

Sustainability Roundtable: Community Resilience Planning February 27, 2019

Paul Gruner, PE, PS
Montgomery County Engineer

911 Water Evacuation



911 Water Evacuation

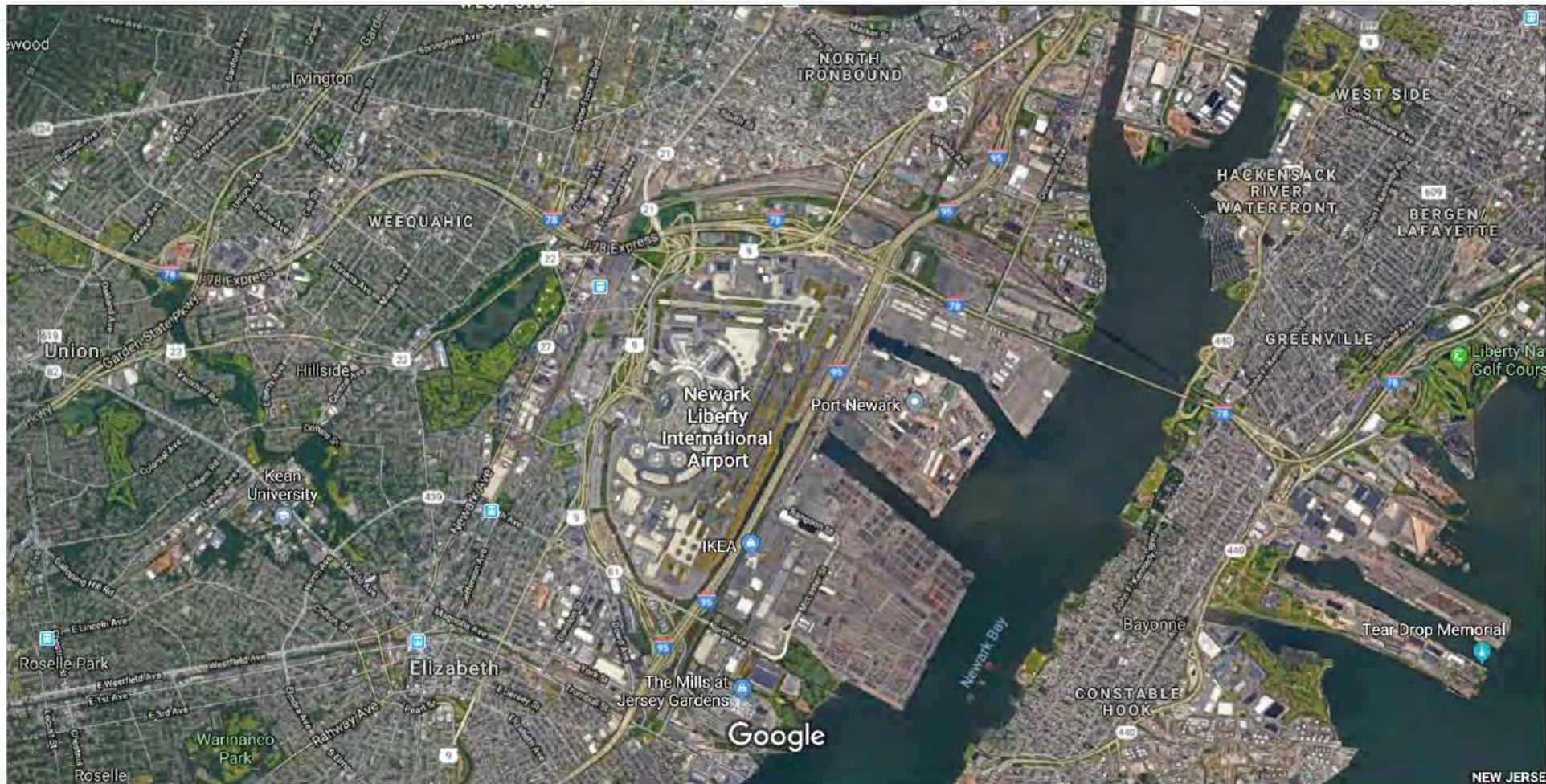
- 500,000 people evacuated from Lower Manhattan – “bigger than Dunkirk”, 338,226 soldiers evacuated from France to England
- Coast Guard commandeered vessels
- Tugs, ferries, New York police & fire boats, and private vessels – anything that floated

Newark International

2/26/2019

Google Maps

Google Maps



Rickenbacker International

2/26/2019

Google Maps

Google Maps



Threats in Dayton Region

- Weather – snow, flooding, wind, climate change
- Bridge conditions, road slides
- Utility conditions – water, sewer, electric, gas, telecommunications
- Chemical spills
- Terrorism – international, domestic – organized and individuals
- Earthquakes & Meteorites

Xenia Tornado 1974



What Have We Changed?

- Office of Emergency Management
- Emergency Operations Center
- MGCLERC
- Regional Dispatch Center
- MARCS Radio System-Multi-Agency Radio Communication System
- Calamityville & Disaster Exercises

Dayton Water Crisis 2/13/19

- City and County immediately collaborated
- Emergency Operations Center was activated
- City Water, County Environmental Services, Health Department, and OEM gathered there
- City, County, Food Bank, and Krogers all distributed bottled water
- News media kept the public informed

What Have We NOT Changed?

- The threats
- Investment in infrastructure
- Although the line that broke in crisis was not extremely old, we know that all water agencies have very old systems and experience many breaks

Planning for Resilience

- 2015 FAST Act required agencies to take resilience into consideration during transportation planning processes
- Research and development of methods in response to FAST Act is still in progress
- Redundancy is a big part of resilience
- While we provide redundancy in individual features, it's difficult to create system redundancy when resources are scarce and needed for preservation

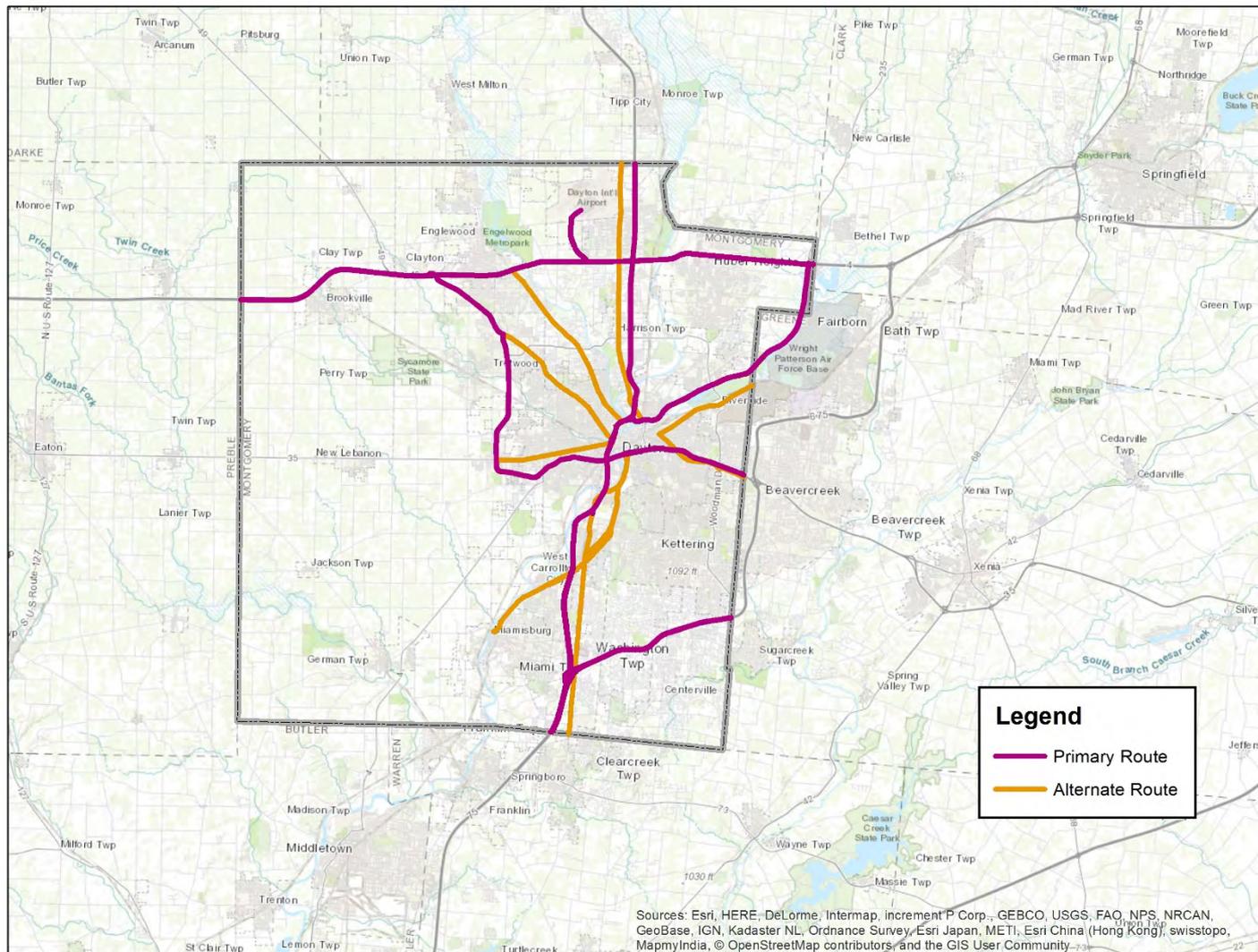
Planning for Resilience

- Interrelation and connections of modes
- Do we make improvements to critical routes first?
- Do we need evacuation routes?
- Do we currently have systems for reversing freeway traffic? Arterials?
- Are we doing enough to combat climate change and other environmental issues?

Planning for Resilience



Planning for Resilience



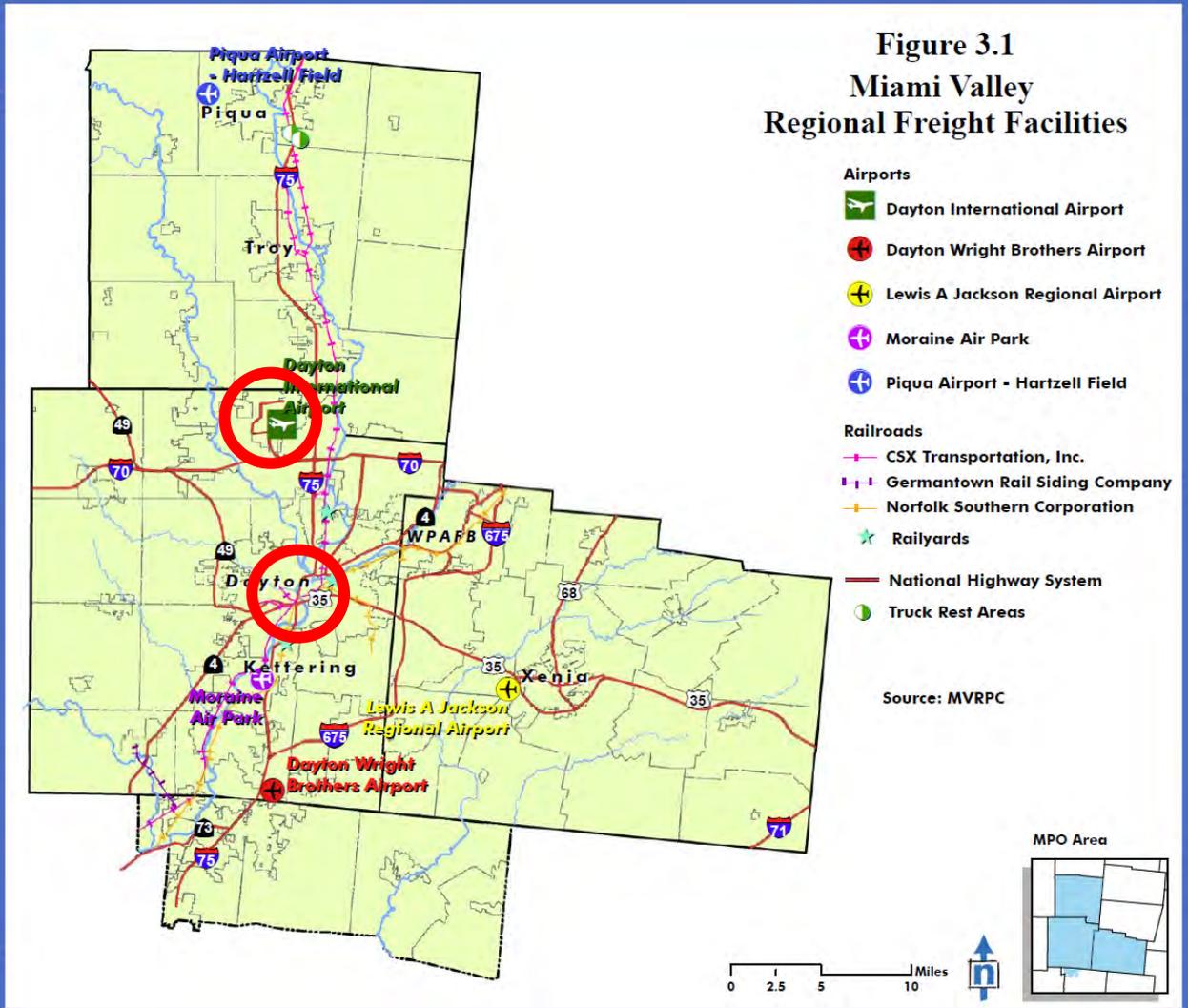
All Regional Freight



Miami Valley Freight Movement Study

MAY 2006

Miami Valley
Regional Planning Commission
One Dayton Centre
One South Main Street Suite 260
Dayton, OH 45402
Phone - (937) 223 - 6323
Fax - (937) 223-9759
Web - www.mvrpc.org



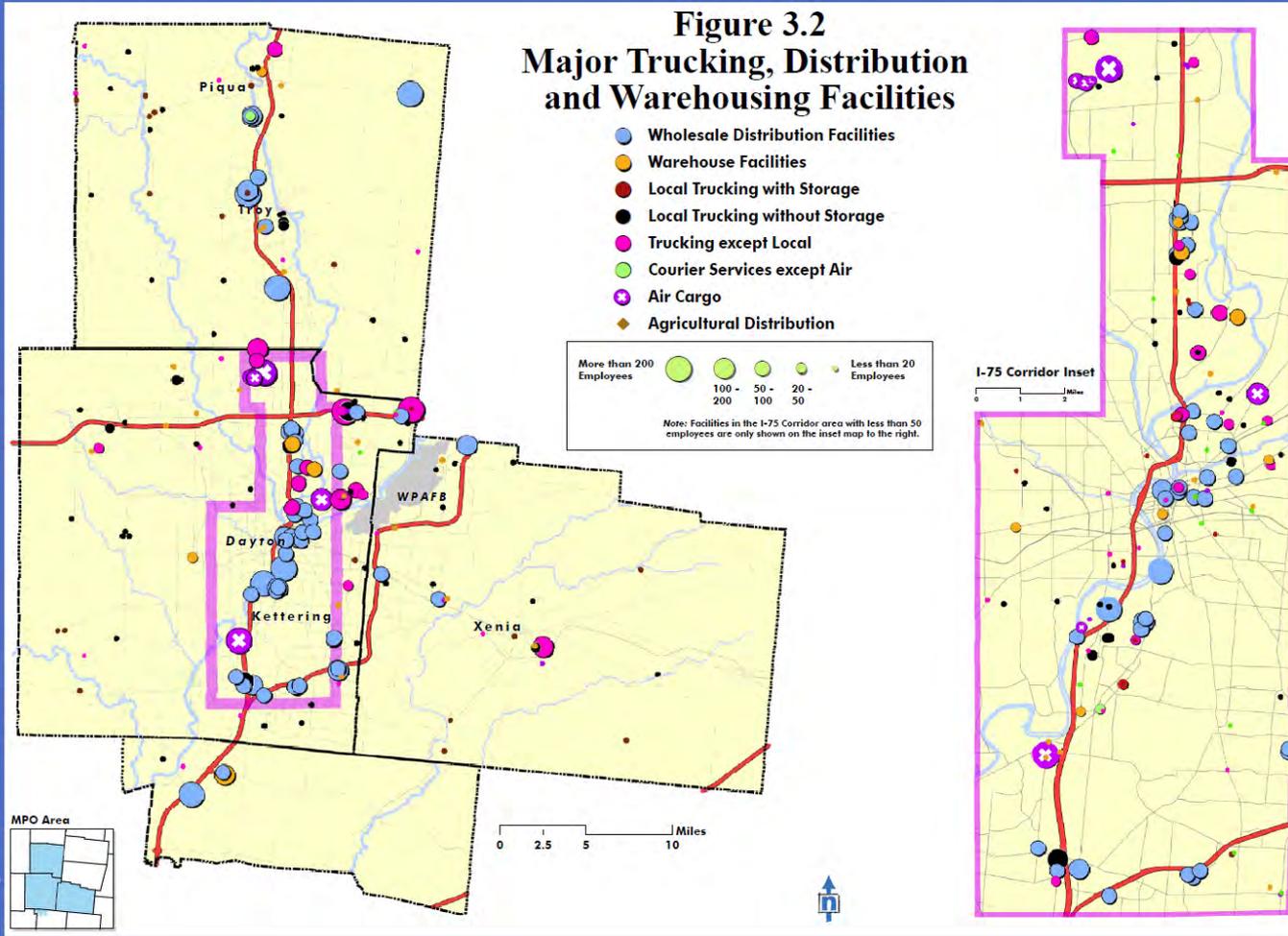
Distribution & Warehousing



Miami Valley Freight Movement Study

MAY 2006

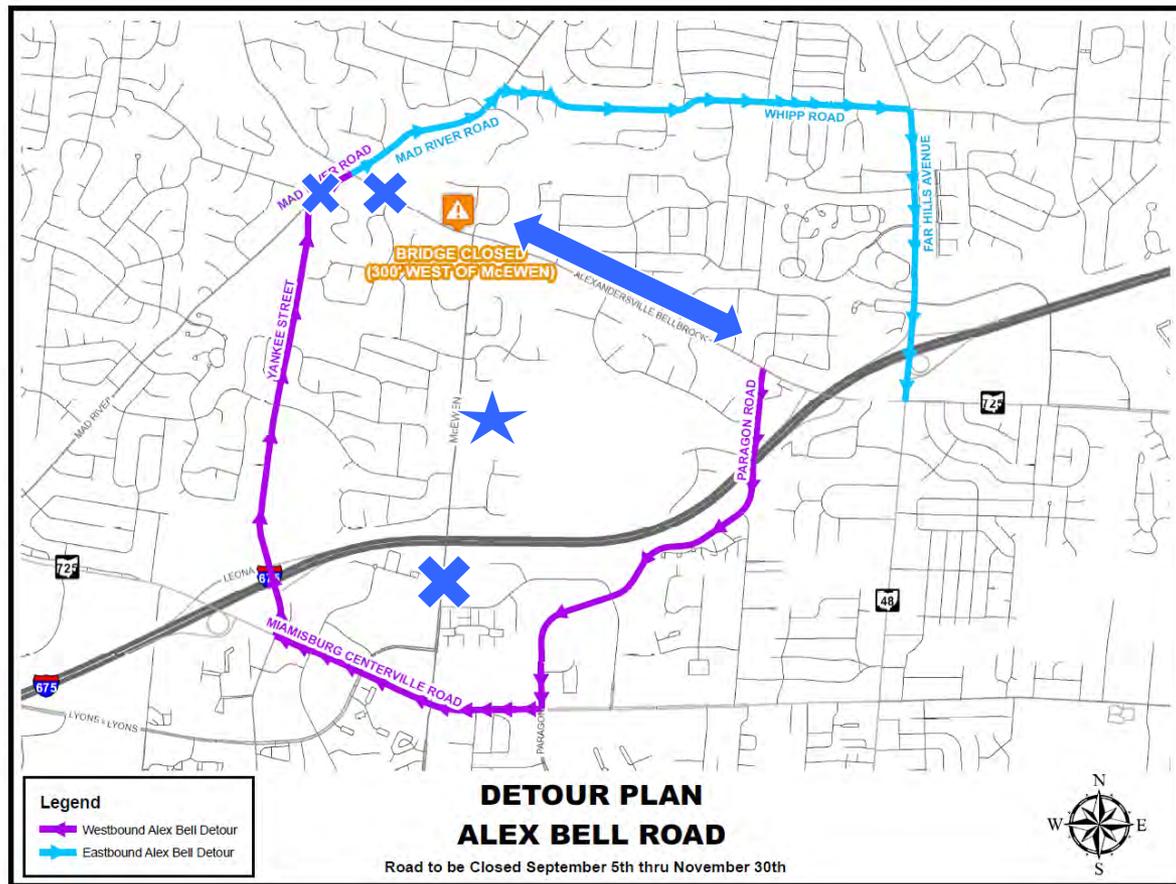
Miami Valley
Regional Planning Commission
One Dayton Centre
One South Main Street Suite 260
Dayton, OH 45402
Phone - (937) 223 - 6321
Fax - (937) 223 - 9759
Web - www.mvrpc.org



Impact of Infrastructure Funding Crisis

- Bridges not replaced soon enough
- Resurfacing delays cause worse pothole problems
- Old water, sewer, and gas lines break and leak
- Climate change is causing stream erosion problems, diverting resources

Alex Bell & McEwen Example



Regional Resilience Planning Needs

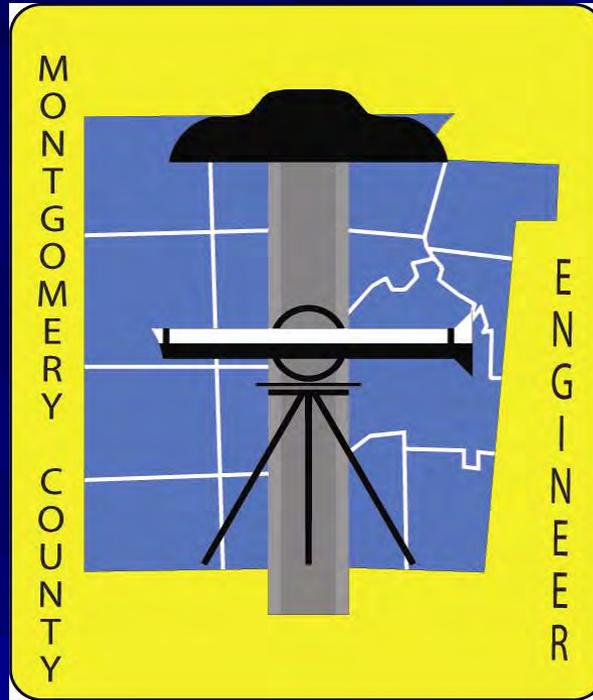
- Track guidance issued by federal and state government
- Follow research such as TRB
- Consider issues raised above under Planning for Resilience

Neighborhood, Family, and Individual Planning

- Consider how living habits impact environment – recycling, water conservation, use of chemicals, etc
- Consolidate trips, use transit, or at least become familiar with transit
- Become familiar with potential alternate routes
- Dispose of waste and chemicals properly

QUESTIONS

?



Office of the Montgomery County Engineer