

Greenhouse Gas Emissions, Energy Use, and Climate Change: DVRPC Activities

Presentation to:
Greater Washington Metropolitan Council of Governments'

CLIMATE, ENERGY, AND ENVIRONMENT POLICY COMMITTEE (CEEPC)

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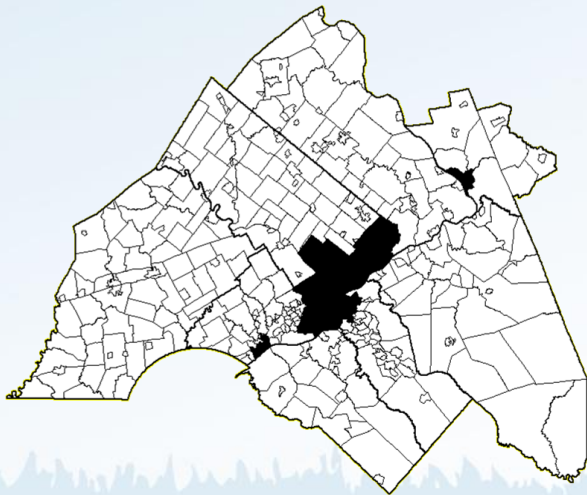
The Delaware Valley Regional Planning Commission (DVRPC)



Metropolitan Planning Organization (MPO) for the bi-state, 9-county Philadelphia region

Home rule region: 351 municipalities; 5.5M people; land use power resides with local governments

- Regional planning: more carrots than sticks: MPO as facilitator and consensus builder
- We develop many planning tools and conduct planning projects for our member governments to encourage good thinking and pursue good practice



Connections 2040: Plan for Greater Philadelphia



4 Key Strategies

- Manage Growth and Protect the Environment
- Create Livable Communities
- Build the Economy
- Establish a Modern, Multimodal Transportation System

www.dvrpc.org/LongRangePlan/

Energy and Climate at DVRPC -- Throughout our work

Energy and Climate Change Initiatives

Environmental Planning

Smart Growth

Long Range Planning

Air Quality

Congestion Management

Commuter Services

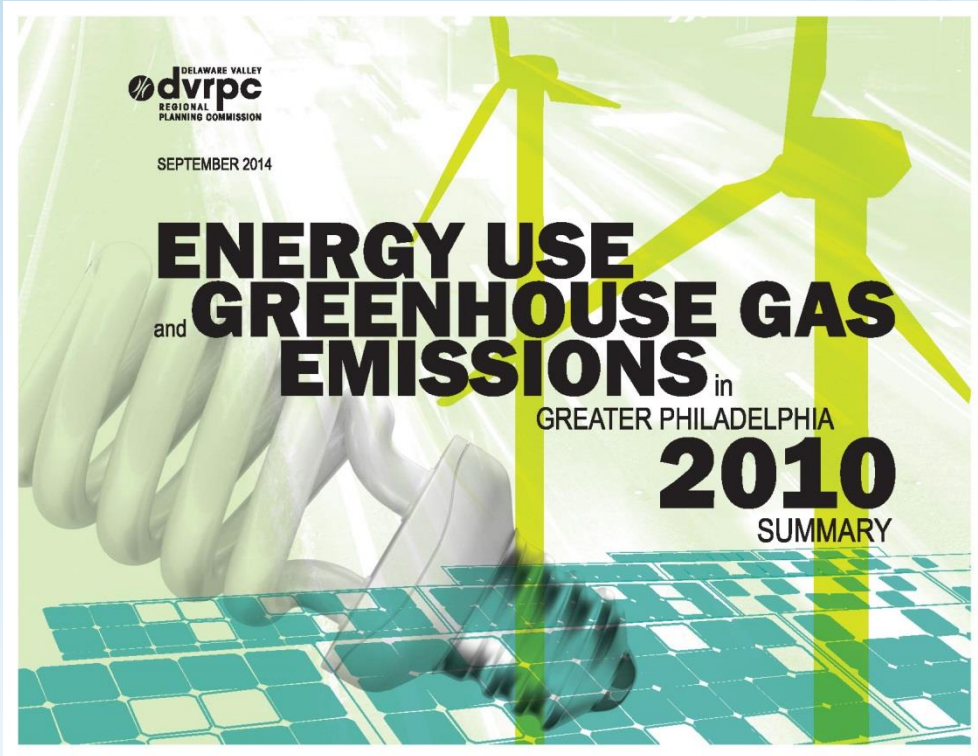
**Transit, Bicycle, and Pedestrian
Planning**

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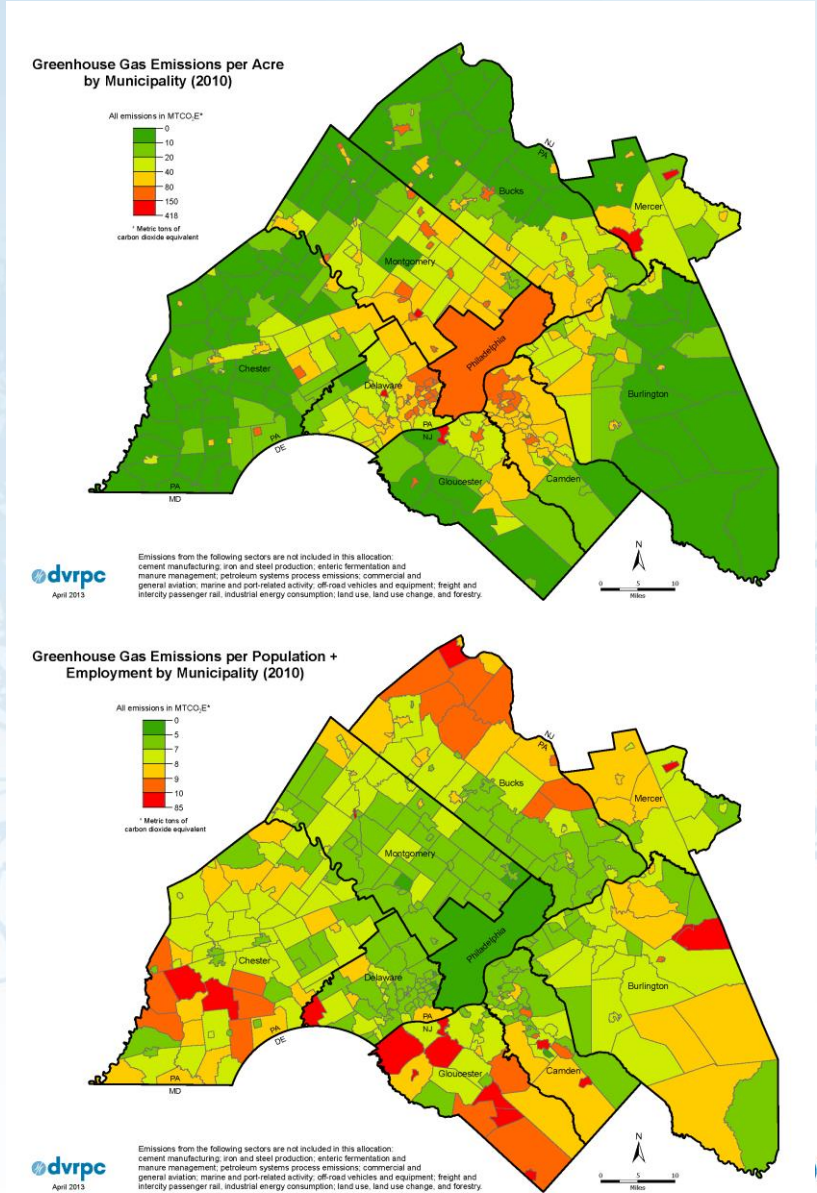
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Energy Use and Greenhouse Gas Emissions Inventory



www.dvrpc.org/webmaps/MunicipalEnergy/



Optimal Pathways for Regional Energy Transition

Advisory Committee: Project of the Kleinman Center for Energy Policy

Broad regional impacts of various pathways to reduce GHG emissions.

What is the appropriate role of regions in addressing global problems?

Is “80 by 50” feasible and desirable?

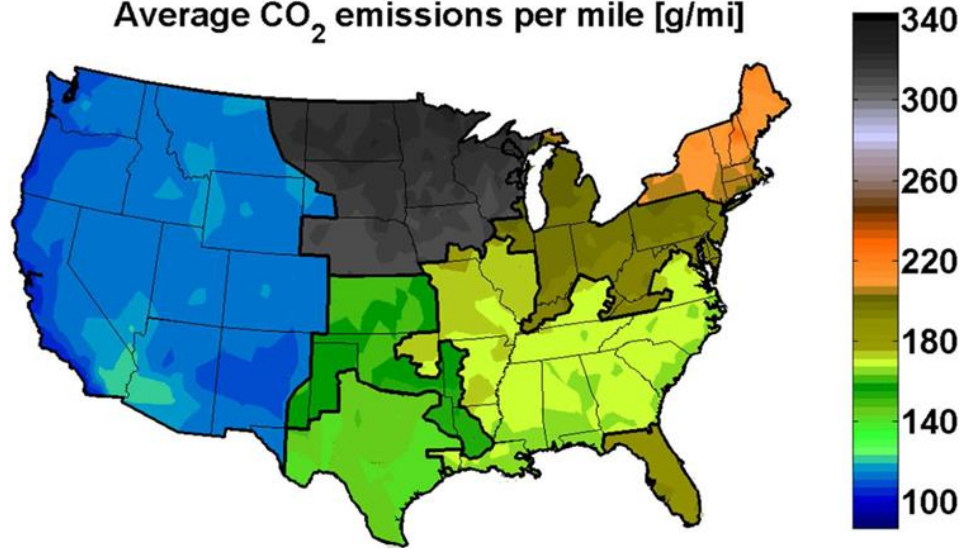
Using DVRPC regional data

DVRPC will publish results



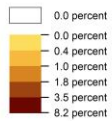
Electric Vehicle Greenhouse Gas Emissions Tool

Average CO₂ emissions per mile [g/mi]

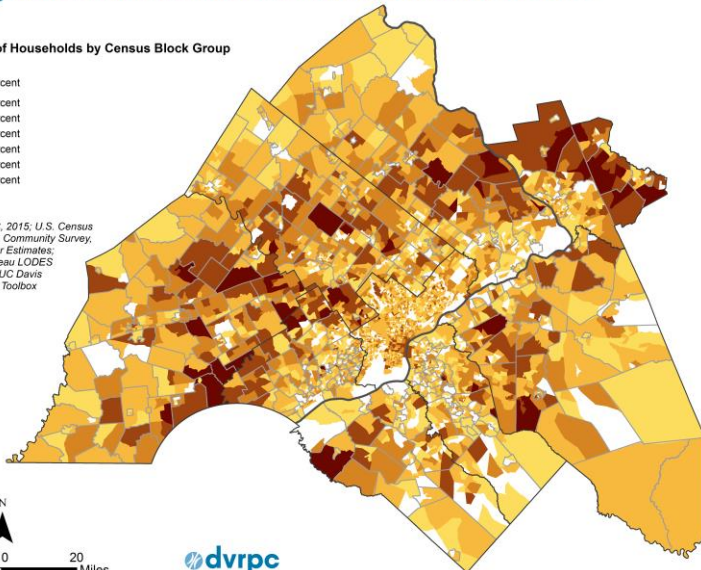


Percentage of Households with PEVs When 1% of Total Households Own PEVs

Percentage of Households by Census Block Group

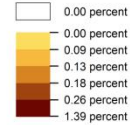


Sources: DVRPC, 2015; U.S. Census Bureau American Community Survey, 2009-2013 5-Year Estimates; U.S. Census Bureau LODES Version 7, 2013; LIC Davis EV Planning GIS Toolbox

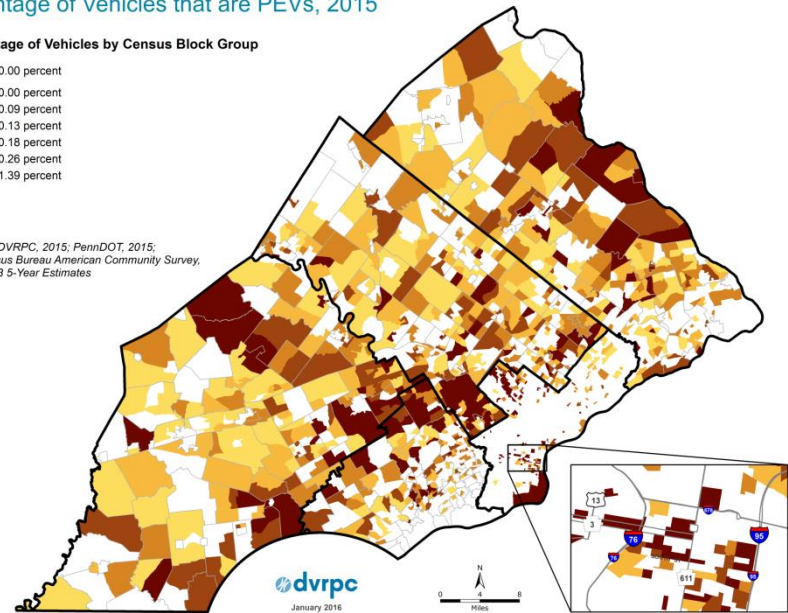


Percentage of Vehicles that are PEVs, 2015

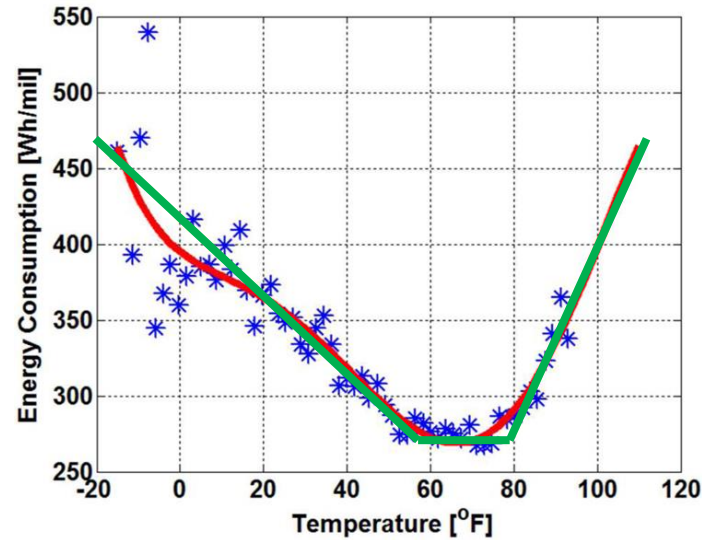
Percentage of Vehicles by Census Block Group



Sources: DVRPC, 2015; PennDOT, 2015; U.S. Census Bureau American Community Survey, 2009-2013 5-Year Estimates



Electric Vehicle Greenhouse Gas Emissions Tool



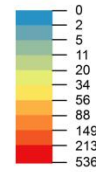
Map of eGRID Subregions



USEPA, eGRID2012, October 2015

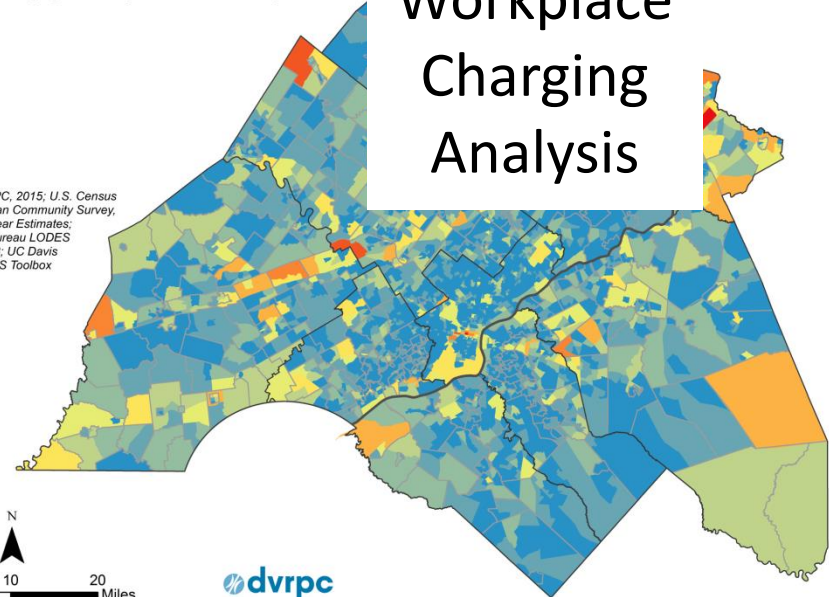
Primary Subregion
 Secondary Subregion
 Tertiary Subregion
 Because some locations have multiple electric service providers, these areas may fall within overlapping eGRID subregions. Visit Power Profiler (<http://www2.epa.gov/energy/power-profiler>) to definitively determine the eGRID subregion associated with your location and electric service provider.

Number of Charging Events by Census Block Group



Sources: DVRPC, 2015; U.S. Census Bureau American Community Survey, 2010-2014 5-Year Estimates; U.S. Census Bureau LODES Version 7, 2013; UC Davis EV Planning GIS Toolbox

Workplace Charging Analysis



Climate Change Adaptation Community of Practice

Half-day **solutions-focused** workshops, two to four times per year.

Convene professionals engaged in preparing for climate change.

Professionals present on activities addressing a particular climate change adaptation issue.

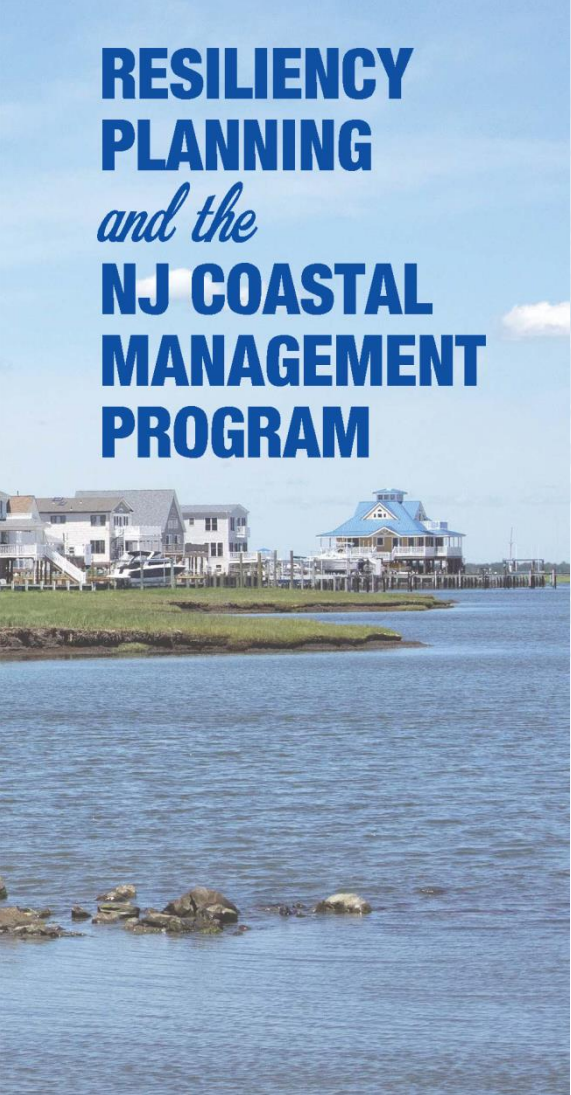
- October 2016—Forests, Urban Trees, and Climate Change
- February 2017—Public Health and Climate Change

Future topics:

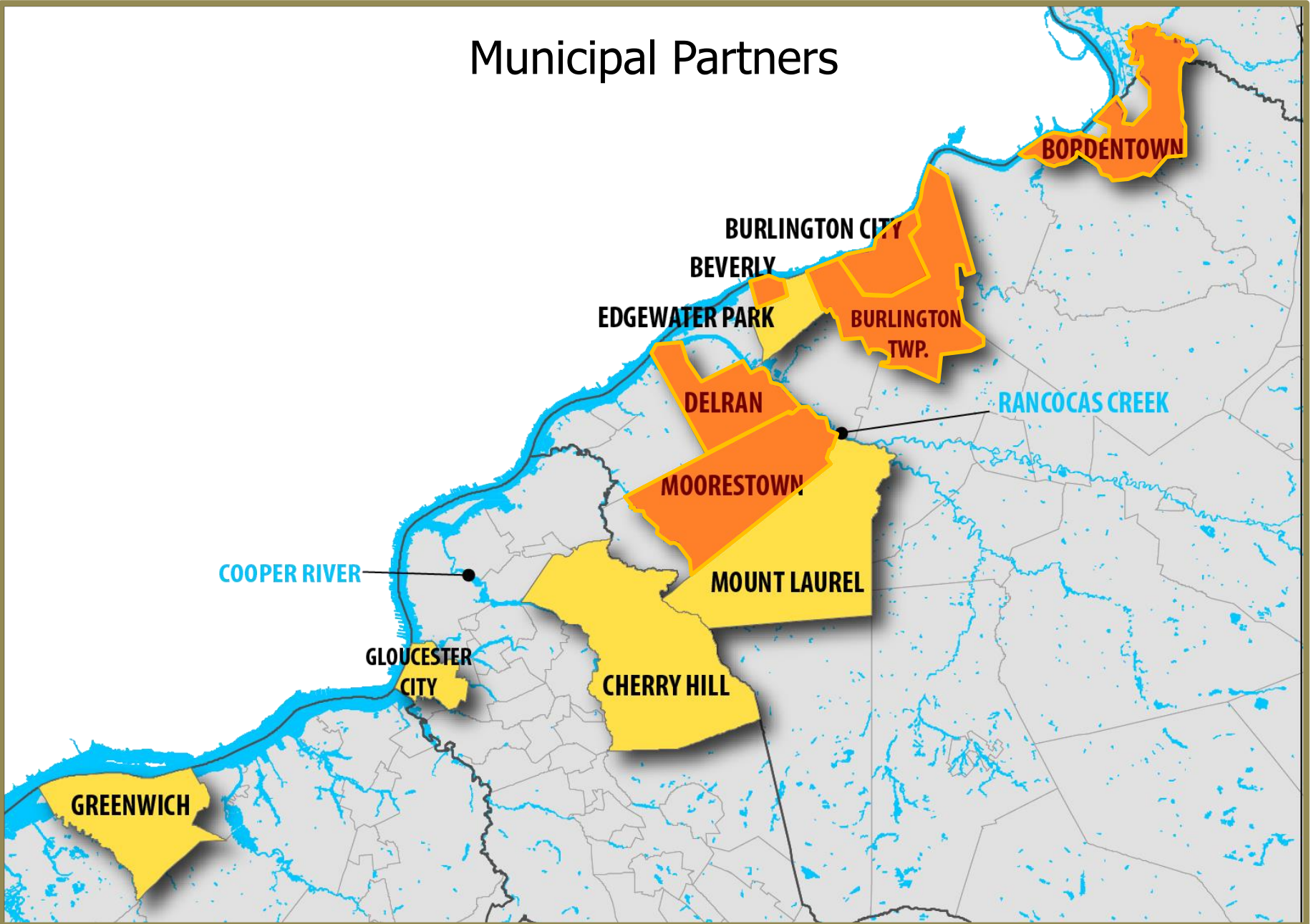
- Waterfront Development in a Changing Climate
- Green Stormwater Infrastructure
- Urban Heat Island Solutions, Microgrids, Landscaping with Climate Change in Mind, and Assuring Transportation System Resiliency, . . .



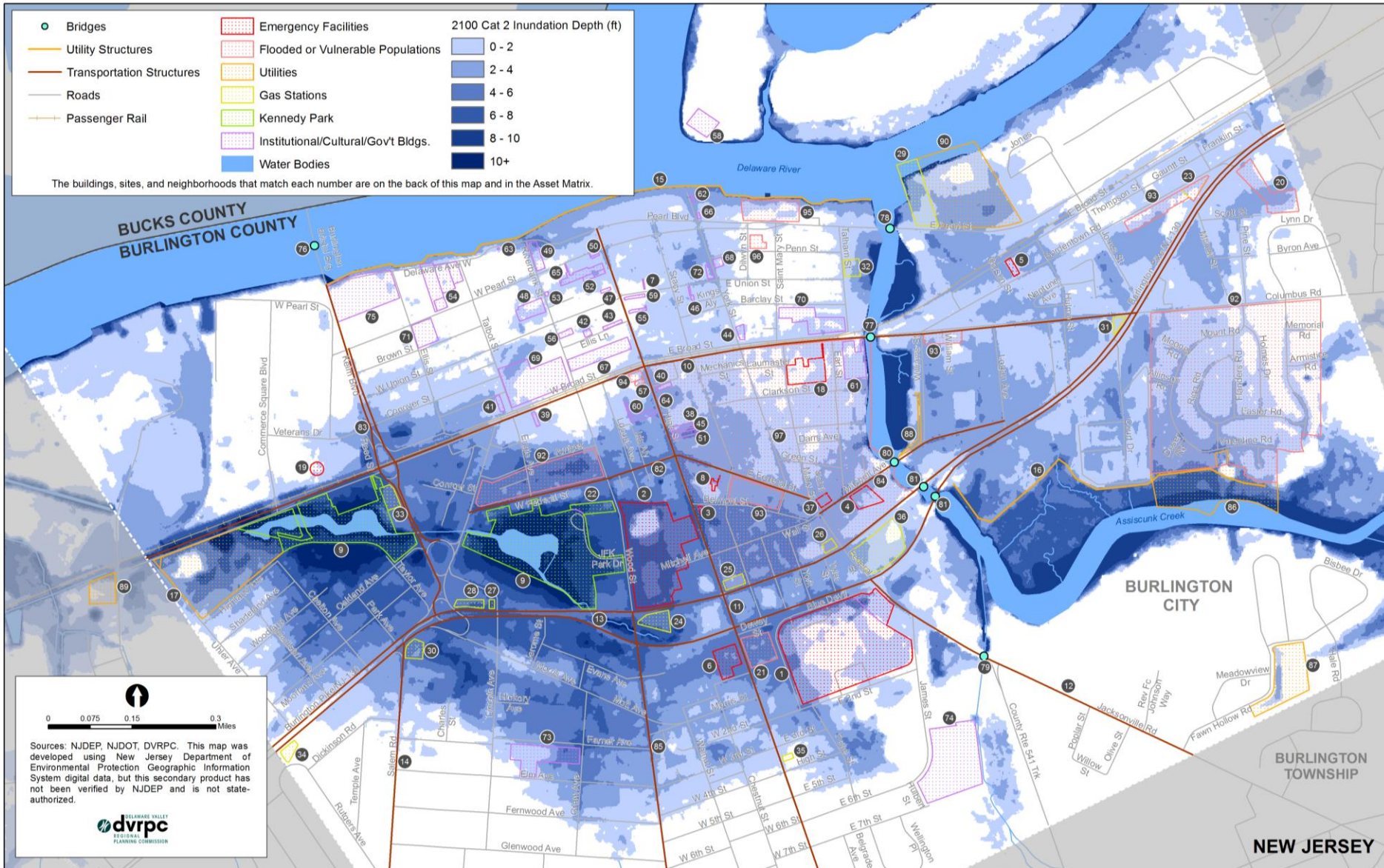
New Jersey Resilient Coastal Communities Initiative



Municipal Partners



Burlington City: Highly Vulnerable



Integrating Hazard Mitigation Planning and Comprehensive Planning

FEMA Region III Funding

Met individually with each county

Workshop held at DVRPC

**Follow on outreach to municipalities forthcoming,
based on CCACOP and RCCI work**



Other Activities

pennsylvania
DEPARTMENT OF TRANSPORTATION

PHASE 1
PENNDOT
EXTREME WEATHER
VULNERABILITY STUDY

STUDY REPORT

Study Prepared By:
Michael Baker
INTERNATIONAL

DRAFT VERSION - JANUARY 2017



Questions?



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www.dvrpc.org/EnergyClimate