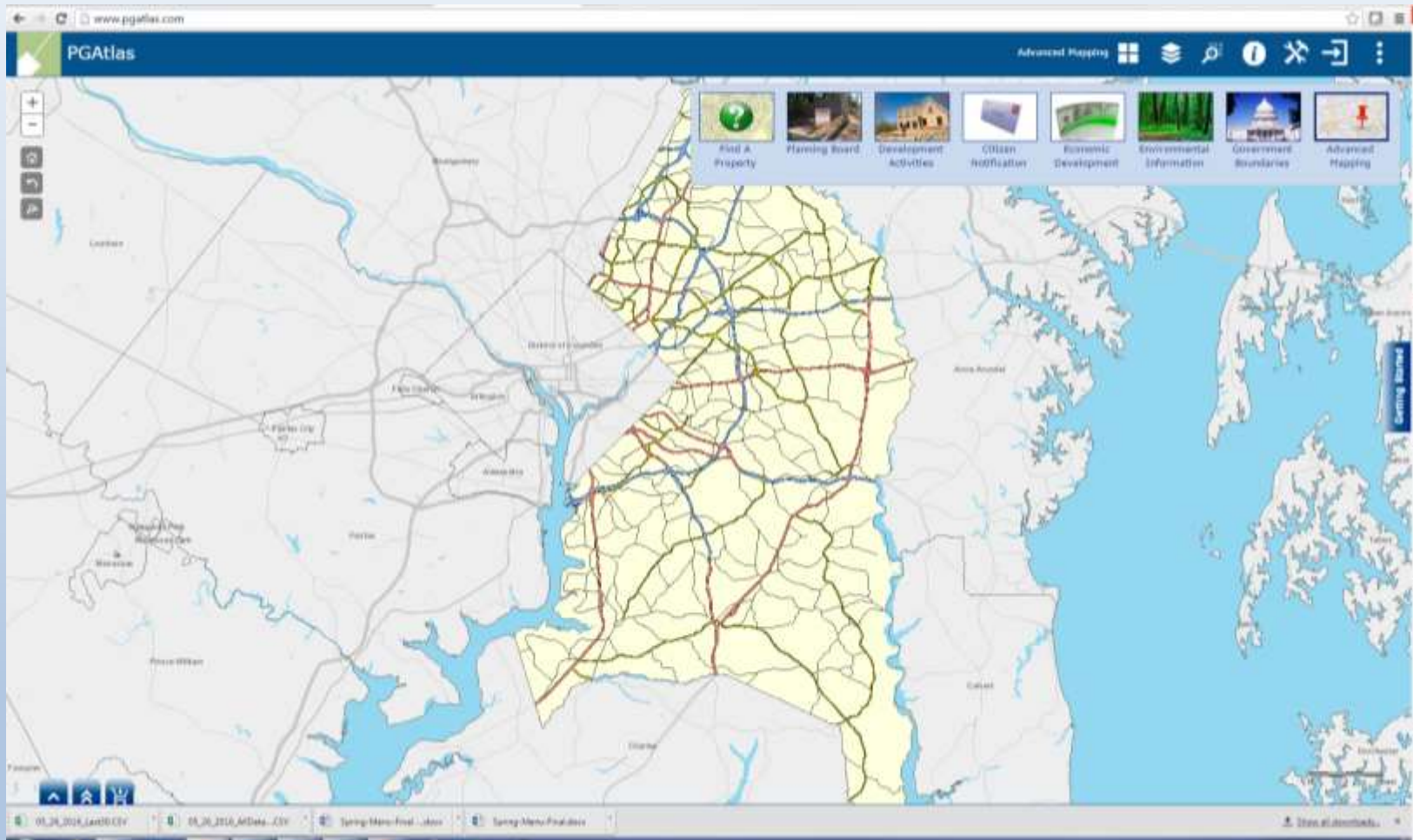http://gisdata.pgplanning.org/metadata/

PGAtlas www.pgatlas.com

Robust Mapping Application, Internal and External Versions, Externally Hosted Data, HTML 5/JavaScript application, Tablet compatible

PGAtlas www.pgatlas.com

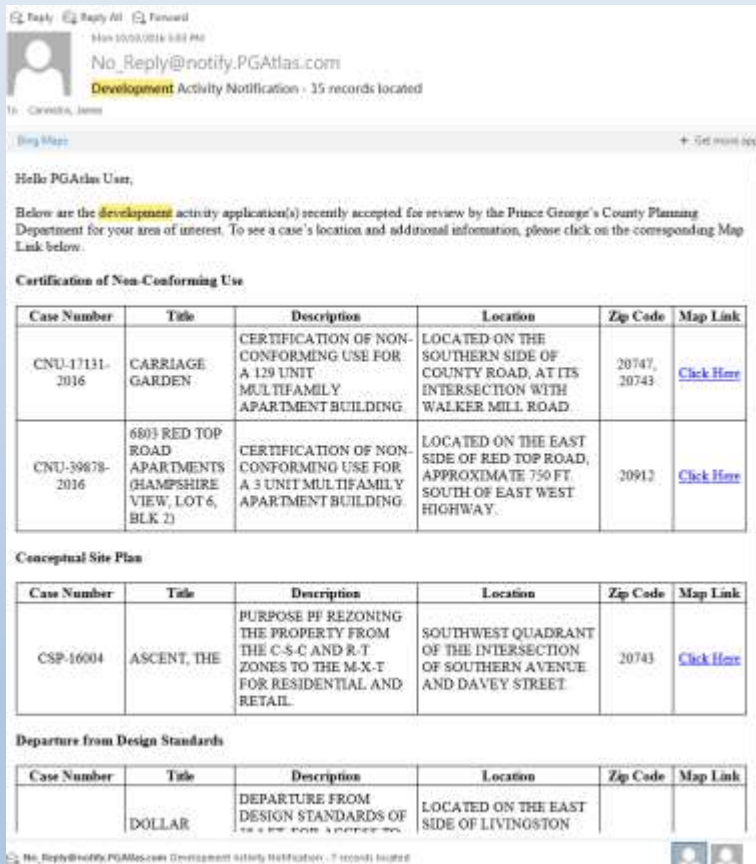
Multiple Sub-applications, 10,000 page views per month

PGAtlas www.pgatlas.com

Query, Map Production, Analysis and Map/Data Export Functionality

PGAtlas Development Activity Notification

Prince George's County Planning GIS Open Data Initiative

IMD enterprise wide GIS - 250 layers

From 1992 July 2015 data available through sales or data license agreement

- Approx. 200 lease agreements/year 2008 -15
- Approx. $26,700 sales / year since 2010 -15

July 1, 2015 implemented GIS Open Data Program

http://gisdata.pgplanning.org/metadata/

Open Data Portal

39,500 file downloads: Since 7/1/15
1,861 files w/in past 30 days

http://gisdata.pgplanning.org/opendata/

ESRI Community Base Map Program
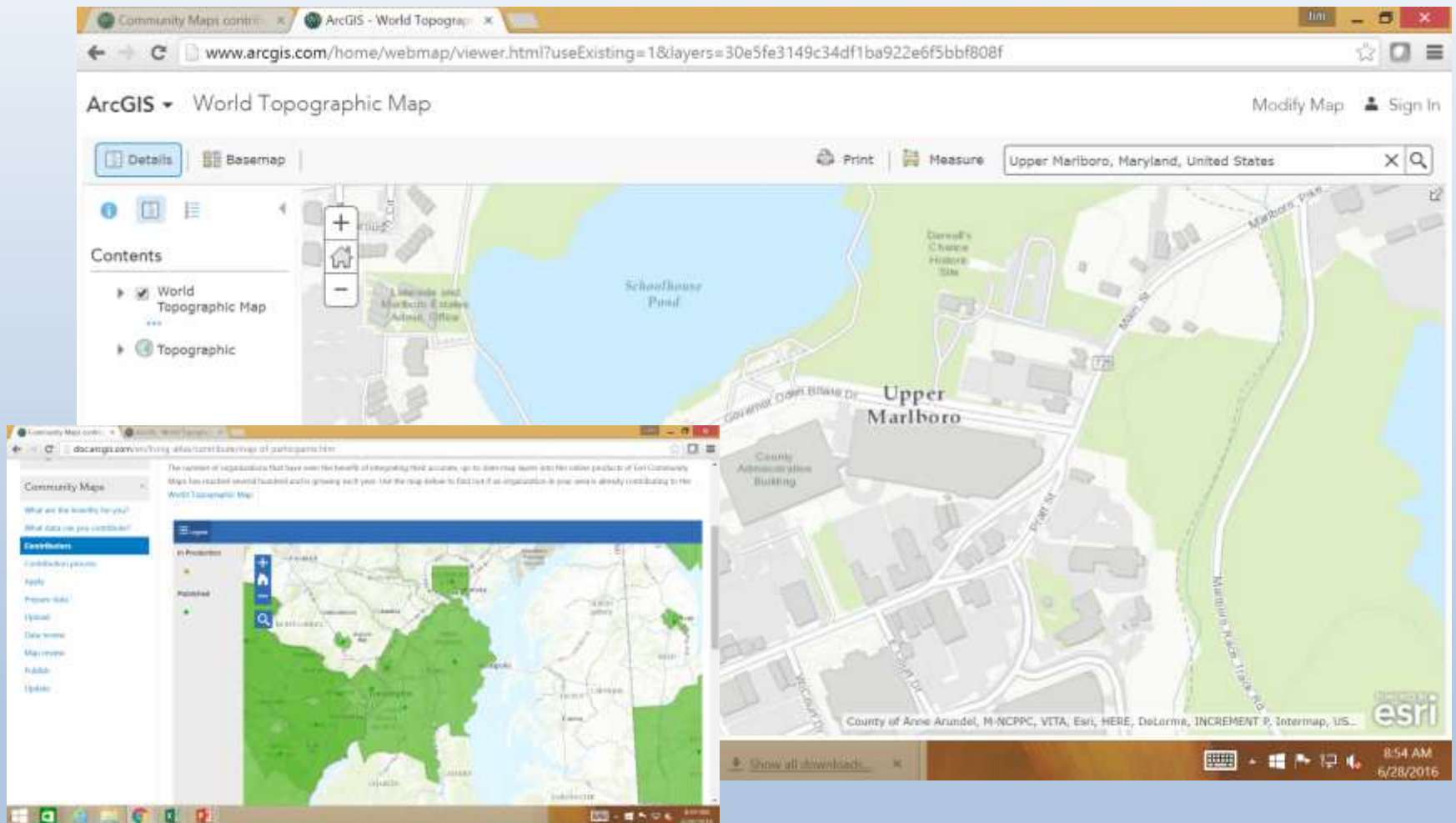
Included 2014 planimetric, and current parcel data

http://www.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=30e5fe3149c34df1ba922e6f5bbf808f

Resource Protection & Green Infrastructure

Display of Tree Canopy statistics across various geographies

http://www.pgplanning.org/Page42517.aspx

3D Mapping and Visualization

3D Models presented to the Planning Board to visualize development. Content created using Trimble Sketch up, Google, Earth, ArcGIS

http://www.pgplanning.org/Page42517.aspx

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Historic Resource Inventories
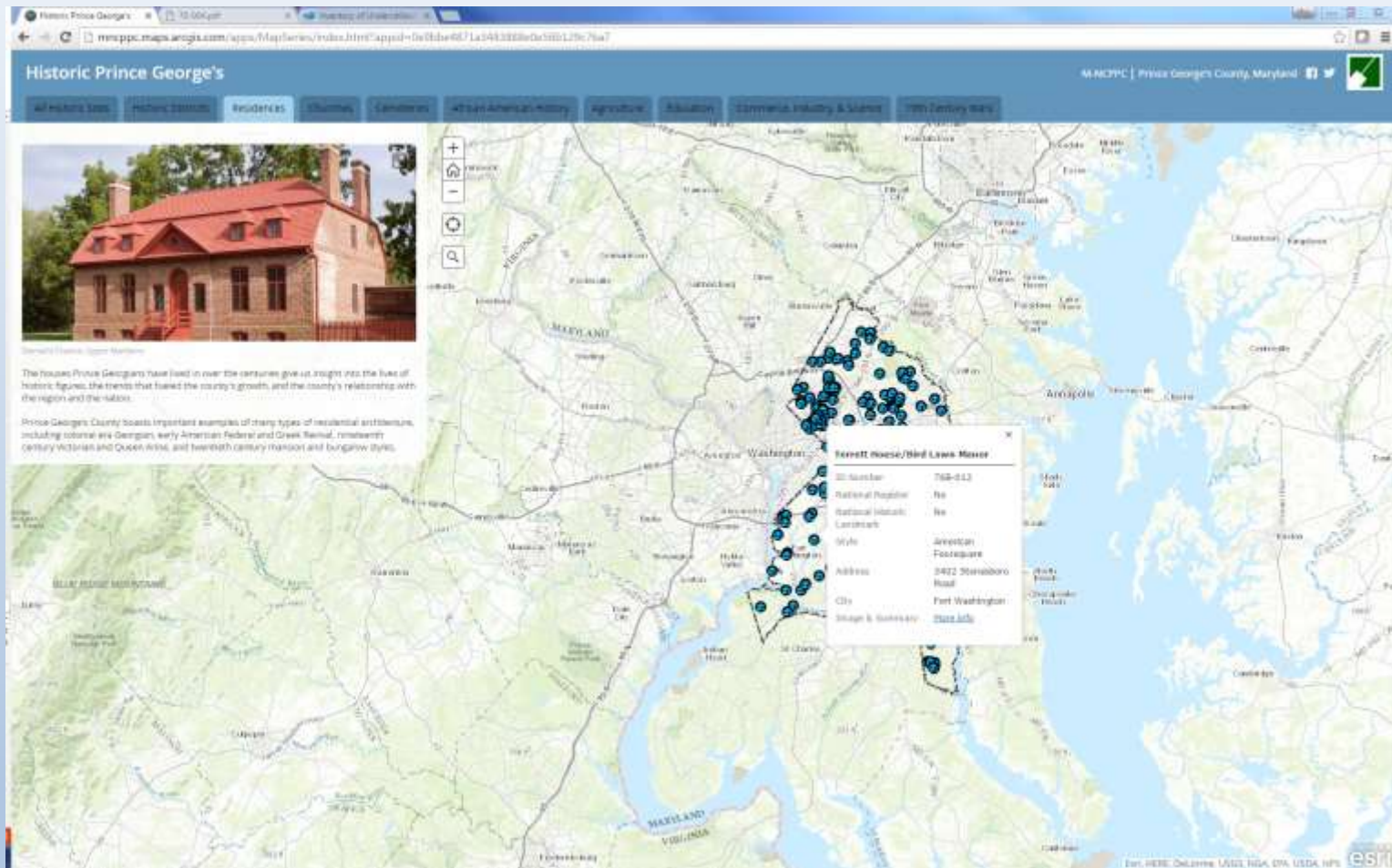
Exploration of Historic resources, including residences, churches, cemeteries, historic districts, etc.

http://www.pgplanning.org/Page42517.aspx

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Underutilized Properties Near Transit Sites
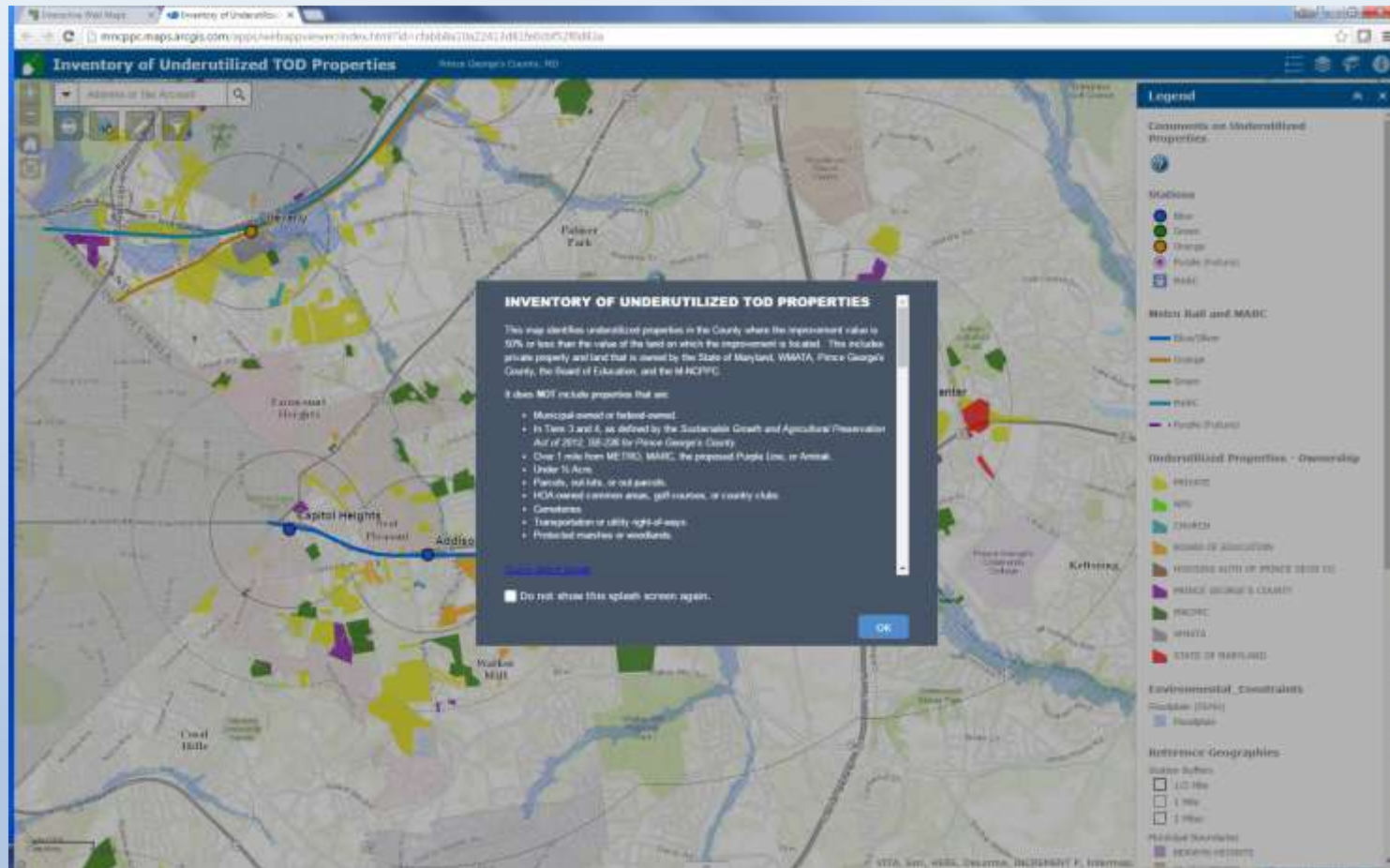
Identifies underutilized properties where the improvement value is 50% or less than the land value.

http://www.pgplanning.org/Page42517.aspx

Zoning Rewrite Analysis
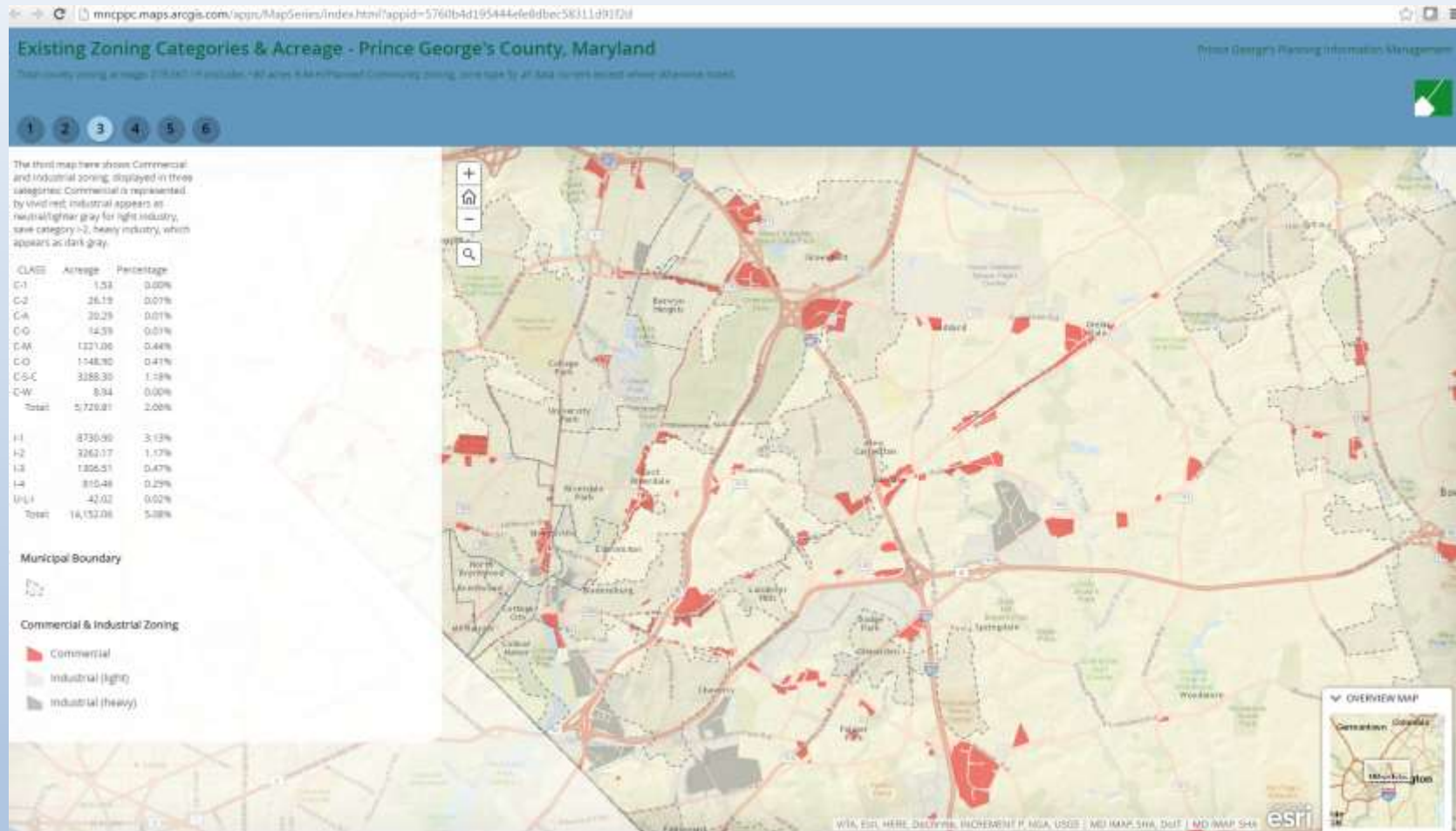
Analysis of existing zoning categories and acreages to support County Zoning Rewrite Initiative

http://www.pgplanning.org/Page42517.aspx

Community Planning
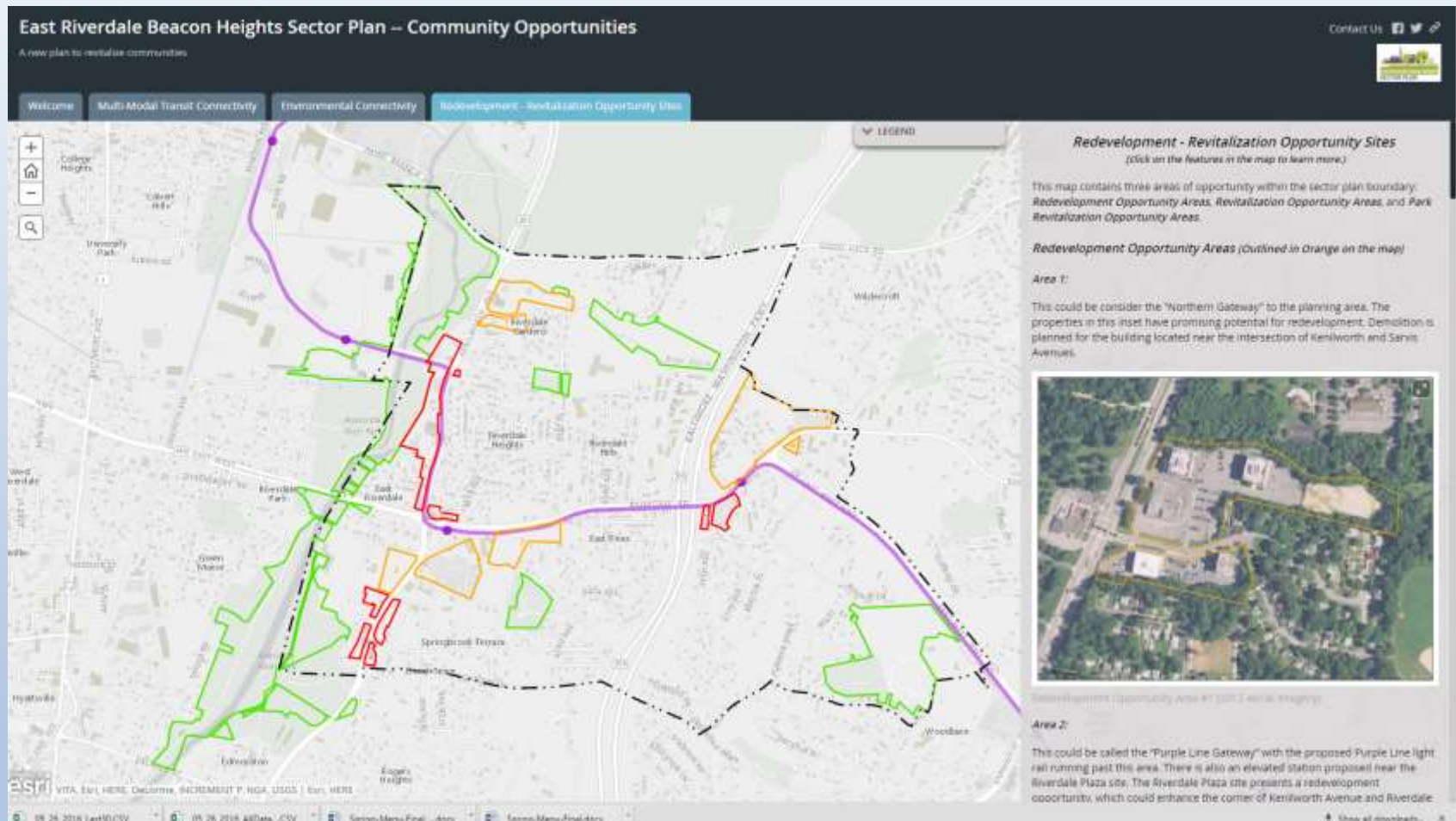
Story maps developed to support planning and outreach for various Sector Plans. Identification of transit, environmental, redevelopment issues and opportunities.

http://www.pgplanning.org/Page42517.aspx

Demographic Analysis
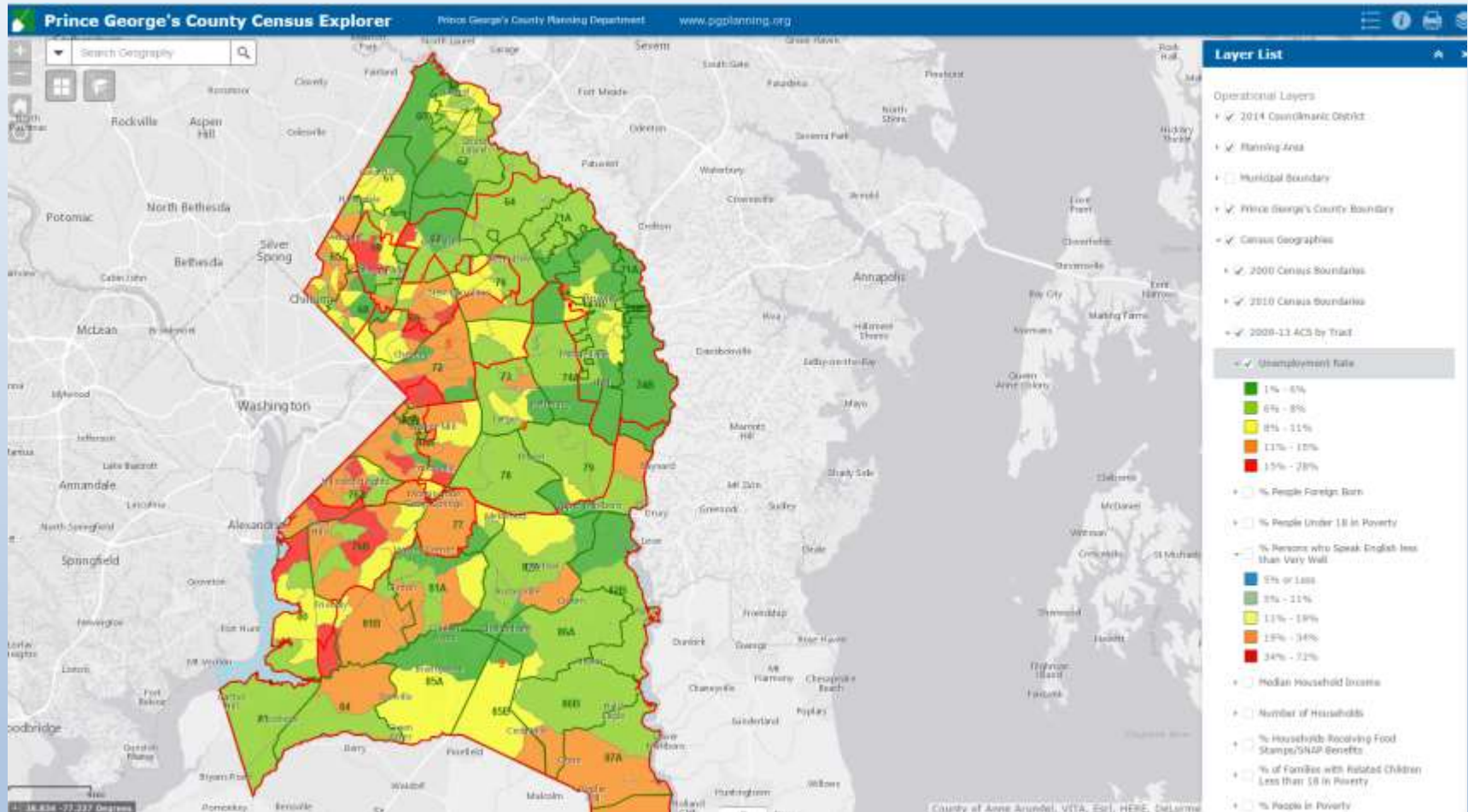
Application to support viewing of census geographies, Census data and multiple vintages of American Community Survey datasets

http://www.pgplanning.org/Page42517.aspx

Viewshed Analysis

Parts of the Area of Primary Concern where 84' Development
would be in the unobstructed line of sight from Mt. Vernon
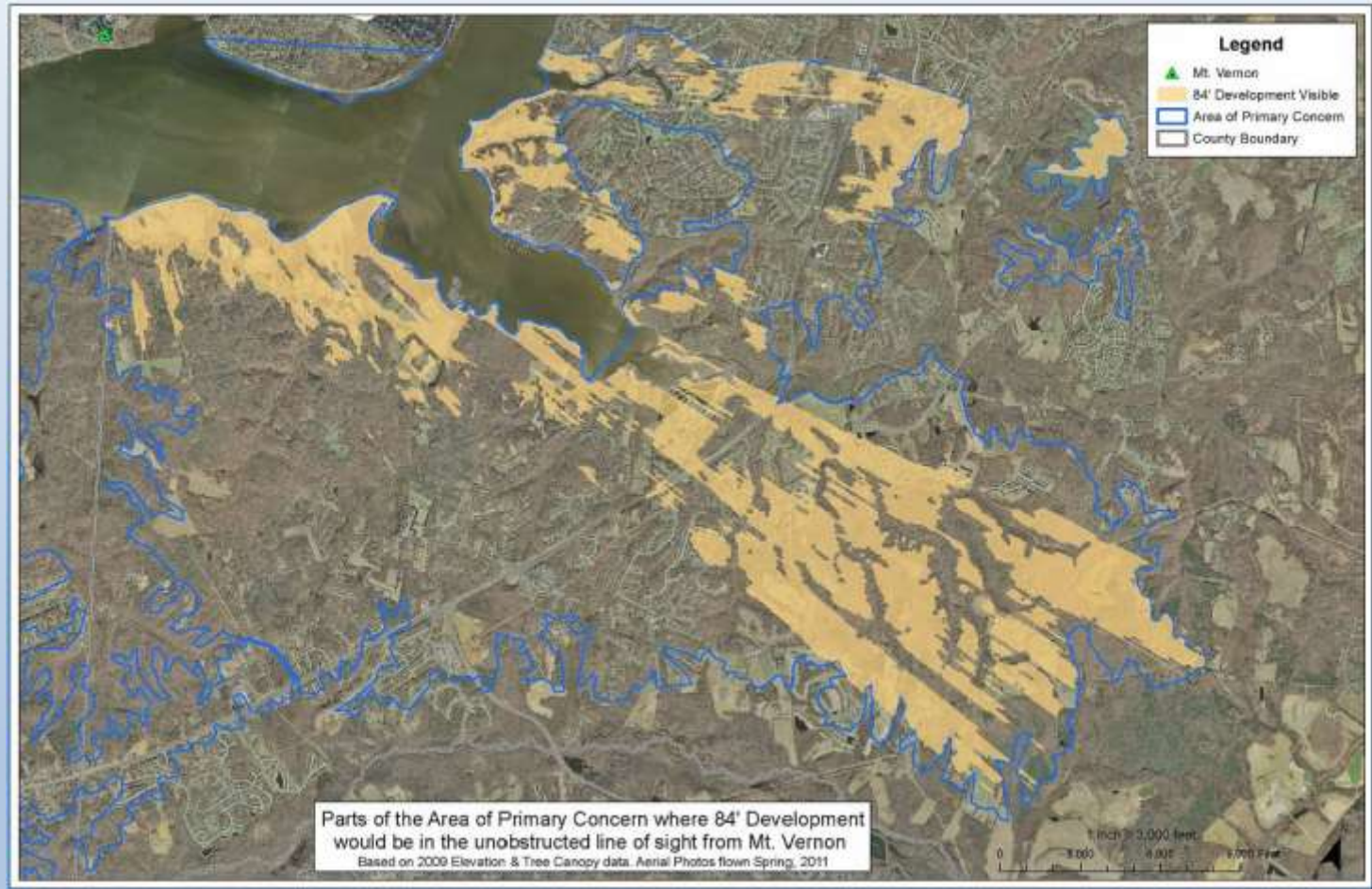Based on 2009 Elevation & Tree Canopy data. Aerial Photos flown Spring, 2011

Legend
- Mt. Vernon
- 84' Development Visible
- Area of Primary Concern
- County Boundary
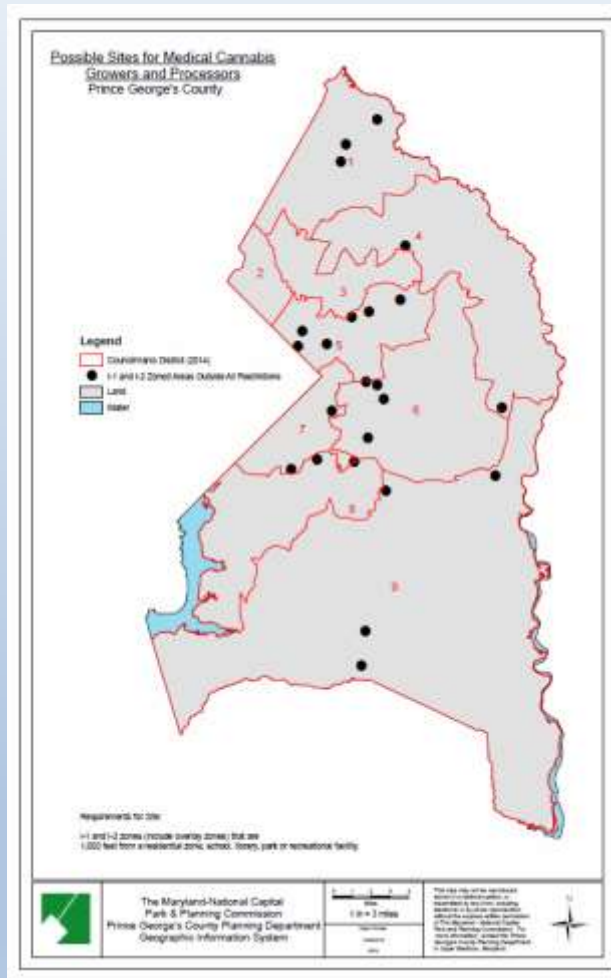
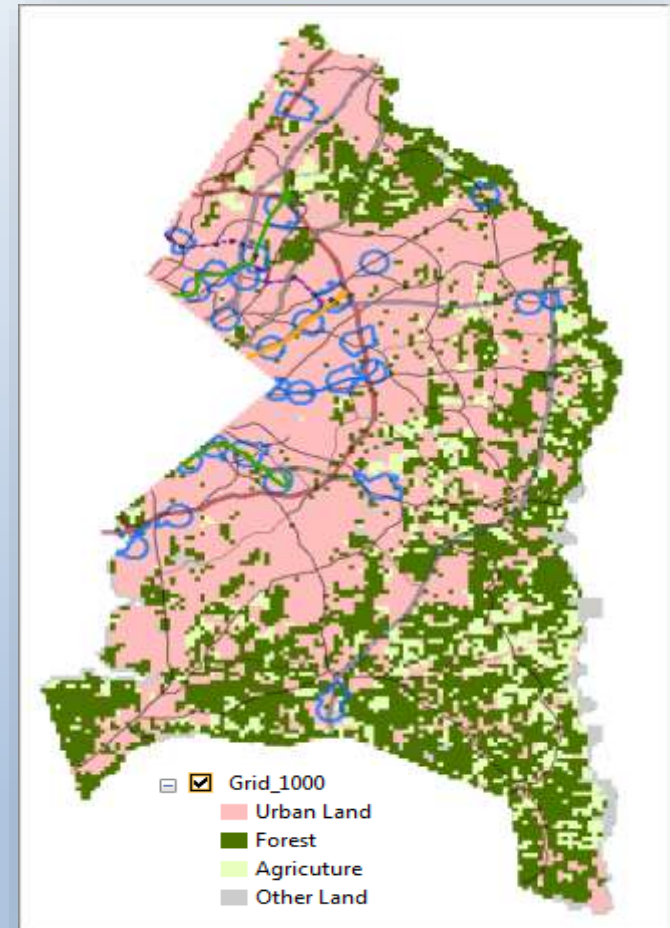Viewshed Analysis to support protection of Mt. Vernon view shed

Site Analysis Cannabis Mapping

Over 300 maps produced to support legislative analysis for cannabis related legislation. Note – maps are draft/representative only
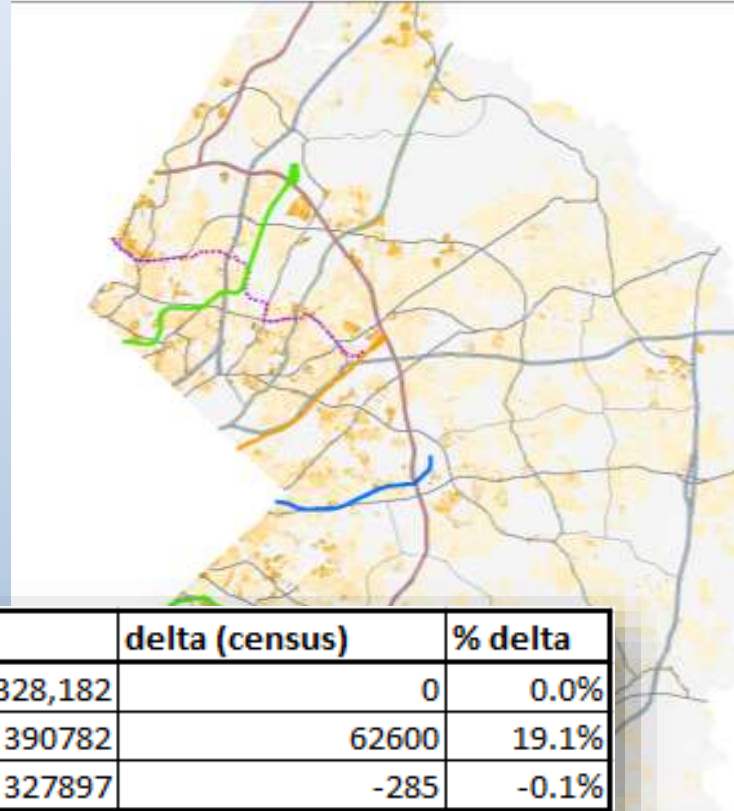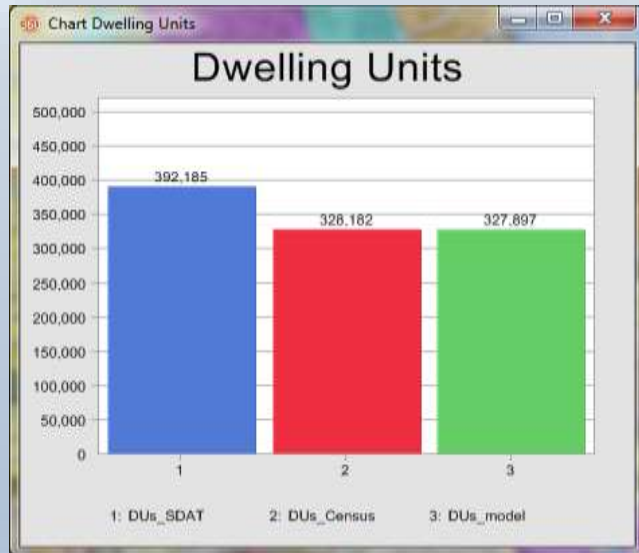
Land Consumption and Development Capacity Analysis

Annual update of development capacity models for provision to State.
Analysis performed using CommunityVIZ software
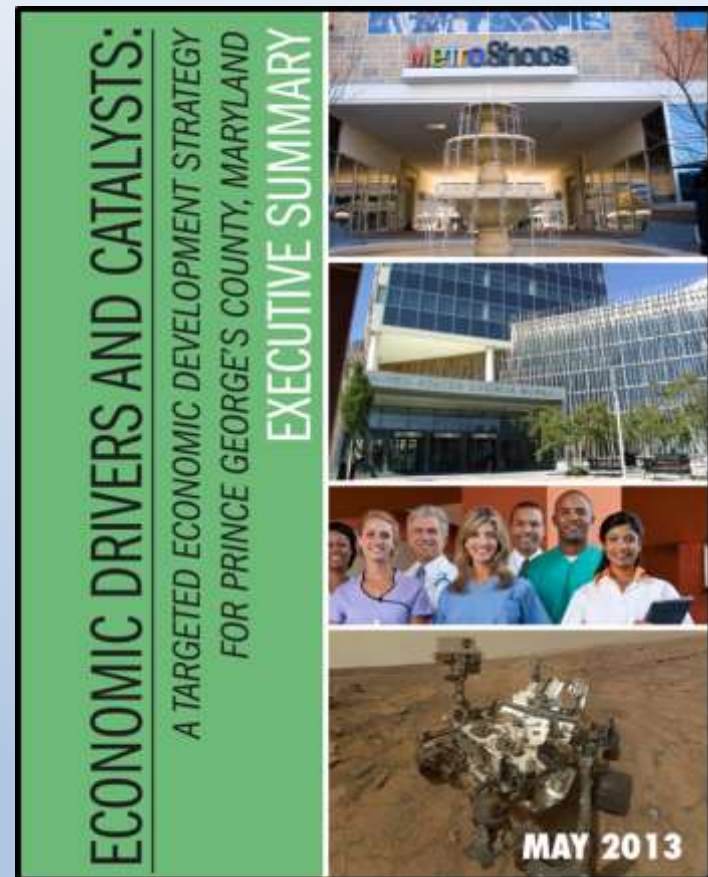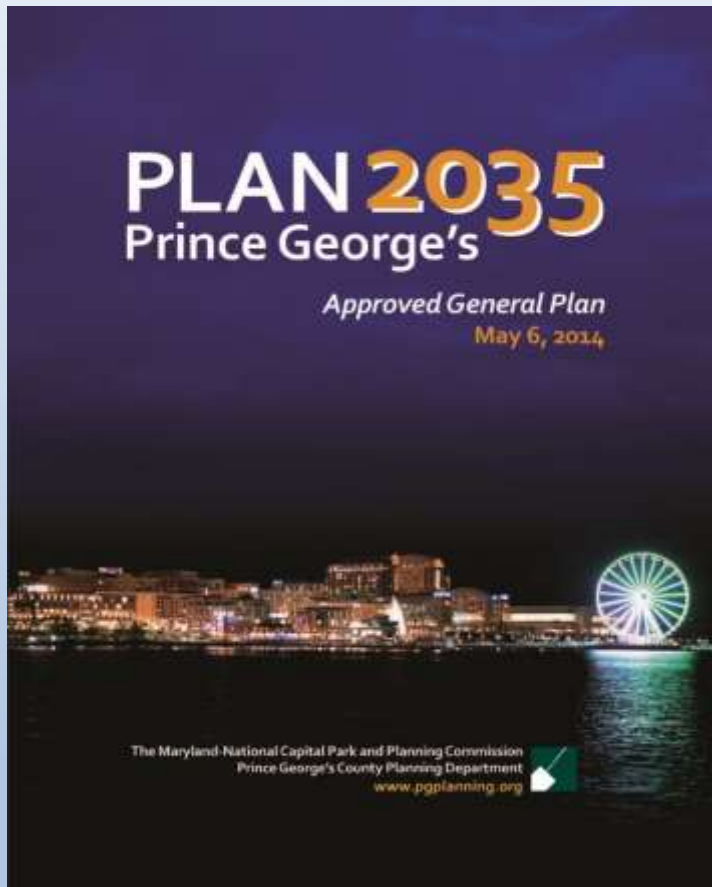
Dwelling Unit Analysis

Source	DUs	delta (census)	% delta
Census	328,182	0	0.0%
SDAT DUs	390782	62600	19.1%
Cleaned DUs	327897	-285	-0.1%

Annual update of development capacity models for provision to State.
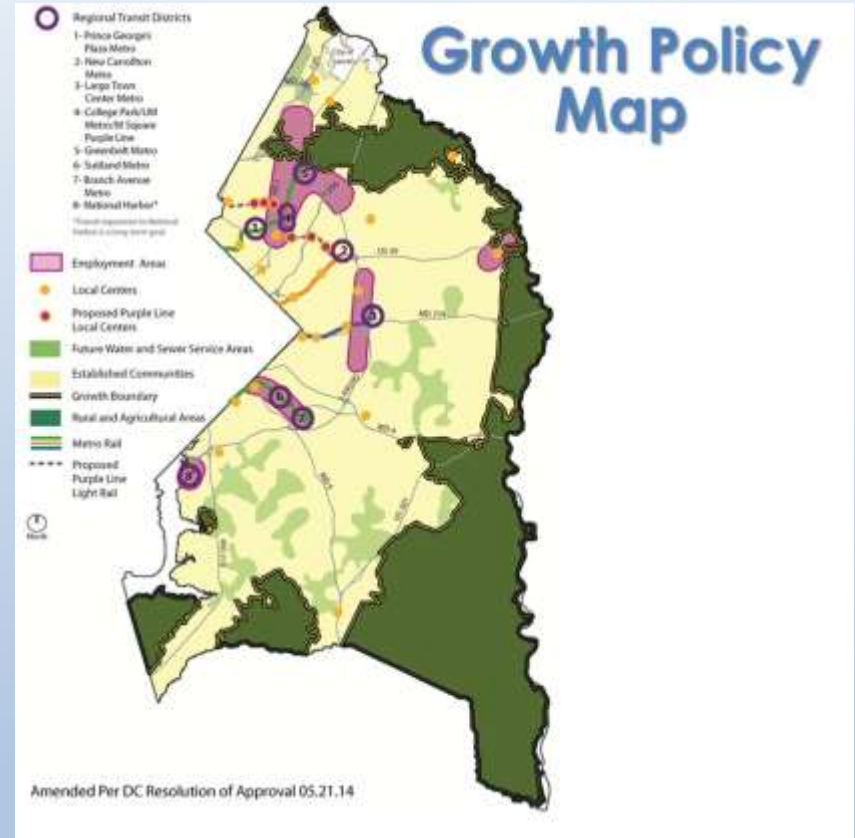Analysis performed using CommunityVIZ software
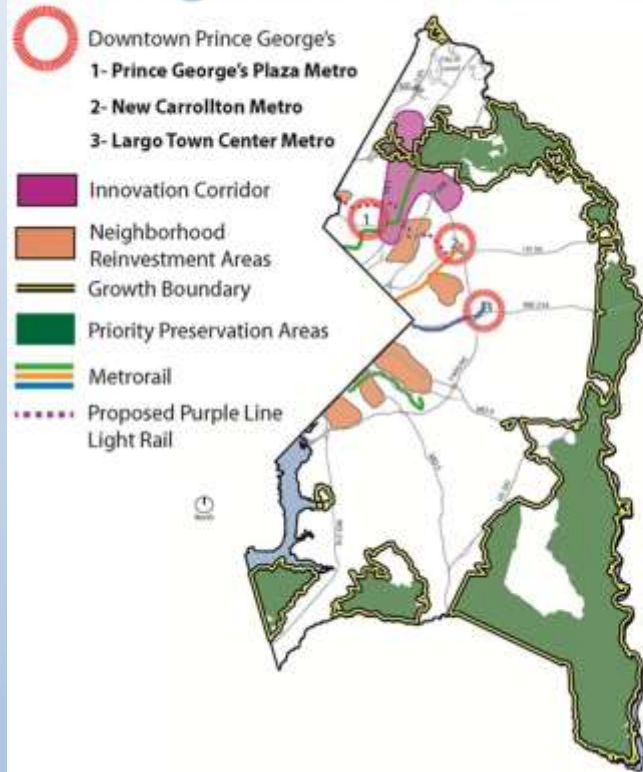
General Plan

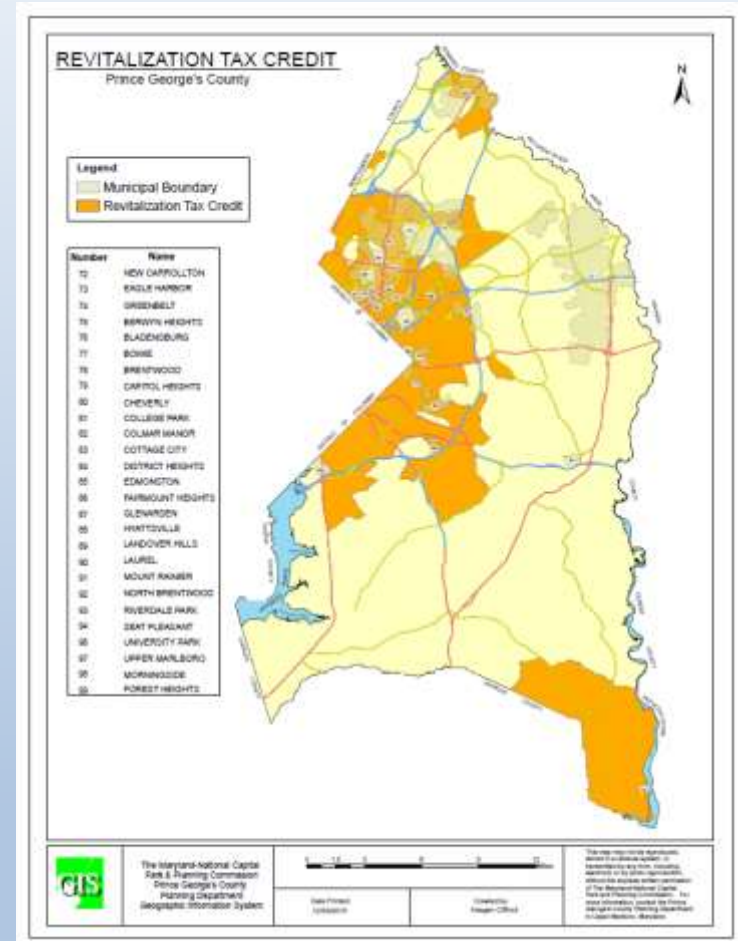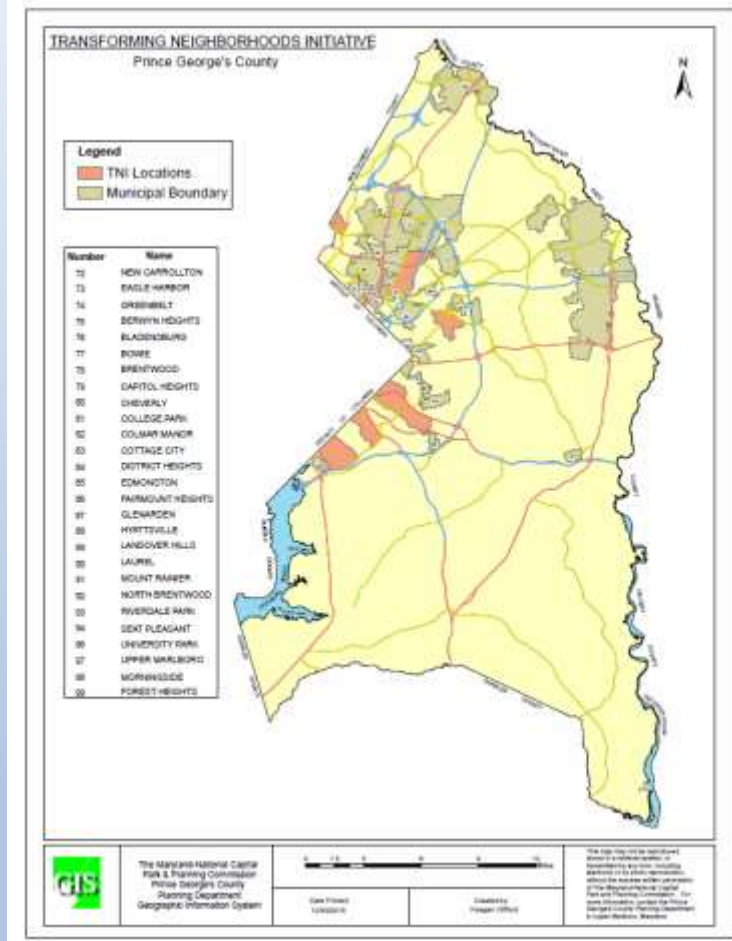Extensive map production and analysis to support general plan

General Plan

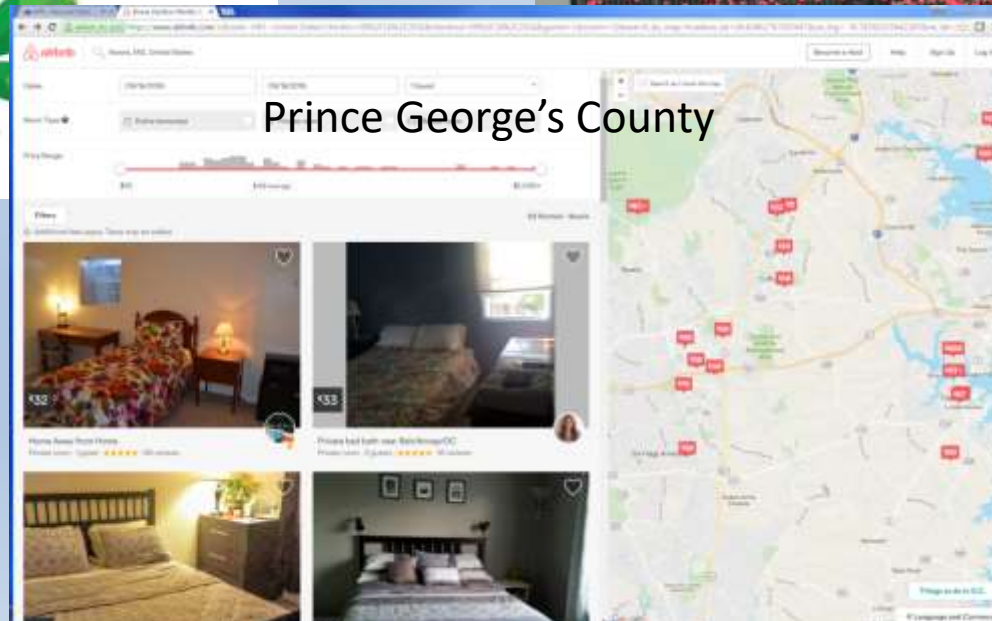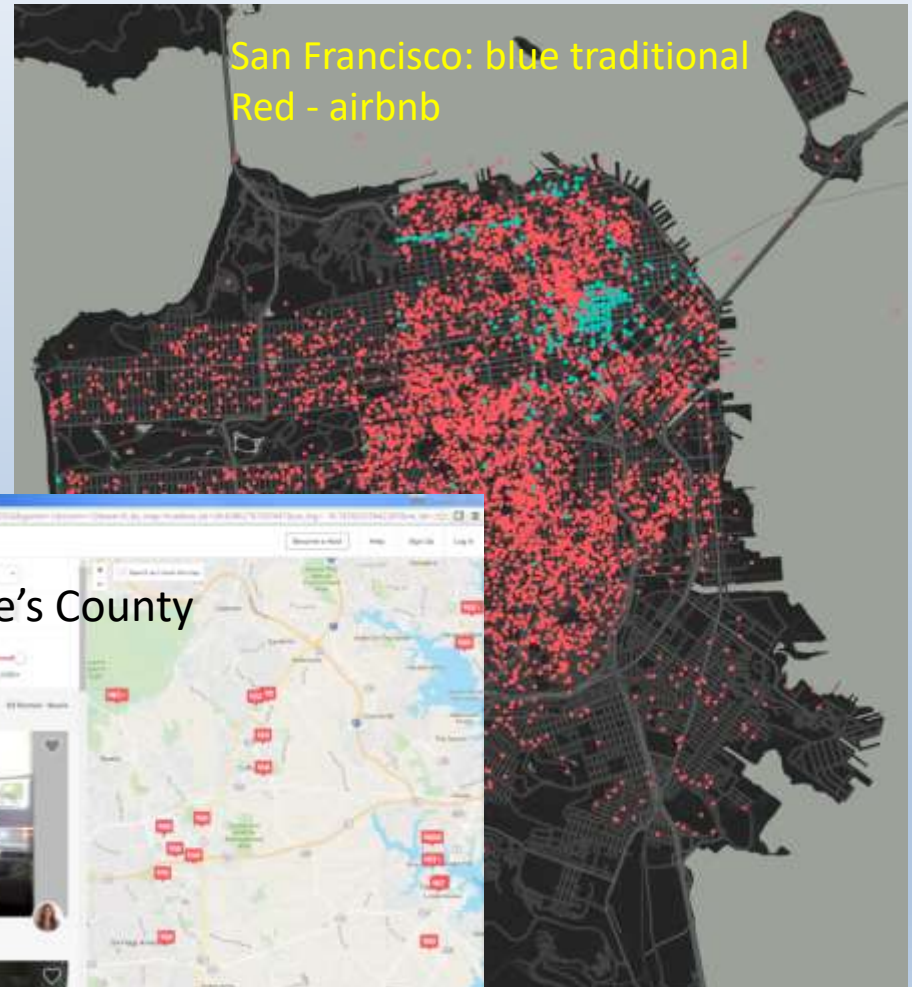Extensive map production and analysis to support general plan

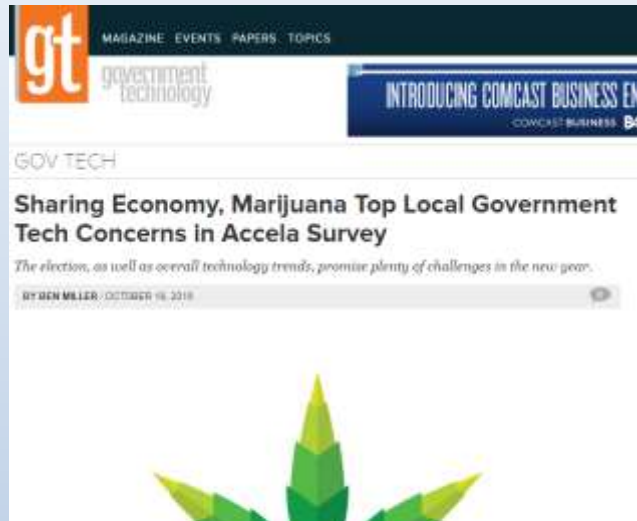# Economic Development

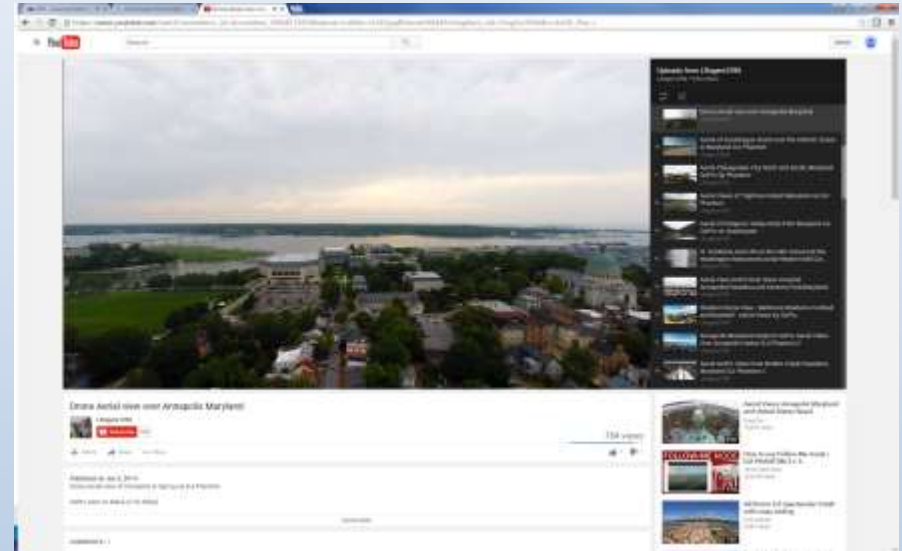Web maps and display maps showing economic investment zones

New Technologies: Sharing Economy

Sharing Economy, Marijuana Top Local Government Tech Concerns in Accela Survey

San Francisco: blue traditional
Red - airbnb

Prince George's County

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New Technolgies: Drone Tools

Implementation Ideas

- 3D scene for each preliminary plan at application and completion

- Fly through an visualization

- Master plan visualization

- Redevelopment visualization

- Emergency response

Thank you !

Questions ?