

USDA Forest Service

URBAN FOREST CONNECTIONS

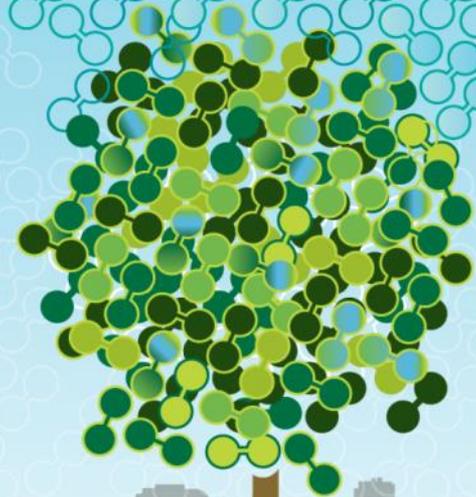
webinar series

Second Wednesdays | 1:00 – 2:00 pm ET

www.fs.fed.us/research/urban-webinars

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**GREEN
CITIES
HEALTHY
COMMUNITIES**



Forest Service
Urban Natural Resources Stewardship



SOCIAL NETWORKS AND KNOWLEDGE SYSTEMS FOR URBAN STEWARDSHIP AND SUSTAINABILITY



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www.nrs.fs.fed.us/nyc/focus/stewardship_mapping/

VISUALIZING CIVIC ENVIRONMENTAL STEWARDSHIP FOR URBAN PLANNING & DEVELOPMENT

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US Forest Service, Northern Research Station

Urban Forest Connections Webinar Series

**Social Networks and Knowledge Systems
for Urban Stewardship and Sustainability**

Wednesday, January 14, 2015 | 1:00 – 2:00pm ET



NYC Urban Field Station



“To improve quality of life in urban areas by conducting and supporting research about social-ecological systems and natural resource management”







Photo by Steffi Graham

El Batey Borincano, Bronx NY. Dimas Cepeda



Photo Credit: Edie Stone

Community garden supporters on the steps of City Hall
New York, NY 2000

Planting Trees Strengthens the Roots of Democracy

(Fisher, Svendsen, & Connolly 2015)



Photo credit: NYC Parks & Recreation

Urban Environmental Stewardship



Liz Christy, founder of Green Guerillas, in the Lower East Side



Mayor Bloomberg marking the halfway point in MillionTreesNYC



Shoreline cleanup in Queens, sponsored by private companies

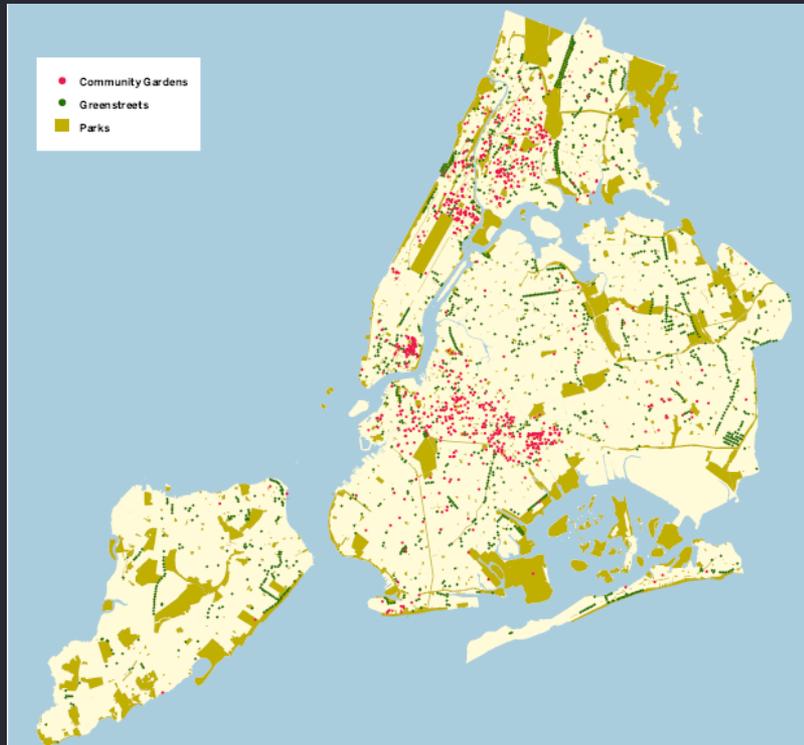
Source: From left to right— Green Guerillas, NY daily News, © Meg Cotner

Urban environmental stewards conserve, manage, monitor, advocate for or educate the public about the local environment (Fisher et al. 2007).

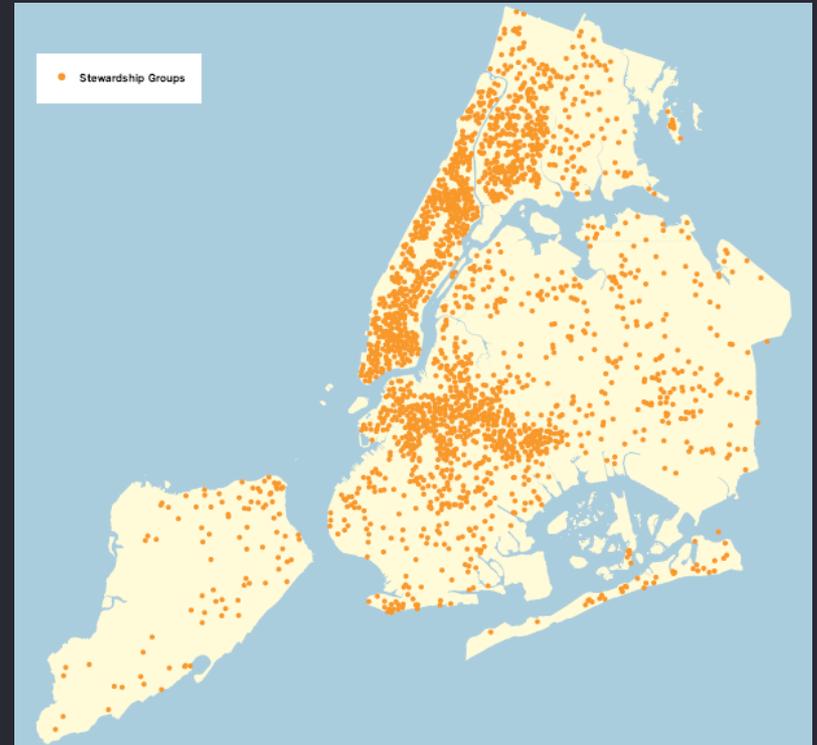
New York, Baltimore, Chicago, Seattle, and Philadelphia
San Juan and Los Angeles

City-wide Stewardship Organizations

Green Space

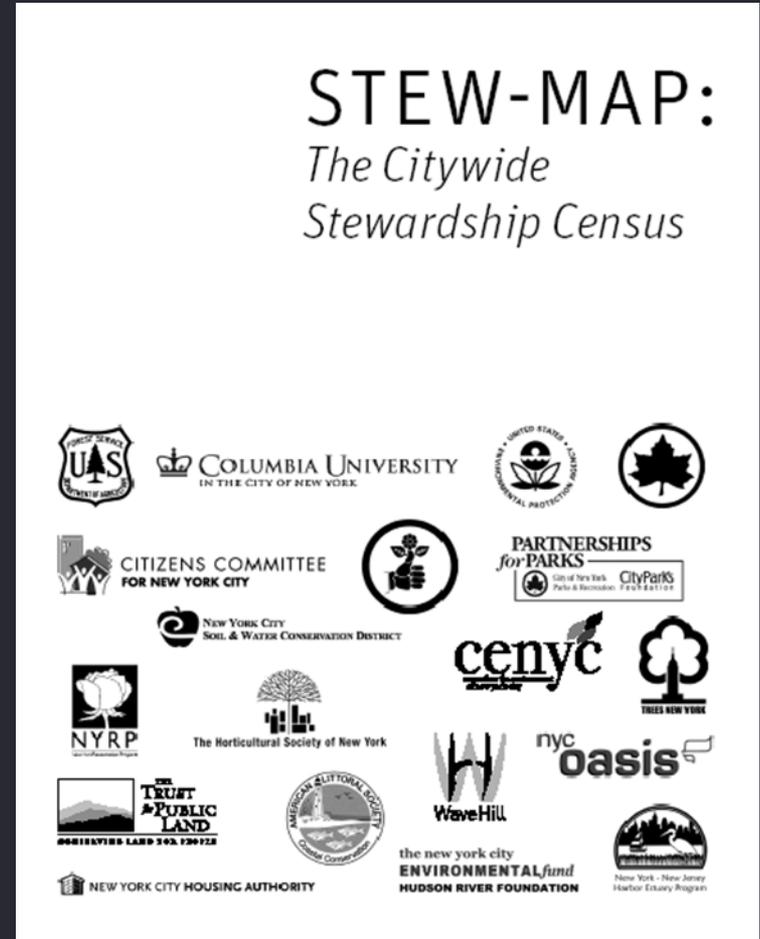


Social Space



Data and Methods

- ▶ Online and mail-in survey
- ▶ Combined org databases of 20 umbrella groups, snowballed to saturation among data providers
- ▶ Initial N = 5,861
- ▶ Final N = 2,517



Organizational Characteristics

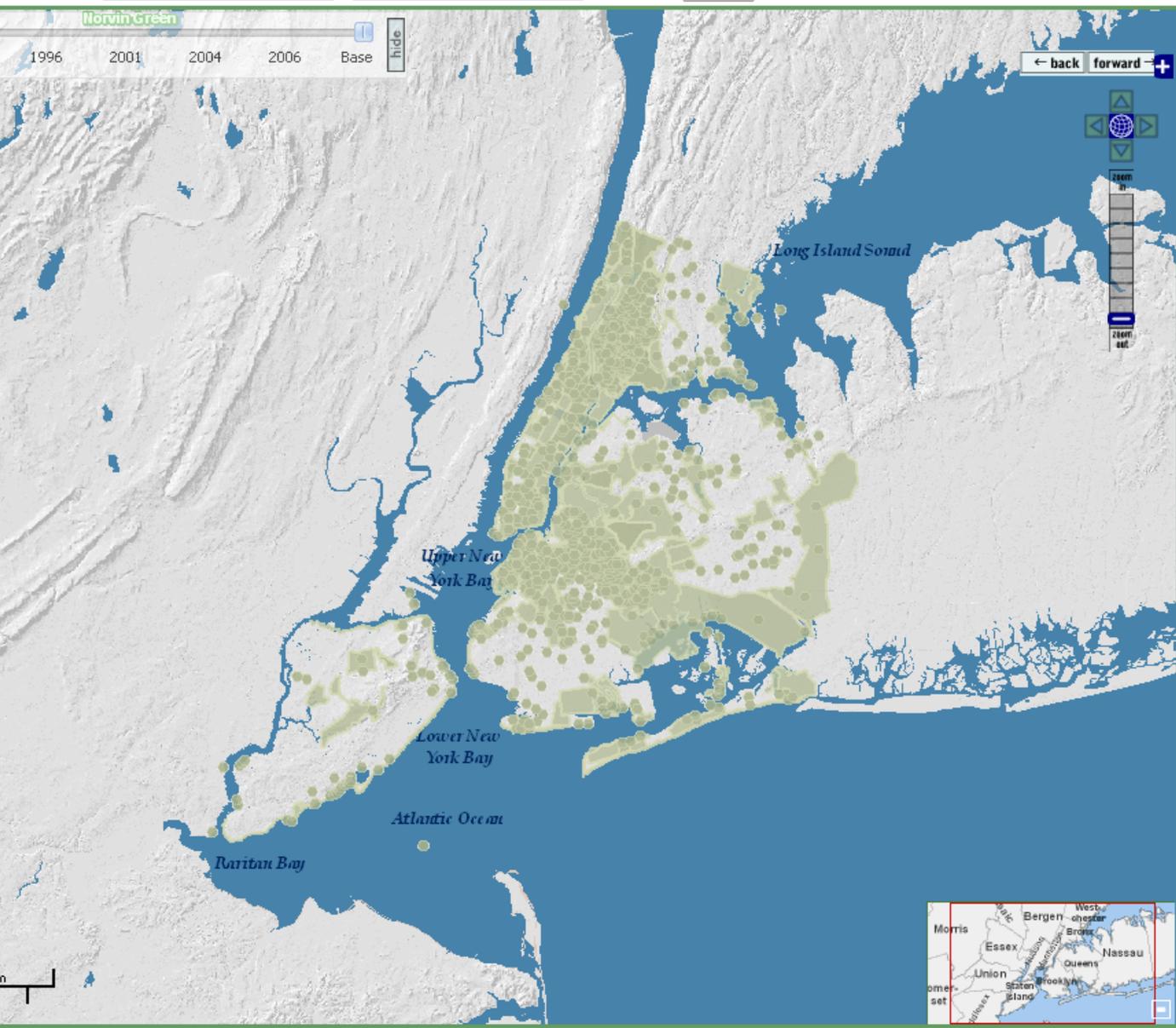
- ▶ About 1/3 of the groups have 0-1 paid staff
- ▶ 32% have budgets of < \$1000
- ▶ About half the groups have 501(c)3 status
- ▶ The # of organizations founded increased throughout the 1970s, 80s, 90s
- ▶ The most common stewardship sites were parks (41.3%), community gardens (40.5%), and street trees (23.9%)

[Link to this Map Print](#)

[Stewardship Search](#)

Address Block & Lot Zip Code Neighborhood Community District County/Borough

enter address Select a borough... Search



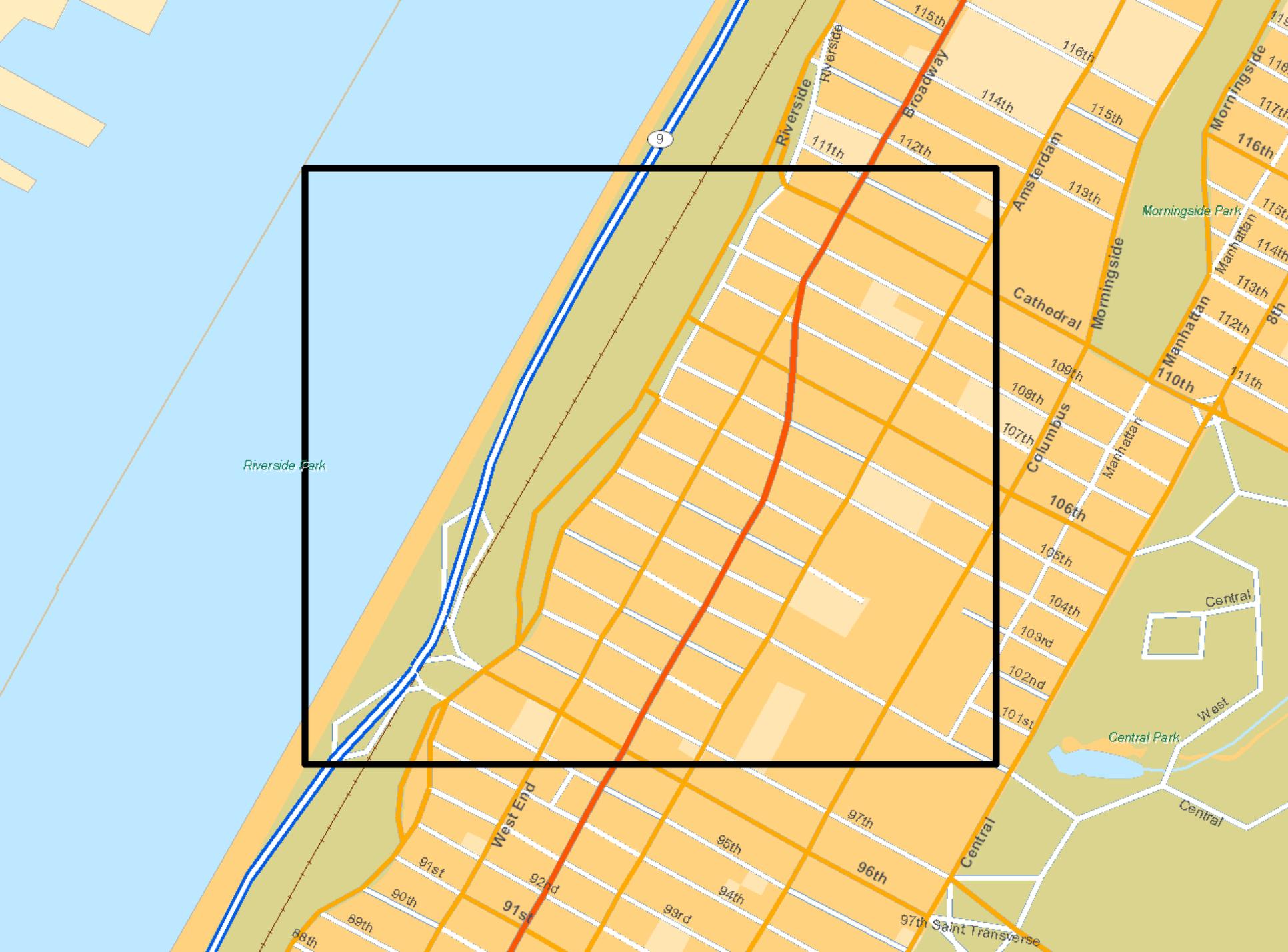
Legend Location Report

Turn map layers on & off by clicking in the checkboxes

- Transportation**
- Parks, Playgrounds, & Open Space** [Show All](#) [Hide All](#)
 - Parks & Public Lands
 - Other NYC Open Space (City Planning)
 - Forested Areas (NJ)
 - Federal Land
 - Community Gardens
 - Playgrounds
 - Green Spaces Along Streets
 - Golf Courses
 - Baseball/Soccer Fields
 - Tennis/Basketball Courts & Tracks
 - Cemeteries
- Environmental Stewardship Groups** [Show All](#) [Hide All](#)
 - STEW-MAP Density
 - Stewardship Turf
 - Turf density testing
 - Living Memorials to 9/11
- Environmental Characteristics** [Show All](#) [Hide All](#)
- Land Use** [Show All](#) [Hide All](#)
- Social services, Education, Housing** [Show All](#) [Hide All](#)
- Population Characteristics** [Show All](#) [Hide All](#)
- Historical Land Use** [Show All](#) [Hide All](#)
- Water & Wetlands** [Show All](#) [Hide All](#)
- Boundaries** [Show All](#) [Hide All](#)

Transparency Control



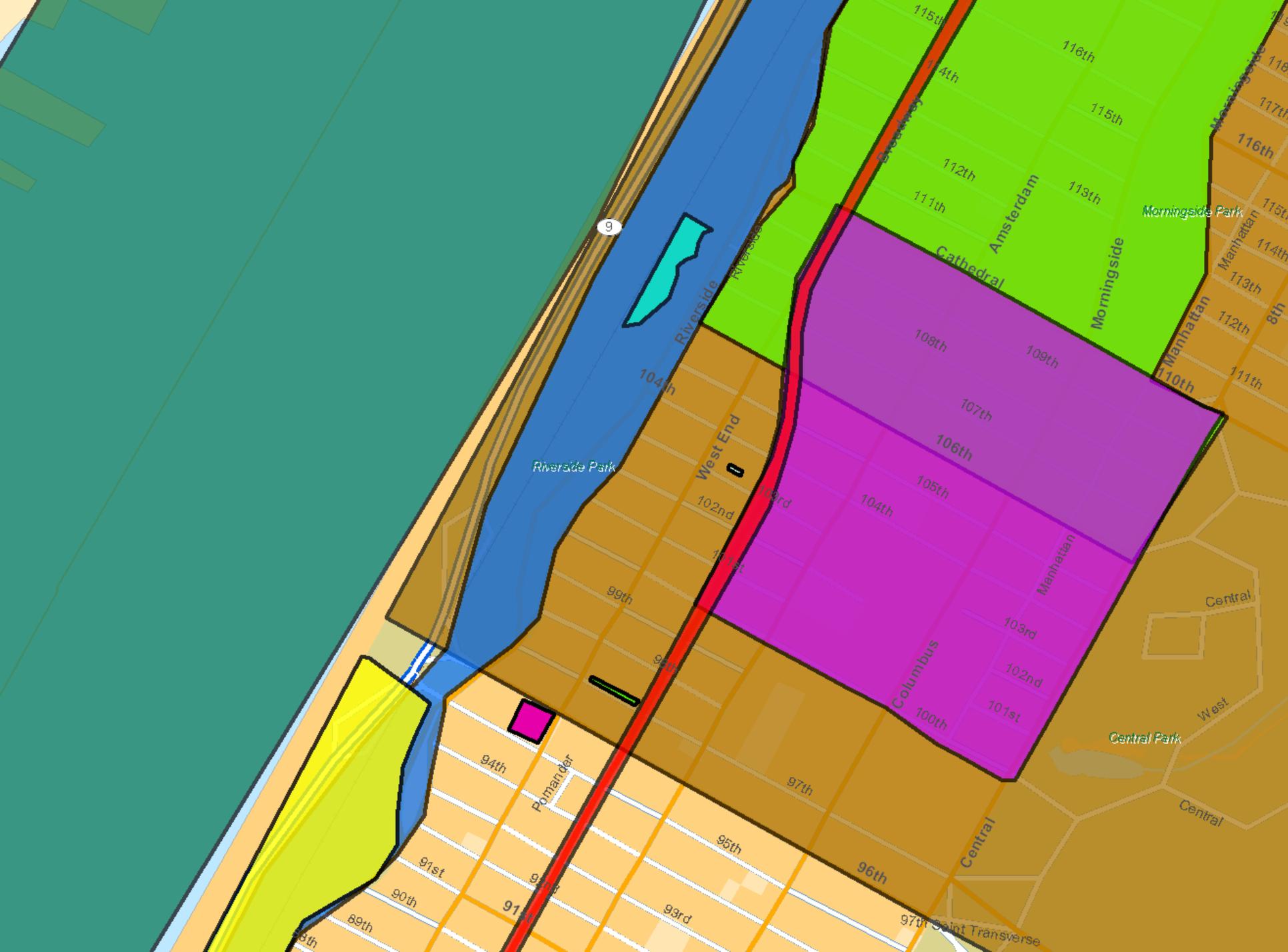


Riverside Park

Morningside Park

Central Park

9



9

Riverside Park

Morningside Park

Central Park

Cathedral

Amsterdam

Morningside

West End

Columbus

Manhattan

Central

West

Central

Central

97th Saint Transverse

Pomander

93rd

95th

97th

96th

91st

91st

88th

90th

94th

99th

95th

101st

102nd

100rd

104th

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113th

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116th

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114th

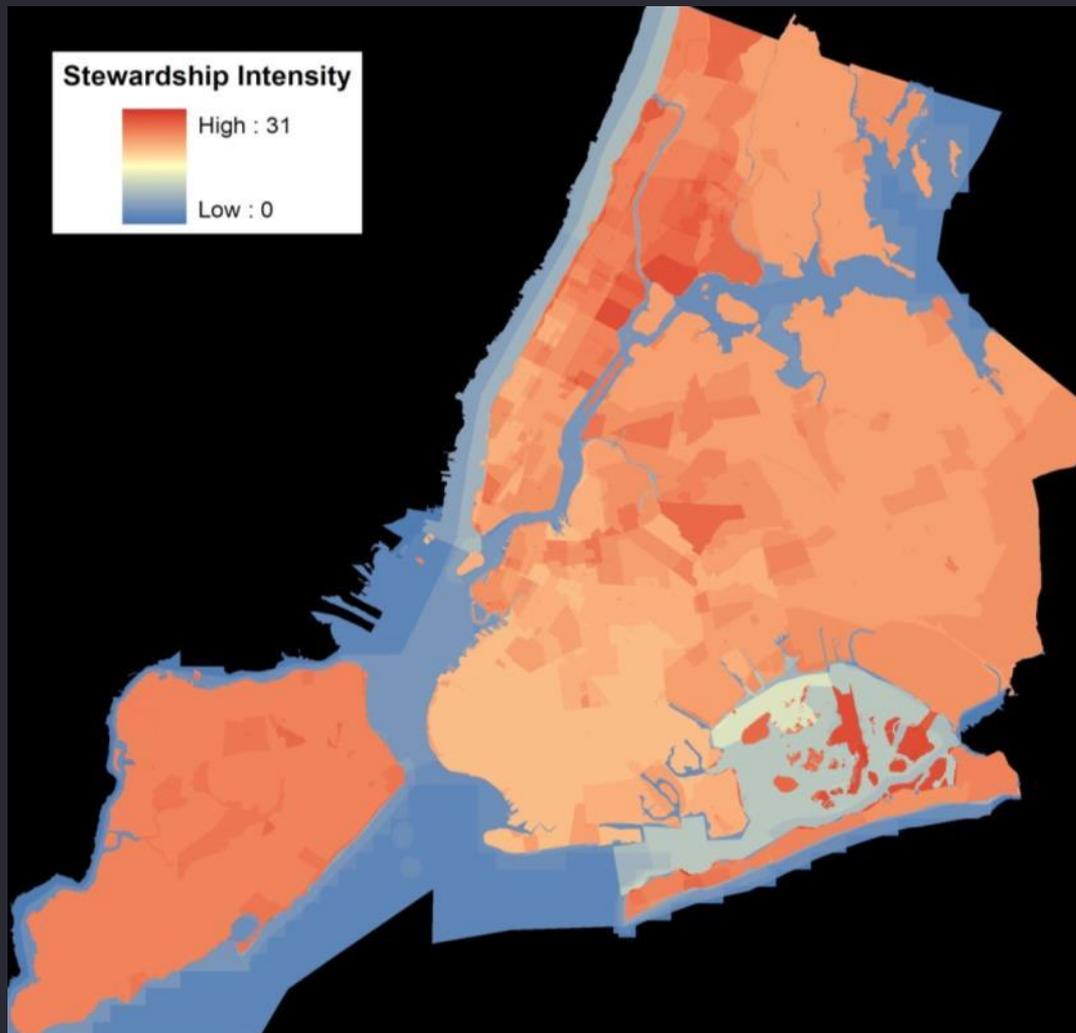
116th

117th

118th

119th

Geopolitical Spheres of Influence: Stewardship Turf and Intensity



Stewardship Legends and Legacies

- 19th Century Parks Movement
 - Progressive Era
 - Technocrats and Power Brokers
 - Homeowner Associations
 - Anything Goes
 - It's Us vs. Them
 - Coalition and Collaboration

Stewards in Proximity to Flushing Meadows Park



0 3,200 6,400 12,800 Feet

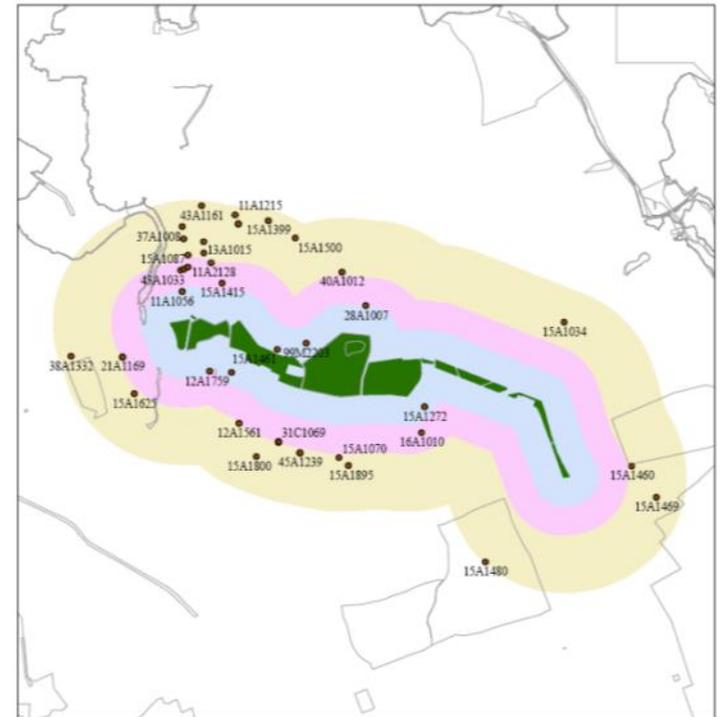
Data Source: USDA Forest Service New York City Field Station, Stewardship Mapping Initiative

Prepared on 1 August 2008

- Stewardship Spheres
- Stewardship Organizations
- Flushing Meadows Park
- One Mile Buffer
- Half Mile Buffer
- Quarter Mile Buffer



Stewards in Proximity to Kissena Park



0 2,500 5,000 10,000 Feet

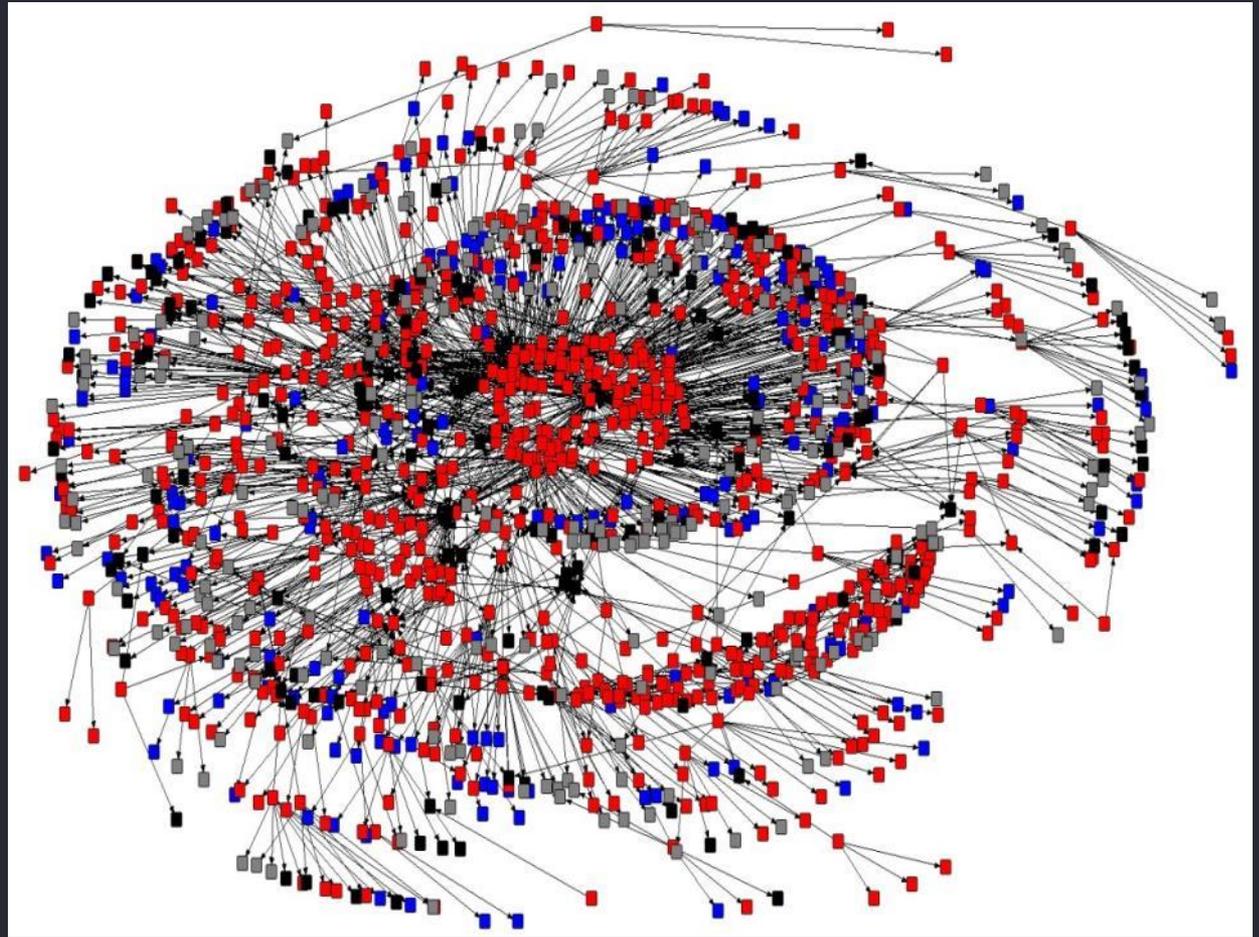
Data Source: USDA Forest Service New York City Field Station, Stewardship Mapping Initiative Prepared on 1 August 2008

- Stewardship Spheres
- Kissena Park
- Quarter Mile Buffer
- Half Mile Buffer
- One Mile Buffer
- Stewardship Organization

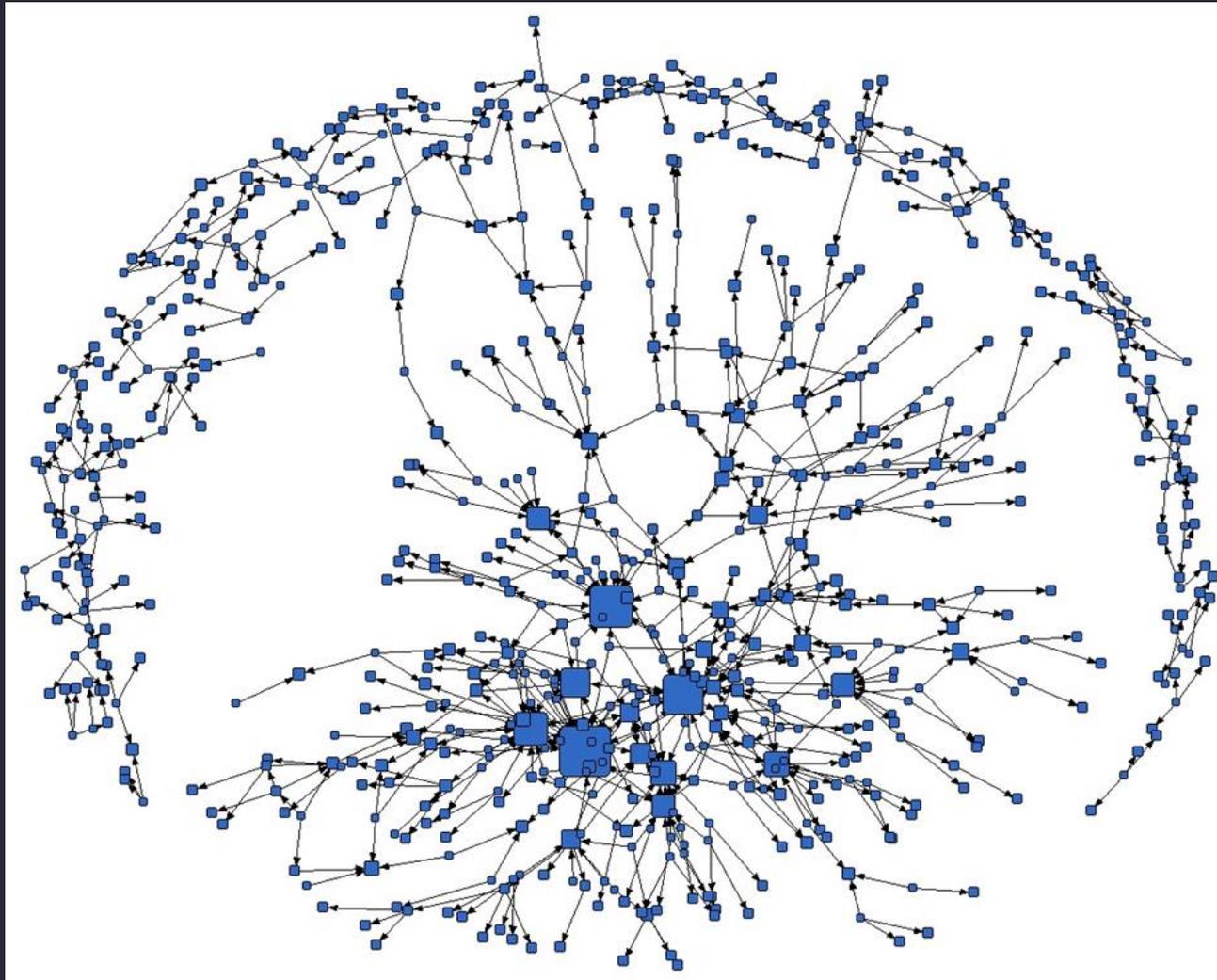


Networked Stewardship

Networks & Hybridity
a social innovation



Civic to Civic Network



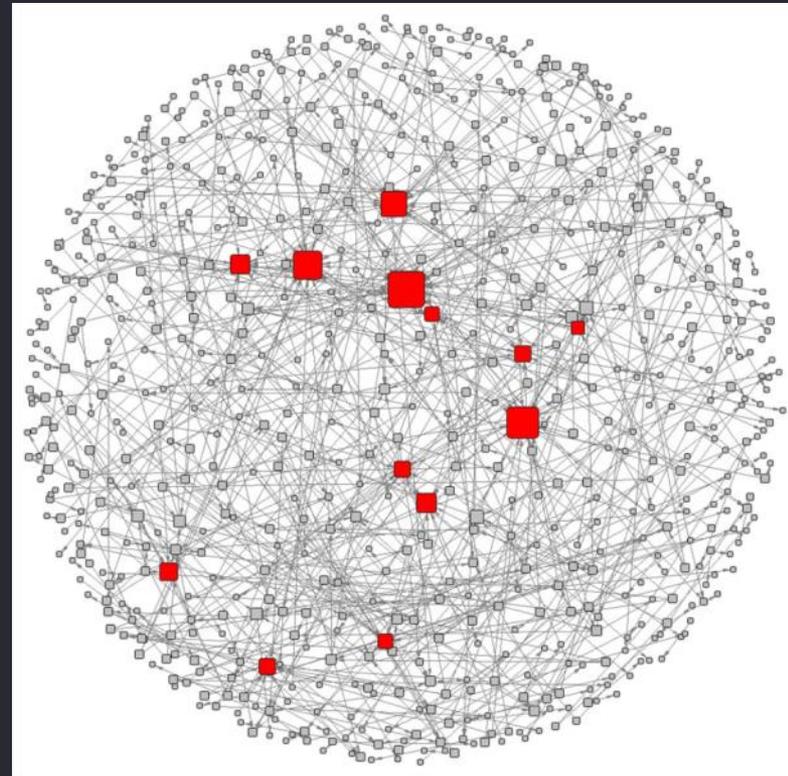
N=704, with 316 respondents

11% of all stewardship groups

Co-Production of Ecosystem Services: Governance

Bridge, broker, and bi-modal governing

- Mid-level brokerage is increasing
- These groups create links across scales and sectors – share information, resources, & materials
- Hybrid (civic-gov't) role for bridge organizations



This figure identifies the groups with the most ties and the greatest “betweenness” measures in the civic stewardship network of New York City.

Socio-cultural Ecosystem Services: Application for Resilience Planning & Land Use Development

- Land Use Coalitions, Trusts and Alliances

STEW-MAPing on the rise

- Urban Resiliency Planning and Development

Urban design & civic engagement

- Emergency Response Community

Greening as a recovery mechanism / restoration

- Civic Ecology / Democracy Organizations

Greening as a mediating mechanism / conflict



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Photo credit: Joana Chen

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