

Exploring Networked Governance in an Urbanizing Watershed

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Levin College Research Day

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Chagrin River Watershed Exploration

- Why of interest?
- Conceptual frameworks:
 - resilience theory/Social Ecological System
 - governance and adaptive capacity
 - networks
- Methods
 - qualitative: interviews, document review, meeting attendance
 - quantitative: basic network mapping using UCINET software; measures of centrality and connectivity



Initial and Emergent Research Questions

- Why is the governance of the Chagrin River watershed as effective as it has been? What is the role of local governments and other organizations?
- How does the **form or structure of the network** of organizations governing the Chagrin River watershed relate to effectiveness, generation and flow of knowledge, adaptability, resilience?
- How has network **structure changed** over time and why?
- What institutions, practices and mechanisms support ***adaptive capacity*** of governance for ecological resilience of watersheds?
- What is the environmental history of the CR and how does that **correlate** to changing network structure and governance?

Network 1



Chagrin River
Watershed Partners

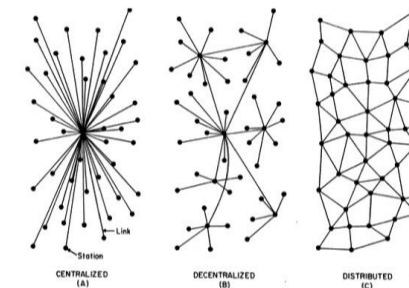
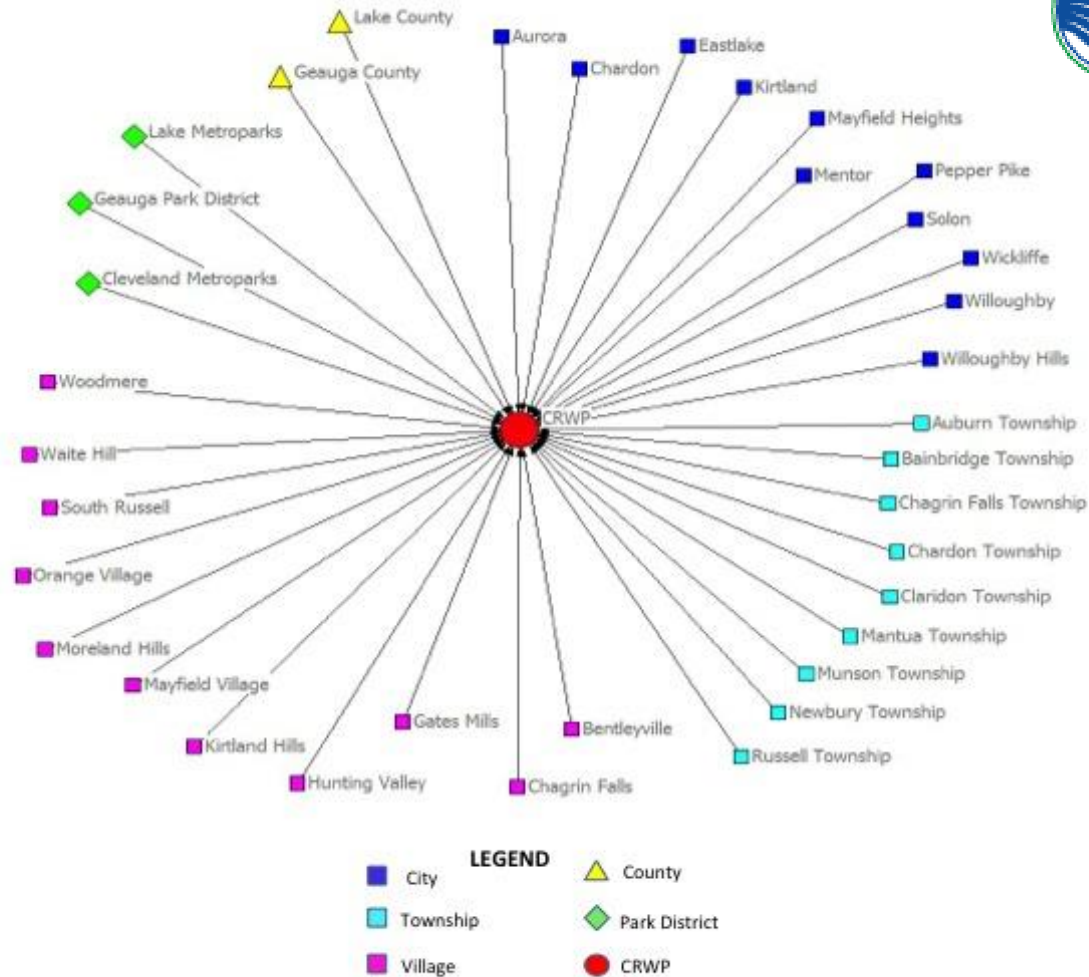
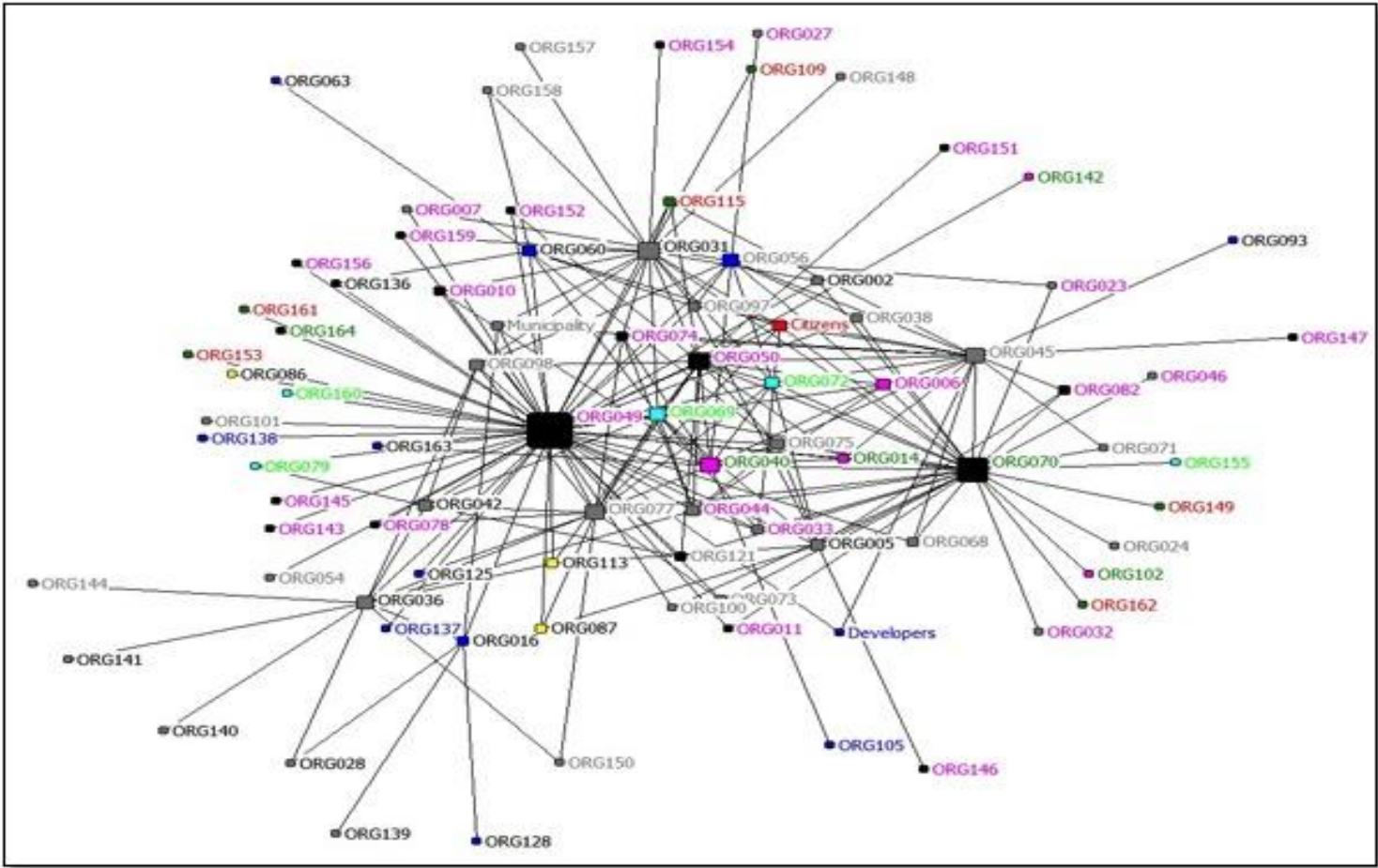


FIG. 1 - Centralized, Decentralized and Distributed Networks
Source: Baran, P. 1964; presented by Dodge, 2007

Network 2: 20 years later



- LEGEND**
- Non-profit Organization
 - For-profit Organization
 - Park District
 - Federal Government
 - State Government
 - Local Government
 - Citizens
 - Academic

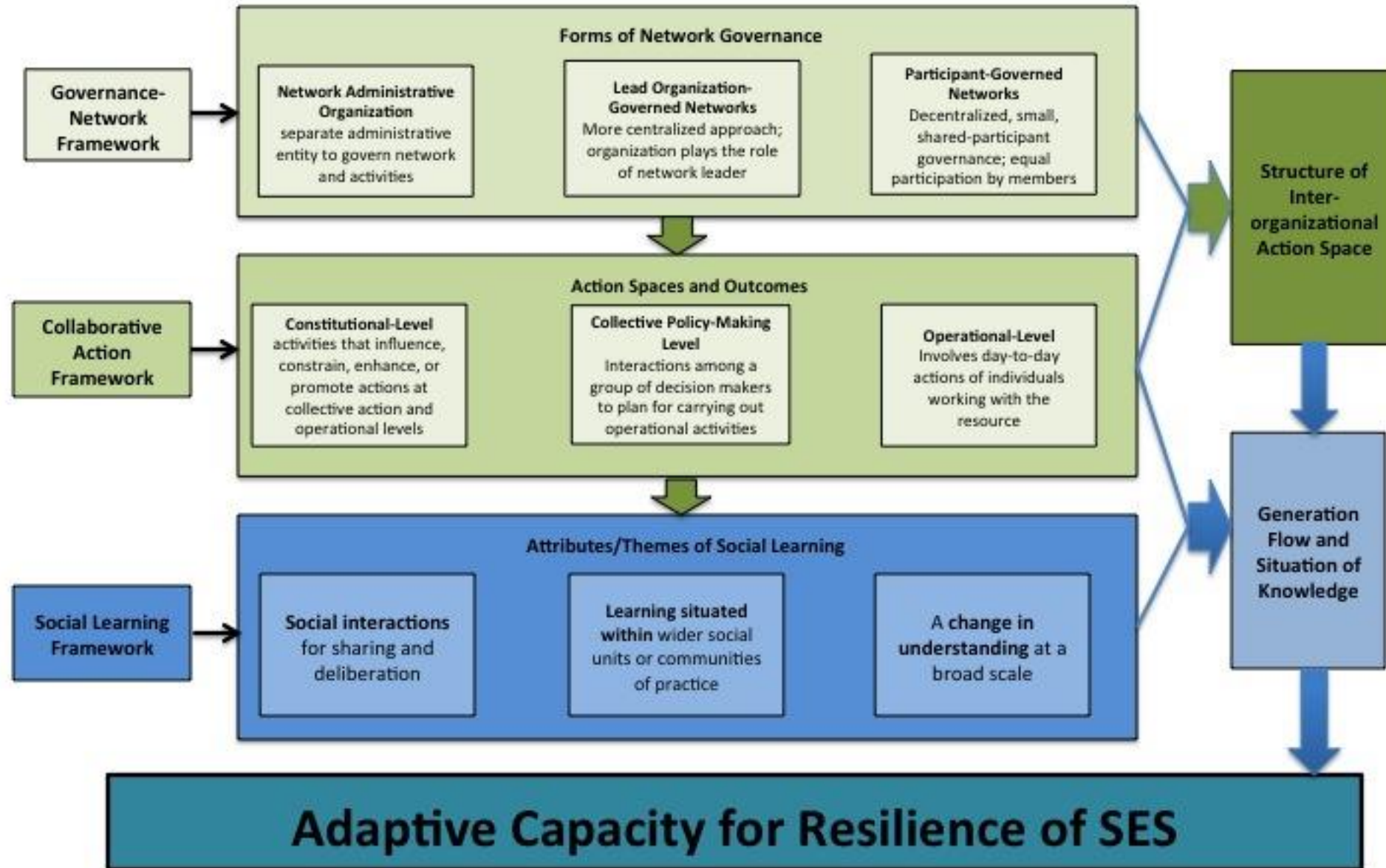


Figure 1. The Structure and Function of Collaborative Watershed Governance

Output

- Conference Presentations:
 - ACSP 2013, Emergence of Collaborative Watershed Governance in an Urbanizing River Valley
 - APPAM 2013, Emergence and Function of a Watershed Governance Network: A Case Study in Northeast Ohio
 - ACSP 2014, Planning in Watershed Governance Networks: The Structure of Adaptive Capacity
 - UAA 2014, Adaptive Capacity at the Edge: Emergence and Knowledge Networks in Watershed Governance
 - APPAM 2014, The Structure and Flow of Knowledge for Collaborative Watershed Governance
 - ACSP 2015, Generation, Flow and Use of Knowledge in Networked Watershed Governance
 - IAGLR 2015, The Patterns of Effective Watershed Collaboration: Form, Function, and Transformation

Publications

- Published:
- Kellogg and Samanta: **Network Structure and Adaptive Capacity in Watershed Governance**, *Journal of Environmental Planning and Management*, published on line March 2017; 55 views, 1 citation
- Samanta and Kellogg: **Swimming Together: Adaptation through emergence of knowledge and learning in networked watershed governance**, *Journal of Environmental Studies and Science*, 7 (3): 403-415; published online May 2017;
- *In progress:*
 - *environmental history of CR linking EH with resilience concepts*
 - *comparison of governance Cuyahoga and Chagrin River using institutional & resilience frameworks*
 - *transforming sustainability book*

Transforming Sustainability

- 2013
- explore the organizational and social aspects of sustainability that change in response to recognition of disruptions to region's ecology and economy; and support change toward sustainable practices; as these shape economic/equity and ecological aspects; examine trends of renewal and understand what capacity remained that supported long term resilience
- define and explore what sustainability *means* for/in legacy cities; focus on the "remember" arrow---legacy and capital
- take this up again this coming year

