Civil & Environmental Consultants, Inc.

A Survey of Pennsylvania Climate Change Action Plans

Paper #971264

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The Commonwealth of Pennsylvania published its current Climate Action Plan on April 29, 2019. The plan acknowledges that "...local governments can take a leading role in developing a more sustainable and resilient Pennsylvania by taking action and demonstrating best practices in government operations and projects." There is, however, no statewide mandate for Pennsylvania's municipal governments to develop their own climate action plans. As such, the question arises: what are municipal governments doing to understand the implications of climate change to their communities and plan accordingly? This presentation provides a survey of publicly-available plans. We present our methodology for identifying and evaluating plans and present results describing their geographic distribution, the populations represented, and the degree to which they are being updated.

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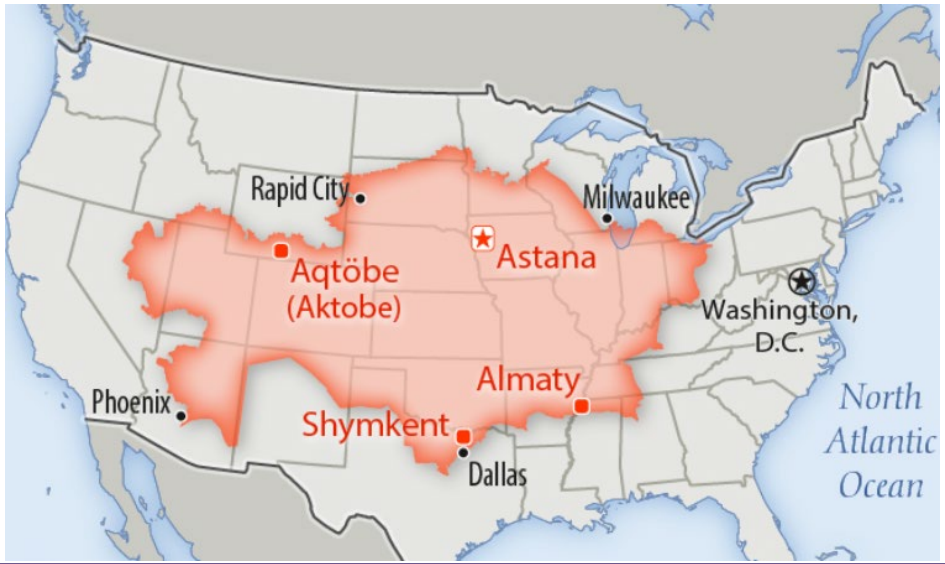
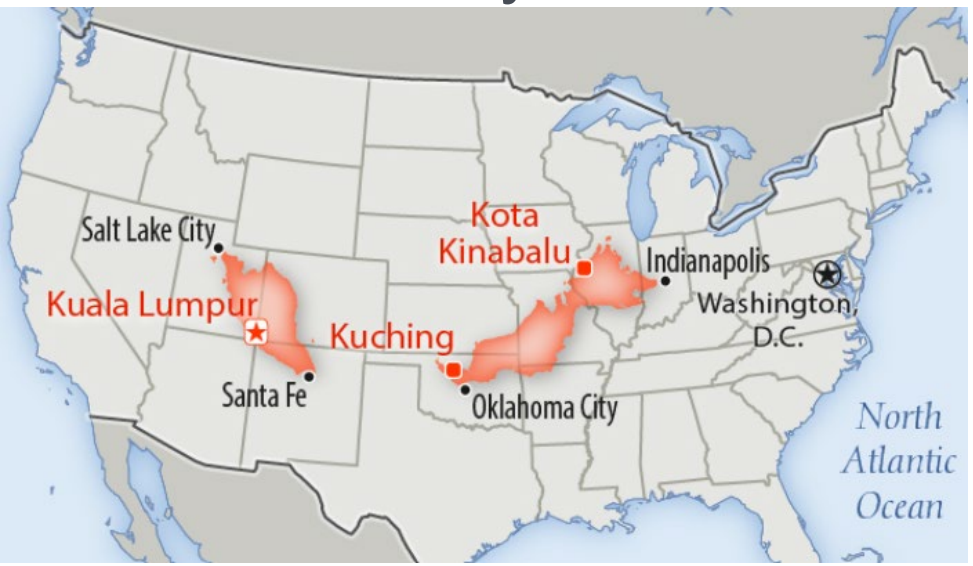
Pennsylvania Ranks #26 Globally in GHG Emissions

- PA is estimated to be the fifth largest GHG emitter in the U.S.
- Gross annual emissions for 2017 were about 263 $MMTCO_2e$
- If PA were a county, GHG would rank about #26 - similar to the nations

Kazakhstan or Malaysia





Pennsylvania's First Climate Action Plan 2009

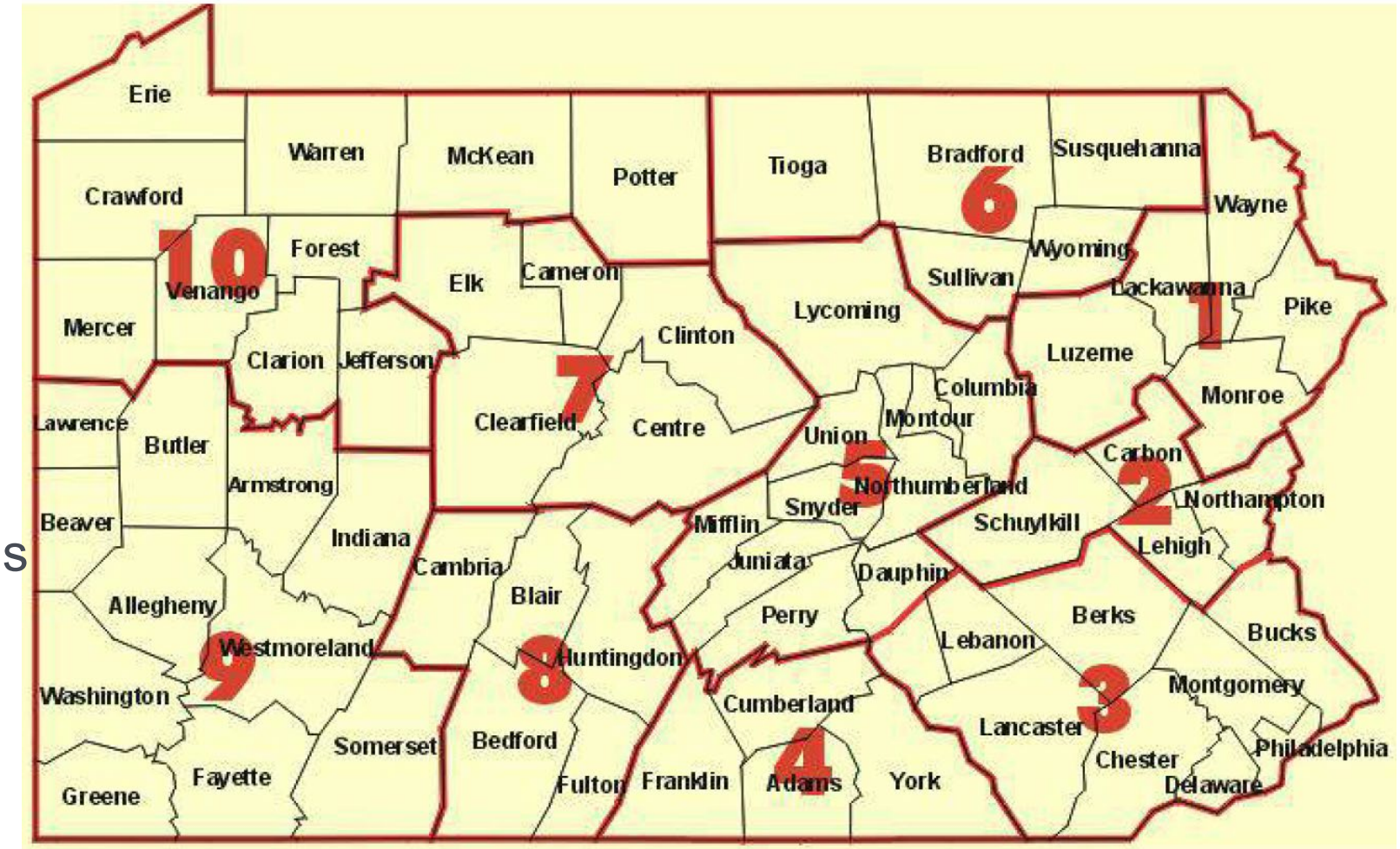
Pennsylvania Climate Change Act, enacted July 9, 2008

- Required the state Department of Environmental Protection to evaluate climate change impacts
- Required a Climate Change Action Plan update every 3 years

PA's initial Climate Action Plan (CAP) was published December 2009

Climate Divisions Provide Baseline Data

- The lower 48 is divided into 344 climate divisions: 10 in PA
- They define regions of cooperative weather observations, some since 1895.
- Data obtained from these regions informs the Pennsylvania Climate Impacts Assessment



Pennsylvania Has 2,628 Municipal Governments

PA's CAP aims to:

Lead by Example in Commonwealth and Local Government Practices and Assets

The commonwealth and local governments can take a leading role in developing a more sustainable and resilient Pennsylvania by taking action and demonstrating best practices in government operations and projects.

Pennsylvania's municipal government entities:

Counties (67)

Cities (56) and Town (1)

Boroughs (958)

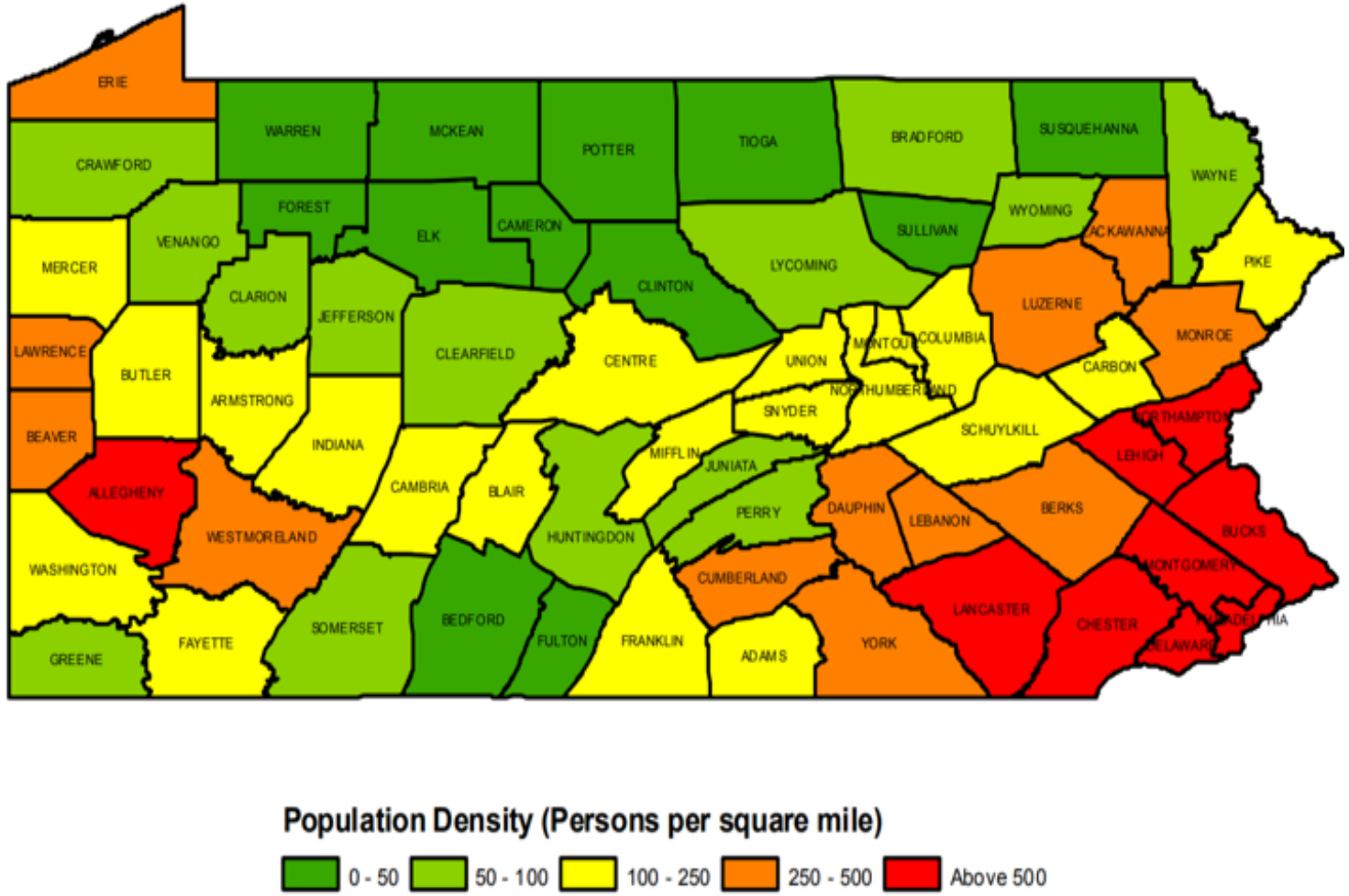
Townships (1,546)

Pennsylvania's Population

Most populous counties:

- Philadelphia (1.53M)
  - City of Philadelphia
- Allegheny (1.2M)
  - City of Pittsburgh
- Montgomery (0.8M)
- Bucks (0.63M)
- Delaware (0.56M)
- Lancaster (0.5M)
- Chester (0.5M)

State Population (2017): 12.8M



Study Objectives

- Inventory Existing CAPs in PA:
  - Assess Commonwealth coverage geographically and demographically
  - Gauge opportunity for civic participation in climate planning
- Review Plan Content and Assess:
  - Key plan elements
  - Whether or not it is being regularly updated

Methodology

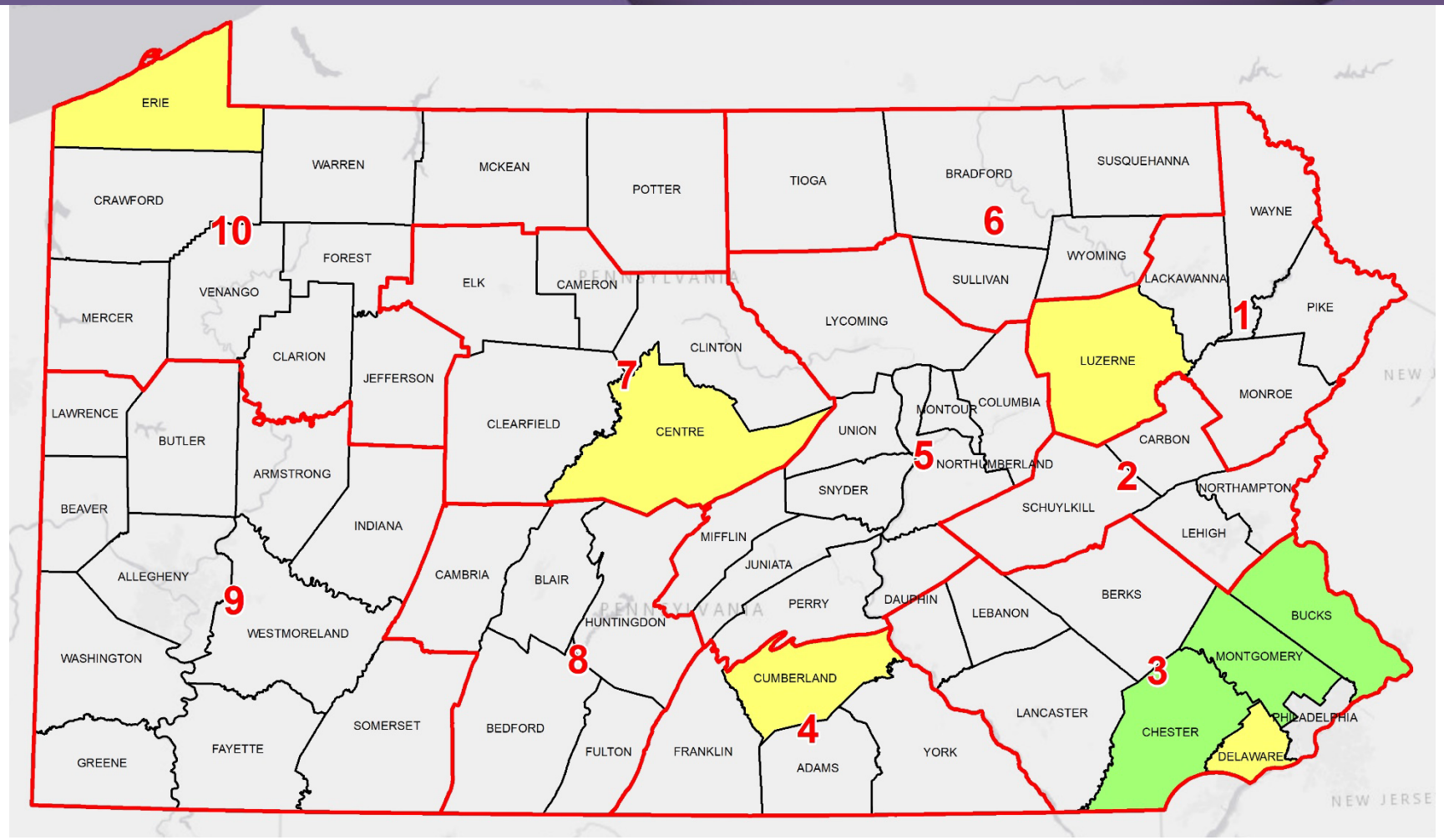
We Performed Two Phases of Research:

1. Assessed Presence or Absence of CAPs via online searches:
   a. By county (all 67 reviewed)
   b. By city/town (all 57 reviewed)
   c. By borough and township (>150 of 2,504 reviewed)
2. Reviewed Plan Content using a scoring metric:
   a. Gauged presence or absence of basic plan elements
   b. Checked for plan updates and actions

Methodology - Quantity

- We Searched for Publicly-Available Plans:
  - Google search using keywords such as:
    - “Climate Action Plan”
    - “Sustainability Plan”
  - Scanned municipal websites for plans
    - Where a Comprehensive Plan was found with a climate action section, counted as “potentially exists”

Results – County Plans



We surveyed all 67 counties.

We found:

3 Existing Plans

5 In Development

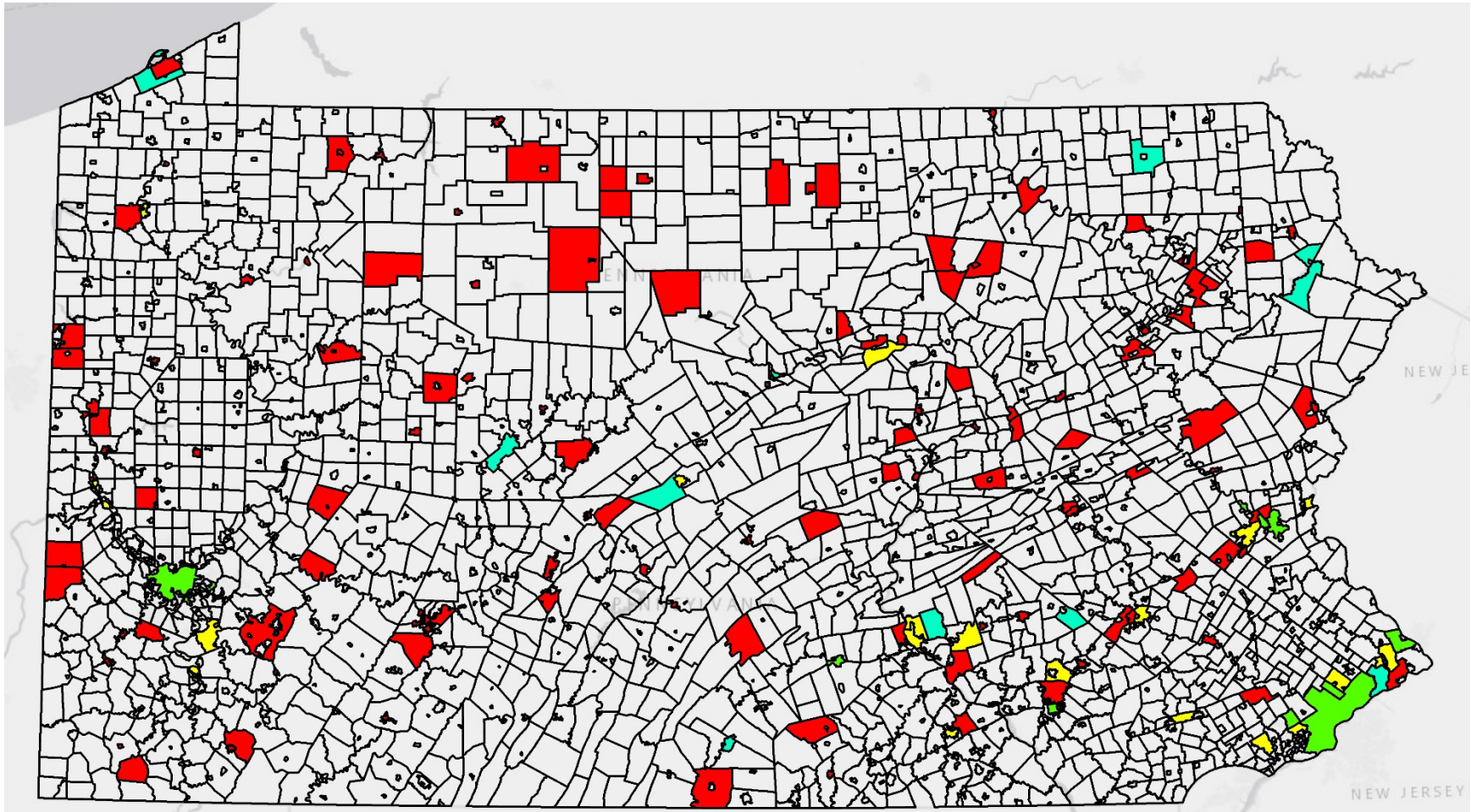
LEGEND

- CLIMATE ACTION PLAN EXISTS
- CLIMATE ACTION PLAN IN DEVELOPMENT
- COUNTY BOUNDARY
- PENNSYLVANIA CLIMATE DIVISION BOUNDARY

Results – County Plans

County	Most Recent Edition	Population Covered
Bucks	**March 2011**	625,249
Centre	In Development	153,990
Chester	**January 2021**	498,886
Cumberland	In Development	235,406
Delaware	In Development	558,979
Erie	In Development	280,566
Luzerne	In Development	320,918
Montgomery	**December 2007**	799,874
	TOTAL:	**3,542,809**

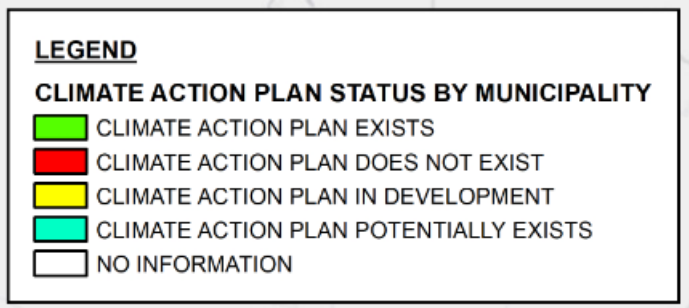
Results - Quantity



Municipal Results:

16 city plans and

32 municipal plans



Pennsylvania Cities with CAPs

City	Year	Population	City	Year	Population
Aliquippa	2021*	8,726	Lancaster	2020	58,981
Allentown	2021*	121,252	Meadville	2021*	12,495
Beaver Falls	2021*	8,232	Monessen	2021*	7,237
Bethlehem	2020	75,961	Philadelphia	2015; 2021	1,585,010
Chester	2016	34,077	Pittsburgh	2008-2018	299,718
Easton	2021*	27,087	Reading	2021*	88,041
Erie	2020	97,369	Shamokin	2021*	6,868
Harrisburg	2021*	49,395	York	2021*	43,752

Total population covered by these city plans: 2,524,201

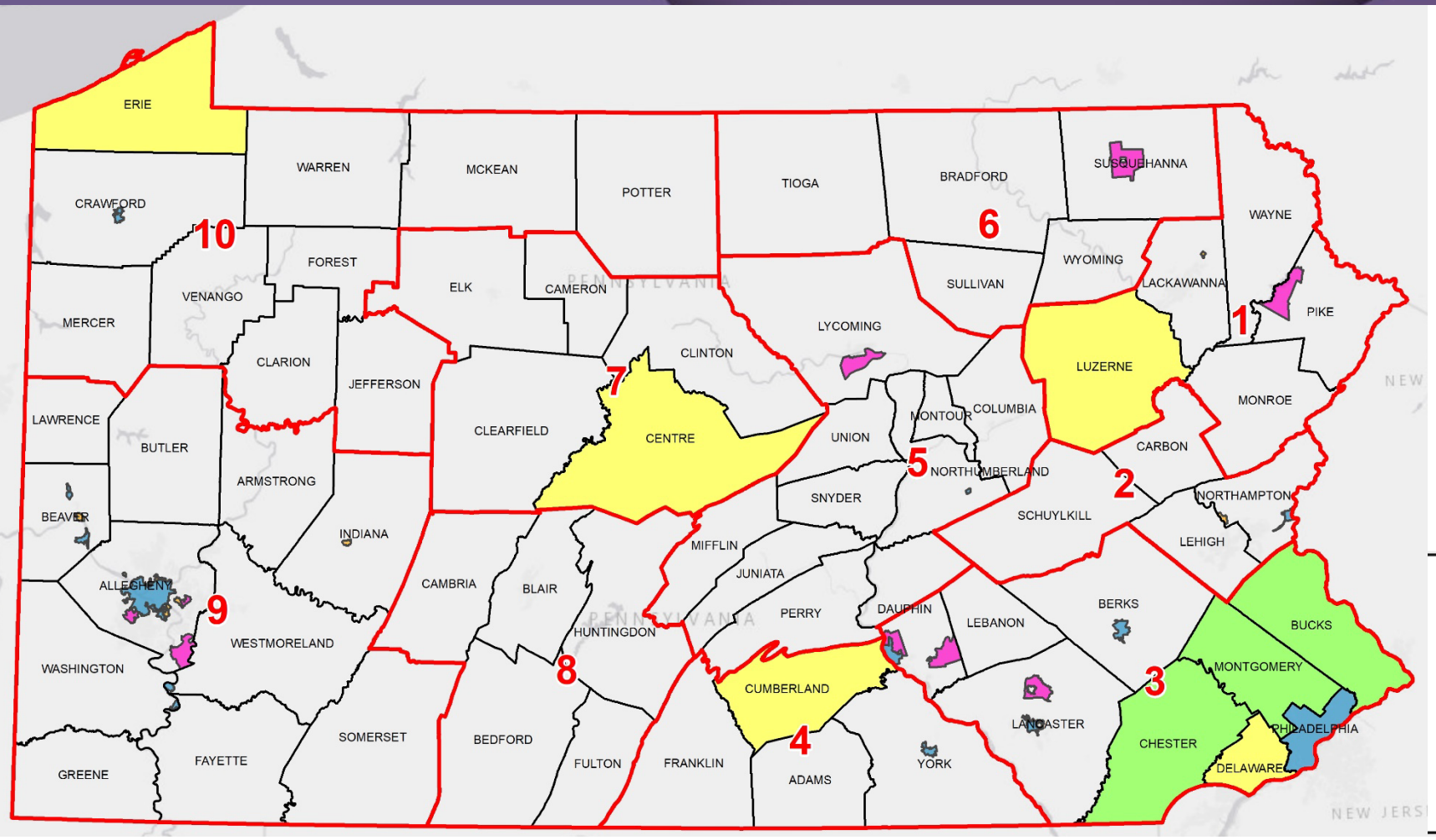
*** CAP to be developed in 2021**

Municipalities with Plans in Counties Without Plans

Boroughs	Year	Population	Townships	Year	Population
Ben Avon	2021*	1,781	Armstrong	2020	717
Etna	2020	3,451	Derry	2021*	25,249
Forest Hills	2020	6,518	Elizabeth	2021*	12,952
Indiana	2021	13,975	Mt. Lebanon	2013	31,927
Jermyn	2021*	2,169	Susquehanna	2021*	25,114
Millvale	2020	3,626	Warwick	2021*	19,536
Monaca	2021*	5,737	Wilkins	2010	6,134
Munhall	2020	11,406			
Northampton	2008; 2021	9,926			
Sharpsburg	2021*	3,446			
West Homestead	2021*	1,929			

Total population covered by these plans: 185,593 (14 municipalities not show have developed plans in counties listed above)
*** CAP to be developed in 2021.**

Results – All Local Plans



About 49% of the PA population will be included by a local plan in addition to the state plan.

Only Climate Region 8 has no Plans

LEGEND

- COUNTY CLIMATE ACTION PLAN EXISTS
- COUNTY CLIMATE ACTION PLAN IN DEVELOPMENT
- COUNTY BOUNDARY
- CITY CLIMATE ACTION PLAN EXISTS (NO COUNTY PLAN)
- BOROUGH CLIMATE ACTION PLAN EXISTS (NO COUNTY PLAN)
- TOWNSHIP CLIMATE ACTION PLAN EXISTS (NO COUNTY PLAN)
- PENNSYLVANIA CLIMATE DIVISION BOUNDARY

Methodology - Quality

Assessed 4 of 5 “Milestones” developed in the PA Local Climate Action Program (LCAP)

1. GHG inventory?
2. Reduction Goals?
3. Formal CAP?
4. Implementing Policies & Measures?

ICLEI – Local Governments for Sustainability, an international NGO has partnered with PA communities to provide technical support for plan development.

Quality Results

- 23 CAPs finalized:
  (4 county, 4 city, 9 borough, 6 township)
- Of these, all except Delaware County, met the 4 milestones set in the LCAP.
- Only 14 are current (< 3 years old)

Completed CAPs that Met the 4 Milestones of LCAP

Counties	Cities	Boroughs	Townships
Bucks (2011)	**Bethlehem (2020)**	**Bellefonte (2020)**	**Armstrong (2020)**
Chester (2010-2021)	**Lancaster (2019)**	**Carlisle (2020)**	Cheltenham (2012)
Montgomery (2007)	**Philadelphia (2007-2021)**	**Etna (2020)**	Haverford (2008)
	Pittsburgh (2008-2018)	**Forest Hills (2020)**	Lower Makefield (2011)
		Indiana (2021)	Mt. Lebanon (2013)
		Millvale (2020)	Wilkins (2010)
		Munhall (2020)	
		Northampton (2008-2021)	
		West Chester (2009)	

Bold plans are current (< 3 years old)

Summary

Quantity

- Only 3 of 67 counties have developed plans
- 5 additional county plans are being developed
  - When completed, county plans will include about 28% of the state's residents
- 16 city plans complete or in progress will cover an additional 19%
- 32 township and borough plans will cover an additional 1.5%

Summary

Quantity

- Major omission is the Climate Division 8 (southcentral)
  - 5 counties & 185 municipalities where no CAPs exist
  - Population about 360,000

- About 49% of the state's residents are or will be covered by a local CAP.

Summary

Quality

- 22 of the 23 local CAPs address the 4 key elements
- 1 of the 23 did not meet the basic plan element criteria
- 8 of the 23 plans are out of date (>3 years old)

Conclusions

- County and municipal CAPs provide opportunities for about one-half of the state's population to engage in climate action planning.
- Urban and suburban areas are more likely to have developed CAPs than rural regions
- Existing plans do a good job of addressing key planning elements
- 61% of existing plans are greater than 3 years out of date
- PA's LCAP in combination with ICLEI provides a path forward for regions without CAPs

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