Communicating Climate Change to Planners in the Great Lakes: Cities Impacts and Adaptation Tool

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Overview

- Climate Planning in the Great Lakes
- The Cities Impacts and Adaptation Tool
- Collaborative Networking
- Initial Response
- Conclusions


Duluth, MN
Toronto, ON
Buffalo, NY
Detroit, MI
Chicago, IL
Cleveland, OH

Climate Planning Barriers

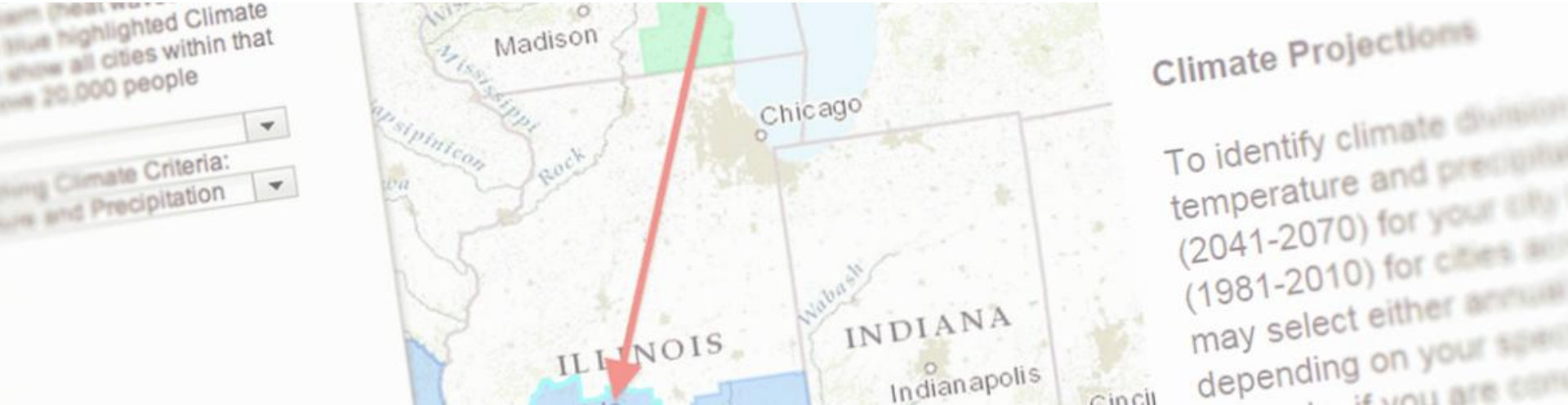
1. Decision makers perceive climate information to be inaccessible, uncertain, or unavailable
2. Planners and climate scientists do not speak the same language

Needs of Planners

- Planners want information that is **site-specific** and **relevant to their decisions**
  - Planners want "on the ground" impacts and response strategies
  - Case studies can greatly help illustrate these strategies
- Must gain access to relevant climate data
  - Some cities are willing to accept a certain level of uncertainty to begin adaptation efforts

Cities Impacts and Adaptation Tool (CIAT)

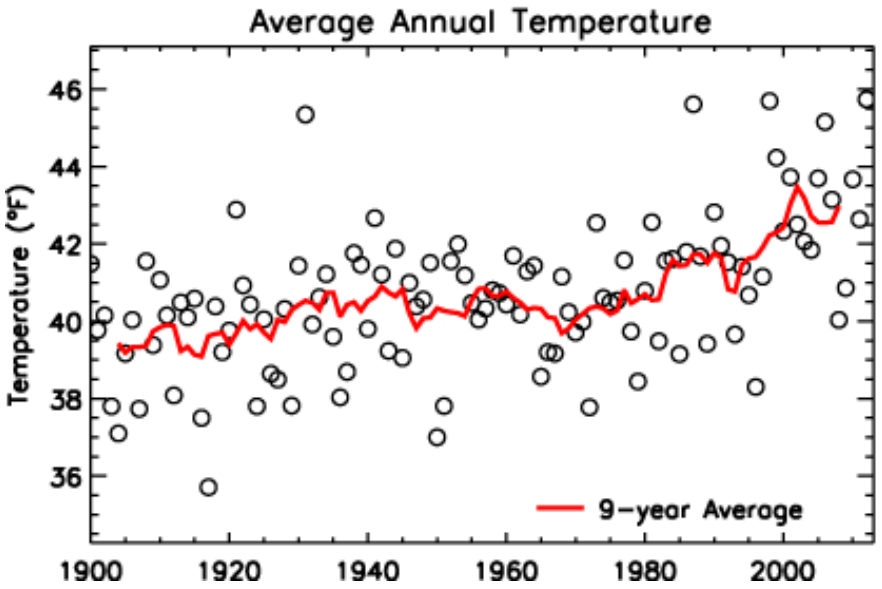
- ✓Inter-urban collaborative planning support tool
- ✓Observed temperature and precipitation trends
- ✓Mid-century projections
- ✓Networking opportunities
- ✓Adaptation strategy database

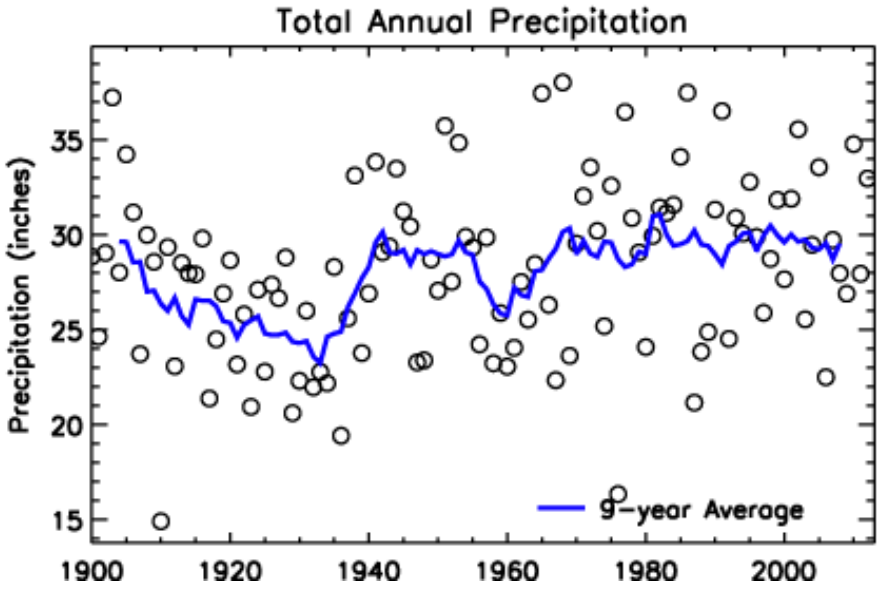


Climate Data

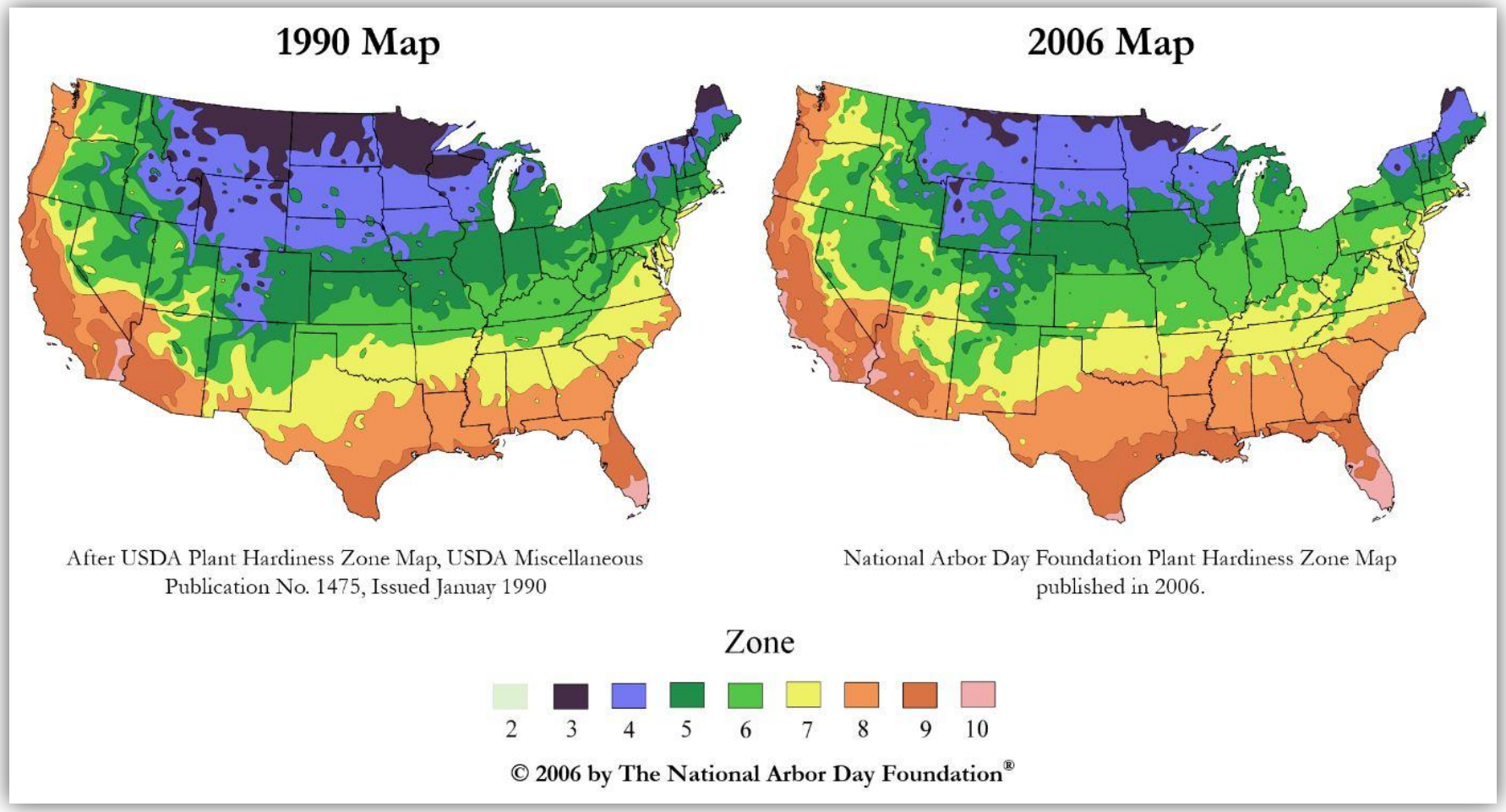
Richfield, MN

Temperature			
	Current (degrees F)	Observed Change (degrees F)	Projected Change (degrees F)
Annual	41.97	1.62	1.79 to 6.47
Winter	14.41	3.57	1.03 to 6.83
Spring	42.34	1.87	0.08 to 6.68
Summer	66.72	0.52	1.74 to 7.86
Fall	44.44	0.64	1.48 to 6.4





Regional Similarity



Source: National Arbor Day Foundation

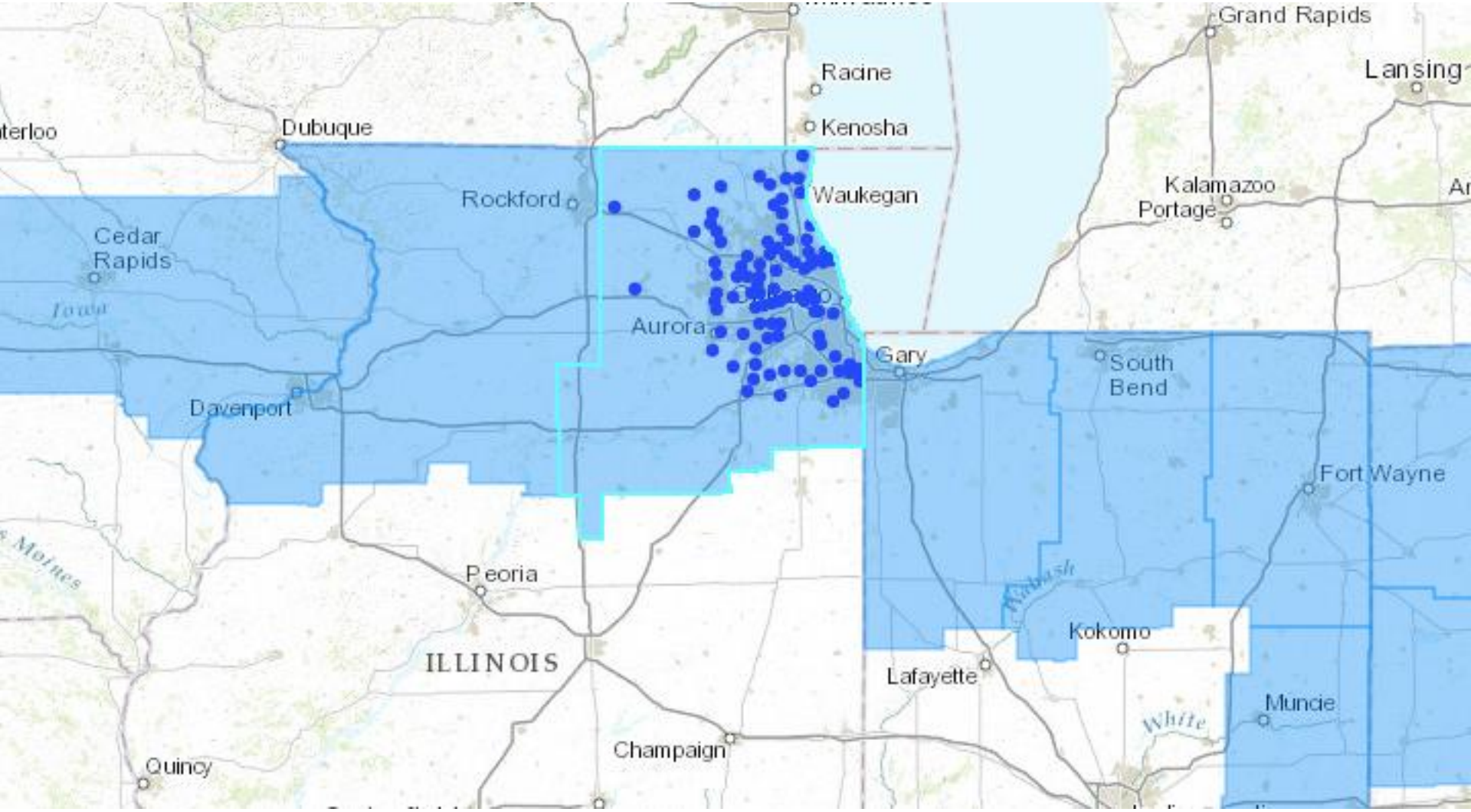
Regional Similarity

Source: USGCRP Global Climate Change Impacts in the United States

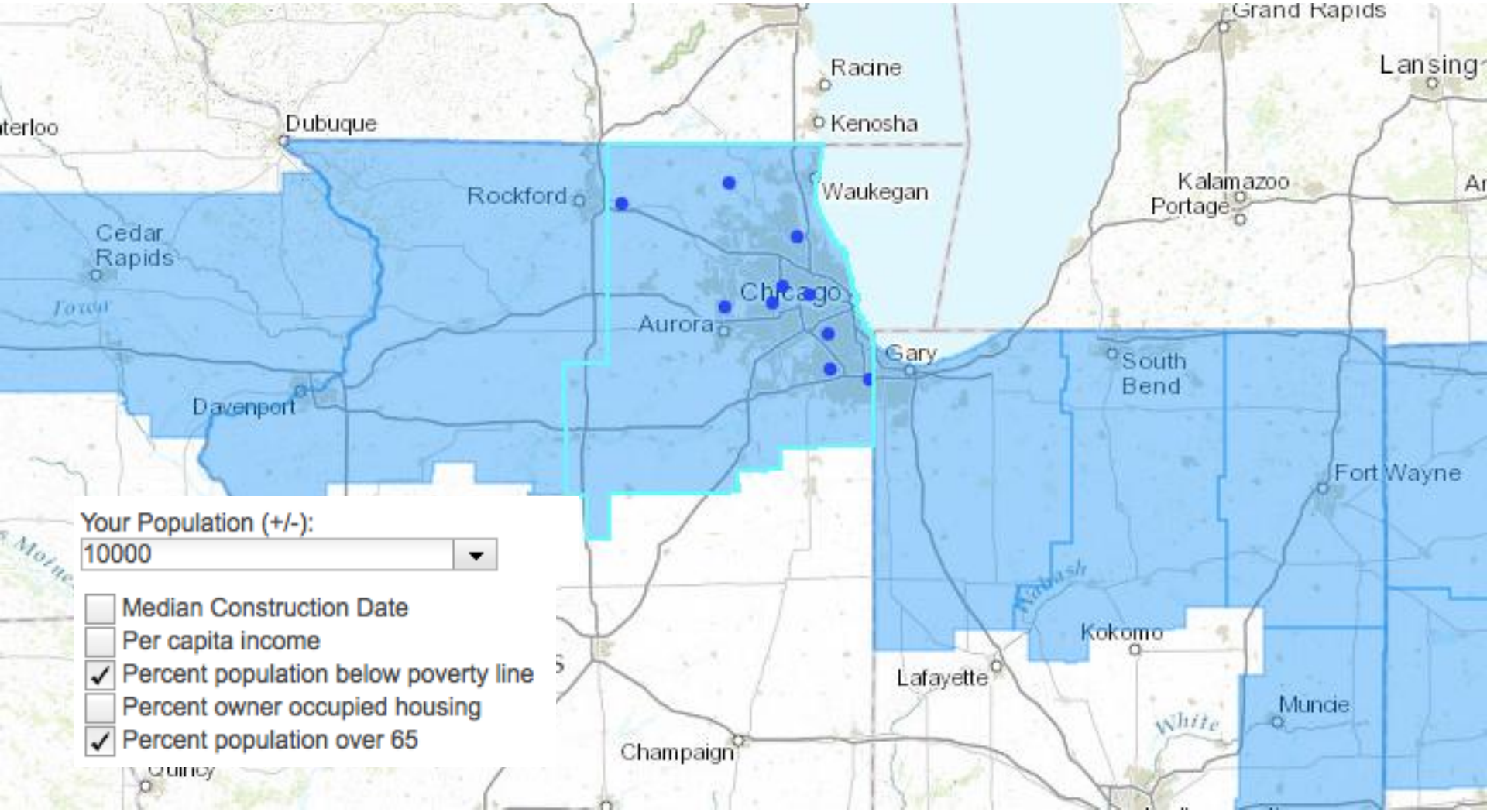
Peer Cities (Winter)

Peer Cities (Summer)

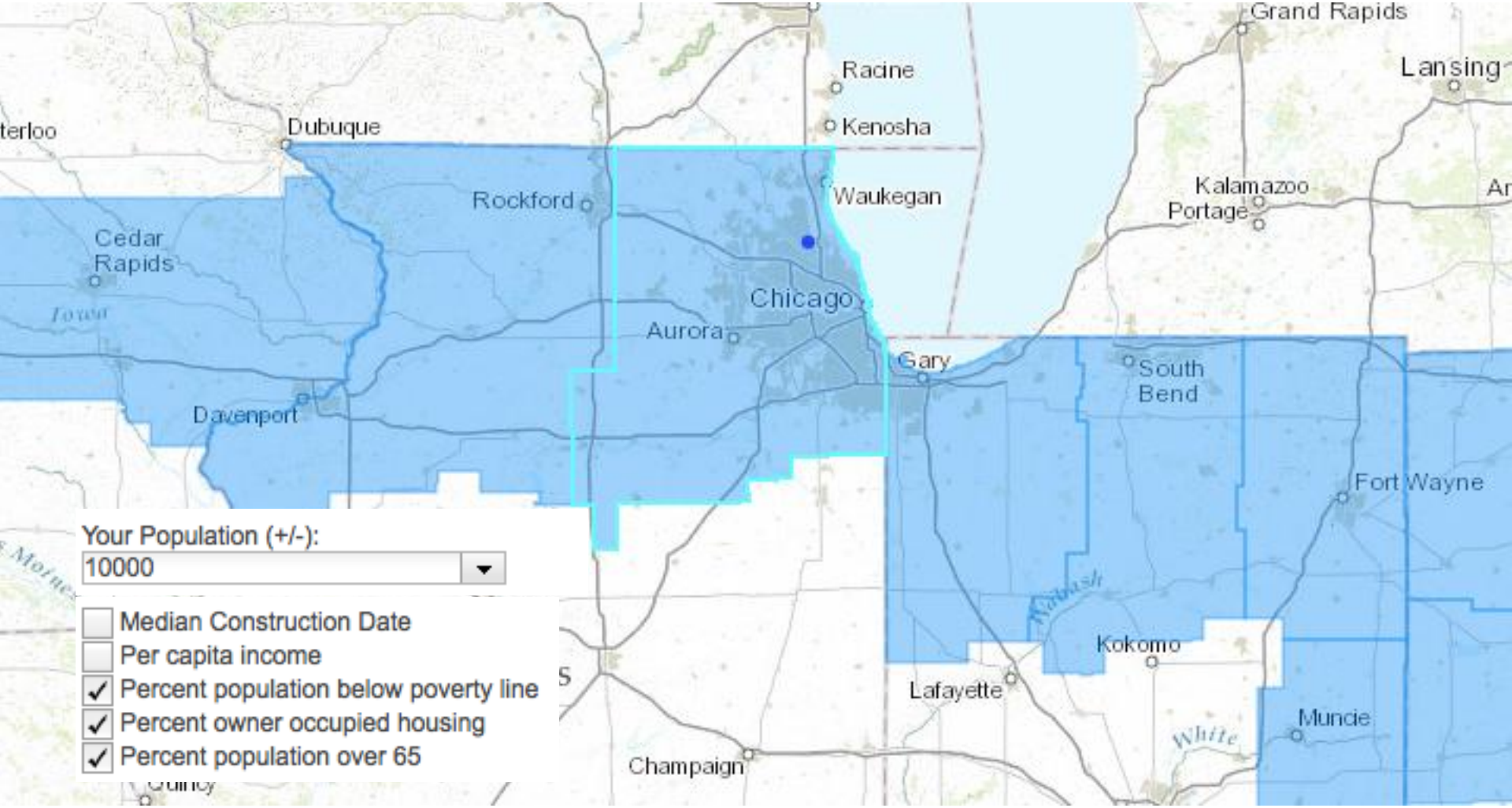
Peer City Matching



Peer City Matching



Peer City Matching



Climate Adaptation Strategies

- Contains over 500 strategies from 53 climate and sustainability plans
- Searchable
  - Climate driver, impact, city and region
- Contains information on:
  - Adaptation actions
  - Co-benefits
  - Relevant departments
  - Link to associated document

Initial Response

- Initial user response is positive
  - Accepted into the NOAA US Climate Resilience Toolkit
- Planners find adaptation strategy database to be most helpful
  - Current state of climate planning is fairly exploratory
- However:
  - Too much information at once
  - Need further guidance in collaborative aspect

Limitations

- Peers based on averages, not extremes
- Climate peers are only suggestions
  - Uncertainty in the projections
  - Cities outside our recommendations may be useful collaborators
- Currently must rely on the user to engage other cities
  - No direct connections to contacts

Conclusions

- CIAT provides useful climate information for use in urban planning and policy
- Climate peers offer useful insight into possible climate outcomes and response strategies
- **Adequate communication is vital**
  - Understand the needs of planners and collaborate with them throughout your process
  - Planners are ready to engage in climate adaptation

Acknowledgements

GLISA

GLAA-C

Great Lakes Adaptation Assessment for Cities

THE KRESGE FOUNDATION

Contact

Visit the CIAT at:

http://graham.umich.edu/climate/ciat/

For more information:

http://toolkit.climate.gov/tool/cities-impacts-adaptation-tool-ciat

http://graham.umich.edu/glaac

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