

# *Smart Growth 101*

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State and local governments have been trying to manage growth for most of the past century.

Always contentious, pitting:

- Individual rights vs. the collective good;
- Freedom vs. government control;
- Communal benefits vs. individual benefits.



# *The Three Ages of Environmentalism*



- Preserving our wilderness: Creating the National Park System. [Early 1900s]



- Protection from polluters: Addressing the environment as a public health crisis. [Mid-1900s]



- Livability: Linking the environment with economic prosperity and quality of life. [Late 1900s to the present]

# *A Fourth Age of Environmentalism*

- Green Building
- Energy Efficiency
- *Sustainability*

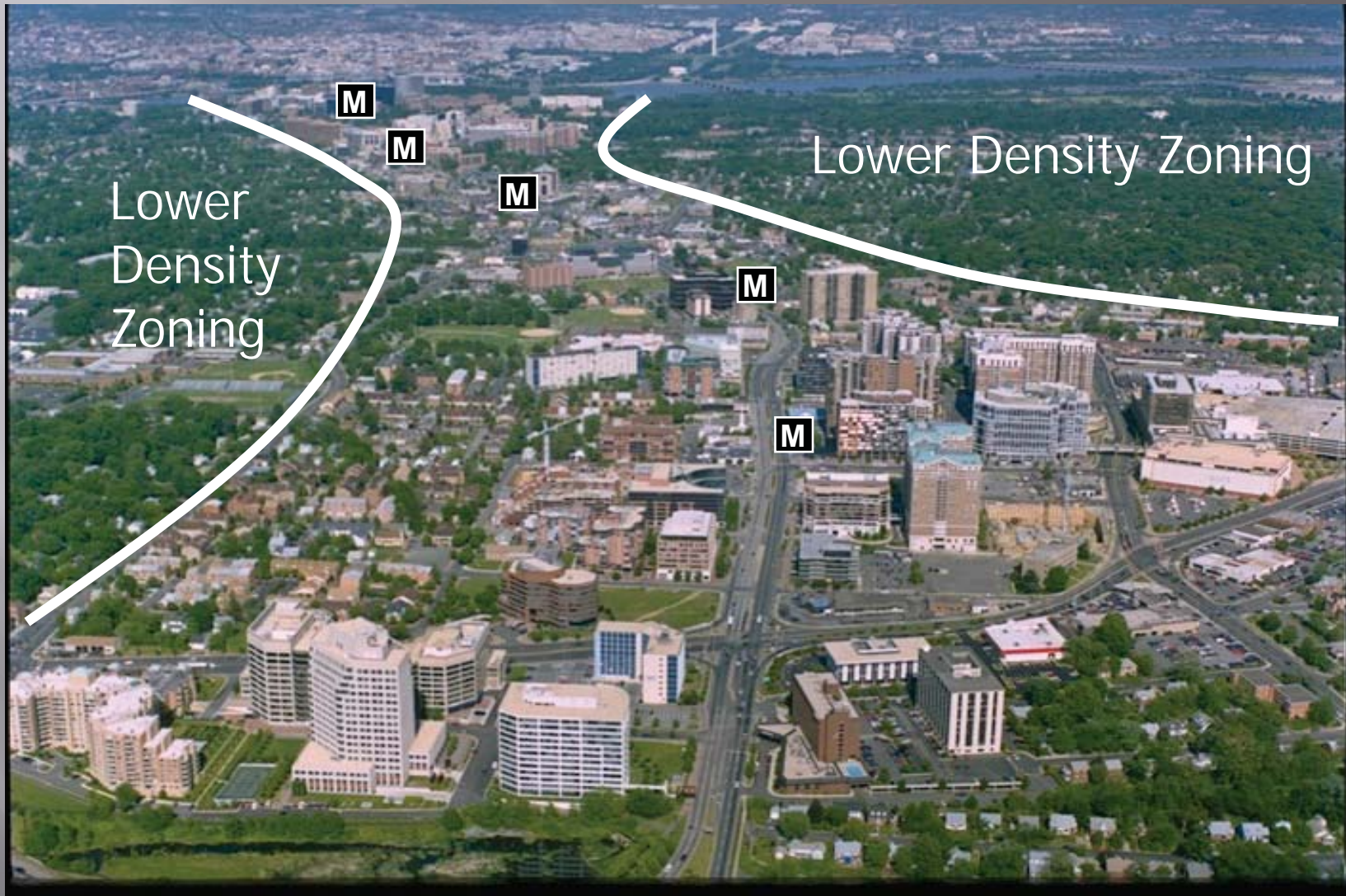




# What is a Sustainable Community?

*A Sustainable Community is an urban, suburban or rural community that has more housing and transportation choices, is closer to jobs, shops or schools, is more energy independent and helps protect clean air and water.*

# What a Sustainable Community Can Look Like



Because of this style of development, just under 3% of the land mass of Arlington County, Va., generates 37% of the county's tax base.



# *Smart Growth = Balance*



- For half a century, the development playing field has been:
  - Tilted toward urban fringe
  - Away from center cities and older suburbs
- Powerful Thesis Behind Smart Growth:
  - If we can shift toward a more balanced development pattern, it will have tremendous environmental and economic benefits.

## *What is Sprawl?*

Sprawl is defined as “a form of urbanization distinguished by leapfrog patterns of development, commercial strips, low density, separated land uses, automobile dominance and a minimum of public open space.”

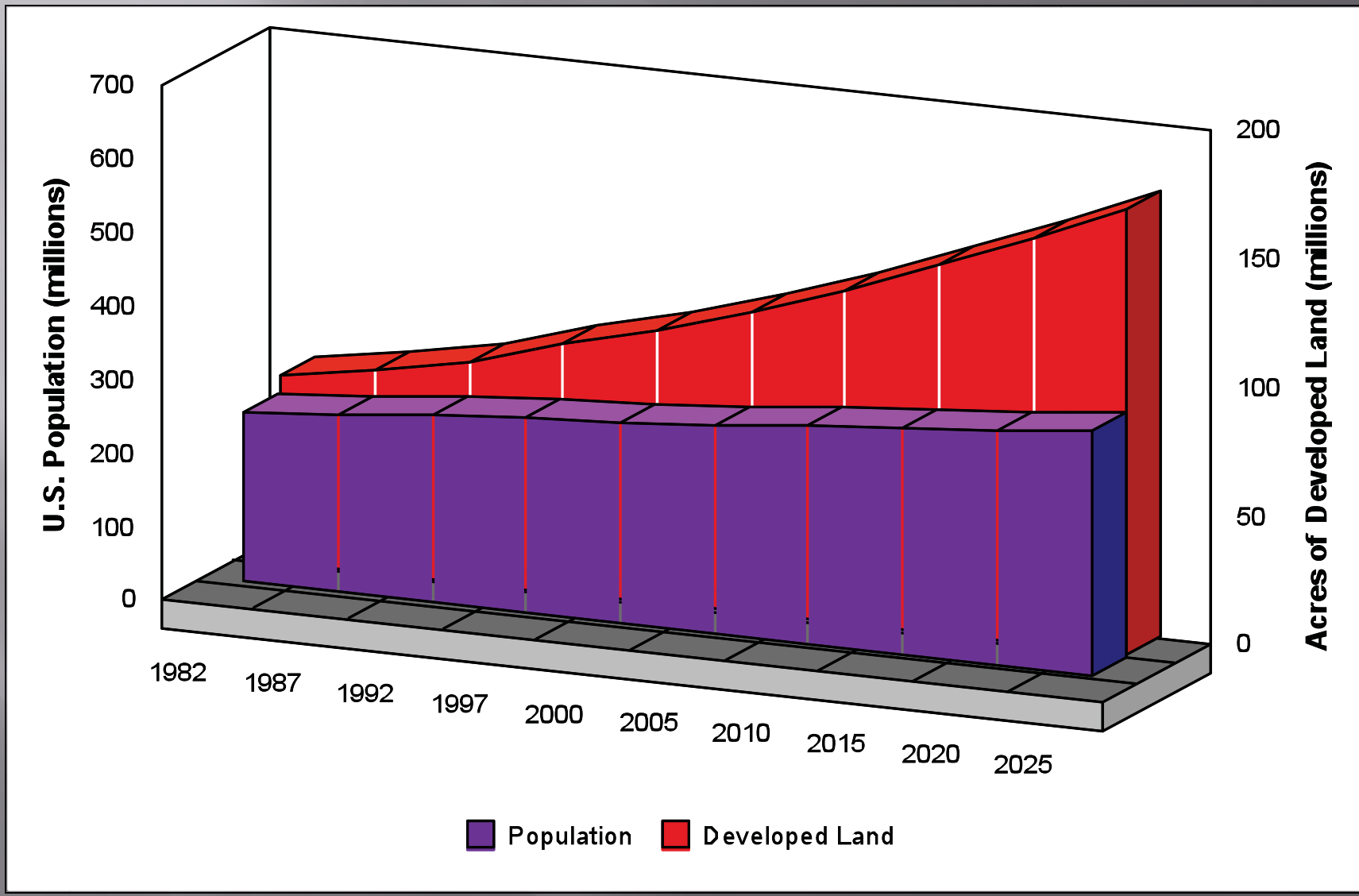
- Oliver Gillham, *The Limitless City* (Washington, DC: Island Press, 2002)



## *Factors Contributing to Sprawl*

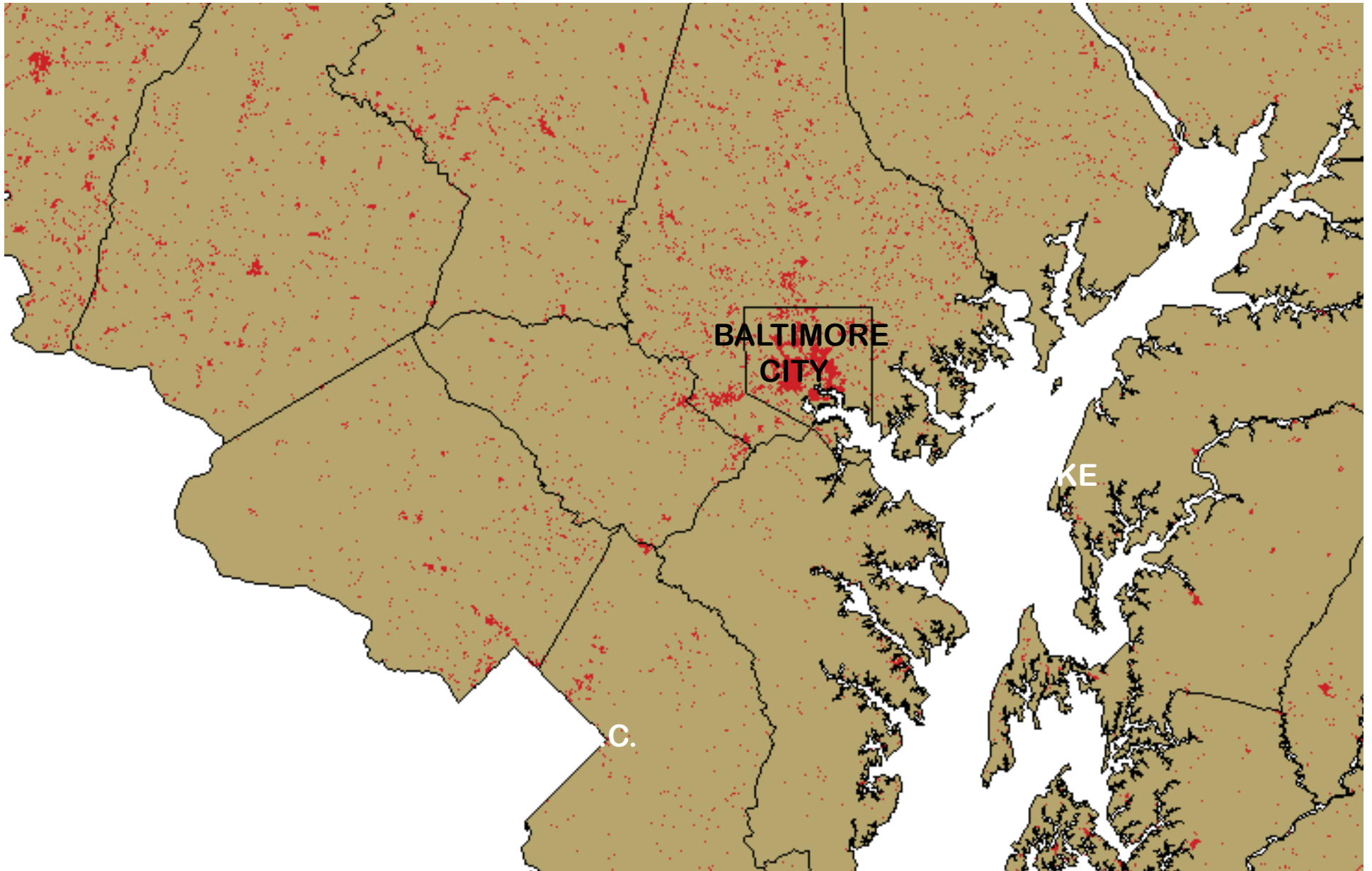
- Land use planning and law that separates uses.
- An automobile-oriented culture.
- Concerns about schools and public safety.
- Racism and racial tension.
- Inadequate ecological awareness.
- Global economic change in an information age.
- National policies and spending programs.
- Methods of local government revenue generation.
- Owners' concerns over property values.

# Land Consumption vs. Population Growth

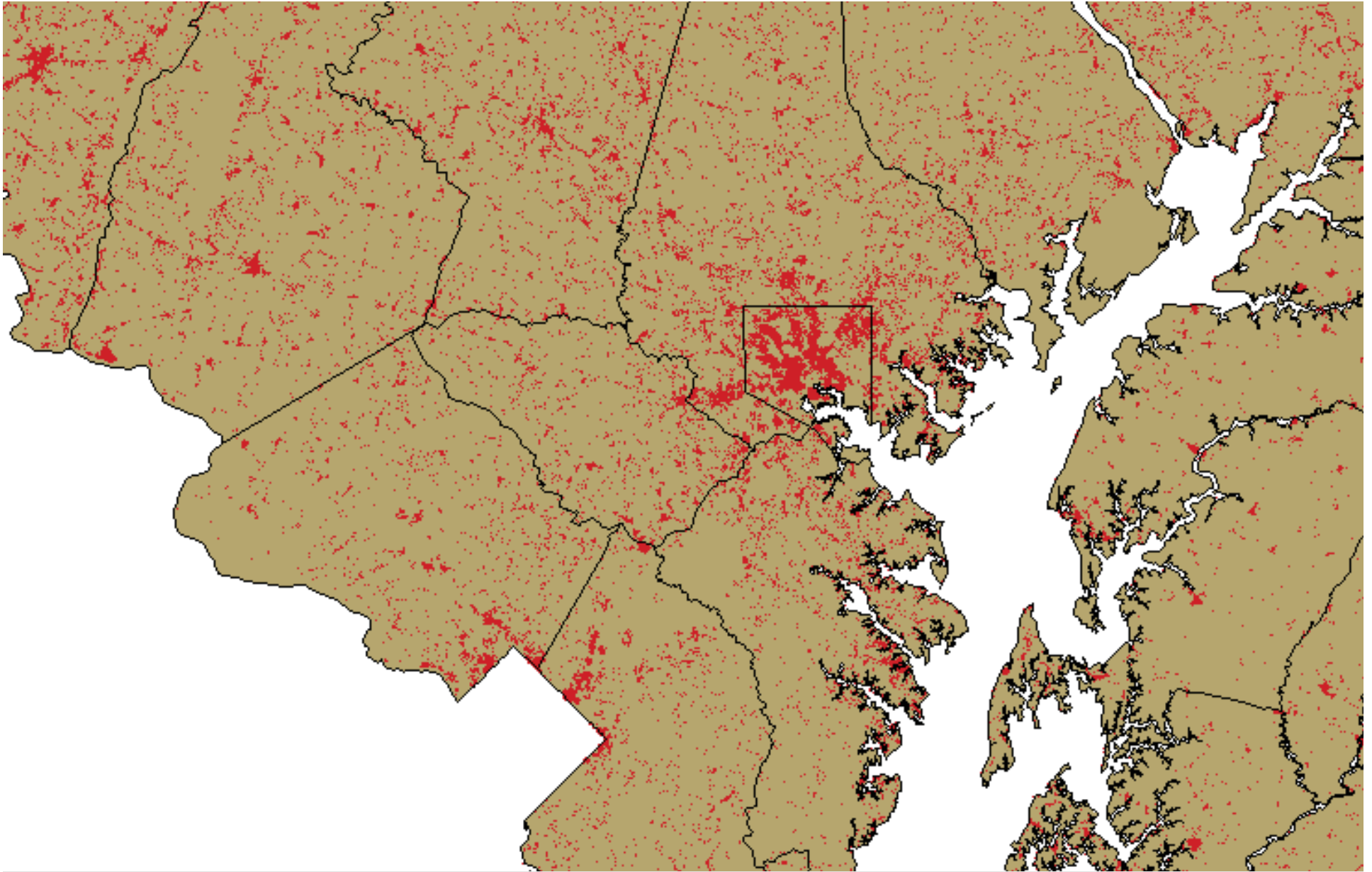


Source: Data and extrapolations from National Resources Inventory 2001; U.S. Census Bureau 2000





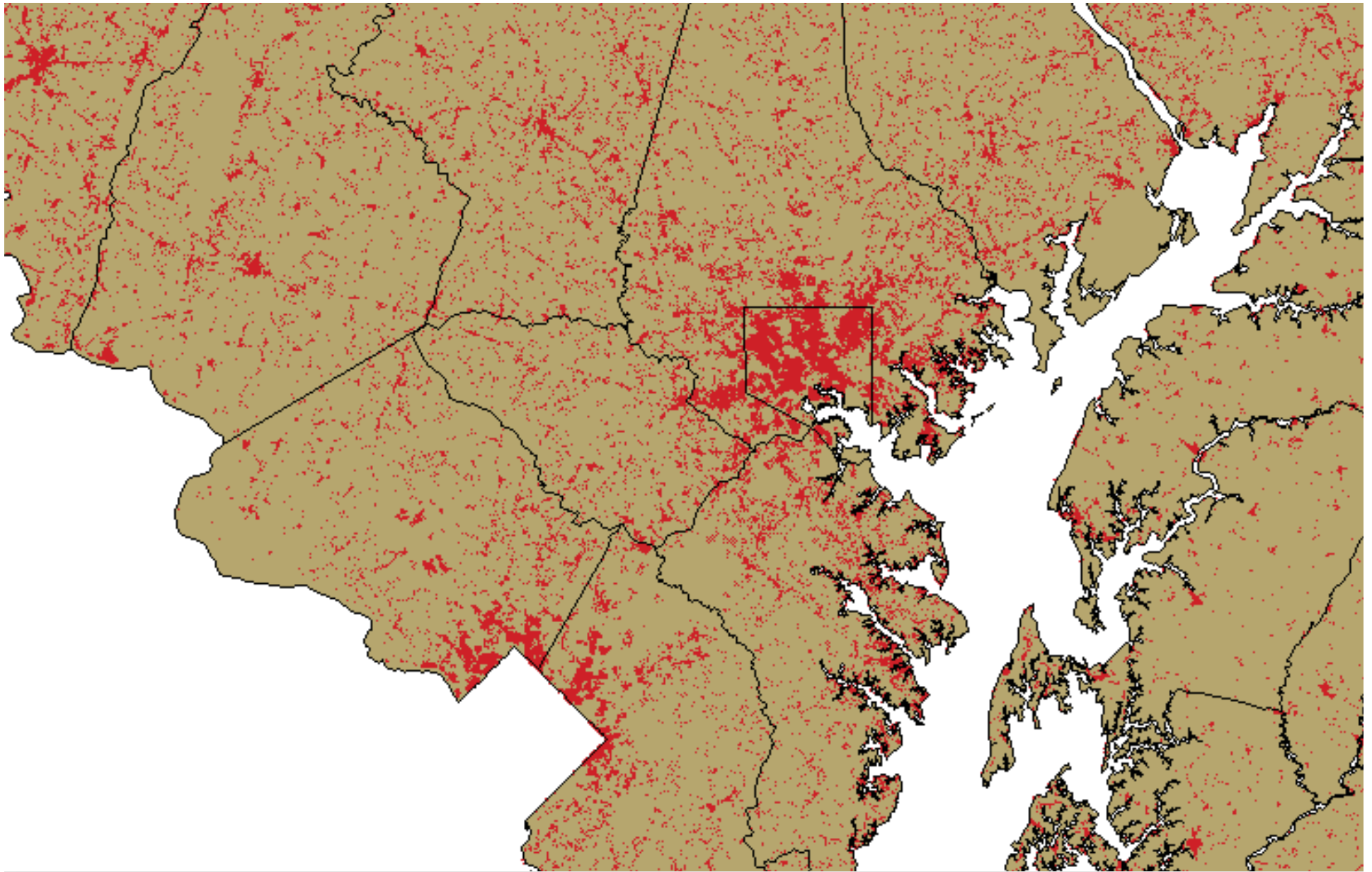
**Development Patterns Before**  
**1900**



Development Patterns up to

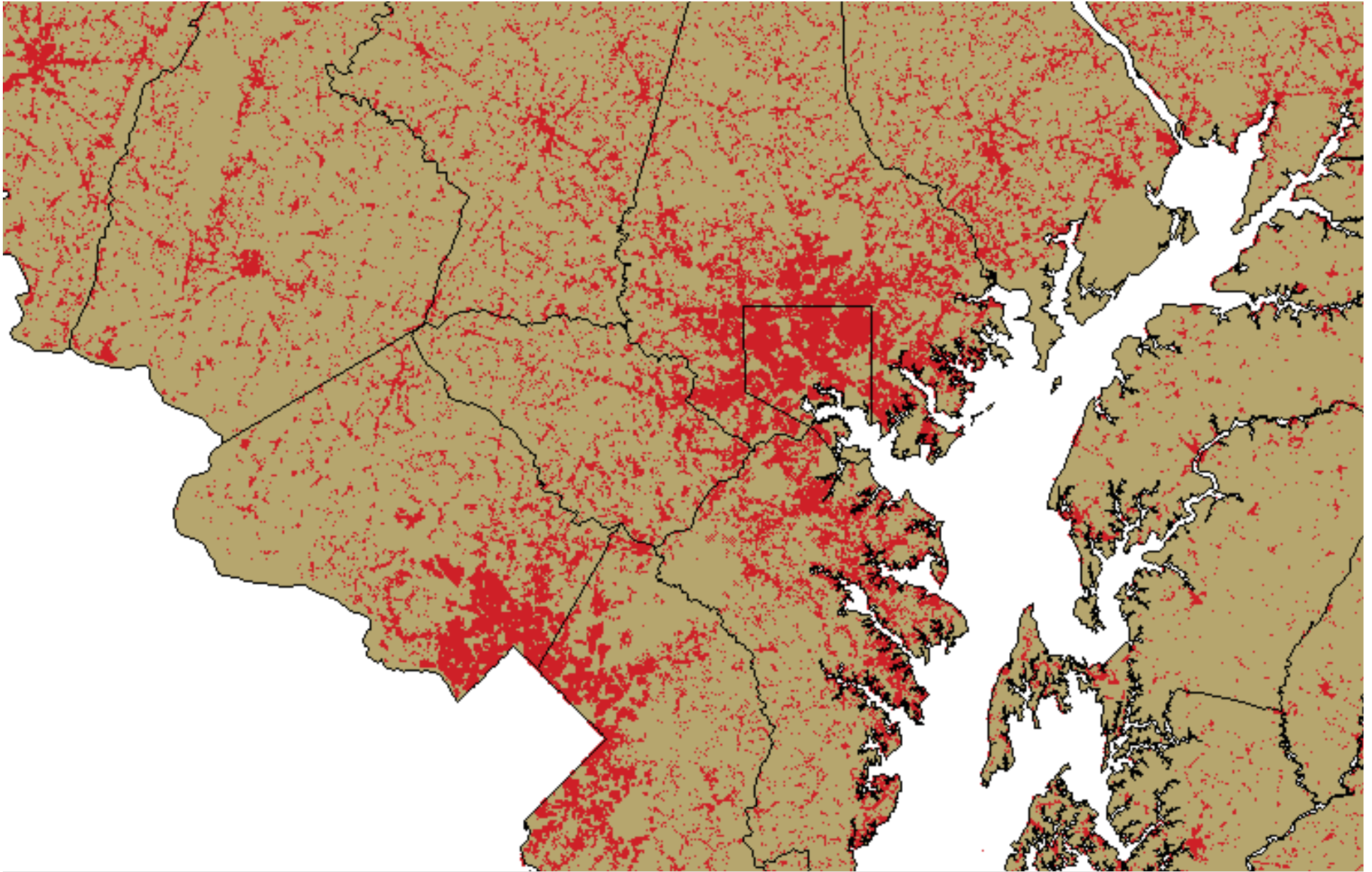
**1920**





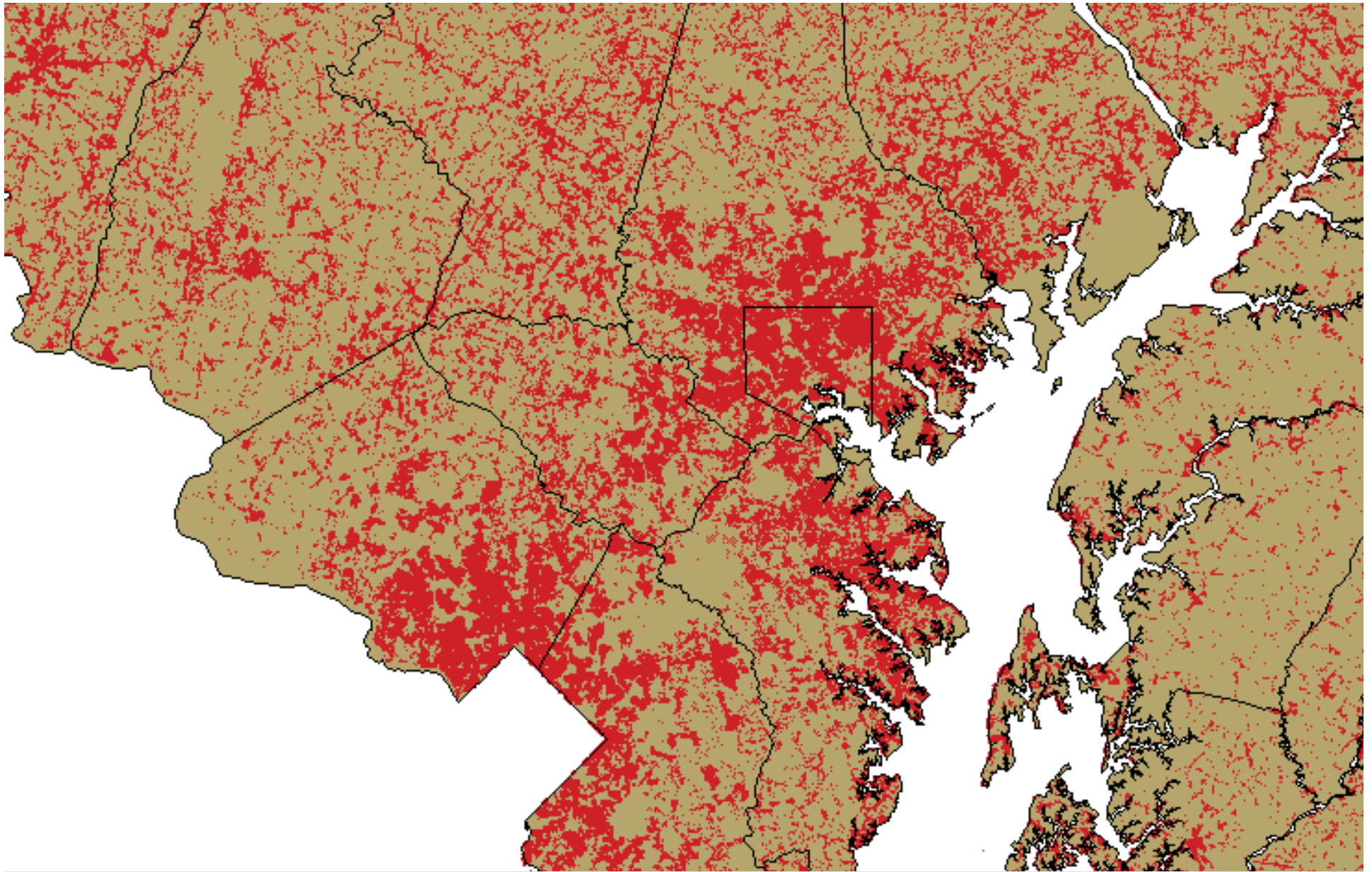
Development Patterns up to

**1940**

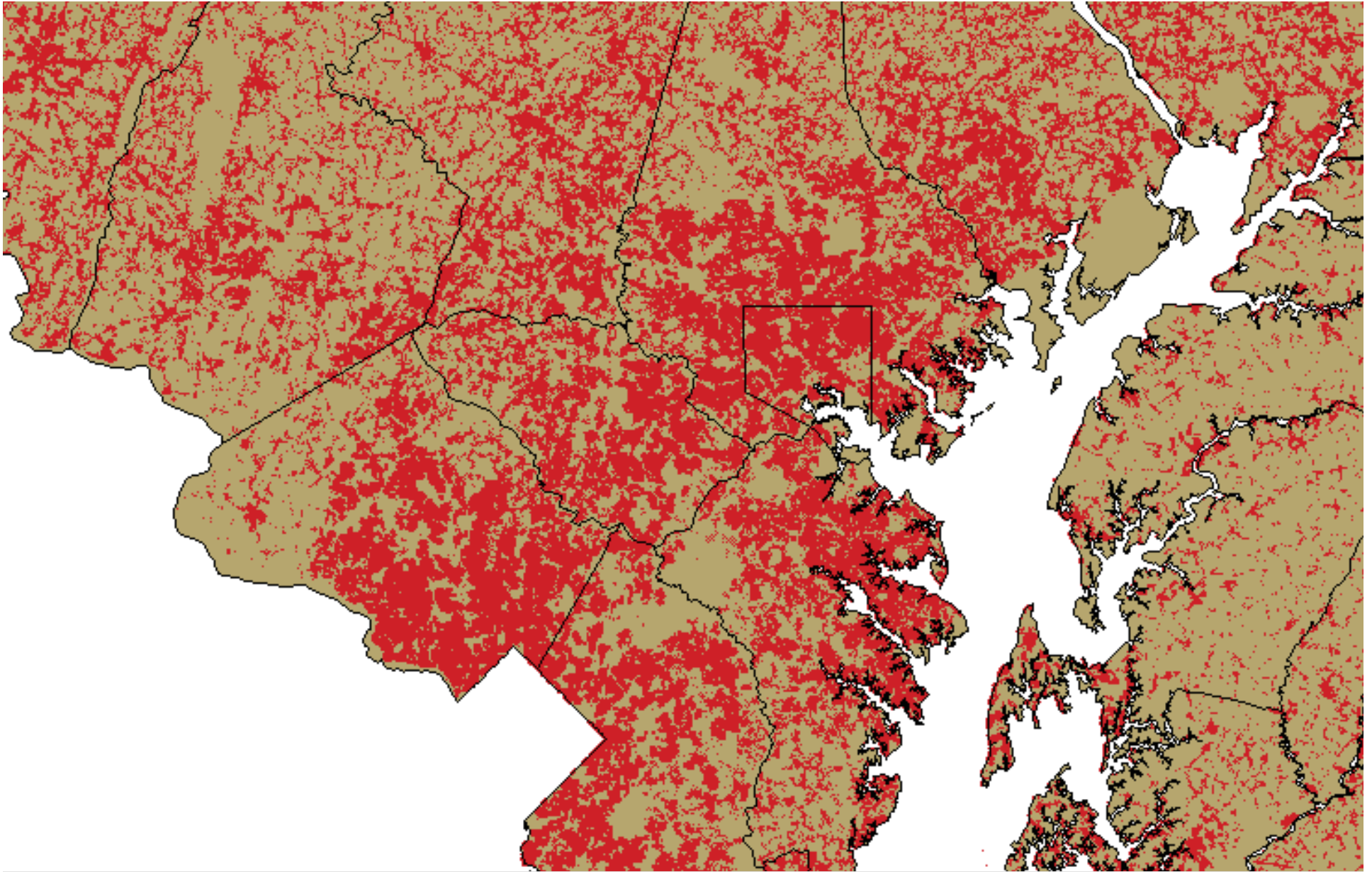


Development Patterns up to  
**1960**





Development Patterns up to  
**1980**

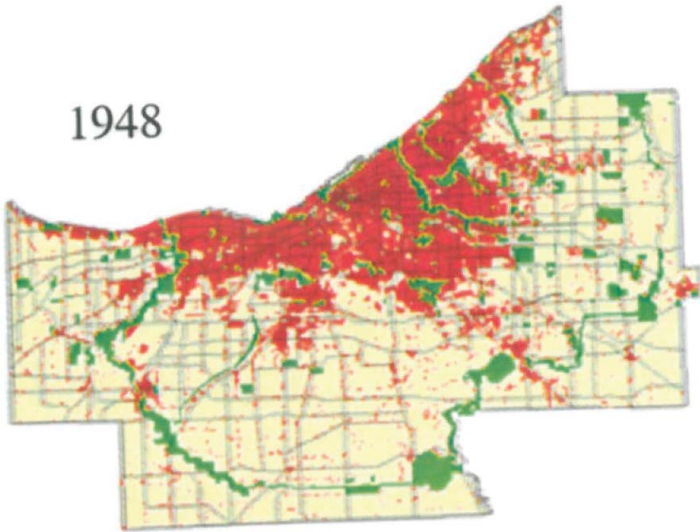


**Development Patterns through**  
**2000**



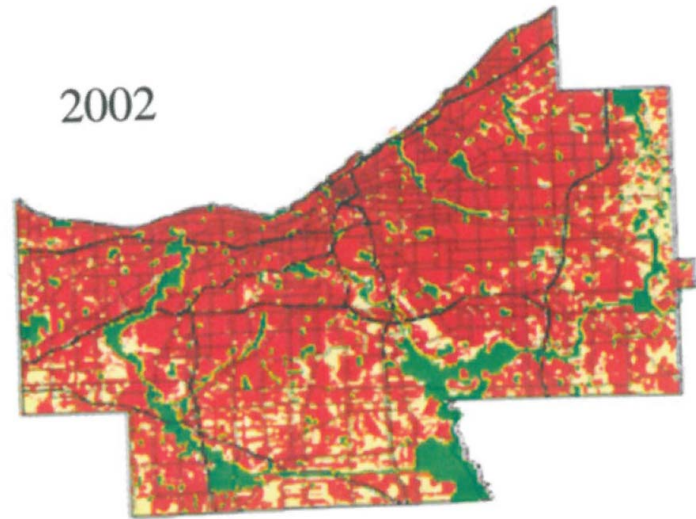
# *Expansion with little population growth*

1948



**U.S. Census 1950**  
**1,389,582 pop.**

2002



**U.S. Census 2002**  
**1,393,978 pop.**

Source: Cuyahoga Co Land Use Maps – Cuyahoga County, Ohio, Planning Commission

*Abandoned  
Cities*



*Abandoned  
Suburbs*





*Large Lot  
Development  
in  
Rural Areas*











# Why Should We Care?



- Fiscal: expensive for services and infrastructure.
- Social: race and class segregation; loss of the public realm.
- Health: reduced physical activity, high rates of obesity and related diseases.
- Environmental: land and resource consumption, air and water pollution, climate change.



Most Americans spend more than 50% of their household expenses on housing and transportation costs.



# Environmental Impacts of Land Use



## ➤ Air quality:

- Since 1990, carbon dioxide emissions from personal vehicles rose by 23% and emissions from trucks have risen by 80%\*
- Buildings and transportation together account for about 2/3 of U.S. GHG emissions\*\*

## ➤ Water quality:

- EPA estimates that more than 70% of urban water bodies are impaired
- Dispersed development affects more area and produces almost 50% more stormwater runoff than compact development.

## ➤ Loss of habitat and critical areas

- Habitat destruction is the main factor threatening 80% or more of the species listed under the Endangered Species Act.

\*FHWA Highway Statistics Series

\*\*US EPA 2009 Inventory of Greenhouse Gas Emissions and Sinks



# Benefits of Sustainable Community Approaches

- ▣ They reduce emissions:
  - An EPA funded study found that more compact development along with complimentary pricing strategies could reduce CO2 emissions by 18-24% by 2050.\*
  
- ▣ They reduce water demand:
  - Households use 60% of the public water supply in the U.S. Green building practices can reduce household water use by 20%.
  
- ▣ They encourage brownfield cleanup and redevelopment:
  - The GAO estimates there are 425,000 brownfields sites nationwide;
  - Redevelopment helps preserve open space and maximizes investments in existing infrastructure.

\*Source: Moving Cooler, July 2009.

# Benefits of Sustainable Community Approaches

- ▣ They create more walkable, healthier neighborhoods:
  - People in walkable neighborhoods are 7% less likely to be obese.
  - In Minneapolis, greenhouse gas savings from walking and biking equal shifting 12% of vehicles to hybrids.\*

\* The Short Trip with Big Impacts: Walking, Biking, and Climate Change August 2007.

\*\* US EPA unpublished modeling analysis, 2004.

\*\*\* Summary report of the Atlantic Steel, 1999.



*Compared with conventional development, Atlantic Station, a 139-acre redevelopment in midtown Atlanta, delivered significant regional environmental improvements:*

- Avoided 20 million cu/ft of runoff \*\**
- Protected 100+ acres of development \*\**
- Residents travel half as much as the regional average – 13.9 vs. 33.7 miles/day \*\*\**



# Demographic and Economic Trends – Increasing Demand for Sustainable Communities



- At least 1/3 of potential homebuyers prefer walkable, compact communities.
- Millennials and baby boomers, the two largest demographic cohorts, are particularly interested.
  - **More than 2/3 of households today have no children living at home.**
  - **By 2050, almost 3/4 of households will have no children living at home.**
- **The 65-and-older cohort is projected to nearly double, from 13% to 20% of the population, by 2050.**
- *Emerging Trends in Real Estate* annual report consistently identifies these neighborhoods as top investments.
- Green Building now represents 25% of real estate market.

# Many Barriers to Smart Growth: Development Industry is Highly Regulated

## □ **Government influences development choices by mandating:**

- Minimum lot sizes
- Separation of uses
- Minimum numbers of parking spaces
- Minimum setbacks and street widths
- Density limits
- Minimum acreage requirements for schools
- Single housing types

## □ **State and Federal**

- Water infrastructure and regulation
- Transportation
- Inflexible funding rules
- Environmental requirements

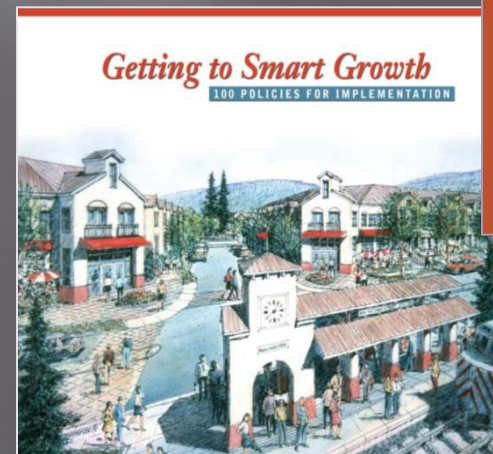
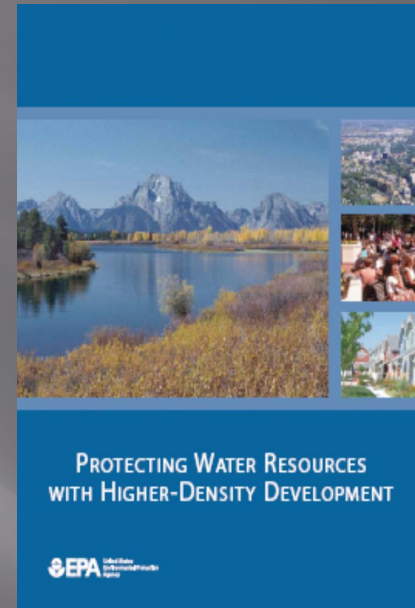


**Our program works to remove these barriers.**



# Changing the Conversation

- We created the Smart Growth Network
  - A national coalition that defines and advances smart growth practices.
  - 45 partner organizations ranging from the Urban Land Institute to the American Farmland Trust
- We created the annual New Partners for Smart Growth Conference
  - More than 1,500 federal, state and local government workers; developers, urban designers, and other stakeholders.
- We fund the go-to source for all things smart growth, [www.smartgrowth.org](http://www.smartgrowth.org), and developed green building websites, [www.epa.gov/greenbuilding](http://www.epa.gov/greenbuilding) and [www.epa.gov/greenhomes](http://www.epa.gov/greenhomes).
- National Award for Smart Growth Achievement- since 2002
  - 625 applications received, 37 awarded



# Changing the Rules

## ▣ Water infrastructure

- USDA, HUD and EPA all fund water infrastructure using different criteria, processes, etc. Can they be better aligned?
- Working with HUD, DOT and USDA to make green infrastructure approaches more commonplace.

## ➤ 2011 SRF Procedures

- Implementation guidance for OW's Water Infrastructure Sustainability Guidance.

## ➤ Green Building

- Working with US Green Building Council, the International Code Council, others.





# Helping the Willing

- **Technical Assistance** to state and local governments – approximately 50% of our FY11 work plan.
- ▣ **Multiple approaches:**
  - Cutting edge issues
  - State policy change
  - High visibility demo projects
  - Tools to address common barriers
- ▣ **Demand for green building/ sustainable codes:**
  - Adopted in 156 communities in 2008  
384 in 2010.



# Partnership for Sustainable Communities



## Partnership Livability Principles

1. Provide more transportation choices.
2. Promote equitable, affordable housing.
3. Enhance economic competitiveness.
4. Support existing communities.
5. Coordinate policies and leverage investment.
6. Value communities and neighborhoods.





# Roles in the Partnership

## Environmental Protection Agency

- Brownfields Restoration
- Smart Growth Technical Assistance
- Water Infrastructure Funds
- Green Infrastructure
- Performance Measures



## Housing and Urban Development

- Community Development Block Grants
- Regional Planning Grants
- Municipal Challenge Grants
- Affordable Housing Programs



## Department of Transportation

- TIGER Grants
- FTA Programs
- FHWA Flex Funding
- United We Ride
- FHWA Livability Efforts
- State/Metro Planning
- Railroad Infrastructure



## Department of Agriculture

- Rural Development

# Embedding Partnership Principles in Federal Agencies

- Within EPA – SRF, BF, AIR, NEPA
- HUD – Multi-family housing on cleaned up brownfield sites.
- DOT – Tiger grant criteria; Transportation Reauthorization.
- USDA – Rural development
- FEMA – Hazard mitigation and post-disaster recovery
- GSA – Criteria for siting Federal facilities
- CDC – Walk Score in real estate listings
- NOAA – New approaches to coastal development
- States – How to spend Federal SRF funds



*Five Big Forces  
Affecting Growth  
and  
Development*



1. International Economic Competition
2. Population Growth
3. Aging Population
4. Climate Adaptation
5. Rising Energy Costs

**Thank you.**