



# Stewardship Mapping and Assessment Project (STEW-MAP)

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<http://www.nrs.fs.fed.us/nyc/>





# What is the Stewardship Mapping & Assessment Project (STEW-MAP)?

**Background:** This is a collaborative research and outreach project created by the US Forest Service (Northern Research Station) ten years ago to better understand and support stewardship. It has been applied in a number of places internationally.

**Question:** How do we understand the spatial and social interactions among groups working on stewardship? Or, who takes care of your city or region?

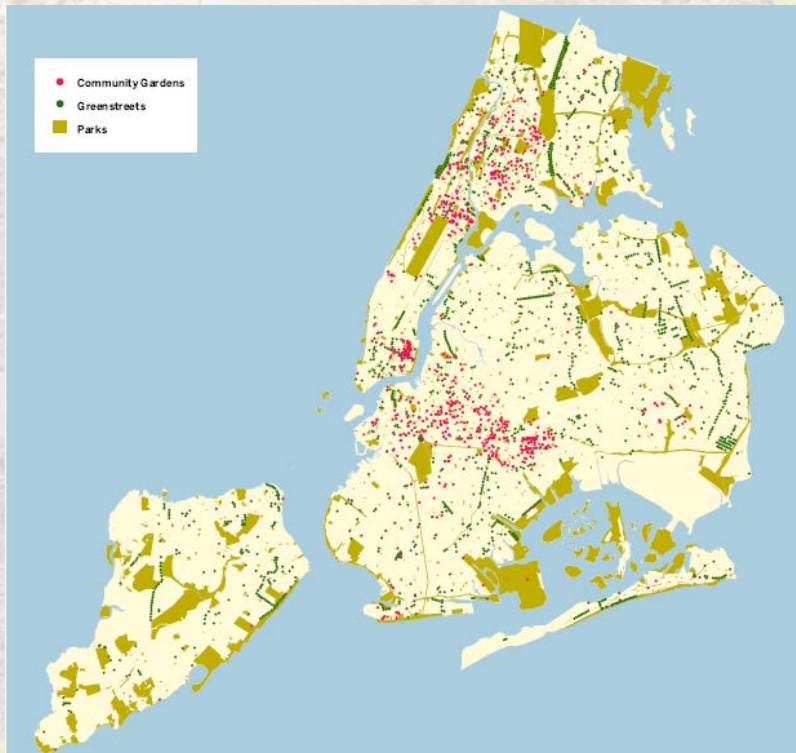
**Goal:** Identify the gaps and overlaps in stewardship to build community capacity and strengthen the system.



# STEW-MAP: Mapping stewardship organizations

Green Space

Social Space



(STEW-MAP 2007)



A person wearing a yellow safety vest and a child in a blue hoodie are working in a garden bed. The garden bed is filled with soil and several small green plants. Orange markers are placed around the plants. In the background, there is a chain-link fence and trees.

# What you can learn from STEW-MAP?

1. Organizational Characteristics

2. Social Networks

3. Geography of Stewardship

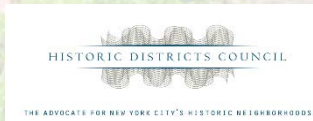


# Relationships and Partnerships



Funded by NYCsanitation

Hosted by Queens Botanical Garden





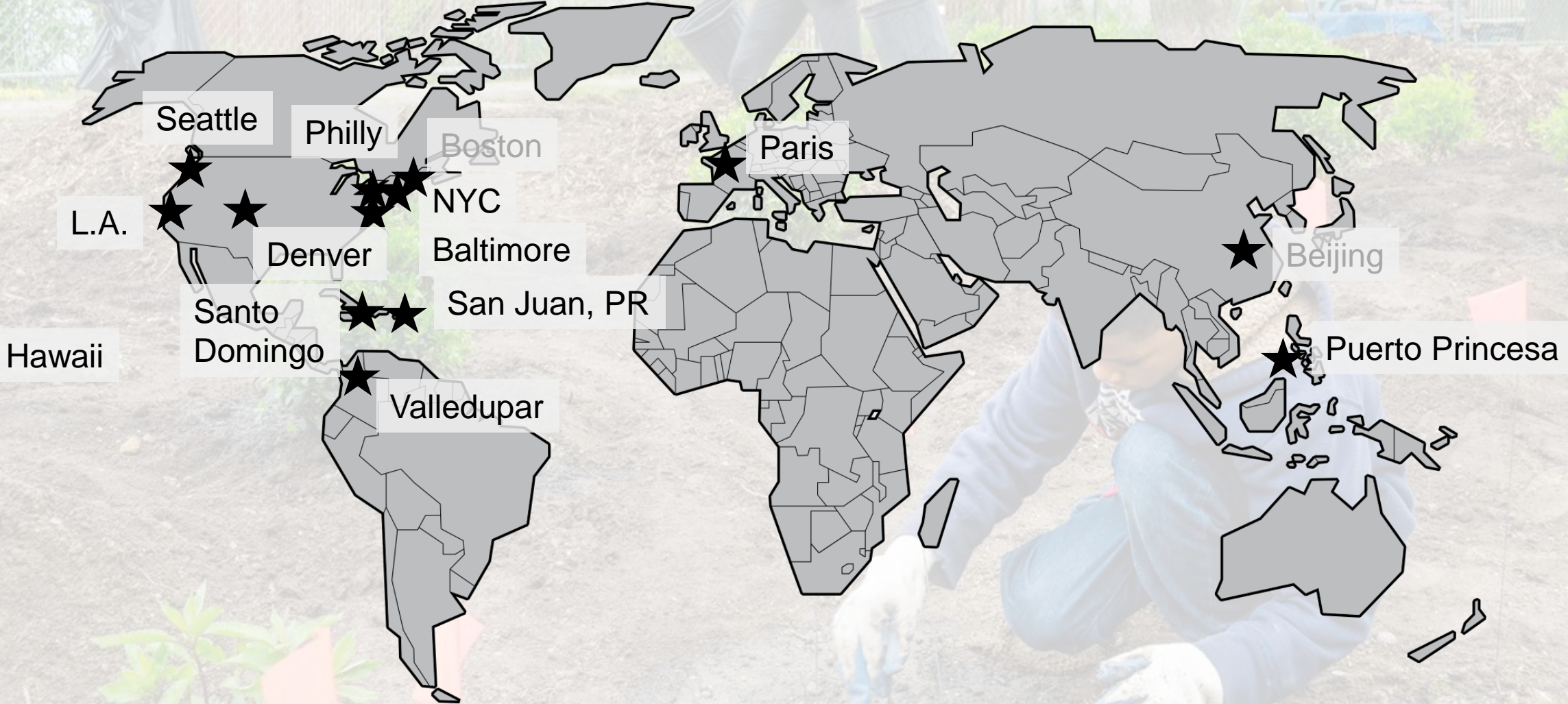
# Who uses STEW-MAP?

- **Agencies and large NGOs** – outreach and networking
- **Funders** – needs assessment and equity planning
- **Design firms** – understand stakeholders to create inclusive designs
- **Neighborhood groups and individuals** – identify local partners
- **Social scientists** – advancing theory and methodology of stewardship
- **Systems scientists** - social dataset in concert with other disciplines
- **Students** – understand stewardship and resilience





# STEW-MAP cities





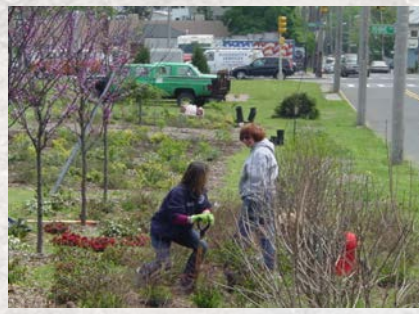
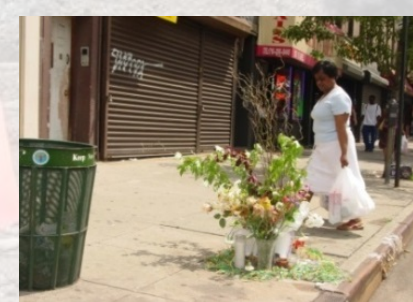


*How do you define  
stewardship?*





Urban environmental stewards conserve, manage, monitor, advocate for or educate the public about the local environment  
(Svendsen and Campbell 2008; Fisher et al. 2012)






# What can we learn about civic organizations?

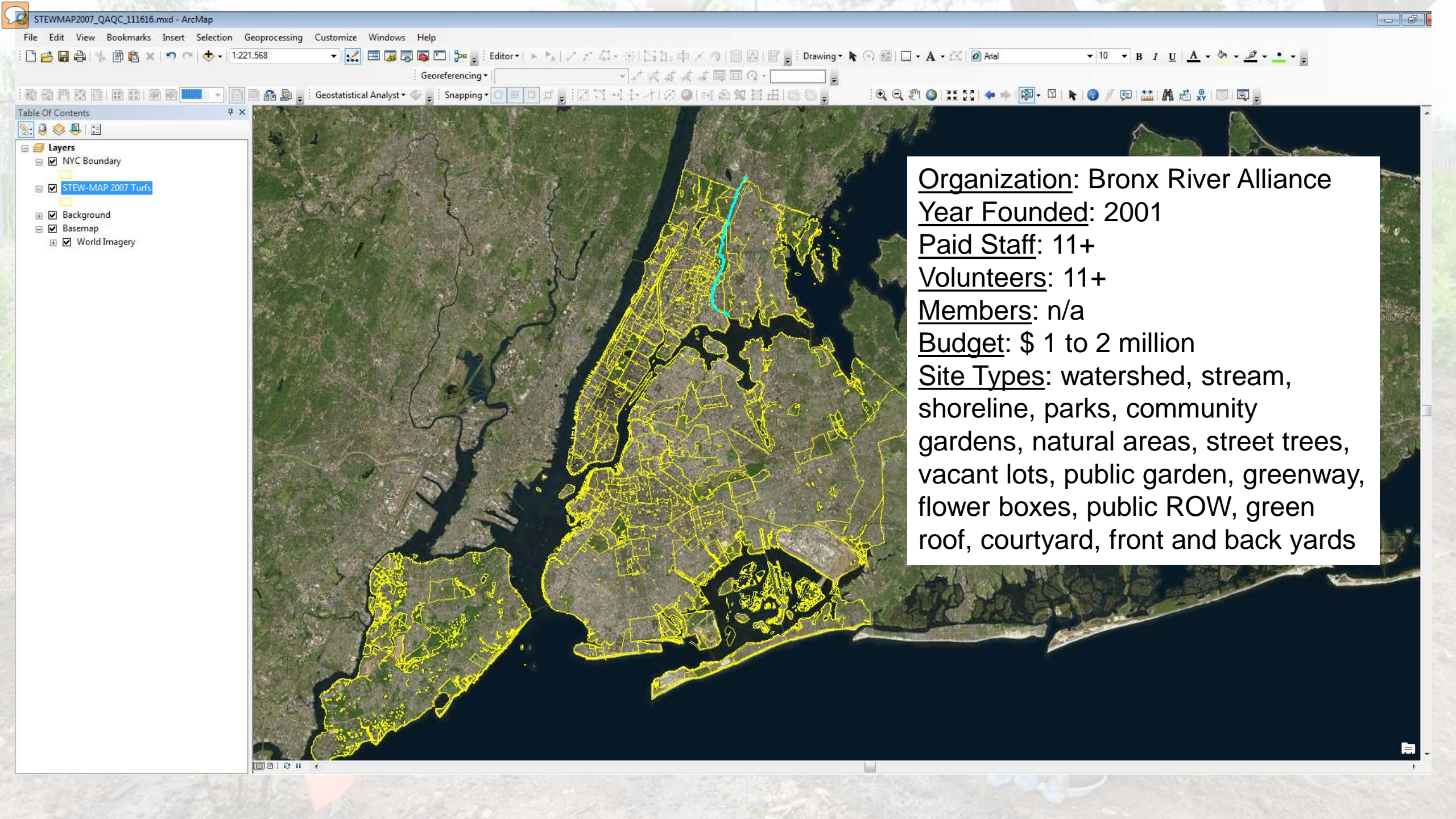
Data Collected	2007 New York City STEW-MAP Results
Year founded	Oldest formed in 1838, # orgs increased in 70s, 80s, 90s
Number of staff and volunteers	1/3 of groups had 0-1 paid staff
Budget	32% had budgets <\$1,000
Fiscal status	½ civic groups had 501c3 status
Stewarded site types	Most common were parks, community gardens, and street trees
Primary focus	Top 3 were Environment, Community Improvement, and Education but many others
Services offered by groups	Top 3 were community organizing, outreach, and labor (volunteers/interns)





# Geography or 'Turf'



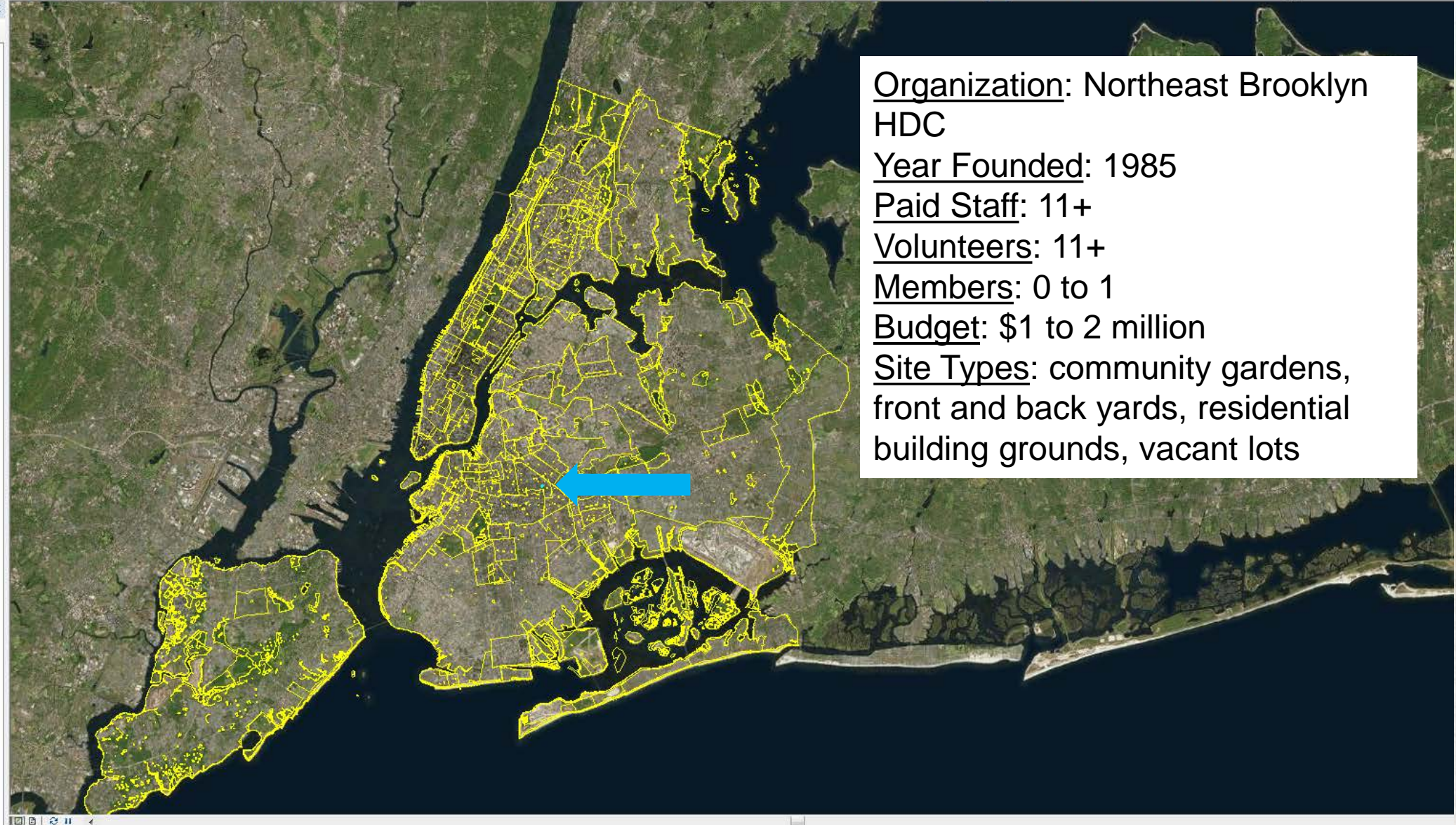


Organization: Bronx River Alliance  
Year Founded: 2001  
Paid Staff: 11+  
Volunteers: 11+  
Members: n/a  
Budget: \$ 1 to 2 million  
Site Types: watershed, stream, shoreline, parks, community gardens, natural areas, street trees, vacant lots, public garden, greenway, flower boxes, public ROW, green roof, courtyard, front and back yards



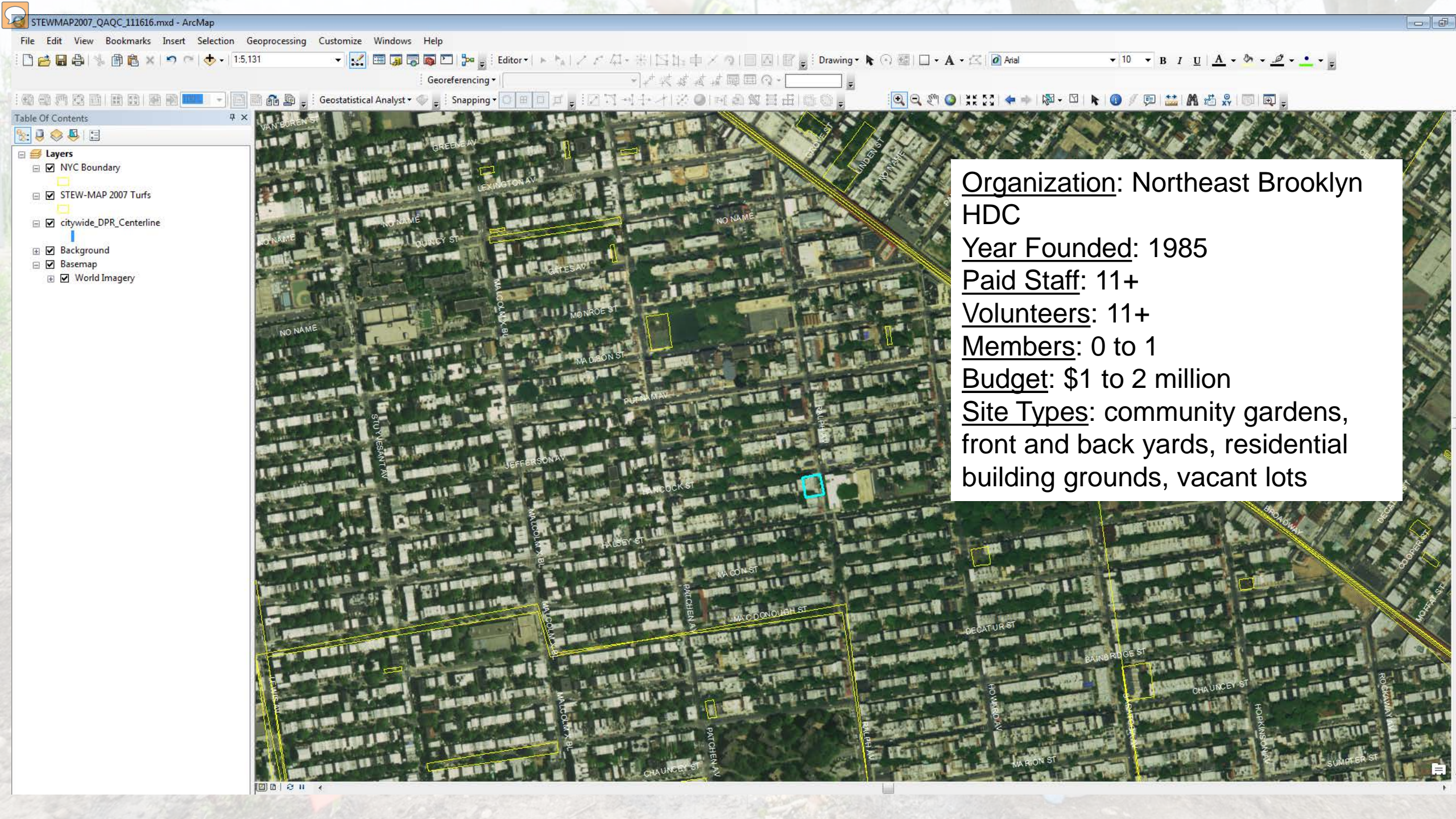
Table Of Contents

- Layers
  - NYC Boundary
  - STEW-MAP 2007 Turfs
  - Background
  - Basemap
  - World Imagery



Organization: Northeast Brooklyn  
HDC  
Year Founded: 1985  
Paid Staff: 11+  
Volunteers: 11+  
Members: 0 to 1  
Budget: \$1 to 2 million  
Site Types: community gardens,  
front and back yards, residential  
building grounds, vacant lots





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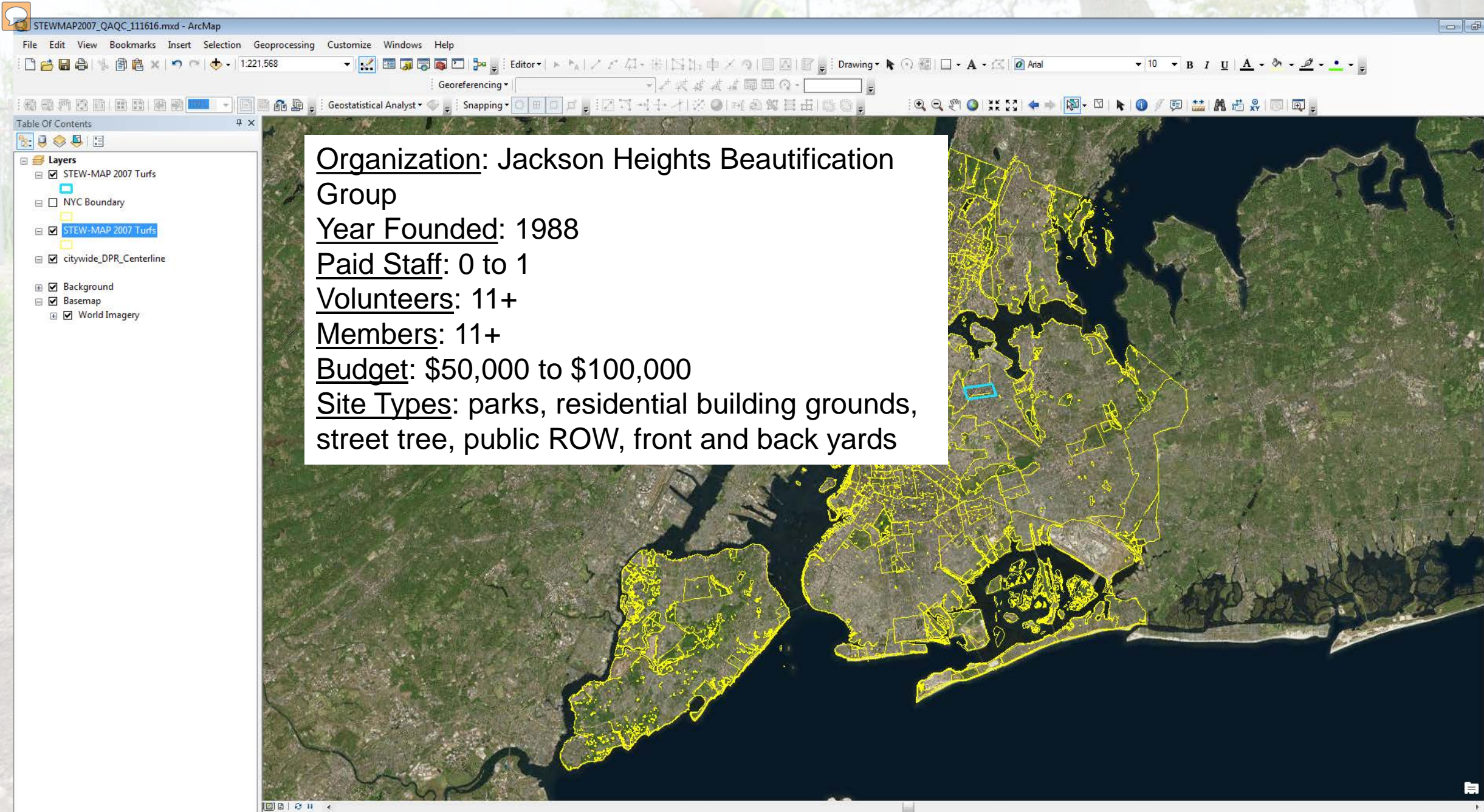
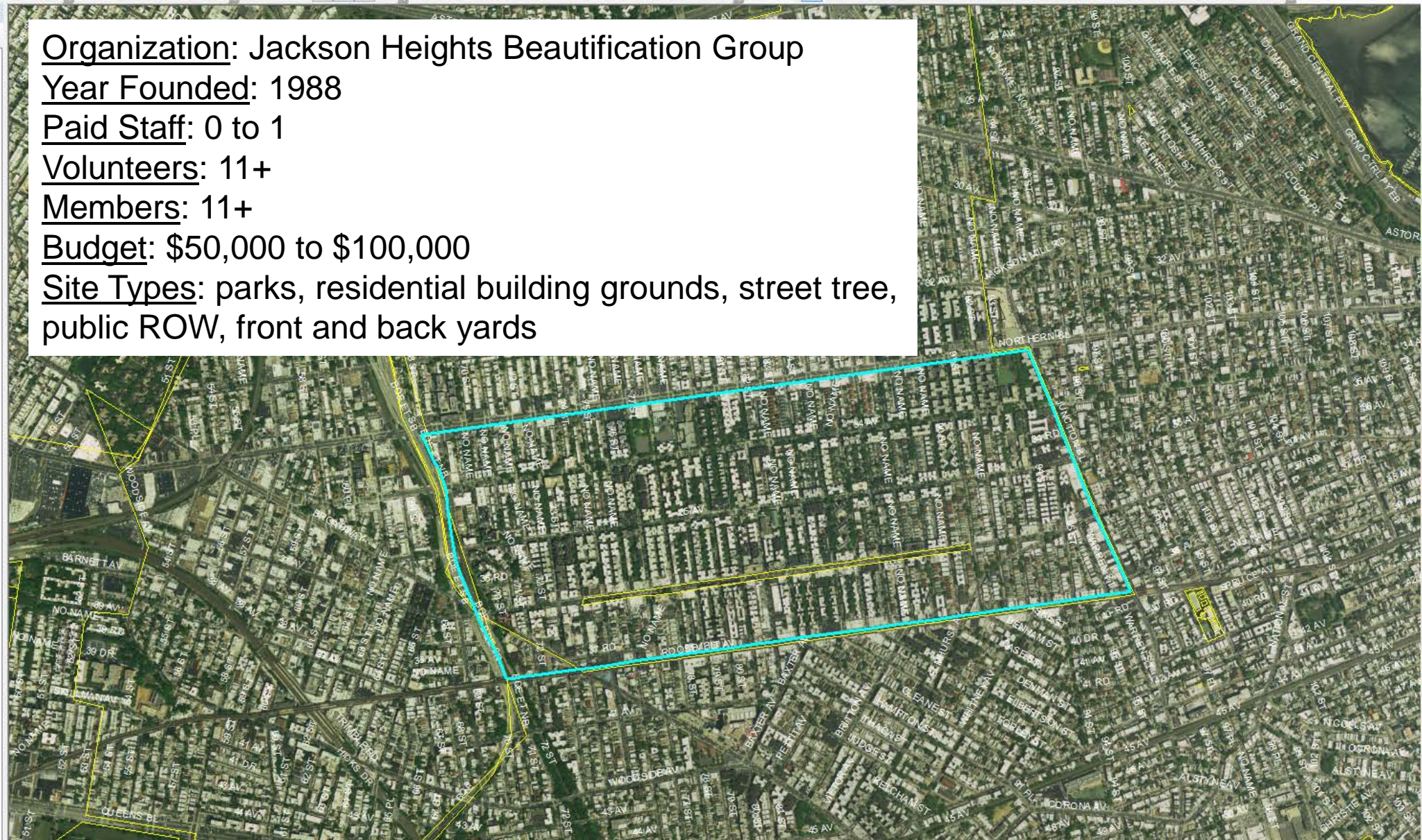




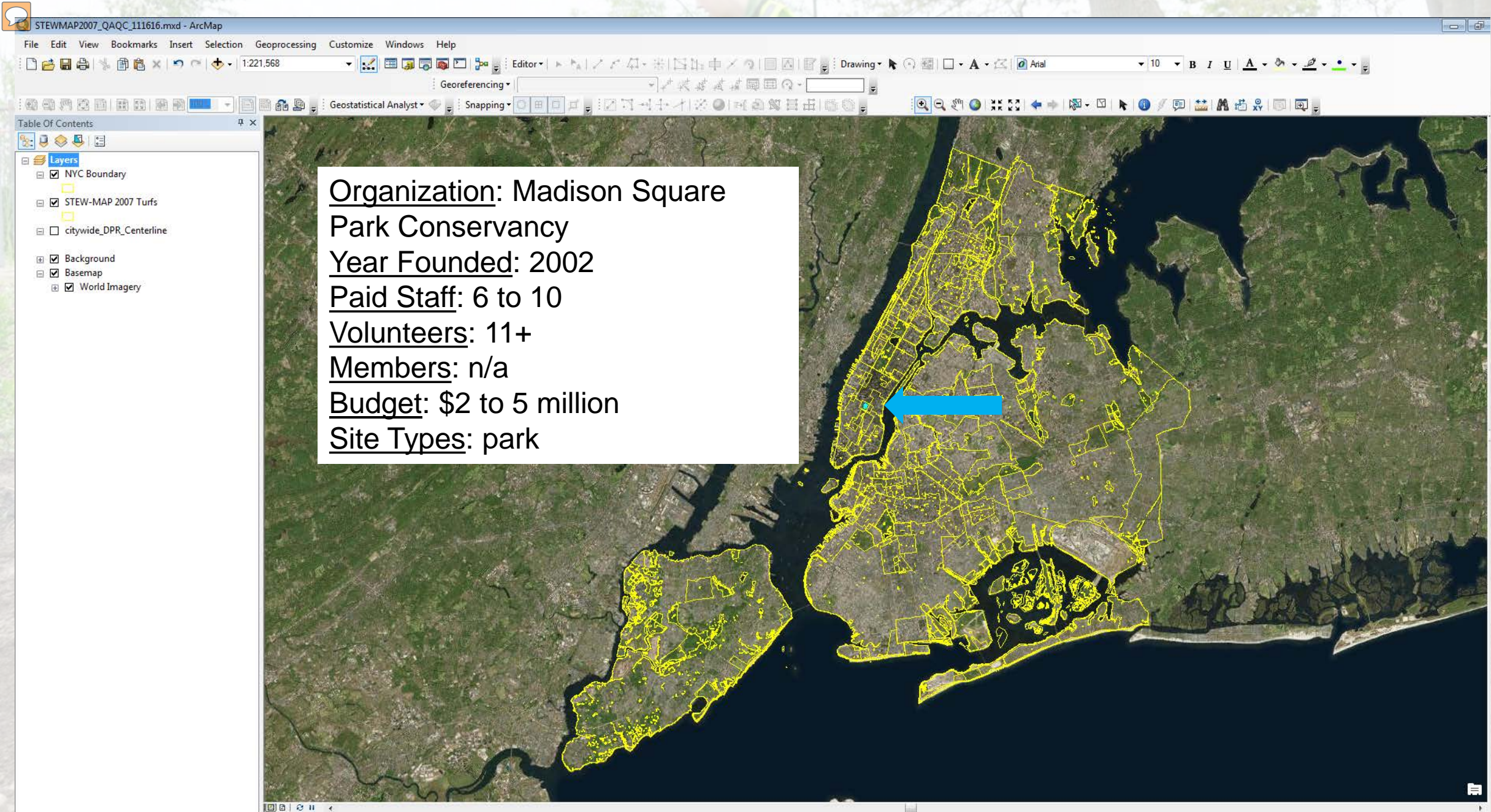
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- Layers
  - STEW-MAP 2007 Turfs
  - NYC Boundary
  - STEW-MAP 2007 Turfs
  - citywide\_DPR\_Centerline
  - Background
  - Basemap
  - WorldImagery

Organization: Jackson Heights Beautification Group  
Year Founded: 1988  
Paid Staff: 0 to 1  
Volunteers: 11+  
Members: 11+  
Budget: \$50,000 to \$100,000  
Site Types: parks, residential building grounds, street tree, public ROW, front and back yards







Organization: Madison Square  
 Park Conservancy  
Year Founded: 2002  
Paid Staff: 6 to 10  
Volunteers: 11+  
Members: n/a  
Budget: \$2 to 5 million  
Site Types: park

- Table Of Contents
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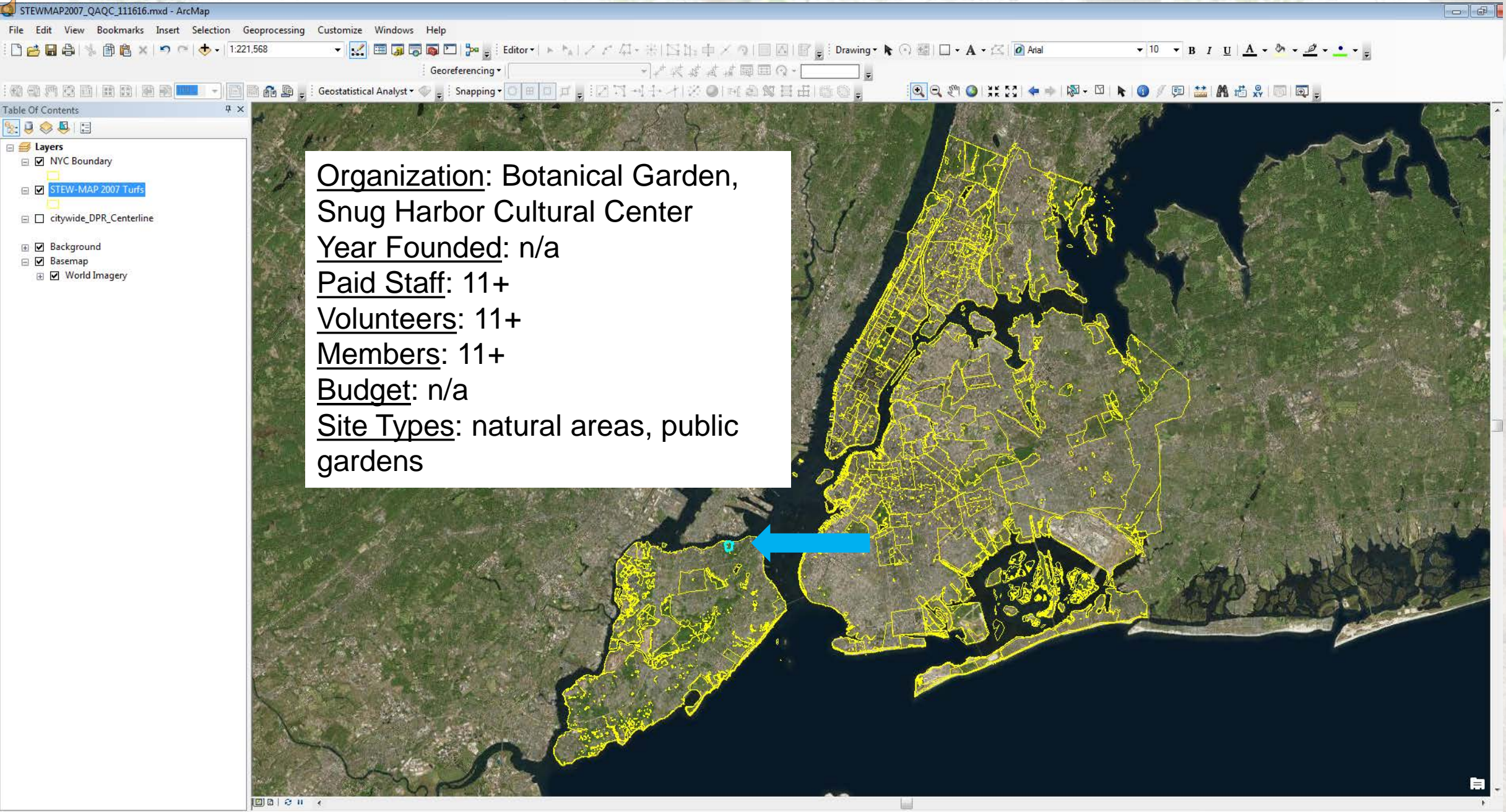
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Organization: Madison Square Park Conservancy  
Year Founded: 2002  
Paid Staff: 6 to 10  
Volunteers: 11+  
Members: n/a  
Budget: \$2 to 5 million  
Site Types: park







Organization: Botanical Garden,  
Snug Harbor Cultural Center  
Year Founded: n/a  
Paid Staff: 11+  
Volunteers: 11+  
Members: 11+  
Budget: n/a  
Site Types: natural areas, public  
gardens

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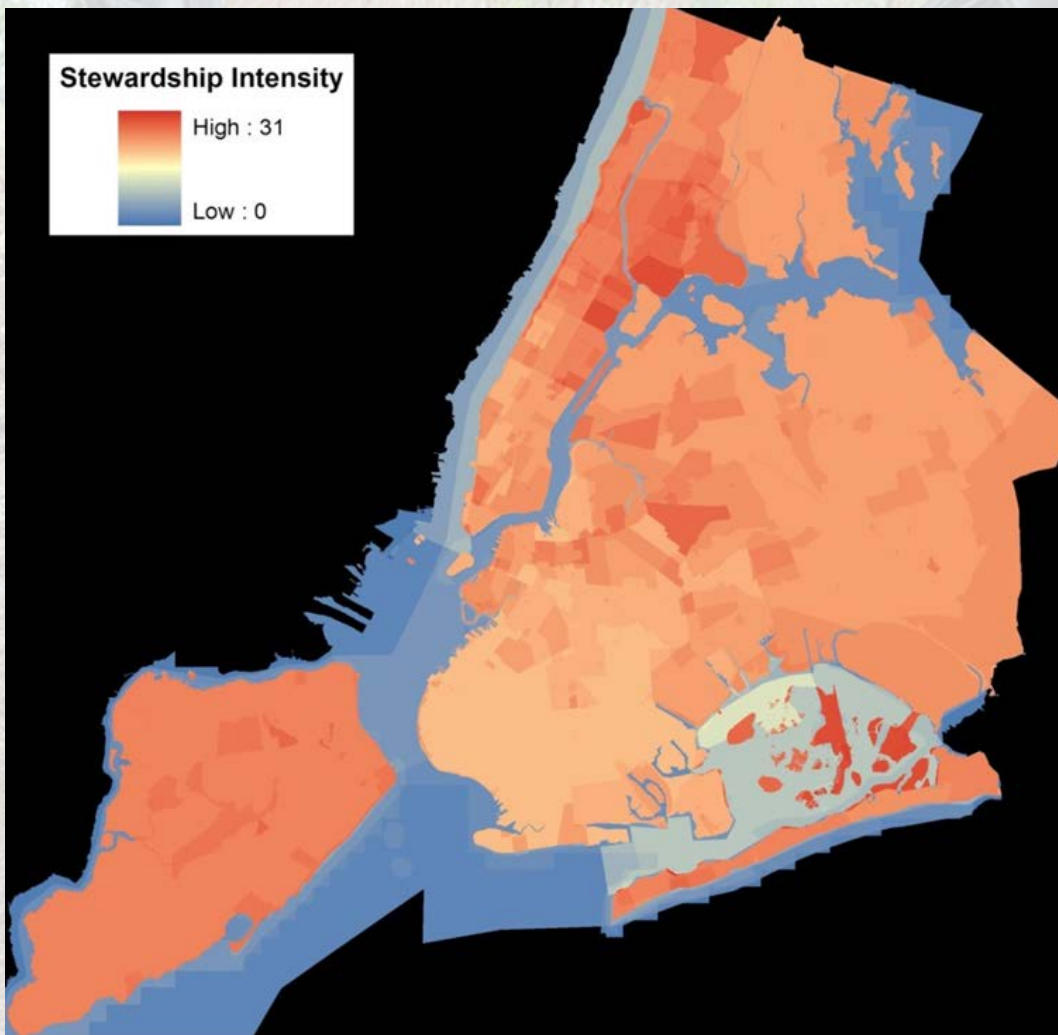
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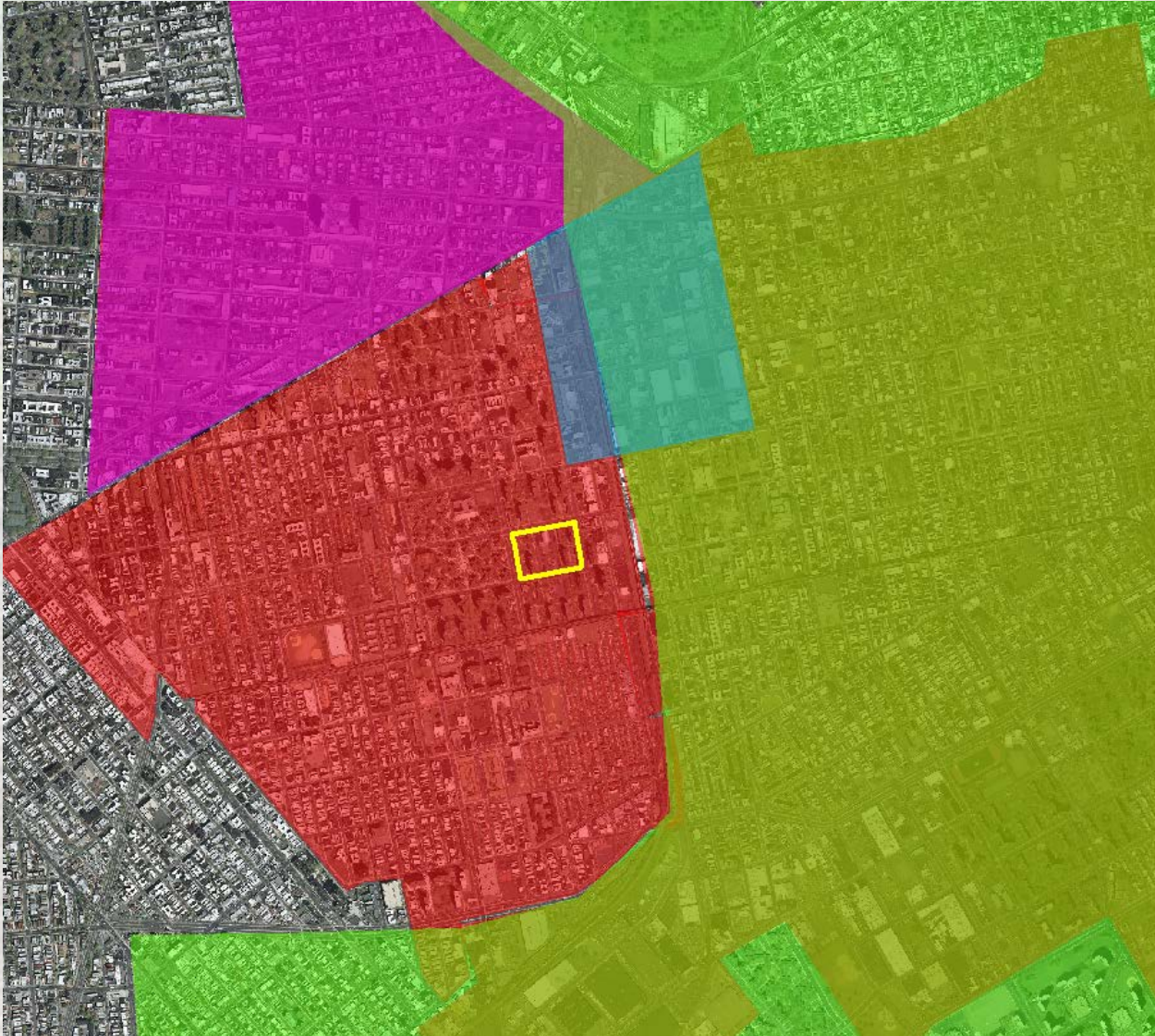
# Where do civic organizations work?



- Areas with lots of groups?
- Areas with few groups?
- Are there any gaps?



# Overlapping stewardship turfs



Green Guerillas

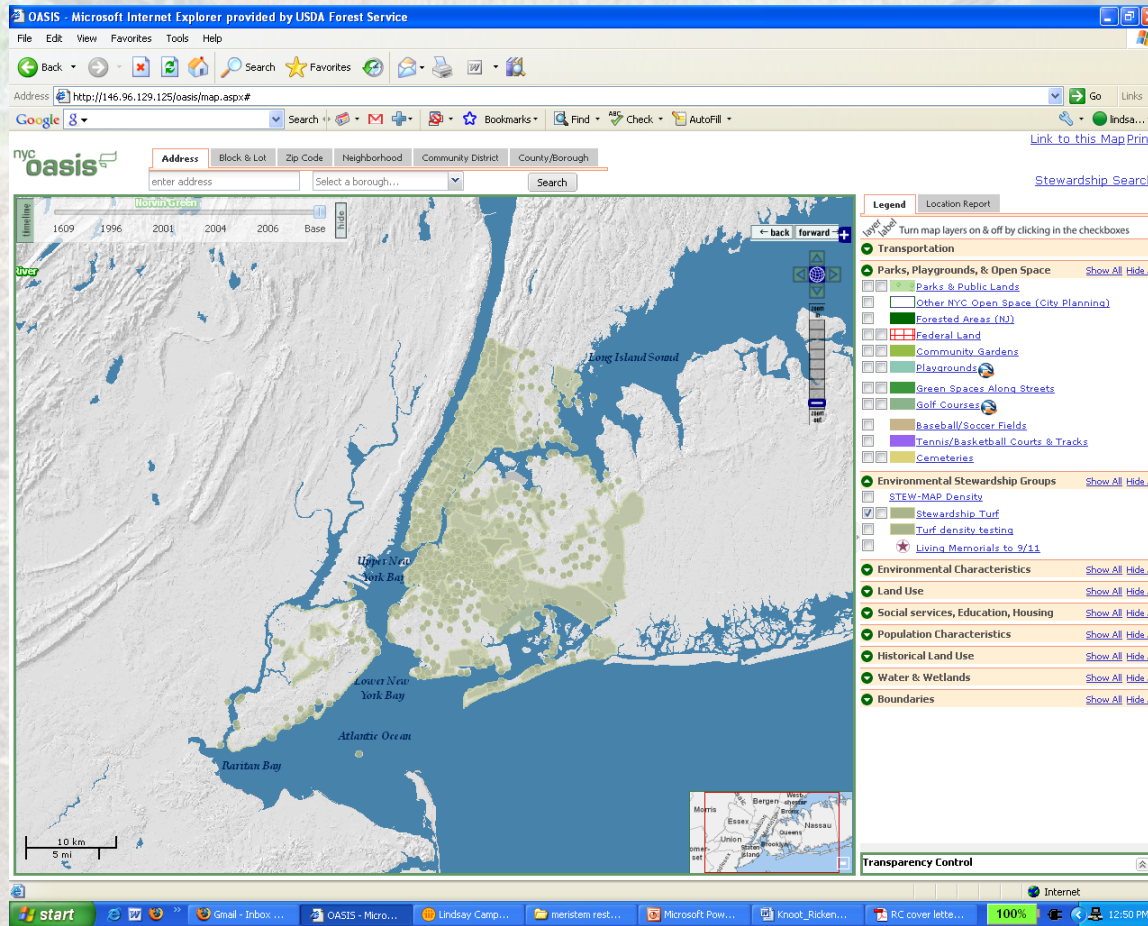
Citizens Advisory Committee

Brooklyn Bureau of Community Service

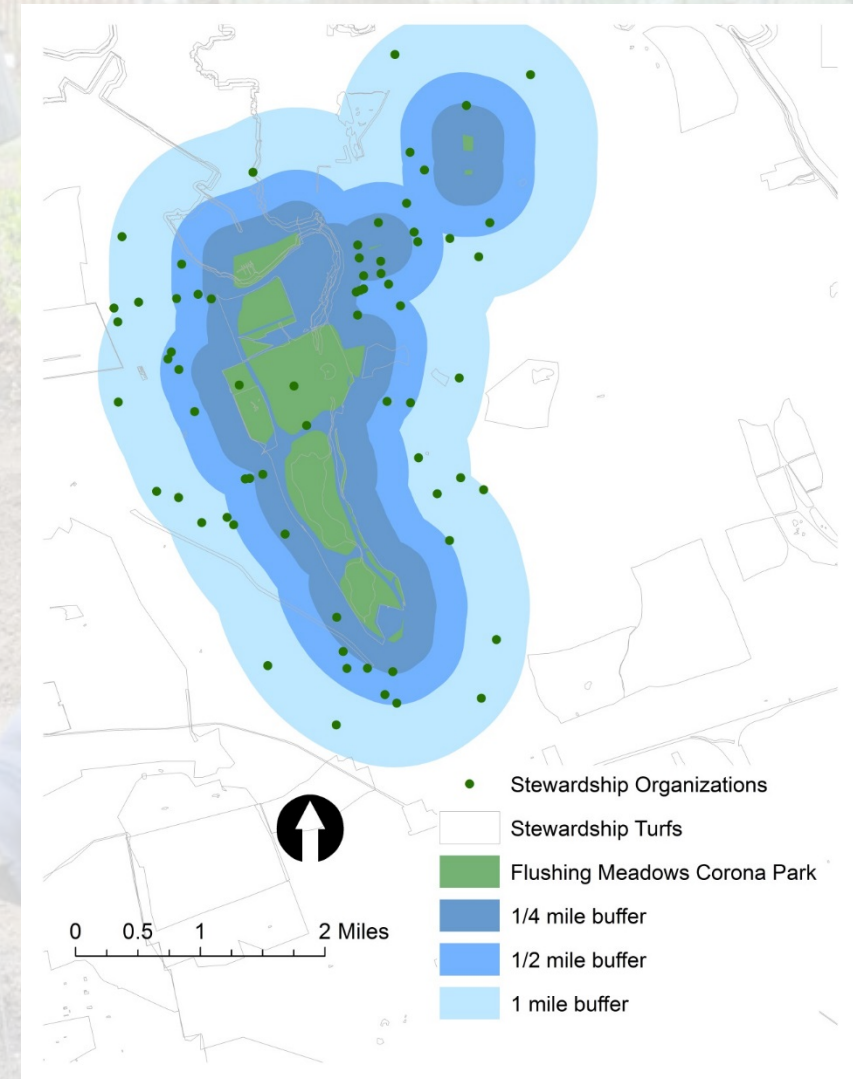
Brooklyn Rescue Mission



# STEW-MAP applications for the public and managers



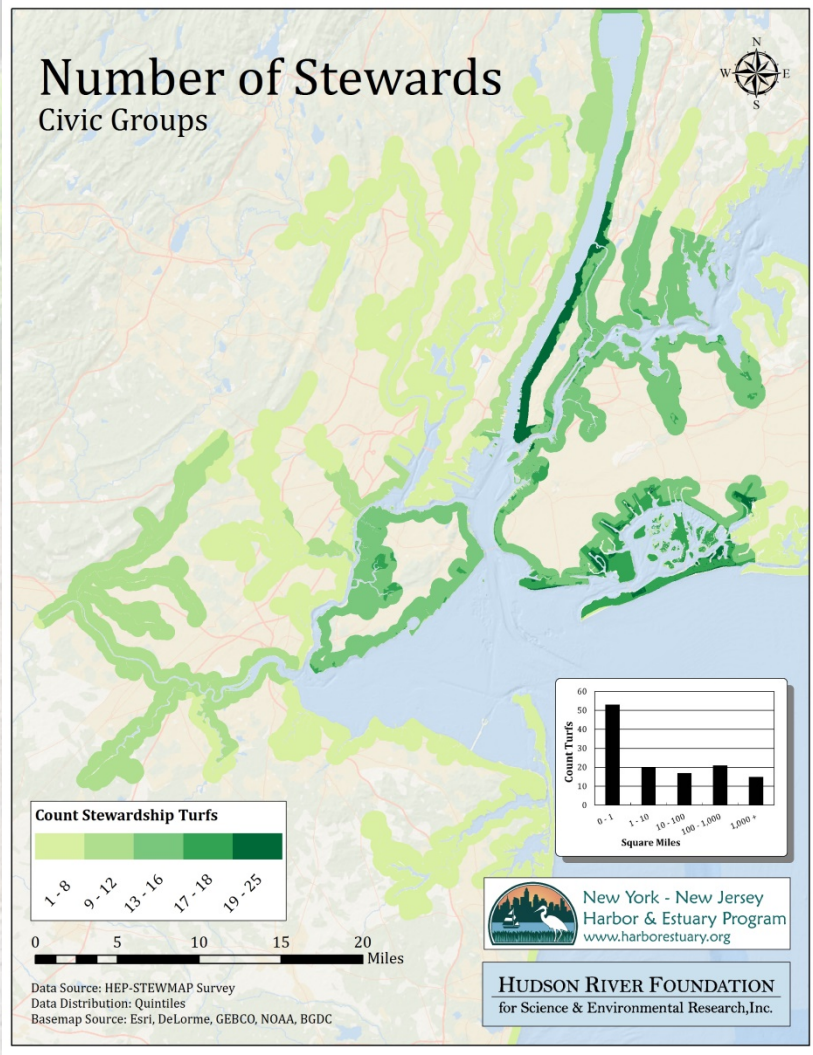
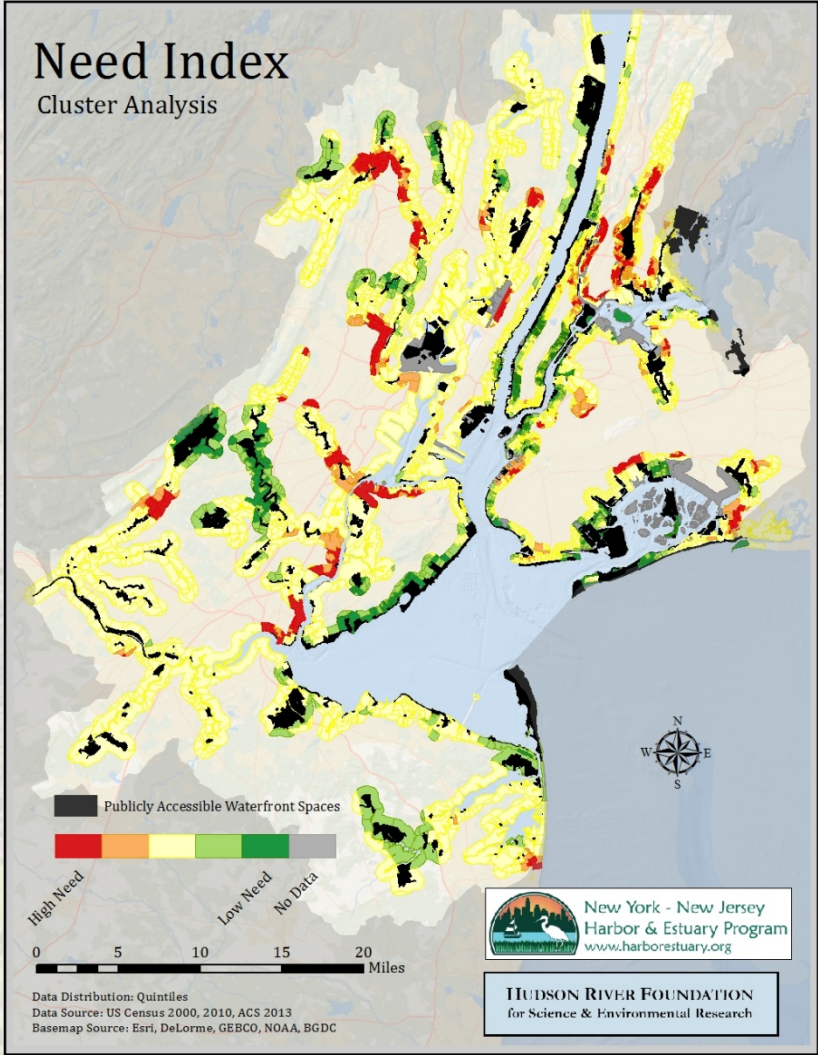
Public website



Custom data query



# Multi-scaled data – from site to neighborhood to city to region



Need index (left) and stewardship density (right) – clipped to ¼ mile buffer from water



A person wearing a yellow safety vest and dark pants is walking in the background, carrying two black buckets. In the foreground, a child in a blue hoodie and white gloves is kneeling in a garden bed, working with the soil. The garden bed is filled with dark soil and several small green plants. Orange plastic markers are placed around the plants. In the background, there is a chain-link fence and some trees.

# Social Networks



# Why look at social networks?

- Groups do not work alone, so it is useful to look at their *connections*.
- Using social network analysis, we can identify the linkages to understand stewardship as a system.
- This is important for conservation and resource management because it allows us to see which groups are “key brokers” that are central for communicating, disseminating information and resources, and which groups are more isolated.
- This can help us:
  - Build on existing strengths, identify gaps, and do our work more efficiently;
  - Promote connectivity, learning, and participation, all of which support resilience.





*Who are your top 3  
community partners?*

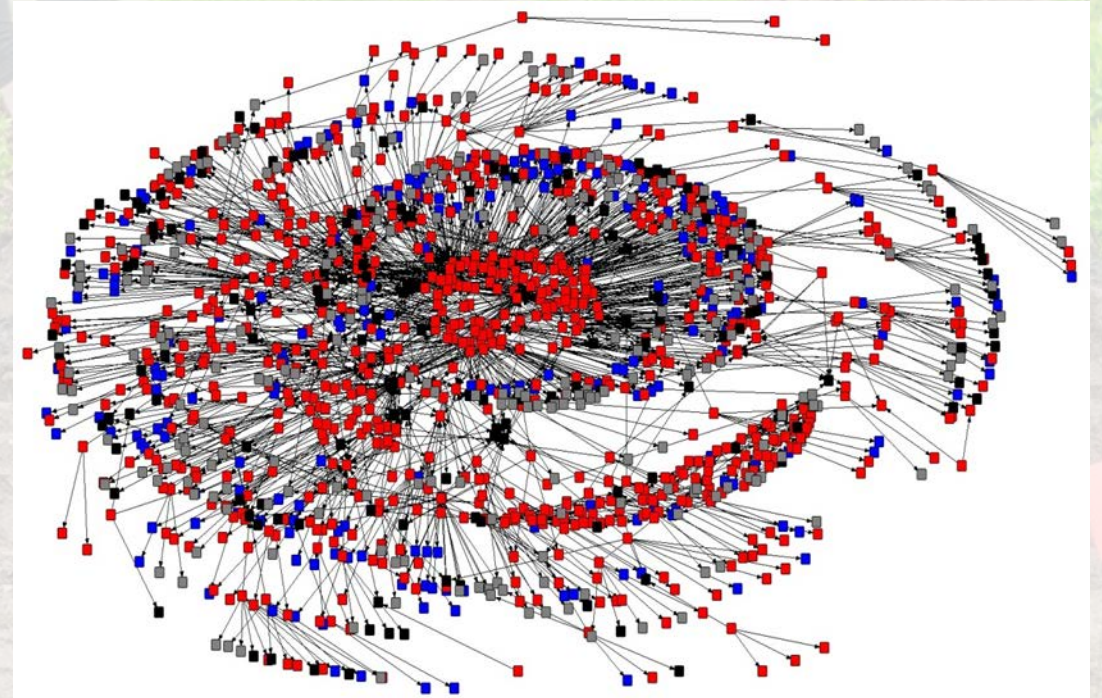




# Stewardship networks: visualizing collaboration

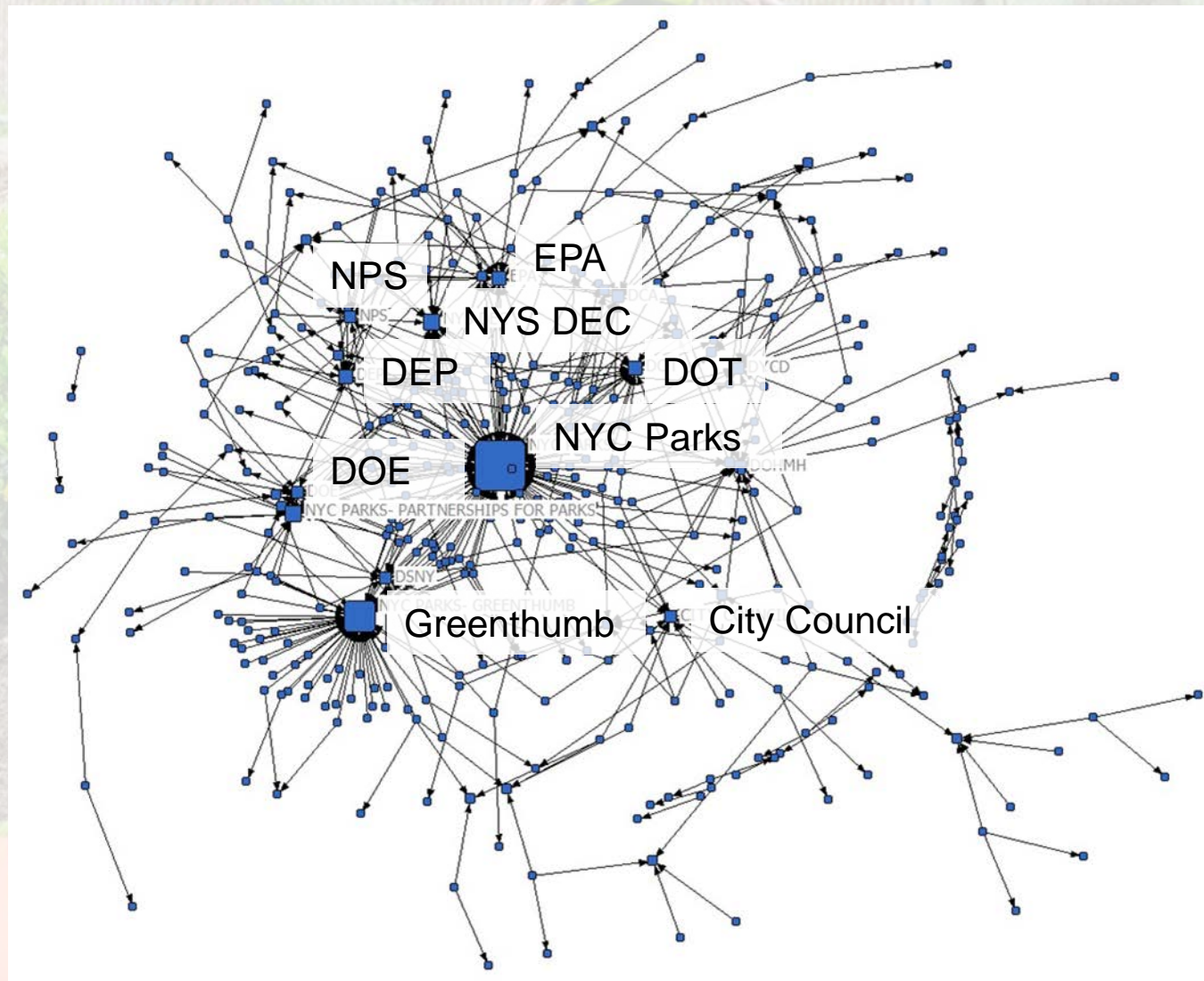
- Most connected groups?
- Isolated groups?
- How do groups collaborate?

2007 STEW-MAP network



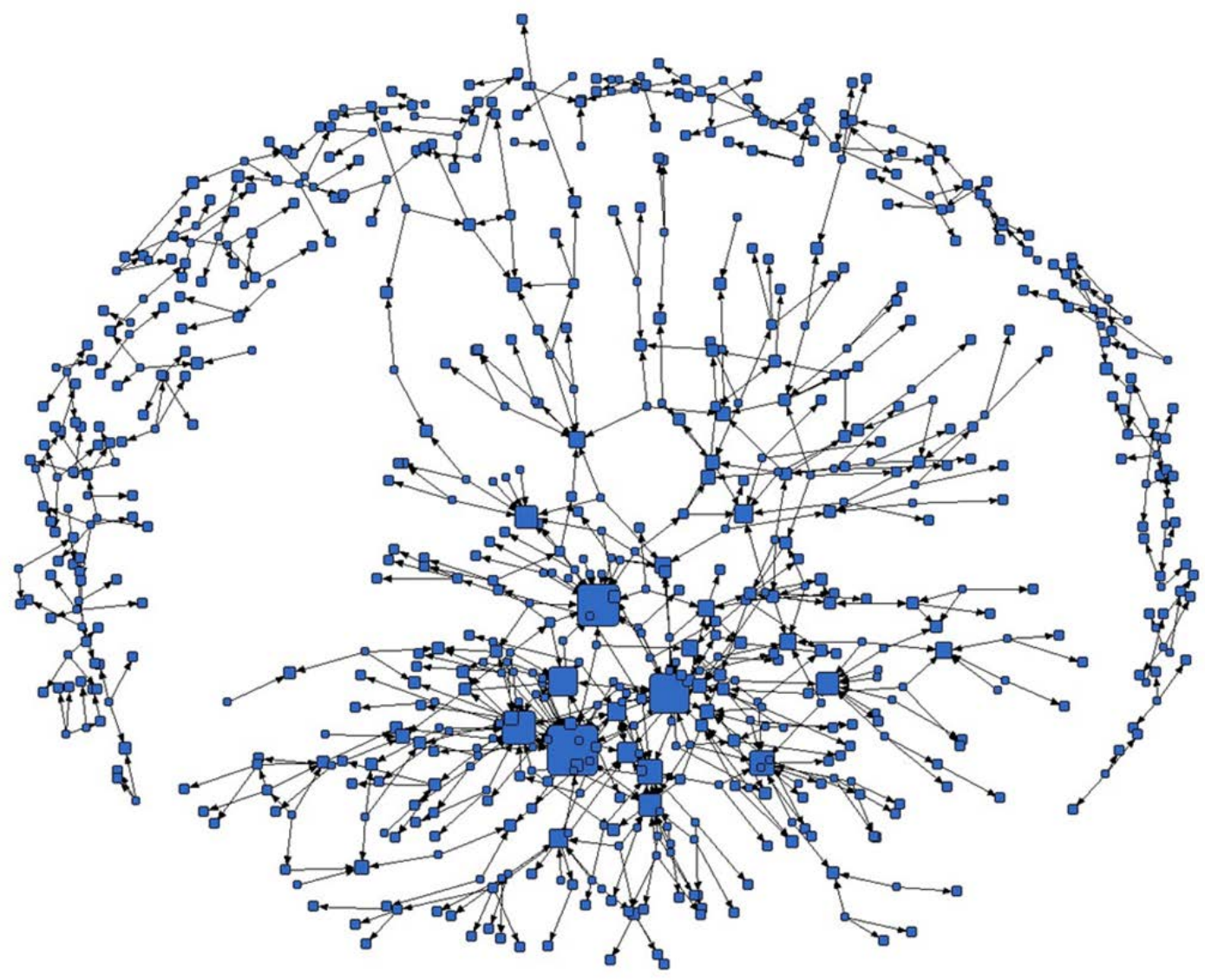


# Civic-government connections



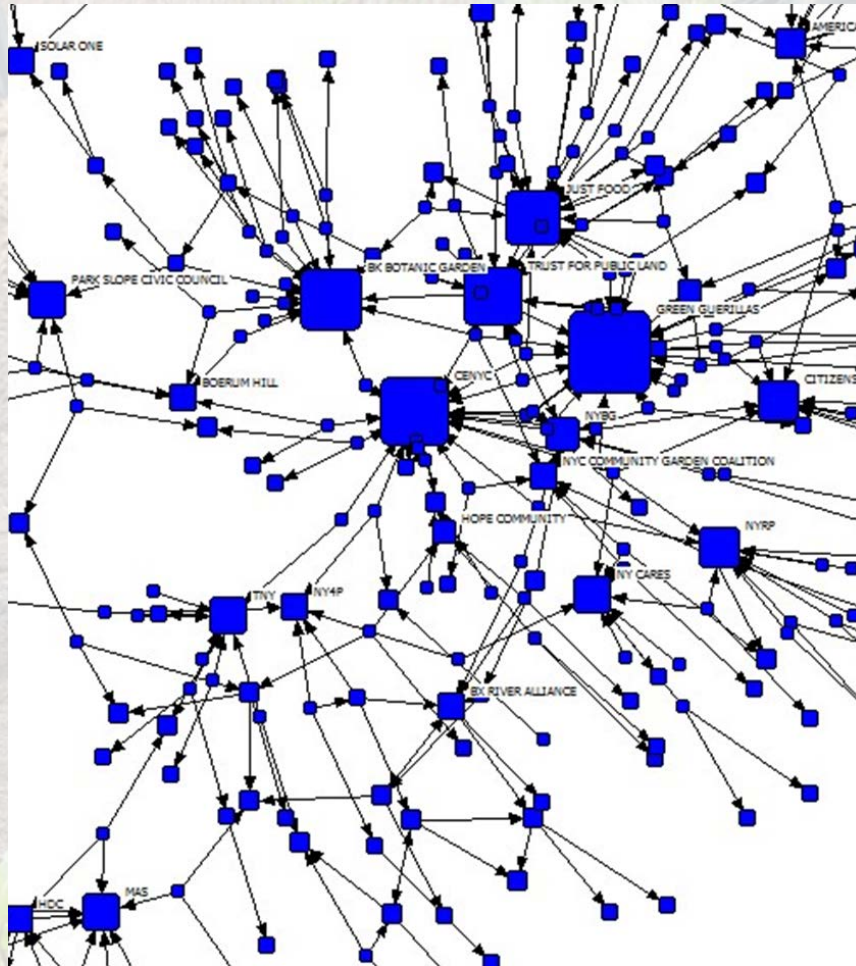


# Civic-civic connections





# Civic stewardship brokers or 'bridging' organizations



Identified civic organizations two standard deviations or above mean number of 'in-degree' ties:

- Green Guerillas
- Brooklyn Botanic Garden
- Grow NYC
- Just Food
- Trust for Public Land
- NY Cares
- New York Restoration Project
- Trees New York
- Citizens Committee for NYC
- Park Slope Civic Council
- American Littoral Society
- Municipal Arts Society



# Why map stewardship over time, space and networks?


- Adaptation to natural and social disturbances
- Response to government planning initiatives
- Professionalization and capacity building
- Innovation diffusion through networks and across space






*How could you see your community using STEW-MAP?*





*What types of stewardship do you observe in your cities?*





# STEW-MAP: A quick step-by-step guide



# STEW-MAP Implementation Steps



- Partner with organizations
- Combine mailing lists and databases to create final list of groups

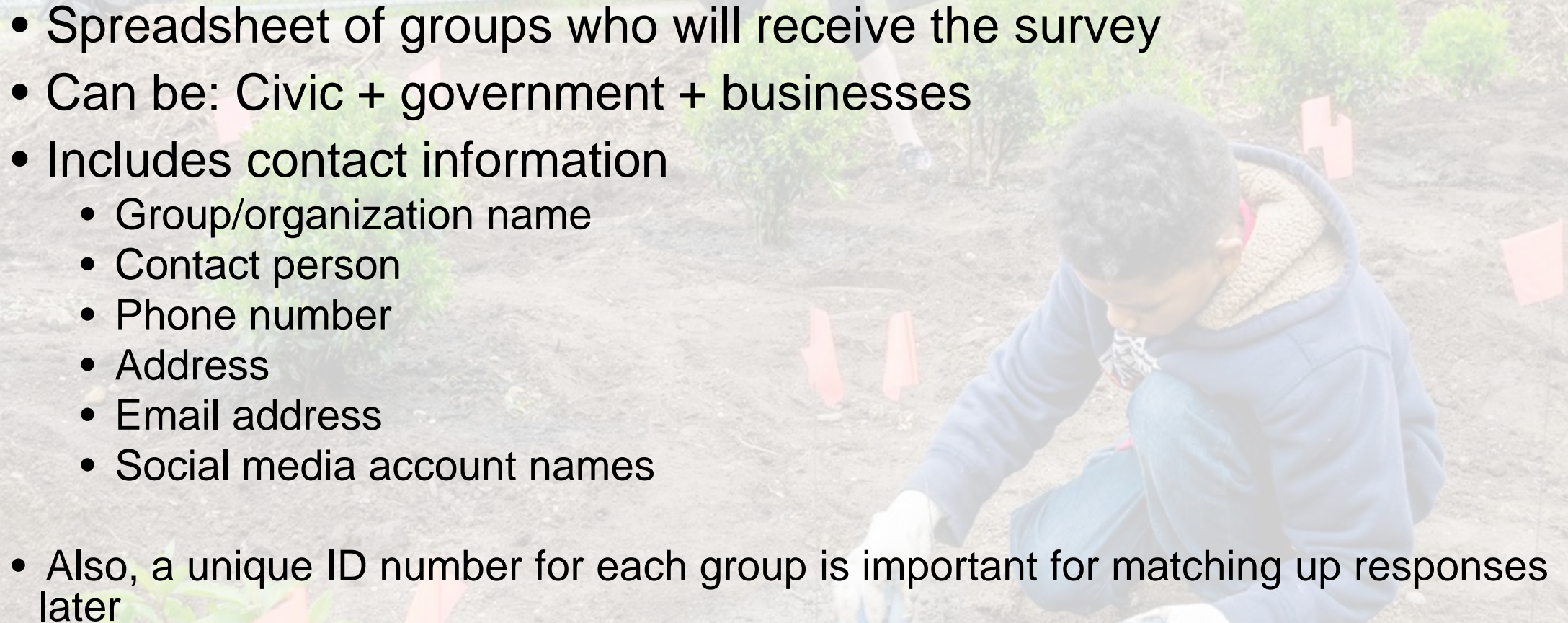
- Keep survey open for 3 - 6 months
- Consider incentives
- Ask partners for help promoting participation

- QA/QC responses
- Create/clean spatial data
- Create social network analysis datasets

- Organizational data
- Spatial data
- Network data
- Available publically



# List of Groups

- Spreadsheet of groups who will receive the survey
  - Can be: Civic + government + businesses
  - Includes contact information
    - Group/organization name
    - Contact person
    - Phone number
    - Address
    - Email address
    - Social media account names
  - Also, a unique ID number for each group is important for matching up responses later
- 







# Sending the STEW-MAP Survey

- Create an electronic and/or paper version of survey
  - Who sends the survey matters
  - Include a cover letter
- Send to all organizations in the list of groups
- Send two reminders
- Consider making phone call reminders – one to each group that has not responded
- Track reminder efforts in a spreadsheet



# Survey Software

- Survey Monkey
  - Survey Gizmo
  - Qualtrics
  - Etc.
- 
- Allows you to load your list of groups
  - Send your survey to that list of groups
  - Track who responds to the survey
  - Send reminders to take the survey
  - Download the survey dataset



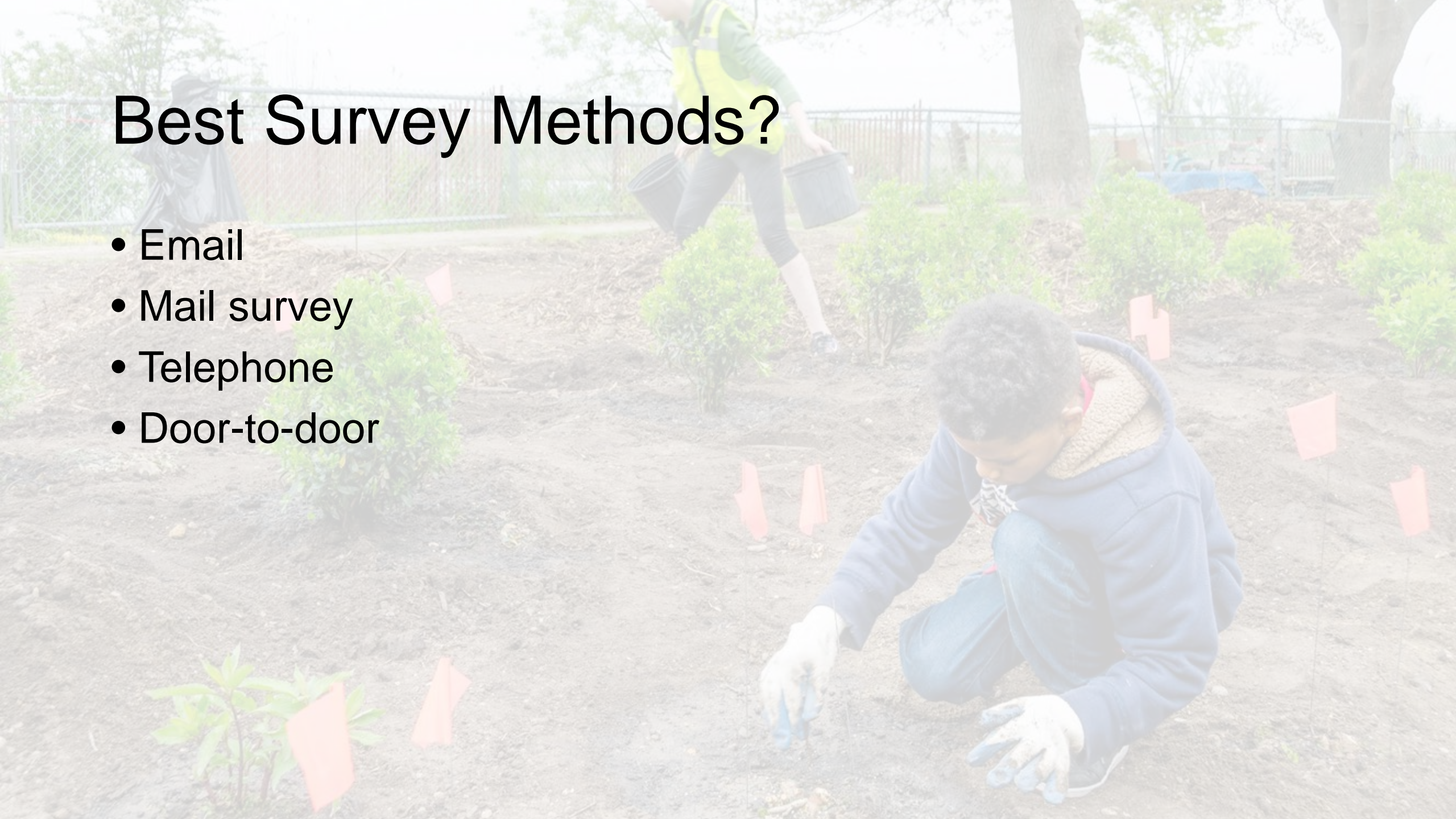
surveygizmo





# Best Survey Methods?

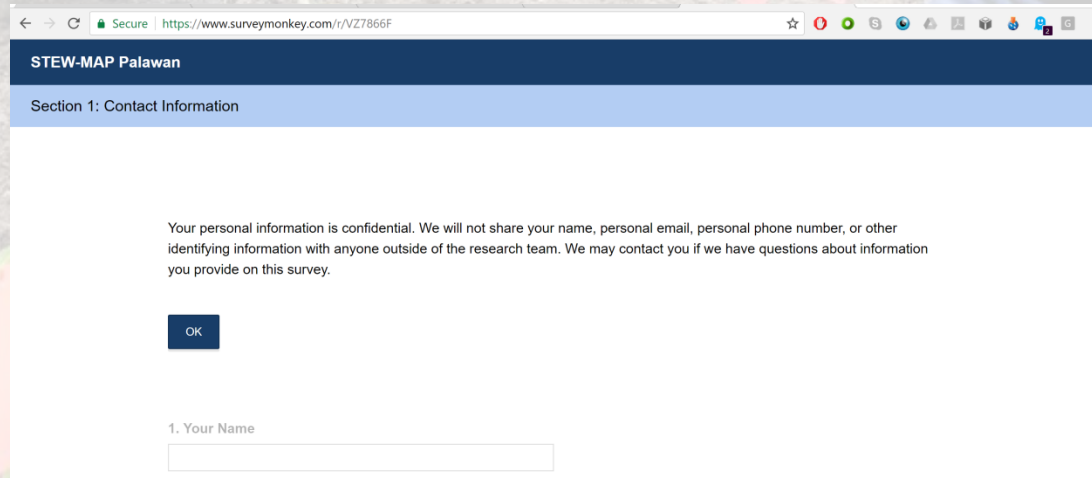
- Email
- Mail survey
- Telephone
- Door-to-door





# Managing Survey Responses

- If electronic, all responses will be in survey software, like Survey Monkey
- If paper, survey team can enter responses into survey software (preferred) or an EXCEL spreadsheet
- If both, all responses should be in survey software, so formatting matches



The screenshot shows a web browser window displaying a survey page. The browser's address bar shows the URL <https://www.surveymonkey.com/r/VZ7866F>. The page title is "STEW-MAP Palawan". Below the title, there is a section header "Section 1: Contact Information". A confidentiality notice reads: "Your personal information is confidential. We will not share your name, personal email, personal phone number, or other identifying information with anyone outside of the research team. We may contact you if we have questions about information you provide on this survey." Below the notice is a blue "OK" button. At the bottom, there is a question "1. Your Name" followed by an empty text input field.



# Survey Responses

The background image shows an outdoor garden setting. In the foreground, a person wearing a blue hoodie and white gloves is kneeling on the ground, working with small orange survey markers. In the background, another person wearing a yellow safety vest and dark pants is walking, carrying two black buckets. The garden has several small plants and orange survey markers placed around them. A chain-link fence and trees are visible in the distance.

- Download data from Survey Monkey
- Exclude erroneous responses
- Compare against list of groups sent the survey (sampling frame) to get response rate
- Code the survey data
- Summarize results
- Map geographic data
- Create networks



# Response Rate

- Number of responding groups / Number of groups receiving the survey \* 100%
- A higher response rate indicates a better representation of the variation across groups
- 50 responses / 200 groups = 25% response rate



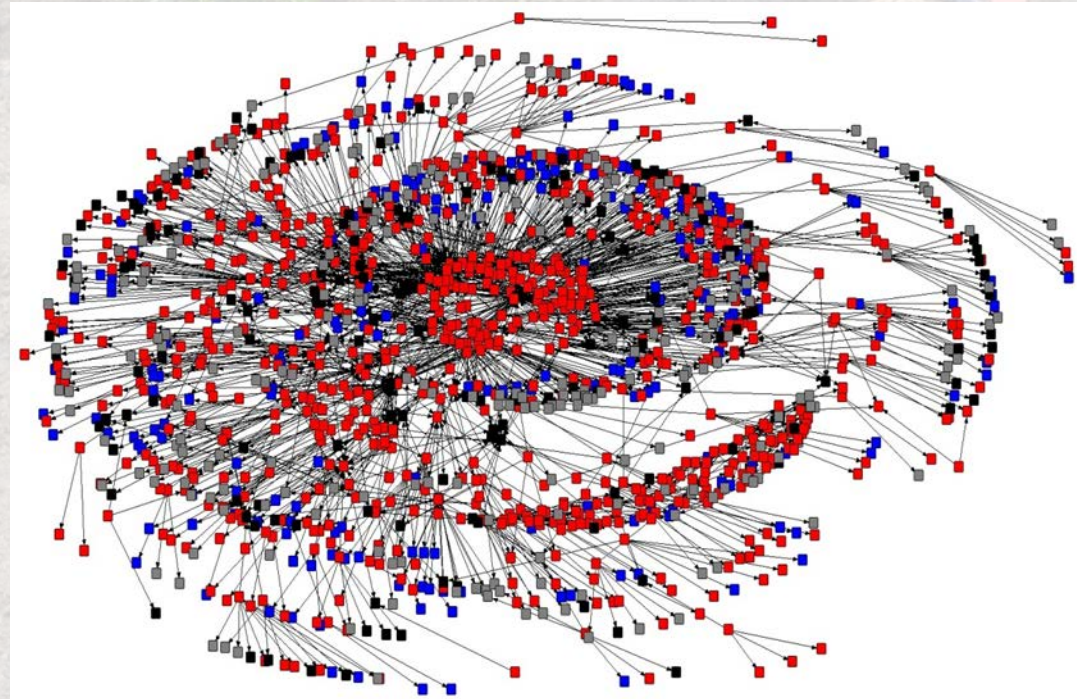




# Networks

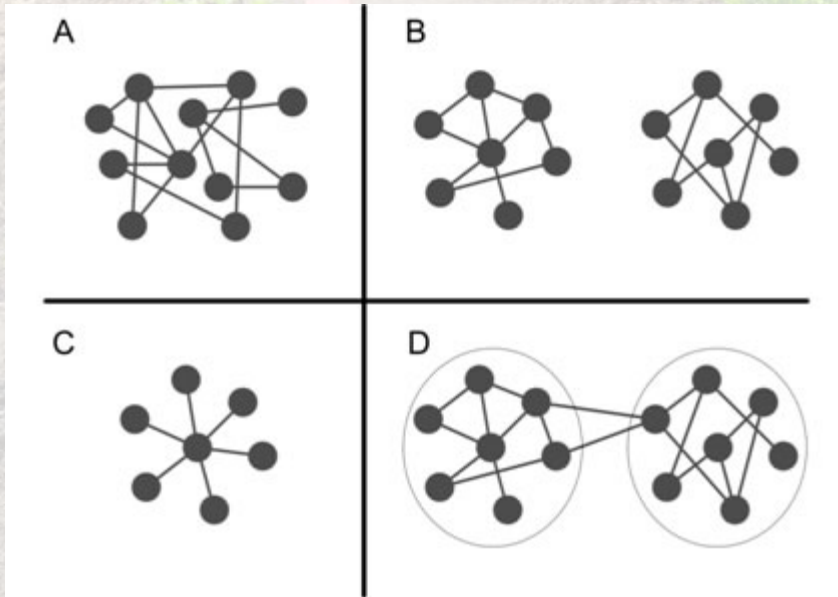
- What groups are working with each other?
- What groups are the most connected? Most independent?

2007 New York City  
STEW-MAP  
network





# Network Characteristics



(A) No distinguishable subgroups (high cohesiveness)

(B) Divided in two isolated subgroups.

(C) Highly centralized network

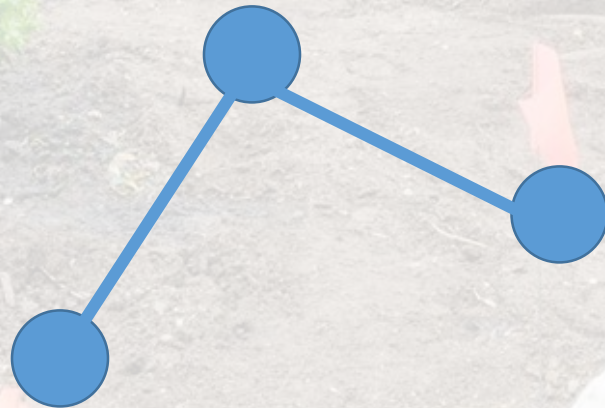
(D) Distinguishable subgroups

Source: Bodin and Crona 2009



# Nodes and Edges

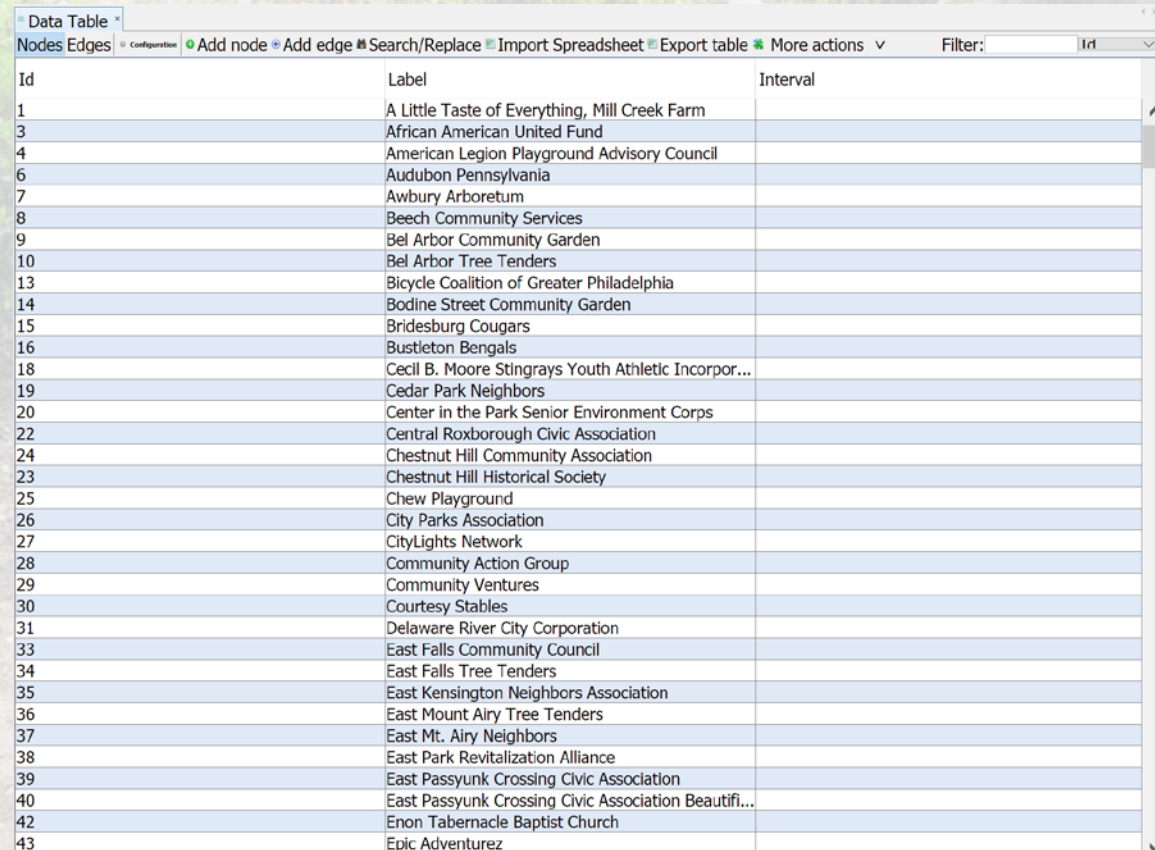
- Node = group
- Edge = connecting line





# Node List

- ID = unique number of a group
- Same as PopID in other files – must be called ID in Gephi



Id	Label	Interval
1	A Little Taste of Everything, Mill Creek Farm	
3	African American United Fund	
4	American Legion Playground Advisory Council	
6	Audubon Pennsylvania	
7	Awbury Arboretum	
8	Beech Community Services	
9	Bel Arbor Community Garden	
10	Bel Arbor Tree Tenders	
13	Bicycle Coalition of Greater Philadelphia	
14	Bodine Street Community Garden	
15	Bridesburg Cougars	
16	Bustleton Bengals	
18	Cecil B. Moore Stingrays Youth Athletic Incorpor...	
19	Cedar Park Neighbors	
20	Center in the Park Senior Environment Corps	
22	Central Roxborough Civic Association	
24	Chestnut Hill Community Association	
23	Chestnut Hill Historical Society	
25	Chew Playground	
26	City Parks Association	
27	CityLights Network	
28	Community Action Group	
29	Community Ventures	
30	Courtesy Stables	
31	Delaware River City Corporation	
33	East Falls Community Council	
34	East Falls Tree Tenders	
35	East Kensington Neighbors Association	
36	East Mount Airy Tree Tenders	
37	East Mt. Airy Neighbors	
38	East Park Revitalization Alliance	
39	East Passyunk Crossing Civic Association	
40	East Passyunk Crossing Civic Association Beautifi...	
42	Enon Tabernacle Baptist Church	
43	Epic Adventurez	



# Edge List

Gephi 0.9.1 - Philly\_example.gephi

File Workspace Tools Window Help

Workspace 1

Appearance

Data Table

Nodes Edges Configuration Add node Add edge Search/Replace Import Spreadsheet Export table More actions Filter: Source

Source	Target	Type	Id	Label	Interval	Weight	Sender	SenderID	Receiver	ReceiverID
1	234	Directed	0			1.0	A Little Taste of... R_cvEZ5z8lfgwJK...		Broad Street Min...	NA
1	38	Directed	1			1.0	A Little Taste of... R_cvEZ5z8lfgwJK...		East Park Revitali...	R_8qyPHXjgvgvIjBrr
1	403	Directed	2			1.0	A Little Taste of... R_cvEZ5z8lfgwJK...		Mariposa Food C...	NA
1	415	Directed	3			1.0	A Little Taste of... R_cvEZ5z8lfgwJK...		Mill Creek Adviso...	NA
1	429	Directed	4			1.0	A Little Taste of... R_cvEZ5z8lfgwJK...		Nationalities Ser...	NA
1	431	Directed	5			1.0	A Little Taste of... R_cvEZ5z8lfgwJK...		Neighborhood Bi...	NA
1	125	Directed	6			1.0	A Little Taste of... R_cvEZ5z8lfgwJK...		Pennsylvania Hor...	R_aaEWRzTmNiD...
1	525	Directed	7			1.0	A Little Taste of... R_cvEZ5z8lfgwJK...		SHARE Food Pro...	NA
1	561	Directed	8			1.0	A Little Taste of... R_cvEZ5z8lfgwJK...		Teens for Good	NA
1	592	Directed	9			1.0	A Little Taste of... R_cvEZ5z8lfgwJK...		Urban Nutrition I...	NA
1	187	Directed	10			1.0	A Little Taste of... R_cvEZ5z8lfgwJK...		Weavers Way Co...	R_6JPGY8wjuuyDX...
1	603	Directed	11			1.0	A Little Taste of... R_cvEZ5z8lfgwJK...		West Philadelphi...	NA
3	226	Directed	12			1.0	African America... R_bloYXRDEd6X9...		Blues Babe Foun...	NA
3	322	Directed	13			1.0	African America... R_bloYXRDEd6X9...		Frater Heru Insti...	NA
3	349	Directed	14			1.0	African America... R_bloYXRDEd6X9...		Grands as Parent...	NA
3	373	Directed	15			1.0	African America... R_bloYXRDEd6X9...		Institute for Dev...	NA
3	125	Directed	16			1.0	African America... R_bloYXRDEd6X9...		Pennsylvania Hor...	R_aaEWRzTmNiD...
3	480	Directed	17			1.0	African America... R_bloYXRDEd6X9...		Philadelphia Doll ...	NA
3	504	Directed	18			1.0	African America... R_bloYXRDEd6X9...		Public Interest L...	NA
3	182	Directed	19			1.0	African America... R_bloYXRDEd6X9...		Uptown Entertai...	R_0kUXpabTZFvlxUp
3	625	Directed	20			1.0	African America... R_bloYXRDEd6X9...		X-Offenders for ...	NA
3	628	Directed	21			1.0	African America... R_bloYXRDEd6X9...		Youth and Self-E...	NA
4	615	Directed	22			1.0	American Legio... R_5p67fRbjGggh...		Wissinoming Civi...	NA
6	200	Directed	23			1.0	Audubon Penns... R_025usXGde9F...		Academy of Natu...	NA
6	206	Directed	24			1.0	Audubon Penns... R_025usXGde9F...		American Bird C...	NA
6	258	Directed	25			1.0	Audubon Penns... R_025usXGde9F...		Cobbs Creek Env...	NA
6	277	Directed	26			1.0	Audubon Penns... R_025usXGde9F...		Delaware Valley ...	NA
6	38	Directed	27			1.0	Audubon Penns... R_025usXGde9F...		East Park Revitali...	R_8qyPHXjgvgvIjBrr
6	302	Directed	28			1.0	Audubon Penns... R_025usXGde9F...		Fairmount Park F...	NA
6	404	Directed	29			1.0	Audubon Penns... R_025usXGde9F...		Master Naturalist...	NA
6	423	Directed	30			1.0	Audubon Penns... R_025usXGde9F...		Morris Arboretum	NA
6	457	Directed	31			1.0	Audubon Penns... R_025usXGde9F...		Other	NA
6	458	Directed	32			1.0	Audubon Penns... R_025usXGde9F...		Outward Bound	NA
6	125	Directed	33			1.0	Audubon Penns... R_025usXGde9F...		Pennsylvania Hor...	R_aaEWRzTmNiD...
6	530	Directed	34			1.0	Audubon Penns... R_025usXGde9F...		Smith Playground	NA

Task View

Nodes: 1168  
Edges: 733  
Directed Graph

Network Overview

- Average Degree
- Avg. Weighted Degree
- Network Diameter
- Graph Density
- HITS
- Modularity
- PageRank
- Connected Component

Node Overview

- Avg. Clustering Coefficient
- Eigenvector Centrality

Edge Overview

- Avg. Path Length

Dynamic

- # Nodes
- # Edges
- Degree
- Clustering Coefficient




# Networks

The background image shows an outdoor garden setting. In the upper center, a person wearing a bright yellow safety vest and dark pants is walking away from the camera, carrying two black buckets. In the lower right, a person in a blue hoodie and white gloves is kneeling on the ground, working with a small plant. Several orange rectangular markers are placed on the ground around the plants. A chain-link fence and trees are visible in the background.

- Pull networks questions from survey responses
- Standardize group names
- Assign a unique number to each group
- Create node list and edge list for Gephi software
- Load node list and edge list into Gephi
- Experiment with visualizations
- Take a screen shot or export as .svg file




# Networks Cleaning



- Philadelphia Horticultural Society
  - PHS
  - P.H.S.
  - Phil. Hort. Soc.
- 
- All are the same organization
  - Pick one format and apply to all



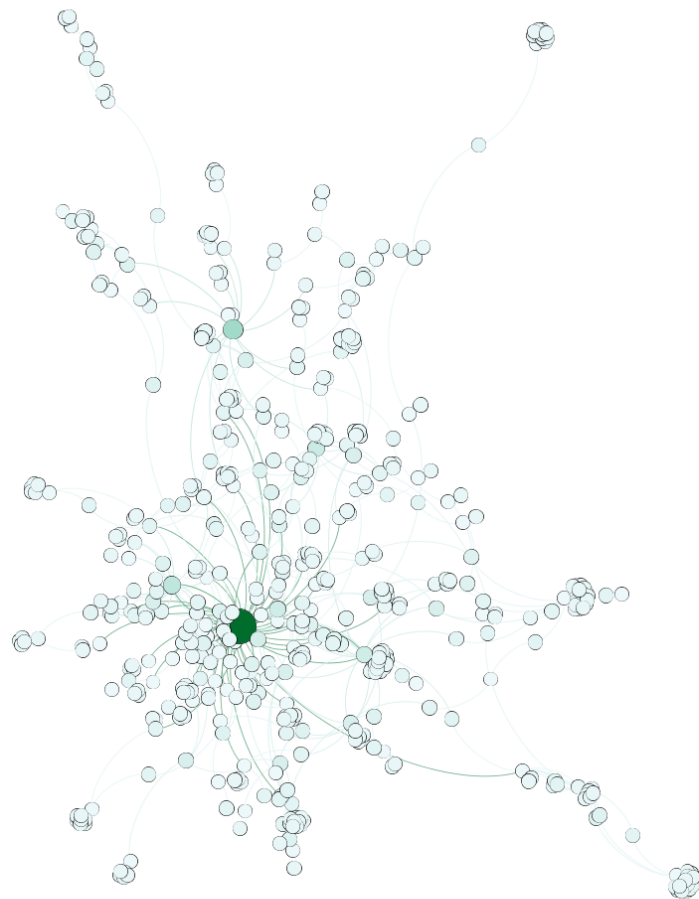


<b>OrgName</b>	<b>Cleaned_OrgName</b>
Philadelphia Horticultural Society	Philadelphia Horticultural Society
PHS	Philadelphia Horticultural Society
P.H.S.	Philadelphia Horticultural Society
Phil. Hort. Soc.	Philadelphia Horticultural Society



# Presenting results

Philadelphia  
stewardship  
network









# Mapping Where Groups Work

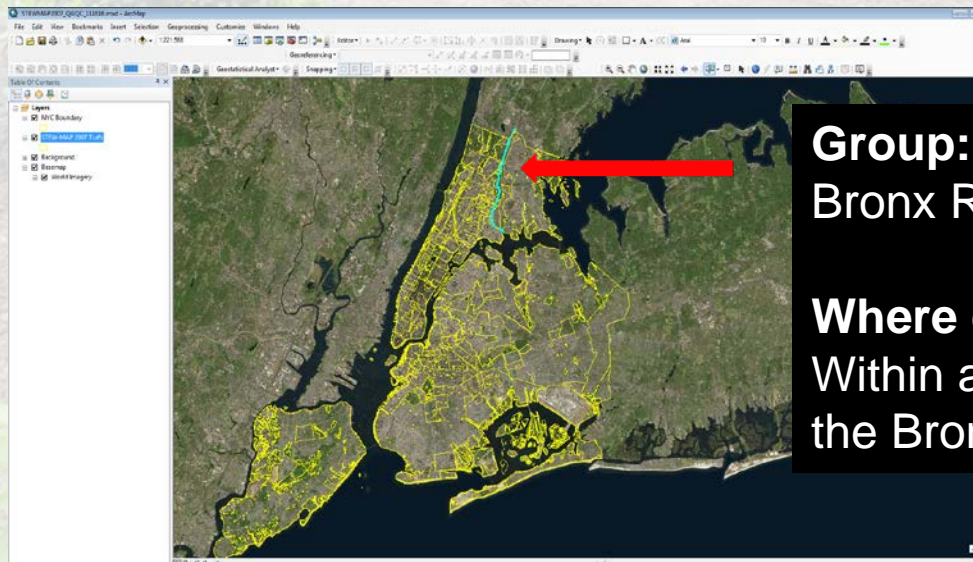
- What is a turf?
- NYC examples





# What is a Turf?

- A polygon that represents where a group stewards the local environment
- Can be large or small
- Turf = group's activity area



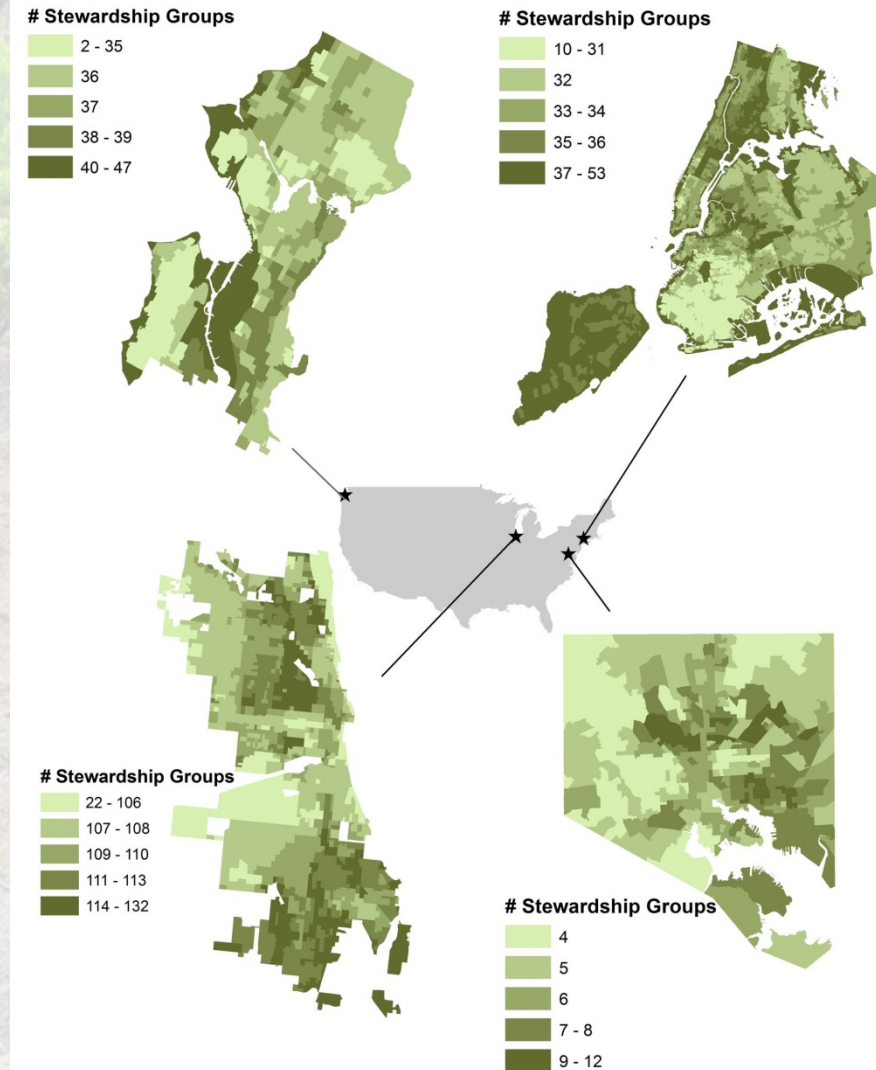
**Group:**  
Bronx River Alliance

**Where do they work?**  
Within and along the banks of  
the Bronx River



# Stacking “Turfs”

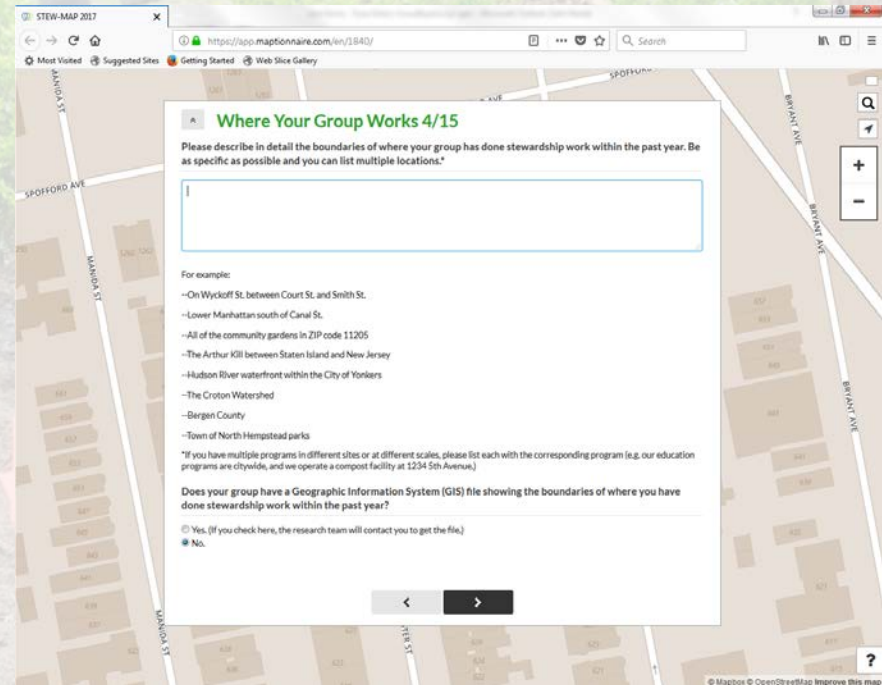
- Areas with lots of groups?
- Areas with few groups?
- Are there any gaps?
- What explains the spatial pattern at multiple scales?





# Mapping Turfs from Survey Descriptions

- Building a Spatial database
  - Qualitative descriptions of street boundaries, park names, watersheds, building addresses, etc.
- Line up with existing GIS datasets to map where groups work



The screenshot shows a web browser window displaying a survey form titled "Where Your Group Works 4/15". The form is overlaid on a map of a residential street grid. The form contains a text input field for describing stewardship work boundaries, a list of example locations, and a question about having a GIS file.

**Where Your Group Works 4/15**

Please describe in detail the boundaries of where your group has done stewardship work within the past year. Be as specific as possible and you can list multiple locations.\*

For example:

- On Wyckoff St. between Court St. and Smith St.
- Lower Manhattan south of Canal St.
- All of the community gardens in ZIP code 11205
- The Arthur Kill between Staten Island and New Jersey
- Hudson River waterfront within the City of Yorkers
- The Croton Watershed
- Bergen County
- Town of North Hempstead parks

\*If you have multiple programs in different sites or at different scales, please list each with the corresponding program (e.g. our education programs are citywide, and we operate a compost facility at 1234 5th Avenue.)

Does your group have a Geographic Information System (GIS) file showing the boundaries of where you have done stewardship work within the past year?

Yes. (If you check here, the research team will contact you to get the file.)

No.



PopID	Group name (required)	Where does your group work?
470	jackson-forest community gardeners	Within zip code 10456

STEW12112017 - ArcMap

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

Identify

Identify from: Top-most layers

citywide\_DPR\_Zipcodes\_project

BRONX

Location: 591,925.268 4,520,841.004 Meters

Field	Value
FID	62
Shape	Polygon
OBJECTID	63
citywide_D	29933452.5906
PERIMETER	30925.04396
ZIPCODES_	64
ZIPCODES_I	14
ZIP	10456
PO_NAME	BRONX
STATE	NY
COUNTY	Bronx
ST_FIDC	76

Identified 1 feature

FID	Shape	Id	Respo	Locatio	Source	Editor	EditorComm	RevDate	Ancillary	Turf	Orgname
59	Polygon	0	434	NYC	Description	RBU	C&P	12/7/2017	QN_PLUTO	2	Woodside Resident Green 7 Beautification Com
60	Polygon	0	458	NYC	Description	RBU	C&P from QN_PLUTO "Queens Library"	12/7/2017	QN_PLUTO	2	Friends of Woodhaven Library
61	Polygon	0	461	NYC	Description	RBU	C&P from QN_PLUTO "Britton Avenue Realty"	12/7/2017	QN_PLUTO	2	Little Friends School Elmhurst
65	Polygon	0	470	NYC	Description	RBU	C&P from Citywide_DPR_Zipcodes	12/11/2017	DPR_Zipcodes	2	Jackson-Forest Community Gardeners
62	Polygon	0	471	NYC	Description	RBU	C&P from ParksGISLayer	12/7/2017	ParksGISLayer	2	The Queen Elizabeth II September 11th Garden
63	Polygon	0	474	NYC	Description	RBU	Traced to Citywide_Sidewalks & StreetCenterlines	12/7/2017	Citywide_StreetCenterlines_ & Citywide	2	9BC Tompkins Sq Block Association
64	Polygon	0	476	NYC	Description	RBU	C&P from ParksGISLayer	12/7/2017	ParksGISLayer	2	Sutton Place Parks Conservancy
67	Polygon	0	477	NYC	Description	RBU	Traced to Citywide_sidewalks	12/11/2017	citywide_sidewalks	2	The Boiler Group

Number of features selected: 2

594200.69 4520692.837 Meters



PopID	Group name (required)	Where does your group work?
433	KISSENA PARK CIVIC ASSOCIATION INC	Kissena Park, bordered by Rose Ave, 164th Street, Booth Memorial Ave, Kissena Blvd.

STEW12112017 - ArcMap

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

Drawing Editor

Identify

Identify from: < Top-most layer >

- ParksGIS\_DPR\_Property\_project
  - Kissena Park

Location: 600,902.715 4,511,175.682 Meters

Id	Respo	Locatio	Source	Editor	EditorComm	RevDate	Ancillary
0	432	NYC	Description	RBU	Copy and Pasted from BK_Pluto	12/7/2017	BK_Pluto
0	433	NYC	Description	RBU	DELETETraced Org's mapped Turf from website. DELETE	12/7/2017	Citywide_streetcenterlines
0	433	NYC	Description	RBU	Copy & pasted from ParksGIS. Traced to description boundary	12/7/2017	ParksGIS_Layer
0	434	NYC	Description	RBU	C&P	12/7/2017	QN_PLUTO
0	458	NYC	Description	RBU	C&P from QN_PLUTO "Queens Library"	12/7/2017	QN_PLUTO
0	461	NYC	Description	RBU	C&P from QN_PLUTO "Britton Avenue Realty"	12/7/2017	QN_PLUTO
0	470	NYC	Description	RBU	C&P from Citywide_DPR_Zipcodes	12/11/2017	DPR_Zipcodes
0	471	NYC	Description	RBU	C&P from ParksGISLayer	12/7/2017	ParksGISLayer
0	474	NYC	Description	RBU	Traced to Citywide_Sidewalks_ & StreetCenterlines	12/7/2017	Citywide_Streetcenterlines_ & Citywide



PopID

477

Group name  
(required)

The Boller Group

Where does your group  
work?

We have cleaned,  
removed trash, planted  
daffodils, mulched and  
planted flowers in public  
tree pits for the past 3  
years. The areas  
covered are 35& 3600  
blocks on Boller Avenue.  
2000 block Needham  
Avenue. On Boston  
Road between Palmer  
Avenue and Eli Avenue.  
These locations are in  
the North East Bronx.

STEW12112017.mxd - ArcMap

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

Table Of Contents

- Citywide.gdb
  - citywide\_DPR\_Zipcodes
  - citywide\_DPR\_Subway\_L
  - citywide\_DPR\_StreetCen
  - citywide\_DPR\_Cemeterie
  - citywide\_DPR\_Sidewalk
  - nymta\_project
  - ParksGIS\_DPR\_Property\_proj
  - NY\_Water\_Coast
  - XVBRooklyn\_2015\_StreetTre
  - PLUTO
    - BKMapPLUTO\_18N
    - BXMapPLUTO\_18N
    - MNMapPLUTO\_18N

Table

FID	Shape *	OBJECTID	MODIFIED	NAME	VSAM	SOURCEDATE	SOURCETYPE	SOURCE_ID	BOROUGH	FEAT_CODE	FEAT_DESC	EXPORTED	Shape_Leng
14829	Polyline	14830	5/28/2001	E 161 ST	22475	3/31/1996	Photogrammetric	17221	The Bronx	2900	Paved Road	05/19/2004	209.58942
14830	Polyline	14831	5/28/2001	E 159 ST	22465	3/31/1996	Photogrammetric	17222	The Bronx	2900	Paved Road	05/19/2004	363.584532
14831	Polyline	14832	5/28/2001	BROOK AV	21136	3/31/1996	Photogrammetric	17224	The Bronx	2900	Paved Road	05/19/2004	335.153421
14832	Polyline	14833	4/11/2001	ST ANNS AV	26216	3/31/1996	Photogrammetric	17225	The Bronx	2900	Paved Road	05/19/2004	760.088086
14833	Polyline	14834	6/12/2003	BROOK AV	21136	3/28/2002	Photogrammetric	17226	The Bronx	2900	Paved Road	05/19/2004	241.097762
14834	Polyline	14835	6/12/2003	E 156 ST	22450	3/28/2002	Photogrammetric	17227	The Bronx	2900	Paved Road	05/19/2004	256.150249
14835	Polyline	14836	8/7/2001	3 AV	27080	3/28/2002	Photogrammetric	17228	The Bronx	2900	Paved Road	05/19/2004	244.987504
14836	Polyline	14837	3/11/2004	E 162 ST	22480	3/28/2002	Photogrammetric	17229	The Bronx	2900	Paved Road	05/19/2004	446.349126
14837	Polyline	14838	5/28/2001	E 161 ST	22475	3/28/2002	Photogrammetric	17230	The Bronx	2900	Paved Road	05/19/2004	326.070017
14838	Polyline	14839	6/12/2003	ST ANNS AV	26216	3/28/2002	Photogrammetric	17232	The Bronx	2900	Paved Road	05/19/2004	455.82651
14839	Polyline	14840	5/28/2001	EAGLE AV	22032	3/31/1996	Photogrammetric	17233	The Bronx	2900	Paved Road	05/19/2004	517.34102
14840	Polyline	14841	5/28/2001	E 156 ST	22450	3/31/1996	Photogrammetric	17235	The Bronx	2900	Paved Road	05/19/2004	287.080055

Number of features selected: 4

4525673.982 Meters

1:54 PM 12/11/2017



STEW12112017.mxd - ArcMap

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

Table Of Contents

- citywide\_DPR\_Sidewalk\_
- nynta\_project
- ParksGIS\_DPR\_Property\_proj
- NY\_Water\_Coast
- XVBRooklyn\_2015\_StreetTree
- PLUTO
  - BKMapPLUTO\_18N
  - BKMapPLUTO\_18N
  - MNMapPLUTO\_18N
  - QNMMapPLUTO\_18N
  - SIMMapPLUTO\_18N
- Basemap
  - World Imagery
  - StewPoly1212017\_rbu

Table

StewDescrip1212017\_rbu

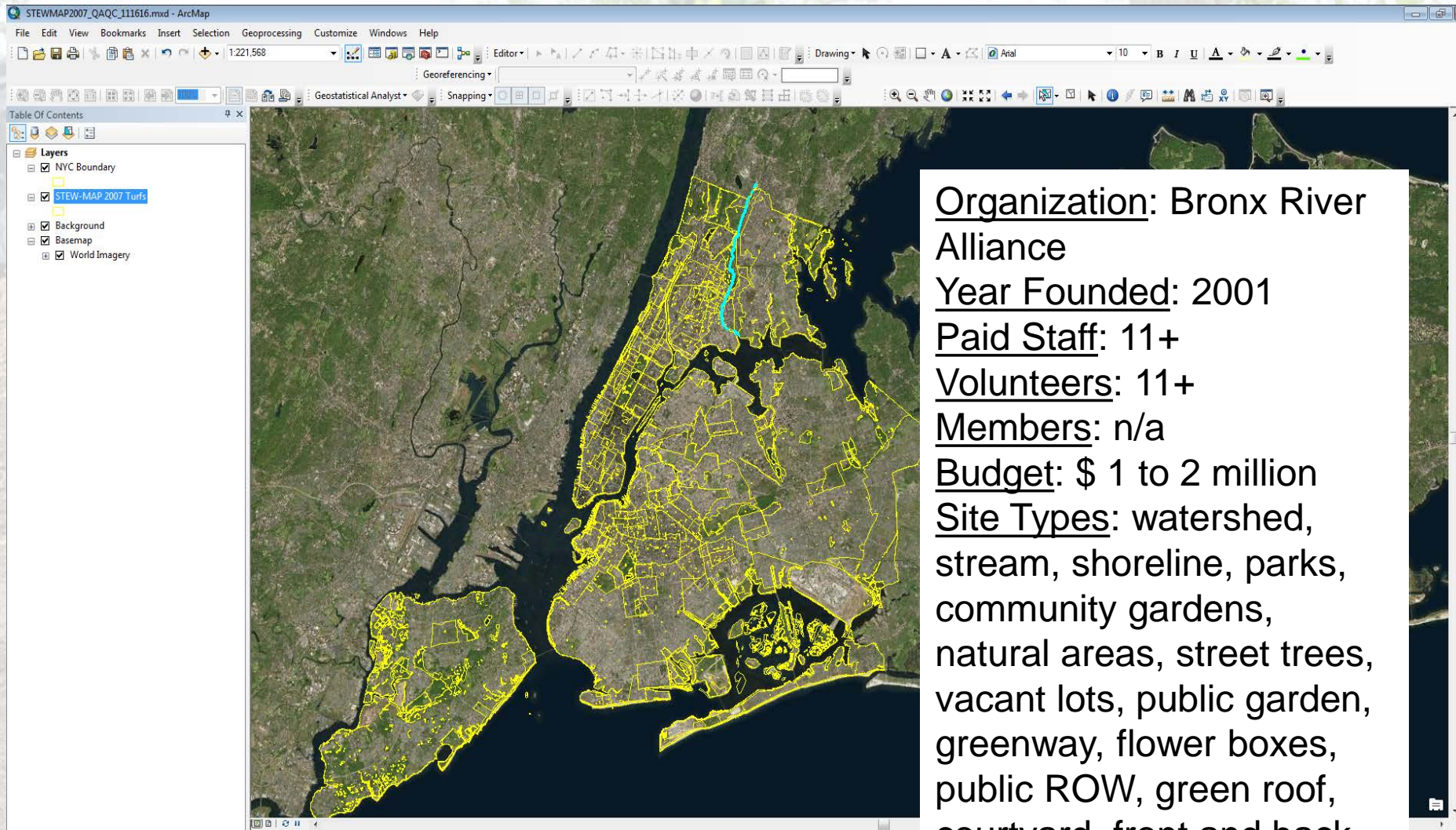
Description	Source	Editor	EditorComm	RevDate	Ancillary	Turf	Orgname	Edits_perf	Web	Finished
Description	RBU	C&P		12/7/2017	QN_PLUTO	2	Woodside Resident Green 7 Beautification Com	C&P	Googlemaps, http	Y
Description	RBU	C&P from QN_PLUTO "Queens Library"		12/7/2017	QN_PLUTO	2	Friends of Woodhaven Library	C&P	Googlemaps "wo	Y
Description	RBU	C&P from QN_PLUTO "Britton Avenue Realty"		12/7/2017	QN_PLUTO	2	Little Friends School Elmhurst	C&P	Googlemaps	Y
Description	RBU	C&P from ParksGISLayer		12/7/2017	ParksGISLayer	2	The Queen Elizabeth II September 11th Garden	C&P	googlemaps	Y
Description	RBU	Traced to Citywide_Sidewalks, & StreetCenterlines		12/7/2017	Citywide_Streetcenterlines	2	9BC Tompkins Sq Block Association	Traced		Y
Description	RBU	C&P from ParksGISLayer		12/7/2017	ParksGISLayer	2	Sutton Place Parks Conservancy	C&P		Y
Description	RBU	C&P from Citywide_DPR_Zipcodes		12/11/2017	DPR_Zipcodes	2	Jackson-Forest Community Gardeners	C&P		Y
Description	RBU	Copy & pasted from ParksGIS		12/7/2017	ParksGIS Layer	2	Kisena Park Civic Association	C&P	http://www.neigh	N
Description	RBU	Traced to Citywide_sidewalks		12/11/2017	citywide_sidewalks	2	The Boller Group			N

68 (1 out of 68 Selected)

StewPoly1212017\_rbu | StewDescrip1212017\_rbu | BKMapPLUTO\_18N | citywide\_DPR\_Zipcodes\_project | citywide\_DPR\_StreetCenterline

507871 764 1576160 326 Meters





Organization: Bronx River Alliance

Year Founded: 2001

Paid Staff: 11+

Volunteers: 11+

Members: n/a

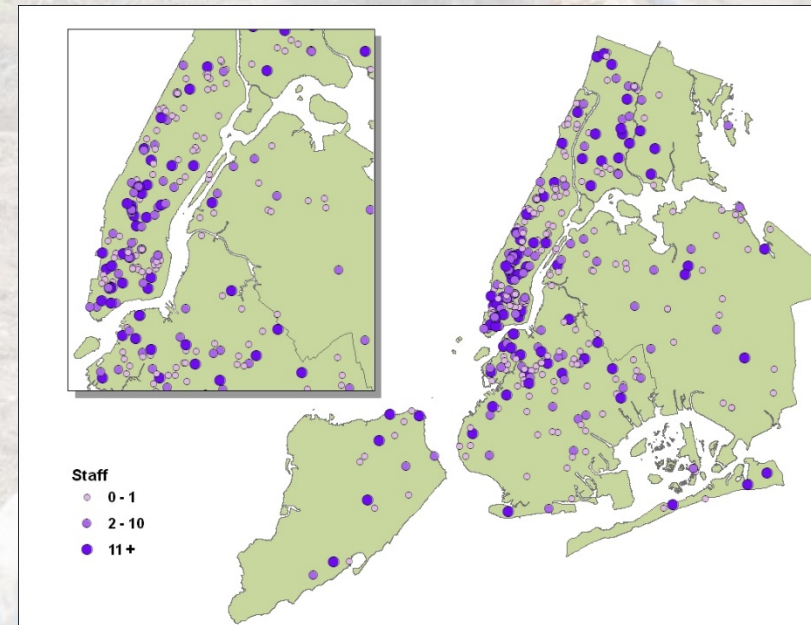
Budget: \$ 1 to 2 million

Site Types: watershed, stream, shoreline, parks, community gardens, natural areas, street trees, vacant lots, public garden, greenway, flower boxes, public ROW, green roof, courtyard, front and back yards



# Presenting results

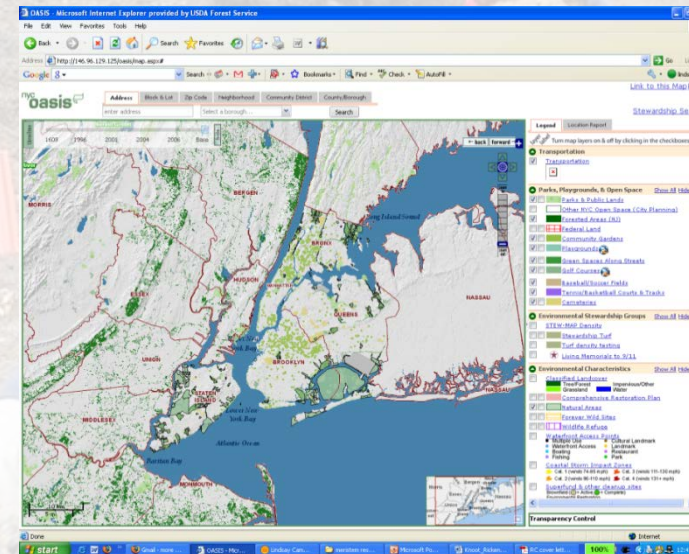
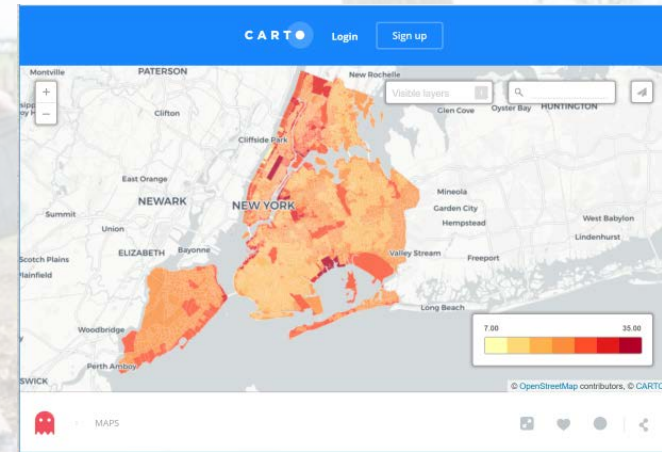
- Static maps
- Online interactive maps
- Individual turfs
- Stacked turfs
- Linked with network and organizational characteristic data
- Layered with other GIS datasets





# Presenting results

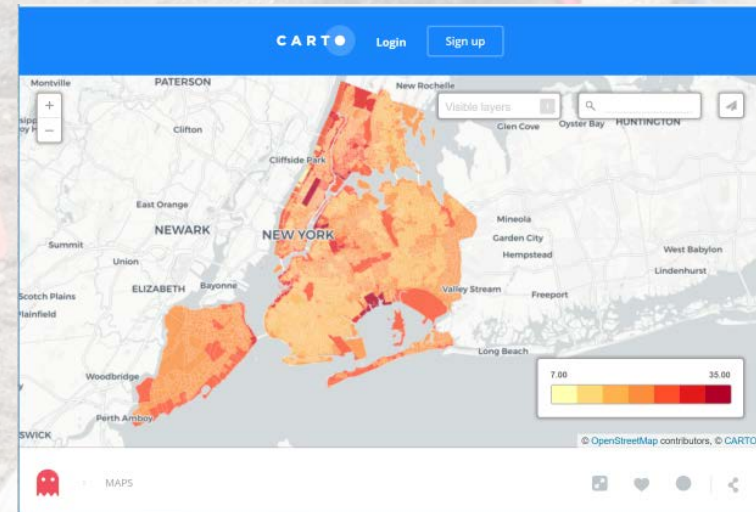
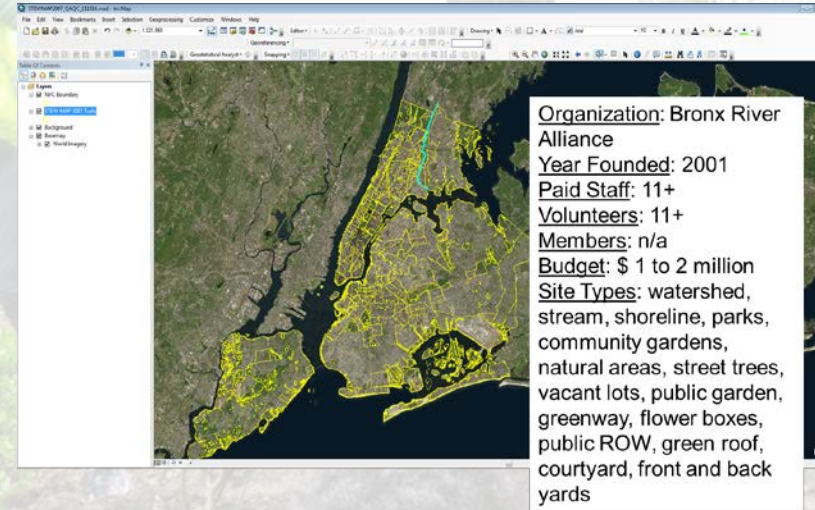
- Static maps
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# Presenting results

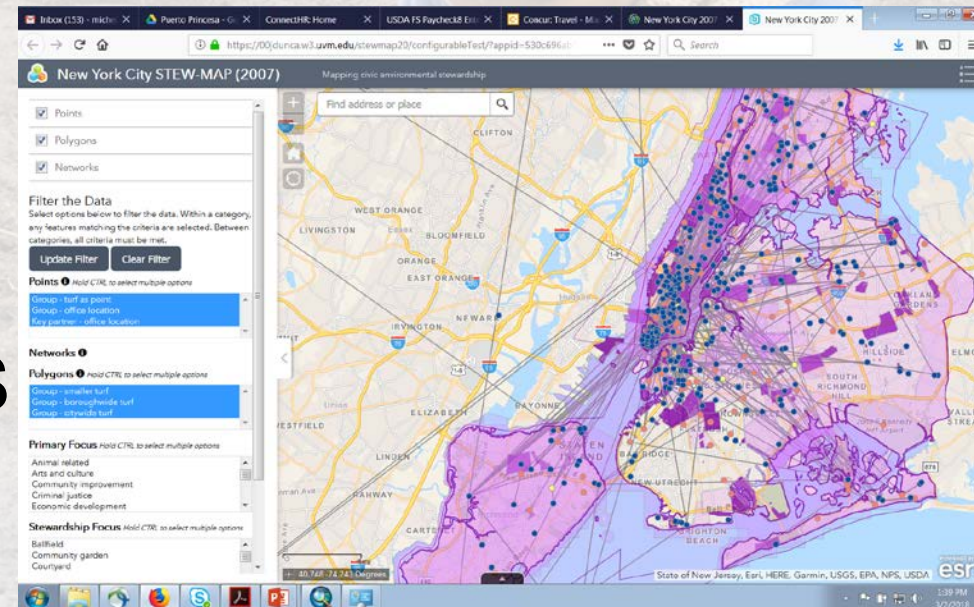
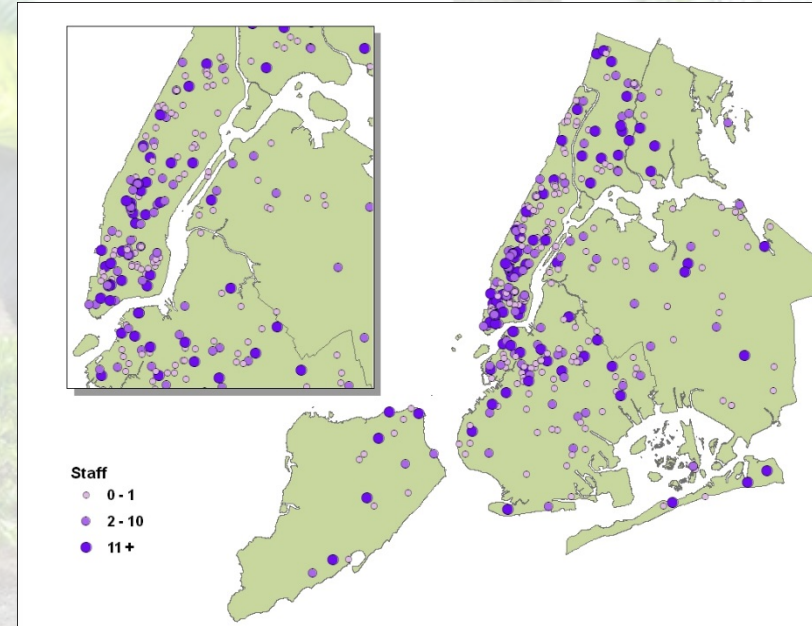
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# Presenting results

- Static maps
- Online interactive maps
- Individual turfs
- Stacked turfs
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# Products

- Database
  - GIS database
  - Networks software
  - Spreadsheets
- Infographics and fact sheets
- Reports
- Research articles
- Interactive maps
- Network diagrams
  
- Who are the products for?

STEW-MAP 2017: Greater New York City Region

What is the STEWardship Mapping and Assessment Project?

STEW-MAP is a publicly available, online stewardship database and map of civic organizations in the New York City region that work to conserve, manage, monitor, transform, advocate for, and/or educate the public about their local environments. Share your work and local knowledge with others and get on the map!



What can you learn from STEW-MAP and why should you participate?


- Answer the question: *who takes care of the New York City region? Where are there gaps and concentrations of care?*
- Assess and strengthen civic capacity and expertise across cities and towns
- Learn about where groups are working and what kind of work they are doing
- Discover emerging coalitions and alliances in your community
- Identify ways to share information, ideas and other resources with groups, nonprofits and government agencies throughout the region
- Display maps and diagrams of civic environmental action in your city and town

The 2017 map expands beyond NYC to include environmental nonprofits across the region – defined as the combined metropolitan statistical area

STEW-MAP 2017 timeline

- May 2017: Survey launches online to groups with known emails in NYC
- July 2017: Survey launches by mail to second wave in NYC and the region
- Fall 2017: Survey closes after 6 months
- Winter 2017: crowdsourcing groups – anyone can add their group to the map!
- 2018: Updated STEW-MAP data available online

STEW-MAP is a program of the US Forest Service, in partnership with the City of New York  
Background: <https://www.nrs.fs.fed.us/stewmap>  
2007 map: <https://www.ciisnyc.net/stewardship/stewardshipsearch.asp>



*Environmental Politics*  
Vol. 21, No. 1, February 2012, 26–48



**The organisational structure of urban environmental stewardship**  
Dana R. Fisher<sup>a\*</sup>, Lindsay K. Campbell<sup>b</sup> and Erika S. Svendsen<sup>b</sup>

<sup>a</sup>Department of Sociology, University of Maryland, College Park, MD, USA; <sup>b</sup>USDA Forest Service, Northern Research Station, New York, NY, USA

How is the organisational structure of urban environmental stewardship groups related to the diverse ways that civic stewardship is taking place in urban settings? The findings of the limited number of studies that have explored the organisational structure of civic environmentalism are combined with the research on civic stewardship to answer this question. By bridging these relatively disconnected strands of research and testing



Thank you!



[https://www.nrs.fs.fed.us/nyc/focus/stewardship\\_mapping/](https://www.nrs.fs.fed.us/nyc/focus/stewardship_mapping/)

<https://www.nrs.fs.fed.us/urban/monitoring/stew-map/>