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Stewardship mapping and assessment project: a framework for understanding community-based environmental stewardship

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Stewardship Mapping and Assessment Project: A Framework for Understanding Community-Based Environmental Stewardship

Abstract

The Stewardship Mapping and Assessment Project (STEW-MAP) is designed to answer who, where, why, and how environmental stewardship groups are caring for our urbanized landscapes. This report is intended to be a guide for those who wish to start STEW-MAP in their own city. It contains step-by-step directions for how to plan and implement a STEW-MAP project. STEW-MAP is both an empirical study of a city's or region's civic environmental stewardship resources and a publicly available online database to help support environmental stewardship broadly in these cities. The project adds a social layer of information to biophysical and urban geographic information on green infrastructure in cities. STEW-MAP highlights existing stewardship gaps and overlaps in order to strengthen organizational capacities, enhance citizen monitoring, promote broader public engagement with on-the-ground environmental work, and build effective partnerships among stakeholders involved in urban sustainability.

Quality Assurance

Cover Photos

Clockwise from top left: community gardeners at plant giveaway in New York City. Top right: volunteers wheel woodchips during a Chicago Wilderness Corporate Council Day of Service, photo courtesy of Chicago Wilderness. Center right: steward of a 9/11 memorial garden in the streetscape. Lower right: front yard gardener in Brooklyn, NY. Lower left: volunteers at a MillionTreesNYC planting, photo courtesy of Malcolm Pinckney, NYC Parks. Center left: participants learn about urban bird behavior in a Loyola Marymount University urban ecology professional development workshop in Los Angeles, photo by Michele Romolini. All other photos by U.S. Forest Service.

Stewardship Mapping and Assessment Project: A Framework for Understanding Community-Based Environmental Stewardship

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EXECUTIVE SUMMARY

The Stewardship Mapping and Assessment Project (STEW-MAP) is a U.S. Forest Service national research program designed to answer the questions: *Who are the active environmental stewardship groups in my area and where, why, and how are they caring for the land?*

STEW-MAP studies a city's or region's environmental stewardship regime, creating publicly available maps and databases to help support community development. The project adds a social layer of information to biophysical information on green infrastructure in metropolitan areas.

STEW-MAP captures environmental stewardship through a combination of methods that includes an organizational survey to identify organizational characteristics, mapping the geographic area of influence, and depicting the social networks with other civic, private, and governmental organizations.

STEW-MAP defines a "stewardship group" as a civic organization or group that works to conserve, manage, monitor, advocate for, and/or educate the public about their local environments.

Where has STEW-MAP been implemented?

Initially a New York City project, STEW-MAP has grown into a multi-city research program. To date, the project has been replicated in Baltimore, the Chicago region, and Seattle. Studies are underway in Los Angeles, Philadelphia, and San Juan, PR. Atlanta, Boston, and Washington, D.C., are also interested in conducting STEW-MAP studies. The original New York City STEW-MAP was developed by a team of Forest Service and university researchers working with dozens of municipal agencies and citywide environmental nonprofits who identified a need to create a common database and map.

Why is STEW-MAP important?

Long-term community-based natural resource stewardship can help support and maintain our investment in green infrastructure and urban restoration projects. STEW-MAP databases and interactive maps enable the public, municipal agencies, and nonprofits to visualize where and how hundreds of civic environmental stewardship groups are working throughout a city or region. Custom downloads of STEW-MAP data have been used by local government and civic organizations in support of policymaking and natural resource management activities. Network analyses of these groups show the connections between civic environmental actors and identify important stewardship nodes within the network. Analysis of where stewardship is or is not taking place highlights opportunities or issues to address in meeting local conservation goals.

INTRODUCTION

The Stewardship Mapping and Assessment Project (STEW-MAP) is a U.S. Forest Service national research program designed to answer the questions: *Who are the active environmental stewardship groups in my area and where, why, and how are they caring for the land?*

STEW-MAP uses respondent survey data both to empirically study a city's or region's civic environmental stewardship regime and to create publicly available online resources (maps and databases) to help support community development. The project adds a social layer of information to biophysical and urban geographic information on green infrastructure in metropolitan areas. STEW-MAP highlights existing stewardship gaps and overlaps in order to strengthen organizational capacities, enhance citizen monitoring, promote broader public engagement with on-the-ground environmental work, and build effective partnerships among stakeholders involved in urban sustainability. As funding support for green infrastructure fluctuates, it is important to cultivate long-term, community-based natural resource stewardship because it can maintain a consistency and coherence to natural resource management. STEW-MAP creates a framework to connect potentially fragmented stewardship groups and to measure, monitor, and maximize the contribution of our civic resources. This has become increasingly important in an urbanizing world where many cities have launched sustainability initiatives.

> **The Stewardship Mapping and Assessment Project (STEW-MAP) is a U.S. Forest Service national research program.**

STEW-MAP defines a "stewardship group" as a civic organization or group that works to conserve, manage, monitor, advocate for, and/ or educate the public about their local environments. This work includes efforts that involve water, forests, land, air, waste, toxics, and energy. Many civic stewardship groups work within, alongside, or independent of public agencies and private businesses in managing urban places.

To date, STEW-MAP researchers have collected information from thousands of local stewardship groups. These groups include neighborhood block associations, kayak clubs, tree planting groups, community gardeners, regional environmental coalitions, nonprofit educational institutions, and museums. Initially a New York City project, STEW-MAP has grown into a multi-city research program. To date, the project has been replicated by U.S. Forest Service researchers in Baltimore, the Chicago region, and Seattle. Studies are underway in Los Angeles and Philadelphia. Other cities, including San Juan, Puerto Rico; Atlanta; Boston; and Washington, D.C., are also interested in conducting STEW-MAP studies. The original New York City (NYC) STEW-MAP was developed by a team of Forest Service and university researchers working with dozens of municipal agencies and citywide environmental nonprofits who identified a need to create a common database and map. Other STEW-MAP initiatives have continued this emphasis on partnerships: see appendix 1 for a list of all partners involved in STEW-MAP to date.

What Does STEW-MAP Show?

Stewardship maps can tell you about the presence, capacity, geographic turf, and social networks of environmental stewardship groups in a given city or region (Fig 1). For the first time, these social infrastructure data are treated as part of green infrastructure asset mapping. For example, the interactive mapping website developed in NYC currently displays data for hundreds of groups citywide alongside other open space data layers. Chicago's STEW-MAP data are also available online at stewmap.cnt.org, allowing stewardship groups to find others working near them and/or working on similar issues. Other STEW-MAP projects continue to expand the NYC model and have created new maps and resources for their cities.

Why is STEW-MAP Important?

STEW-MAP can highlight existing stewardship gaps and overlaps (Fig. 2) in order to strengthen organizational capacities, enhance citizen monitoring, promote broader civic engagement with on-the-ground environmental projects, and build effective partnerships among stakeholders involved in urban sustainability. Long-term community-based natural resource stewardship can help support and maintain investments in green infrastructure and urban restoration projects. To maximize these benefits, STEW-MAP creates a framework to connect potentially fragmented stewardship groups with the ultimate goal of optimizing the contribution of our civic organizations towards urban natural resources stewardship.

STEW-MAP databases and interactive maps enable the public, municipal agencies, and nonprofits to visualize where and how hundreds of civic environmental stewardship groups are working throughout a city or region, which informs natural resource management, policymaking, and public outreach. Custom downloads of STEW-MAP data have been used by local government and civic organizations in support of policymaking and natural resource management activities. Network analyses of these groups for each city or region shows the

Figure 1.—Map created to visualize social infrastructure by showing the location of civic stewardship group offices in New York City.
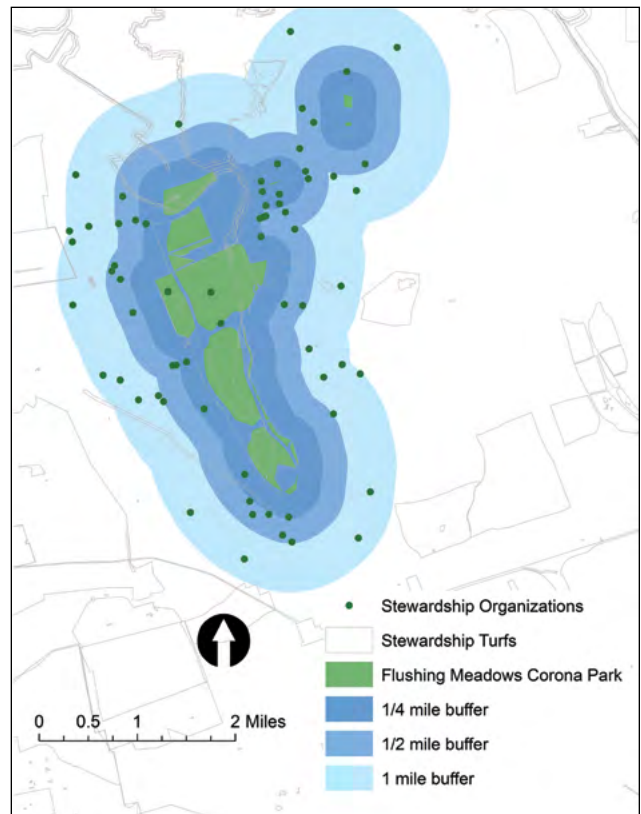

Figure 2.—Map created for natural resource managers of stewardship groups proximate to Flushing Meadows Park in Queens, NY.

connections between civic environmental actors and identifies important stewardship nodes within the network. Analysis of where stewardship is or is not taking place in a city or region highlights opportunities or issues to address in meeting local conservation goals.

Who can use STEW-MAP?

STEW-MAP is a tool for natural resource managers, funders, policymakers, educators, stewardship groups, and the public. For example, managers in NYC have queried STEW-MAP to find stewardship groups working near specific forest restoration projects run by MillionTreesNYC, a public-private tree-planting initiative. Funders or community organizers can also identify areas with the largest presence of stewardship groups, given organization size and focus area. Policymakers wishing to disseminate policy information can select the most connected groups from the STEW-MAP database using social network analysis. Members of the public who want to know who is working in a particular neighborhood or who can provide technical resources for a project can search the database, which displays results as a list or on a map.

What makes STEW-MAP unique?

At present, no natural resource agency or organization is collecting and distributing comprehensive civic stewardship data at the local level. STEW-MAP aims to fill this gap. Four features make STEW-MAP unique. First, STEW-MAP uses a broad definition of stewardship—conserving, managing, caring for, monitoring, advocating for, and educating the public about local environments—and invites participation from all types of environmental stewards, not just those who are formally trained, work with nonprofit groups, or focus on a specific type of stewardship activity. Second, STEW-MAP collects very specific geographic data about where stewardship groups work (i.e., stewardship polygons, not points) which is

> **STEW-MAP is unique in that it collects and distributes civic stewardship data.**

important for coordinating management of open spaces and the delivery of ecosystem services from natural areas. Third, STEW-MAP collects social network data from respondents in order to characterize the flow of information, funding, and collaboration among stewardship groups in a city or region. Once network, geospatial, and organizational data are established, they can then be studied over time to reveal important changes or patterns in your stewardship community. Finally, the STEW-MAP survey and related data analysis are scientifically rigorous and are guided and informed by an extensive literature review on urban environmental stewardship.

What is in this report?

This report is intended to be a guide for those who wish to start STEW-MAP in their own city. First, we present a brief conceptual introduction, grounded in literature about social-ecological systems, stewardship, and civic environmentalism. Second, we offer guidance for how to apply a stewardship framework in your own area of interest and implement a STEW-MAP project. Third, the results section provides research findings and public applications from the several cities that have completed STEW-MAP projects to date: New York City, Baltimore, Chicago, Seattle, and Philadelphia. The conclusions section describes lessons learned by the original STEW-MAP cohort to inform future cities' efforts. The appendixes list project partners (appendix 1) and provide a full set of survey protocols (appendix 2) and outreach materials (appendixes 3 and 4).

WHAT IS STEWARDSHIP AND WHY IS IT IMPORTANT?

Cities as Social-Ecological Systems

As of 2010, over three-quarters of the U.S. population and half of the world's population live in cities (UN 2010). Increasing urbanization contributes to significant consumption of resources, sprawling land use patterns, loss of native species, and reduced ecosystem services (Folke et al. 1997, McKinney 2002). However, dense urban areas can also be a source of environmental solutions through dense settlement patterns, information flow, and social innovation (Bettencourt and West 2011, Glaeser and Kahn 2008, Grimm et al. 2008, Grove 2009, Owen 2009).

> **Urban areas can be a source of environmental solutions through dense settlement patterns, information flow, and social innovation.**

Making measurable improvements in the environment and the quality of people's lives requires innovative research to understand the complex interactions among components of an urban system. One framework used to facilitate such studies is the combination of ecological and social theories and perspectives into the study of social-ecological systems. Our thinking about integrated social and ecological systems emerged from the field of social ecology and, in particular, the two urban long-term ecological research (LTER) sites, one in Baltimore, MD (USA), the other in Phoenix, AZ (USA). Historically, theories and models from ecology have treated humans as outside of the ecosystem. Newer frameworks of social-ecological systems and coupled human and natural systems consider the components as fundamentally intertwined (Liu et al. 2007, Pickett et al. 1997, Pickett and Grove 2009). The Human Ecosystem Framework examines critical resources that include biophysical, socioeconomic, and cultural resources. It also examines the flows between critical resources and the social system, which includes institutions, norms, and cycles of change (Machlis et al. 1997). The coupled human and natural systems framework draws upon concepts from complexity theory such as emergent properties, vulnerability, thresholds, and resilience to examine how human and natural systems interact across time and space (Liu et al. 2007). Ostrom and others have expanded upon the institutional aspects of social-ecological systems by integrating them with Institutional Analysis and Development concepts (Anderies and Ostrom 2004). Emerging from these different streams of thought about social and ecological systems is an attention to time, space, and scale, specifically, the governance of cities, including how individuals and organizations (public, private, and civic) work in networks to create and manage the urban environment through acts of environmental stewardship.

Stewardship Organizations

Urban environmental stewards conserve, manage, monitor, and advocate for the local environment; they also educate the public about the local environment (Fisher et al. 2007). Individuals form groups to care for their local environment for many reasons. STEW-MAP is primarily interested in the type of stewardship that is often voluntary and conducted for altruistic reasons (Bramston et al. 2011, Geist and Galatowitsch 1999, Head and Muir 2006, Stevens 1996, Westphal 1993). These types of groups are critical as parks departments and other land management and natural resources agencies are forced to "do more with less" as they compete for public funds alongside other essential agencies and worthwhile expenditures. At the same time, open space in most cities and urbanized areas is heterogeneous, resulting in a high demand for specialized stewardship activities that are tailored to particular neighborhood and/or site types including parks, gardens, farms, bioswales, greenways, and green roofs.

Research on "civic stewardship" focuses on how locally based groups across the United States have responded to public problems by working along with, and outside of, government agencies and the private business sector (see particularly Fisher et al. 2012, Fisher et al. 2015, John 1994, Sirianni 2006, Sirianni and Friedland 2001, Svendsen and Campbell 2008). Most environmental stewardship today consists of this type of collaborative, site-specific work. Urban stewards operate in urban parks and forest preserves (Cranz 1982, Cranz and Boland 2004, Gobster 2007, Gobster 2000, Rosenzweig and Blackmar 1992, Stevens 1996), urban gardens (Lawson 2005), urban greenways (Gobster and Westphal 2004, Svendsen 2010), and even brownfields (Westphal et al. 2010). Diverse groups have taken action to manage ecosystems, protect human and ecosystem health, and educate broader publics (Boyte 2004, Boyte 1999, Sirianni and Friedland 2001). Boyte, for example, notes a shift in the role of the public as citizens, whereby "people [see] themselves as the co-creators of democracy, not simply as customers or clients, voters, protestors, or volunteers" (Boyte 2004, p. 5). In particular, citizens have become involved in politics and decisionmaking through their actual work.

Environmental stewardship has emerged as a leading tool for communities to contribute to the sustainability of their local environments and the resilience of their communities (Svendsen et al. 2014). In the report "Everyday Choices: Opportunities for Environmental Stewardship," the U.S. Environmental Protection Agency's Innovation Action Council begins: "We believe environmental stewardship offers great potential for solving some of our most challenging problems and that it can help galvanize collaborations with a broader range of stakeholders" (US EPA 2005: i).

> **Environmental stewardship is a leading tool for communities to contribute to the sustainability of their local environments and the resilience of their communities.**

With roots that go back to the founding of the country, civic environmental stewardship today occurs at a range of scales and in a variety of forms. Civic stewards include the neighborhood block club that clears a vacant lot one garbage bagful at a time in order to create a community garden space, the environmental justice group that protests the coal-fired power plant polluting in their neighborhood, and large alliances like Chicago Wilderness and other members of the Metropolitan Greenspaces Alliance that look at regional-scale environmental issues. Civic stewardship groups work both alongside and independent of public agencies and private businesses in managing urban landscapes (Connolly et al. 2013). Local environmental groups have a diversity of organizational structures (e.g., Andrews and Edwards 2005, Salazar 1996, see also Brulle 2000). One goal of STEW-MAP is to assess the differences in the organizational structure and degree of professionalization of local environmental groups within an urban context (see Fisher et al. 2012).

Stewardship Turf: Spatial Analysis

The spatial patterns of where stewardship organizations work may be a function of organizational structure, governance, built environment, and/or ecosystem structure, among other factors. Analysis of these spatial patterns can include exploratory, descriptive, and statistical measures of the relationship between geographic entities (O'Sullivan and Unwin 2010). Because many disciplines generate geographic data, spatial analysis has the potential to serve as a point of integration—a common language of sorts—across social and ecological research (Liu et al. 2007). As an example, STEW-MAP's methods enable the comparison of stewardship groups with vegetation change, finding that increases in urban vegetation are correlated with higher numbers of stewardship groups (Locke et al. 2014, Romolini et al. 2013). It can also be used to assess environmental justice related issues in a city (Westphal

et al. 2014). Incorporating space into analyses enables identification of the areas of active stewardship. Those areas can be further classified according to the issues upon which organizations focus, such as water access, park maintenance, or garden management.

Stewardship Networks

Identifying the social networks of stewardship groups is fundamental to understanding how resources, materials, information, and knowledge flow through a stewardship system. Social Network Analysis (SNA) is a quantitative method rooted in graph theory that provides a way to visualize and analyze complex networks (Connolly et al. 2015, Wasserman and Faust 1994). A number of fields have employed SNA in the recent past and have applied it to a variety of topics, including organizations (Baldassarri and Diani 2007, Laumann and Knoke 1987, Leifeld and Haunss 2012), social media (Eagle et al. 2009, Lewis et al. 2012), and the political arena (Fisher et al. 2011, 2013; Knoke 1990; Park et al. 2011). In much of this work, SNA is used descriptively, as a way of mapping actors, issues, opinions, information, and cooperation, as well as the intersection of these. Previous work has focused on who participates in given networks, and has served as a powerful tool to orient future research on specific areas or actors in the network. Recent innovations in SNA have also made it possible to predict participation in the network, including centrality, influence, and cooperation (Lusher et al. 2012, Rand et al. 2011). In other words, these projects use SNA to determine who the most popular or influential actors or ideas are in a network, and what attributes predict their centrality.

Some SNA research is based on highly structured analyses of "complete networks," wherein all participants in a network are enumerated and surveyed, such that every tie between every actor is documented, until a complete network matrix is collected. Other SNA focuses on unbounded networks where not all potential members are identified and limited in advance. SNA can be applied qualitatively, through examination of "ego networks"— the sets of ties closely linked to a set of respondents (called "egos"), as a way to begin to visualize a component of the network that one is studying. The limitation of the latter is that researchers cannot use many of the powerful quantitative tools to understand the structure and characteristics of the total network, because they do not know the nature of ties from un-surveyed members of the network (Hanneman and Riddle 2005). Ego networks do, however, elucidate the relations and ties of the respondents in one's study, demonstrate the relative positioning of respondents, and give a sense of the local networks surrounding these respondents (Burt 2007, Marsden 1990, Scott 2000, Wellman 1979). Methods for using SNA to visualize, describe, and model social networks quantitatively and qualitatively are advancing rapidly and represent the most fluid areas of stewardship mapping. One of the key benefits to engaging with SNA for the study of stewardship is to gain a sense of those groups that are highly connected to other groups (nodes) and those that are working in isolation or with very few contacts for information and materials (isolates).

Scholars have used network analysis to examine a broad set of social and natural science questions. As Rocheleau and Roth (2007) argue, networks have served as metaphors, models, and theoretical tools within this research that has examined topics including the social networks of environmental stakeholders (Prell et al. 2009); communication patterns and resource exchange (Crona and Bodin 2006); links between social networks and resilience to climate change (Newman and Dale 2004); and organizational networks of urban civic environmental organizations (Ernstson et al. 2008). This line of inquiry is well established

for studies that examine inter-organizational dynamics. Literature in sociology and political science, for example, has looked at organizational alliances (Ansell 2003); ties among organizations that share members (Carroll and Ratner 1996, Cornwell and Harrison 2004); governance networks (Connolly et al. 2013, 2014); and the presence, structure, and effects of "civic networks"—which are defined as "the web of collaborative ties and overlapping memberships between participatory organizations, formally independent of the state, acting on behalf of collective and public interests" (Baldassari and Diani 2007: 736).

PROJECT PLANNING AND DESIGN

This section presents an introduction to how you might assess stewardship activities in your area of interest. At each stage, we present how STEW-MAP was initially implemented in NYC and then provide additional examples of how it was tailored to other cities. These variations were the result of differences in available data, resources, and research questions across cities.

Planning the Project

As with any major research or assessment project, it is important to "pencil out" the goals, objectives, necessary resources, expected deliverables, and expected timeline.

Project Lead

STEW-MAP projects have typically been executed by partnerships that include agency scientists, nonprofit organizations, university researchers and technical staff, and local government staff.

Using the protocols provided in this guide, a locally based project lead could be either a researcher or other program staff member. He or she needs to have the capacity or collaborate with others who have the capacity to manage a multi-phased project, to build relationships with stewardship partners, to organize databases, to administer a survey and associated communications, and to oversee the development of products (both research products and applications). However, it is crucial that they be locally based in order to conduct face-to-face meetings and presentations.

Stewardship Partners

An important precursor to building the population of stewardship groups is outreach to local umbrella groups, organizations that may support other civic organizations. These lead public and nonprofit agencies may provide your team with lists of their contacts that will ultimately become your sampling population. By engaging these partners in the process of designing STEW-MAP in their own city, they may become invested in the long-term success of the project. In addition, building the scope of the project collaboratively will ensure their voices are heard, since they are some of the ultimate "clients" of STEW-MAP.

Costs

The principal costs of a STEW-MAP project include:

- Salary for project personnel to design and implement the survey, including online survey development and management

- Printing and postage for paper surveys and outreach materials (postcards, posters, etc.) if applicable
- Incentives or prizes for participants (or these may be donated in-kind by project partners–for example, museum passes)
- Analysis of the survey data, including any software used in the analysis (statistical, geographic, and network analysis all require different skill sets and software)
- Staff time to check or enter stewardship polygons and to clean all survey and geographic data
- Web design and hosting fees for online applications

Project Timeline

While each iteration of STEW-MAP is different depending on local conditions, a rough timeline is as follows:

- Six months to determine the sampling population and database before administering the survey
- Six months to collect survey data
- One year to conduct data clean-up, analyze basic descriptive statistics, and develop reports and maps for local partners
- One or more years to develop scholarly research papers or agency reports

Survey Preparation

Determining the Population

The project focuses on civic organizations, including both formal nonprofits and informal community groups that serve any of the following stewardship functions: conserving, managing, monitoring, advocating for the local environment, or educating their friends, neighbors, public officials, or the general public about the local environment. Previous studies of local environmentalism have found that national directories of non-profit groups represent local groups inadequately (Andrews and Edwards 2005, Kempton et al. 2001, see also Brulle et al. 2007), so it was necessary to compile a list of local stewardship groups at this stage.

To develop the New York City sample of civic stewardship organizations, all public agencies and non-profits operating at the citywide or borough-wide scale on issues related to the environment and natural resource management were approached with a request for their lists of organizational partners. Using multiple sources to compile the list of organizations reduces the likelihood that there are biases in the data based on any particular source (see particularly Brulle et al. 2007). A snowball sampling method was also used, whereby each of these large-scale data providers was asked to suggest additional potential data providers within the city, until saturation was reached (Fisher et al. 2012). This approach was applied to capture the core network of stewardship groups that are connected to the citywide environment and natural resource management community.

In other cities, sample development was handled slightly differently. In Chicago, announcement of the survey and invitation to participate were sent through existing networks of environmentally oriented groups and alliances including the Chicago Wilderness membership list, regional meetings, and other newsletters. Because of the high level of
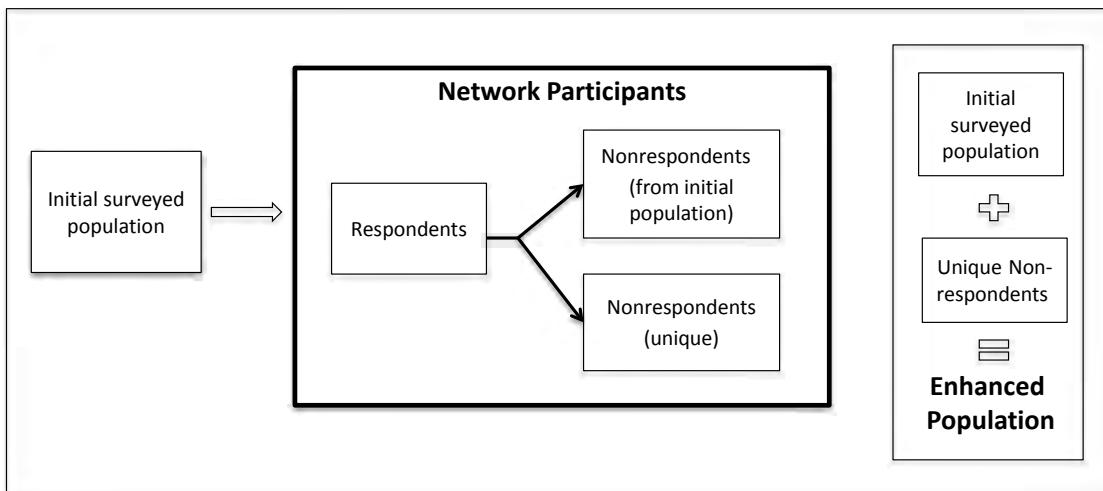
Figure 3.—Missing data reconstruction process used to create enhanced population in Baltimore and Seattle. Created by Michele Romolini, used with permission.

networking among local environmentally oriented groups through Chicago Wilderness, and because of the very large geographic area we were covering, Chicago did not use the snowball approach to developing a master list of known environmental groups. This decision had two consequences: (1) Chicago cannot report a known response rate; and (2) because of the convenience sample, Chicago is unable to make statistically valid inferences from the stewardship information we have collected to date and are confined to mostly descriptive statistics and general analysis. Others implementing STEW-MAP projects will need to weigh these concerns against the logistic challenges of conducting a census in a large metropolitan region (Westphal et al. 2014).

In the Baltimore STEW-MAP project, a snowball sampling method similar to the New York City approach was used. In Seattle, a population data set was created until saturation was reached, within the extent of the city boundaries and metro King County. Recent EPA listings of salmon species as endangered had prompted government support of stewardship as one recovery strategy, thus agencies and civic groups initiated a multi-year relationship. Requests were made to local agencies for access to contact lists of partnering organizations. A similar request was made to several key nonprofits that were known to be highly networked in the urban natural resources community. These lists were compiled, then organizations were "vetted" by web searches to learn about their suitability for inclusion in the study (based on activities location and focus), to confirm contact information, and to glean additional groups from project reports and indications of local partnerships.

Finally, in both Seattle and Baltimore, additional steps were taken after data collection to develop an "enhanced population" through analyzing the social network data. See: "Data Analysis and/Social Network data" and Figure 3.

Constructing the Sampling Frame

Once the individual population databases were gathered in New York City, several criteria were applied when constructing the sampling frame:

- *Location*: groups outside of the five boroughs of New York City were removed, although we did include groups located in New York City whose reach was regional, national, or international

Table 1.—Criteria for including organizations and groups in the STEW-MAP population data sets, by city

City	Extent	Organizational sectors	Complete addresses
New York	City of New York (5 boroughs)	Only civic actors	Yes
Chicago	Chicago Wilderness Region (4 state area)	Civic actors, private and government included	Email sufficient
Baltimore	City of Baltimore	Civic actors, private and government included	Email sufficient
Seattle	Seattle and King County	Civic actors, private and government included	Email sufficient

- *Organization status*: individuals without a group affiliation were removed
- *Civil society (or civic) actors*: we excluded all public agencies, private businesses, and quasi-governmental entities such as local community boards from the survey responses
- *Complete addresses*: groups with incomplete mailing information were removed from the sample

Other cities slightly modified these criteria (Table 1). In Baltimore and Seattle, local and county agencies were considered stewardship groups. Additionally, the STEW-MAP survey in these cities was Web-based, so the essential contact information was a current organization email address. In Seattle, the population data collection focused on the predetermined sampling area of metro King County (that includes the city's jurisdiction), an area of 2,307 square miles (5,975 km²).

In Chicago, the sampling focus was the Chicago Wilderness region. This includes northeastern Illinois, northwest Indiana, a small section of southeast Wisconsin, and a sliver of southwest Michigan. The focus in Chicago's STEW-MAP was twofold: to compare civic engagement with the other STEW-MAP cities, and to support the implementation of the Green Infrastructure Vision and other work of Chicago Wilderness. Therefore, if stewards contributed their information but were not a civic group, they were kept in the database but marked as non-civic so that any comparisons with other STEW-MAP databases would be made with comparable data. In this way, the Chicago STEW-MAP project was able to meet multiple objectives.

Database Design

When collecting STEW-MAP data, certain database protocols should be used, including unique identifiers and one-to-one relationships between sampled stewardship groups and survey responses. Unique identifiers, or unique codes, should be assigned to stewardship groups to ensure accurate tracking of groups. Automatically generated identifiers are preferable, in order to avoid human error. Identifiers should be information-less; they are used to facilitate queries and joins in a relational database. In addition to unique identifiers for each organization, a unique "survey response ID" should also be assigned to each survey that comes in. Unique identifiers for both organization and surveys will make it easy to identify which versions of the survey to keep when organizations contribute more than one response.

In order to merge duplicate listings across different data providers, groups can be matched by organization name, contact name, and address. There is some possibility for error in this process because informal groups tend to change names frequently. In some cases, groups are listed under different names by different data providers. However, every attempt should be made to reconcile these duplicates and name changes. For instance, in New York City, starting with an initial population of 4,788 groups, data clean-up resulted in a final population of 2,796 groups.

As survey responses come in, organizations identified as partners in the social network questions should also receive unique identifiers and may be added to the full list of stewardship groups. However, these additional organizations will not be used when calculating response rates, as they would not have received the survey.

IRB and OMB Review

Typically, research that is publicly funded and involves collecting data from individuals or social groups is required to be reviewed by institutional review boards (IRBs). In addition to IRB review, any research involving data collection from people outside of federal service that is done by a federal agency is subject to review by the U.S. Office of Management and Budget (OMB). These reviews address ethical concerns about personal information disclosure, potential for harm to respondents, and the confidentiality of any responses provided by survey respondents. Most universities and medical research institutions have IRBs, and some larger local government or state agencies may conduct reviews. A review typically involves presenting a fairly detailed research plan and allowing for time to respond to clarifying questions from the reviewers. If a city agency or NGO is conducting the data collection and considers itself exempt from this process, it is important to study and understand the confidentiality and ethics of conducting such studies by working in conjunction with an academic or federal research partner.

The STEW-MAP survey was approved for local projects by the institutional review boards at Columbia University (New York City), the University of Vermont (Baltimore), The Field Museum (Chicago), the University of Washington (Seattle), and University of Maryland (Philadelphia). The follow-up interview protocol for leaders of key organizations has previously been used only in New York City and it was approved by Columbia University's IRB.

The main survey has been accepted by OMB and is included in appendix 2.

Confidentiality

The issue of confidentiality needs to be considered and addressed for STEW-MAP participants even though the survey does not request personal or sensitive information. Thus, the survey includes a question that allows groups to opt in or out of the public online stewardship database.

In Chicago, some stewardship groups were unexpectedly wary about having their contact information and other survey responses displayed on the project's Website and maps. To keep this concern from discouraging participation in the survey, the Chicago project team added this additional explanation: "In other cities, this database allows stewards who share interests to find each other and collaborate if they wish." Consequently, 74 groups (about 20 percent) opted out of having their information displayed. On its Website and maps, the project team

also limited each group's information to their name, basic contact information, territory or territories, and what they work on (a list of topics). This opt-out option helped increase survey participation but it also limited the usefulness of the project's maps and Website since 74 groups' information was excluded.

Survey Implementation

Survey protocols and methods used for collecting stewardship data varied as STEW-MAP was tested and evolved in new settings.

In New York City, the STEW-MAP survey was administered in both Web and mail formats, with a standardized recruitment text (see appendixes 3 and 4), over an initial period of about 6 months. Where possible, email was the preferred method of contact. If an organization did not have an email address or the email address was determined to be invalid (i.e., "bounceback" messages were received), organizations were then contacted via the U.S. Postal Service. In New York City, all organizations received reminders: up to three reminders at intervals of 2 weeks via email, and one postcard reminder after 1 month by mail (see appendix 3). All organizations with a valid phone number in the database received follow-up phone call reminders over the course of the 6 month survey window. In addition, a description of the study was included in local newsletters and listservs, including GrowNYC's (then Council on the Environment of New York City) newsletter and the New Yorkers for Parks "e-blast." New York City did not provide direct incentives for participation, beyond visibility on a public map.

In Chicago, the STEW-MAP survey was completed largely online (http://stewmap.cnt. org). No surveys were mailed to stewardship organizations, but occasionally hard copies were provided at meetings to be completed and handed back at the meeting. Similar to New York, the survey was pretested and refined to ensure that it was easy to use. Primary adjustments to the Chicago survey involved the online mapping tool. Stewardship groups were asked to describe in words where they steward (like in the NYC survey) but there was also an online mapping tool. This proved to be complicated for some to use, and several adjustments were made, including adding a prominent option where stewards could select "draw my map for me."

The Chicago survey was launched at the Chicago Wilderness Congress, a biannual gathering of conservation groups from the broad Chicago metro region. The survey was announced through Chicago Wilderness e-newsletters, through Center for Neighborhood Technology e-blasts and e-newsletters, and through both face to face and electronic distribution to a wide array of environmentally oriented groups (e.g., The Field Museum's New Allies for Nature and Culture, the Energy Action Network, Audubon). Initial response rates were low, and so to boost the response rate, modest incentives with a deadline for entering data to the site were added. All contributing stewards who completed useable surveys by the deadline were eligible for drawings for a $150 gift card to Home Depot; three separate $50 gift cards or a $50 donation to the respondent's organization; or 10 awards of family four-packs of passes to The Field Museum. Other key organizations across the region were asked to email their contacts on behalf of STEW-MAP to encourage their participation.

The Seattle and Baltimore STEW-MAP teams made contact with organizations to invite them to complete the online survey. The protocol for the survey process included: an initial email to introduce the study and to request updated contact information; an email with the survey link and instructions; and two to three reminder emails for 3 months during which the

survey remained open. An additional targeted follow-up was conducted six months after the survey closed to ensure responses from several key informants.

Options for a STEW-MAP survey include a single data collection period, or a rolling, ongoing data collection. Additional data collection requires continued data entry and support. If a finite collection period is selected, it is also possible to repeat the STEW-MAP survey for a given city at regular intervals, every 5 or 10 years for example, in order to capture new stewardship groups or those who were missed in the first survey.

Response Rates and Nonresponse Bias

Because the STEW-MAP respondent population are nongovernment organizations (NGOs) and community-based organizations (CBOs), a response group known to have some of the lowest response rates (Hager et al. 2003), those conducting STEW-MAP surveys should aim for the highest possible response rate but expect a response rate below 50 percent. While a number of groups will be interested in promoting themselves along with others in the community to bring awareness to their efforts via STEW-MAP, it may not be sufficient to ensure a high response rate. Response rates in STEW-MAP to date have ranged from just under 20 percent to nearly 50 percent. Therefore, we need to consider techniques to enhance response rates and assess any response bias in STEW-MAP data.

In-person administration of surveys has been shown to increase response rates, but is a costly and time consuming approach that is unlikely to be feasible for most STEW-MAP projects (Allred and Ross-Davis 2011). Offering an incentive is a tested technique that can increase response rates (Bosnjak and Tuten 2003, Singer and Ye 2013). An incentive could be a transit card, a gift card for stewardship supplies, or voucher for a visit to a city botanic garden, zoo, or museum. Incentives can be administered as a drawing amongst respondents to both increase responses and reduce costs for implementation of the STEW-MAP survey.

Response rates may also be boosted by offering a shortened version of the survey to those who have not yet responded when the initial survey period is drawing to a close. This version of the survey can include only the "core" questions about the organization's structure and stewardship work without the social network questions or mapping section. People who complete the 10-minute version will be counted as respondents.

While STEW-MAP data will not necessarily be generalized to the general population or to all stewardship groups in a city or region, nonresponse bias must still be evaluated if the STEW-MAP project is to be scientifically rigorous (Groves 2006). STEW-MAP investigates groups and organizations, not individuals or households, and it produces geographic data. Therefore, investigations into potential response bias need to take these factors into account. Possible approaches to investigating for bias include:

- Assessing the geographic distribution of stewardship territories reported. This includes investigating areas with little reported stewardship via Web searches, through knowledge of local STEW-MAP partners, and via GIS review (e.g., finding evidence of community gardens in Google Earth).
- Comparing survey response rates to census data by category of groups, including whether stewardship is the primary or secondary focus of the group, type of stewardship activities, race/ethnic and/or economic background of the stewards, and scale of stewardship activities (neighborhood to regional).

- Comparing first wave respondents to later respondents on types of stewardship they do, site types that they work on, primary focus, number of staff, percent time on stewardship, etc. While this is a weak test of nonresponse bias, it may point out issues to investigate further through other means.

- Administering a nonrespondent survey after the initial survey period ends. This can be a very short version of the survey that includes only a few key questions about types of stewardship the groups work on and the group's legal or organizational status (e.g. 501(c)(3) organization versus informal community group. Responses from the nonrespondent survey need to be compared to responses from all respondents returning the full version of the survey to check for significant differences. In many instances, nonrespondents do not even wish to participate in an abbreviated survey, making this a sometimes difficult method to check for nonresponse bias.

  Any evidence of nonresponse bias should be discussed in reports or publications that use the data, and kept in mind when interpreting results and making recommendations based on the data.

Data Collection from Stewardship Groups

STEW-MAP collects three main types of data about stewardship networks in a city or region:

- Descriptive information about stewardship groups, their organizational structure, and activities
- Geographic data about stewarded sites and territories
- *S*ocial network data about how groups or organizations are tied to others either by sector or through funding, information exchanges, and partnerships

These different types of data are each analyzed differently, using distinct software and approaches, requiring the research team to have varied skill sets and familiarity with multiple social science disciplines. Additional information about the data collection, structure, and key decisions follows.

Descriptive Information about Stewardship Groups' Structures and Activities

The bulk of the survey questions collect information about what the stewardship groups work on and their internal structure (Table 2). Responses to these questions yield descriptive information about the scope and variability of mission of the groups doing stewardship across a city or region, and they may be compared with data from other STEW-MAP project regions. These questions are generally easy for the respondents to answer and are valuable in analysis as they can be queried, cross tabulated, and aggregated to answer a range of specific questions about responding organizations.

Geographic Data on Stewardship Turf

Stewardship happens at multiple spatial scales across a city or region. Some stewardship activities, such as monitoring or restoration, will be site-specific although the sites may range in size from a building rooftop to a many-thousand-acre nature preserve. Other activities, including education or advocacy, may be carried out in a broader area—for example, across a particular neighborhood or citywide.

Table 2.—Information collected by all STEW-MAP surveys

Variable collected
Contact information (name, mailing, Website, phone number)
General stewardship activities (conserve, care, restore, monitor, advocate, educate)
Legal designation
Organization activities
Primary organizational focus (arts, environment, public health, seniors, youth, etc.)
Types of environmental stewardship (water, land, building)
Mission statement
Text on why organization thinks stewardship is important
Description of stewardship turf/geography
Property ownership
Year founded
Staff capacity
Volunteer hours
Estimated annual budget
Services provided
Collaborating groups (programs, advice, funding)
Open-ended comments

In the geographic section of the survey, STEW-MAP invites participants to describe in words the sites they work on (turf). In New York City, Baltimore, and Seattle, turf maps were prepared by the research team, as they interpreted written descriptions into GIS features. In the Chicago region, a mapping tool was embedded within the online survey to invite respondents to draw their stewardship turfs. Optimally each responding organization should be able to check the accuracy of the polygon(s) drawn for its organization.

In all of the STEW-MAP projects to date, whether administered online or on paper, look-up tables of geographies (such as names of public parks, neighborhoods, cities, boroughs, or counties) were provided in order to standardize responses and potentially save respondents some time if they work across many sites or jurisdictions (appendix 2). In Baltimore and Seattle, respondents were provided with a list of neighborhoods and asked to select the ones where they work. Links were provided to an online map of the boundaries representing those areas with the names clearly labeled. Having neighborhood-level data can also assist as a location check when creating polygons.

Actual mapping of the stewardship turf presents a number of challenges both for the respondents and for the research team. If no mapping tool is provided to respondents, the research team will need to use the text descriptions provided on the survey. Respondents may use locally known site names that are unfamiliar to the research team and are not readily researched online. When a mapping tool is provided for respondents to use, it needs to be carefully designed since respondents will have varying levels of familiarity and comfort with mapping tools. It also needs to have clear instructions and easily understandable base maps or aerial photos that provide landmarks like streets and buildings to help users identify where they are on the map. Project participants may require assistance to map their own sites and territories accurately. In many cases, even a well-designed mapping tool is too technical, and the research team should expect to do a lot of the mapping themselves on behalf of

respondents and to clean up polygons drawn by respondents. However, larger professionalized organizations may have GIS data of their sites or properties. Providing the option of supplying existing GIS data should be included in any STEW-MAP survey.

In summary, across the cities, STEW-MAP teams have also used the following techniques to collect and display stewardship boundary or turf data:

- Ask for written descriptions of turf used by project staff to draw polygons. This is time intensive.
- Ask respondents to choose a particular geography from a set list (check boxes). This takes the least amount of time but limits the project's ability to display small sites and previously unknown spatial turfs.
- Allow users to upload GIS files. This depends upon respondents' familiarity with GIS and assumes the GIS files are accurate.
- Builds an online mapping tool that is accessible and easy to use. This is the ideal solution and one that might become an option for all in future applications of STEW-MAP.

Social Network Data

Another dimension of STEW-MAP analysis is to discover how stewardship groups are connected to each other in a city or region. These social network questions have been asked in two different ways in order to explore different sub-questions: (1) asking which groups partner with other groups by sector (e.g., nonprofit organizations, government agencies, businesses) in order to explore network and hybrid governance; and (2) asking which groups partner with other groups on projects and programs and how funding and information flow across the network.

The New York City survey approached the social network questions by focusing on the types of organizations by sector with which each responding group worked. The questions asked respondents to list up to three "business groups," up to three "civic or community groups," up to three "government agencies," and up to three "school groups" for a total of 12 response slots across the four categories, without characterizing what was given or exchanged in these relationships. The Philadelphia study later expanded on this approach by allowing respondents to identify an unlimited number of network partners in each sector. Allowing respondents to identify unlimited partners is the preferred method in social network analysis for generating the most robust networks.

By contrast, the Baltimore, Chicago, and Seattle surveys had five networking questions asking which other organizations the responding organization: received information, advice, or expertise from; provided information, advice, or expertise to; received funding from; and provided funding to. A fifth question asked for the names of partnerships or coalitions that the group or organization belonged to. This allows for separate network analyses of funding and information and also provides information about the direction in which these resources flow. Ten response slots were provided for each question so each organization could name up to a total of 50 responses across the five categories. In practice, responding groups often named the same organizations multiple times across the five questions.

 The OMB version of the survey combines *both* of these approaches to ask a series of questions about network partners and flows through the network. After discussion and mutual learning across the investigators from the different cities, this OMB version was created as a way to explore both sets of research questions and is currently being implemented in the San Juan, Puerto Rico, STEW-MAP study. See appendix 2 for all survey protocols to see the different ways that network questions were asked by sector (New York City and Philadelphia) and by flows through the network (Baltimore, Seattle, and Chicago).

In a closed network where all of the possible groups or organizations are known, an alternative way of soliciting responses is to list all of the possible organizations and ask respondents with which ones their group or organization works. However, this is not practical for STEW-MAP, as the list of known organizations may number in the hundreds or thousands. One elegant solution for electronic surveys is to say that respondents can list as many organizations as they wish for each category, but provide only one empty response field at a time, adding additional fields one at a time as each is filled in by the respondent. Limiting responses by giving a numbered table is seen as limiting the network and is discouraged. It is critical to structure network questions to allow respondents to identify unlimited partners (as in the Philadelphia case) and word questions consistently to allow for comparative analysis.

Data Clean-up and Analysis

Dealing with Duplicates and Incomplete Surveys

Clean-up can include duplicate replies, incomplete responses, and repackaging data into formats compatible with GIS and social network software. Once data are received and entered, there is likely to be a substantial amount of clean-up required. If duplicate replies are received from one organization, the most complete version is used. If both are complete, the survey that comes in earliest is used.

Open-ended Questions

Any open-ended questions used in the survey require clean-up and may require qualitative coding. These responses can be analyzed and coded thematically via an open, emergent coding approach or via deductive coding, where a set of codes are created *a priori* (See, for example, Bradshaw and Stratford 2005, Dunn 2005). For example, an open-ended question asks groups to provide their mission statement, which can be analyzed to examine the primary focus, as well as the ways in which environmental stewardship is nested in other types of community concerns (such as seniors, youth, and neighborhood safety). New methods are emerging for analyzing qualitative data with computer algorithms, such as with computer assisted coding systems; these methods could be applied to such open-ended data.

Geographic Data on Stewardship Turf

Cleaning up geographic data applies to surveys with online mapping tools, such as Chicago STEW-MAP. Chicago STEW-MAP's online mapping tool embedded in the survey had mixed results. While the tool was well designed, it was difficult for many stewards to use. Therefore, Chicago STEW-MAP staff spent considerable time cleaning up the GIS data and verifying geographies with stewards. In Chicago, the team contacted those who requested that their map be drawn for them; the map drawn by the research team was sent to the respondent for verification and correction as needed. This step was also taken when it looked like stewards had attempted to use the online mapping tool but had difficulties (i.e., the resulting polygon was a very strange shape).

Geographic data from the survey provide visual representations of stewardship sites and territories, such as maps with stewarded polygons shaded. The surveys in Baltimore and Seattle provided easily visualized counts of groups per neighborhood. These data can be integrated with other spatially explicit data like demographic data and environmental conditions using a GIS. Both coarse- and fine-grained analysis of the geographic data can show stewardship hotspots or areas where many stewardship groups are working near each other, overlaps of sites or territories where multiple groups are working, and gaps where no stewarded sites or territories were identified. However, analysis of the geographic data can be technically complex and presents a number of challenges. For example, the kind of gap analysis just mentioned needs to be undertaken with caution since lack of stewardship in one area may only indicate that no stewardship groups working in that area participated in the survey.

Map data can be used for analytic queries by a science team; they can also be used for an online public display about organizations. A technical challenge is to provide the geographic data online in a way that someone from the general public can query and understand it, given the abundance of organizations and overlapping nature of urban environmental stewardship. Those familiar with digital mapping and GIS may be able to create their own custom maps using an online tool, but many lay people do not have these skills. Static maps can be prepared and added to a display web site as a map gallery, and they may complement more sophisticated online maps. Each STEW-MAP project team needs to weigh the complexity of providing a publicly accessible interactive mapping tool against the expected utility of that tool in their city or region.

Social Network Data

Preparation of organization network data after survey responses are received often requires extensive clean-up. Responses to the New York City survey underwent substantial quality assurance/quality control (QA/QC) from their raw state in order to prepare the data for analysis:

- *Standardization*: Names of organizations were standardized with a common spelling. Any organizational partners ("alters") identified beyond the top three in each sector were excluded.

- *Error Checking*: Any answers that were mischaracterized (e.g., calling "the Parks Department" a civic group) were recoded to the appropriate sector. Any responses that could not be identified to a specific organization (e.g., "churches," "community boards") were recoded as "GENERAL" and were excluded.

- *Formatting*: Data were entered into a Microsoft® Excel database that was then imported into the software UCINET (Borgatti et al. 2002).

Missing data, where a survey respondent does not provide a response, can be problematic in social network analysis, as this type of analysis is very sensitive to such missing data (Kossinets 2006). For Baltimore and Seattle data, missing data points in social networks were imputed using a reconstruction approach. Reconstruction involves replacing a missing tie using the value reported by the responding actor in the dyad (Stork and Richards 1992); that is, if respondent A reports providing information (outgoing tie) to nonrespondent B, then B is populated with an incoming tie from A. Imputation procedures have been used in social science survey research to replace the missing values of a nonrespondent with the values of a donor actor from the same data set (see Andridge and Little 2010 for a review), and can be applied in social network studies to populate the ties of nonresponding actors (Burt 1987).

Since the network questions were open-ended in Baltimore and Seattle, a nonresponding organization could be from the original surveyed population or a "unique" organization not previously identified. Internet research was conducted to include only those unique organizations working within the city boundaries of Baltimore or Seattle. The unique organizations were added to the original population to create an enhanced total population. This process provided a more complete view of the stewardship population in each city. Of the enhanced population, the respondents plus those nominated were considered to comprise the active stewardship network in each city, and thus network analysis was conducted on these networks (see Fig. 1).

At the time of this writing, Chicago STEW-MAP social network data had been cleaned, but analysis is still underway. As with other cities, the Chicago SNA data needed to be cleaned to standardize organization names. The Chicago data cleaning process included many lump-or-split decisions as well. In total, there were 1,830 unique responses to the SNA questions including spelling variations and typographical errors; when cleaned up and consolidated, there were 942 unique organizations and categories such as "local schools."

Ongoing Data Management

It is important to consider eventual data use, display, and management early in the STEW-MAP project design process. The combination of data formats and collaborative access can make data management complex. Looking across the collaborators and eventual data users, it is important to consider how the survey data and geospatial analysis products will be stored and managed.

There are several major data products and processes from a STEW-MAP project:

- *Organization list*: The complete database of organizations that is the basis for sampling, project outreach, and additional follow-up research.
- *Survey data*: The data set resulting from group and organization responses, having high potential for near- and long-term analytics.
- *Geospatial analysis*: The process of converting (by way of specialized software and personnel skills) the reported organization territories to a data set that includes both geospatial and attribute information.
- *Public display*: The public presentation of results.

Considerations include the processing, server, and display needs when comparing groups' activity maps, as well as social network displays. Surrounding all of these data sets and

products are some key questions, including where data will be hosted. Preparation of metadata, or the careful notation of the source and structure of any data file, is a valuable best practice. Decisions should also be made about data storage, backup, and security (as some survey information may be deemed confidential per IRB review). Due to the rich content of a STEW-MAP project, there are inevitable follow-up requests for use of a data set. What might be appropriate data sharing policies so that there is an adequate log of data use and acknowledgment in publication? Developing a protocol for data sharing is an important step in this process.

The New York City team partnered with two groups to conduct spatial analysis and build public applications. The University of Vermont Spatial Analysis Lab helped build the geodatabase and assisted in creating the polygon turfs. The CUNY Mapping Service displays the STEW-MAP layer on the public GIS site, www.oasisnyc.net, providing ongoing hosting of the data. Technicians on staff with the Forest Service provided the QA/QC and assist with inquiries and requests to query the geodatabase to share with managers.

For Baltimore, data has been stored on Forest Service staff computers and has not yet been prepared for public display. In Chicago, where stewardship groups create their own stewardship turfs online, data is included in the associated online map after a review by a project staff person. Spatial data is managed by the Center for Neighborhood Technology and by The Field Museum, while Forest Service staff handle survey results and social network analyses. The Seattle team partnered with the University of Washington's Remote Sensing and Geospatial Analysis Lab for data management. While multiple scientists and students have been working on the project, primary storage of data sets and the files for public display are on the university's servers. In addition, products, such as conference presentations and publications, are shared by non-Forest Service entities using a secure, cloud-based server that enable individuals from multiple institutional settings to access materials.

SYNTHESIS: USING STEW-MAP TO ANSWER YOUR QUESTIONS

STEW-MAP survey data can be analyzed in a number of ways, driven by research questions, policy needs, and funding opportunities. Here we present just some of the questions that have been asked of STEW-MAP data.

How many civic stewardship groups are in my city?

The number of stewardship groups identified depends on the approach to determining the population. Repeating STEW-MAP longitudinally will strengthen understanding of whether and how civic stewardship groups persist over time. Overall, 506 groups participated in the stewardship survey of New York City, representing a response rate of 18.3 percent. This response rate is within the common range for mail-in and Internet surveys of organizations (for a full discussion, see Hager et al. 2003). Smaller cities should expect fewer groups—STEW-MAP Baltimore results contain 163 groups (26.9 percent response rate) and STEW-MAP Seattle contains 144 groups (25.4 percent response rate). STEW-MAP Chicago contains 369 groups (including a 49 percent response rate among Chicago Wilderness' 255 member organizations). Lacking data on nonrespondents, however, we are unable to examine potential response bias in our data set. In New York City, we examined the data for spatial

distribution by borough. The response rate was relatively consistent across the five boroughs of New York City, showing no particular borough bias.

What are the organizational characteristics of civic stewardship groups?

For New York City, a professionalism index was created using the survey responses to questions about each group's paid staff and annual budget (see Staggenborg 1988). Contingency tables were used to compare the professionalization score to a number of organizational characteristics, including 501(c)(3) status and year founded. Slightly more than half of all the participating civic stewardship groups reported having 501(c)(3) tax status and most of those organizations scored medium to high on the professionalization index. Additionally, most of the older groups founded prior to 1970 scored high on the index, while an overwhelming majority of groups founded since 1990 scored low on the professionalization index (Fisher et al. 2012). In Baltimore and Seattle, approximately 80 percent of responding groups were nonprofit institutions. In Chicago, 48 percent of all responding groups had formal 501(c)(3) status and over 60 percent of the 266 participating civic groups scored low on the professionalization index as defined by the NYC team.

What is the primary focus of stewardship groups?

The New York City study found that civic stewardship groups span a range of focus areas. While solely environmentally focused groups were the most common, we also found that education, community improvement, and youth groups were common (Fig. 4). Additional information about the way in which environmental issues and community concerns are intertwined can be gleaned from coding mission statements to better understand how stewardship helps to satisfy a group's core mission.
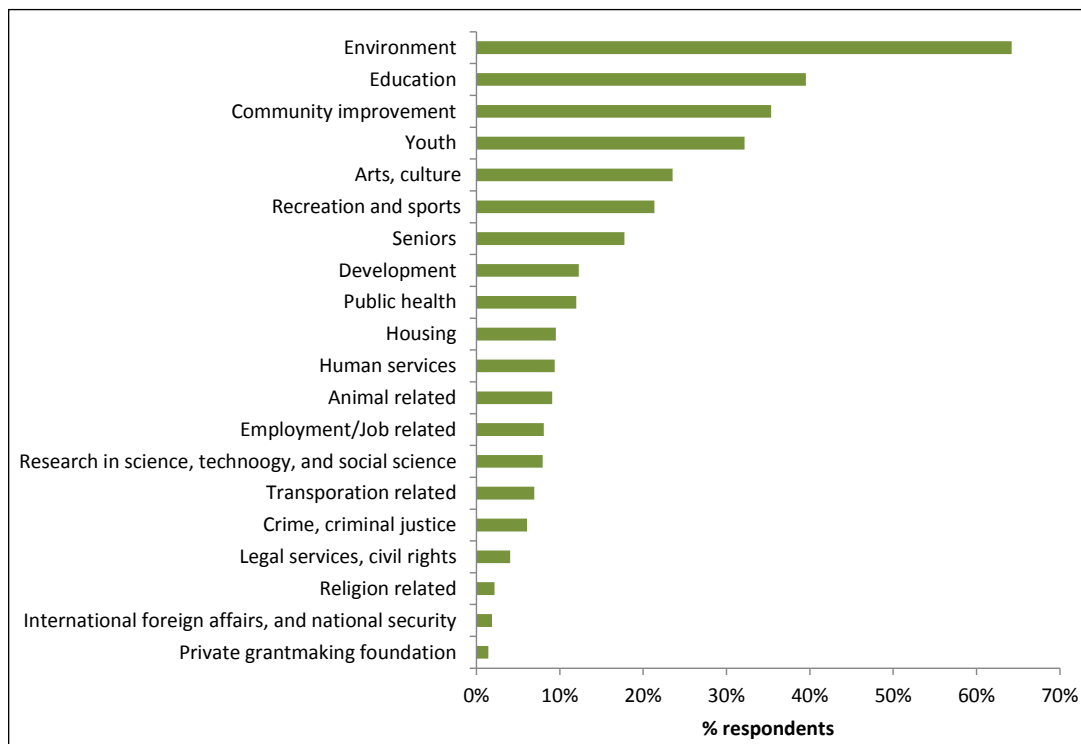

Figure 4.—Primary focus of stewardship groups' work in New York City.

Conducting in-depth interviews with select organizations can also reveal how a group's focus area may have shifted over time in response to socio-demographic shifts, urban development, and politics. Knowing more about the motivations for stewardship by nontraditional environmental organizations is critical to our understanding of stewardship as a larger social-ecological system.

What environmental sites do civic environmental organizations steward?

Stewardship groups work across a range of physical site types, which can vary from city to city. In New York City, the most common sites for stewardship were parks, community gardens, and street trees (Fig. 5). The majority of groups that reported working on green buildings scored medium or high on the professionalization index, while groups that worked on community gardens scored low on the professionalization index (Fisher et al. 2012). In Baltimore, commonly stewarded areas were community gardens, vacant lots, parks, public rights-of-way (ROW), planters, school yards, stormwater features, public gardens, and watersheds. In the Chicago Wilderness region, the most commonly stewarded site types were prairie, forest/woodland, community garden, wetland, and park. In Seattle, the most commonly stewarded site types were parks, watersheds, streams, wetlands, public rights-of-way, greenways, and shoreline. Across these cities we find a similar mix of site types but with interesting distinctions related to geography (e.g., prairies in Chicago region). Also, in some cases, sites are attractive to community groups because stewards have been actively recruited by land managers (e.g., street trees and parks) and/or the sites are accessible and in the public domain, but there is no active stewardship happening by the city or the state (e.g., vacant lots).
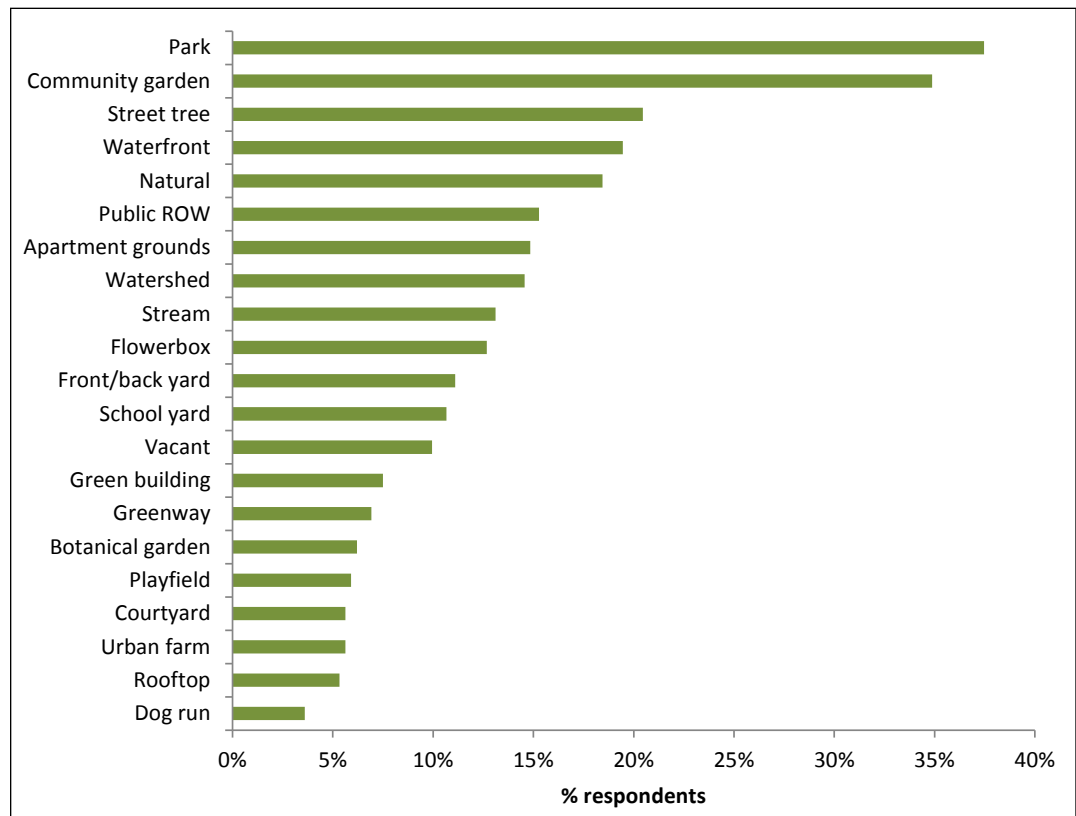

Figure 5.—Site type on which stewardship groups work in New York City.

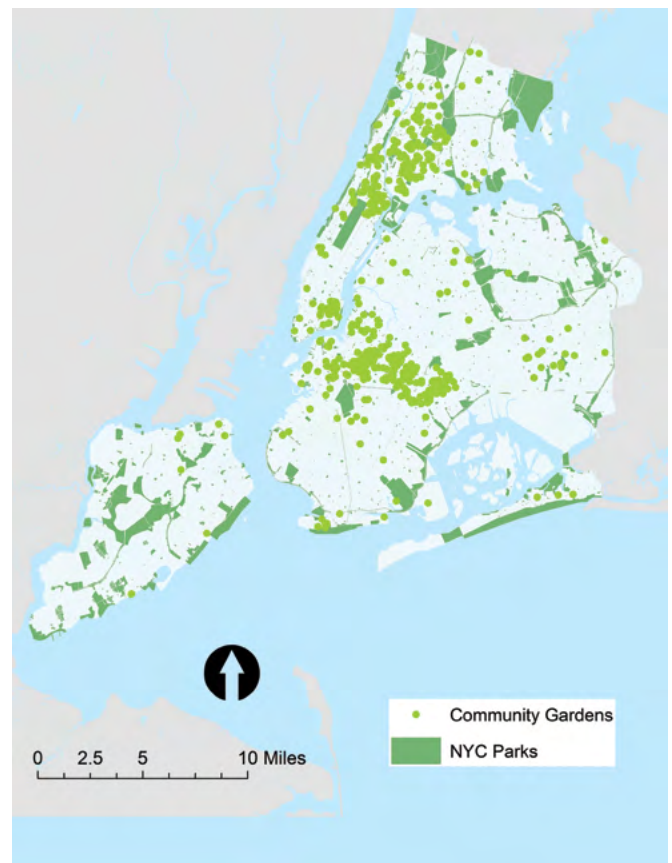Figure 6.—Map of civic stewardship groups in New York City.

Figure 7.—Map of New York City's parks and community gardens.

Where does environmental stewardship occur?

Because the STEW-MAP survey asks respondents to characterize the area where they work, the data can be used to visualize stewardship coverage across a city or metropolitan area, such as where there are neighborhood gaps in stewardship and where groups overlap. In New York City, the team mapped stewardship group addresses (Fig. 6). These data can be compared to the distribution of green space in New York City (Fig. 7).

We can also explore which neighborhoods have many stewardship groups and which have relatively few. We can refine the hot and cold spot analysis by including the intensity of stewardship efforts. This can give a more nuanced understanding of the nature of stewardship across a region or city. Researchers in New York City found a density of groups in locations with the least amount of green space, suggesting that the demand for these spaces to be restored is high. Figure 8 shows the same set of stewardship groups, but displays their self-reported geographic turf, aggregated to the neighborhood tabulation area (NTA). This figure shows of the number of stewardship groups by neighborhood across New York City, areas with higher numbers of stewardship organizations in darker green and neighborhoods with smaller numbers in light green.

STEW-MAP data can also be used in conjunction with U.S. Census data to analyze stewardship's socio-demographic patterns. The Chicago team analyzed stewardship data to see if the patterns of stewardship supported or challenged the often-held belief that stewardship activities are primarily done by white and middle class people. Initial analysis indicated that stewardship in Chicago may not be a predominantly white, middle class activity. Most areas
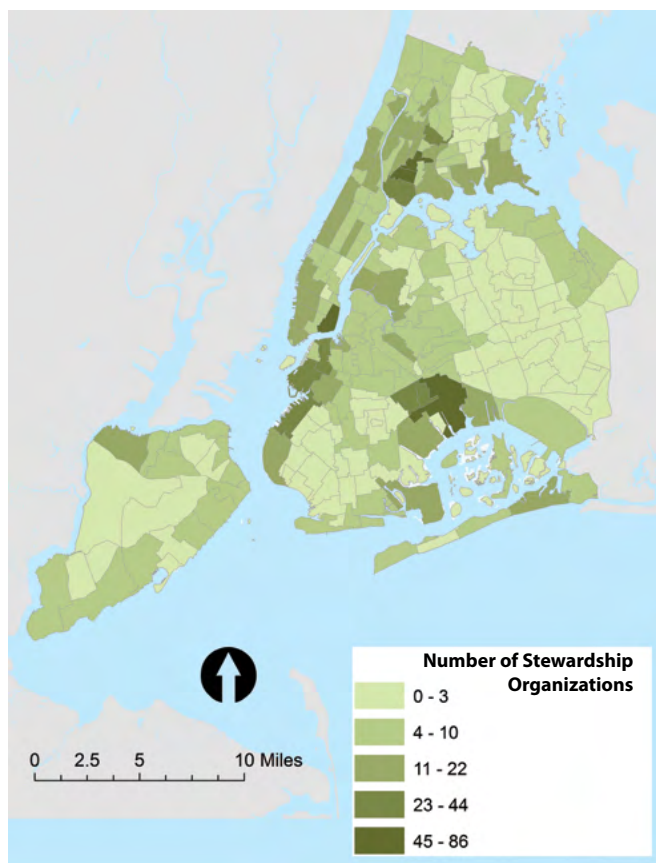
Figure 8.—Intensity of stewardship turfs in New York City.

of the city, including areas that were majority black, Hispanic, or white, had at least one stewardship organization claiming it as their stewardship territory, and a look at one low income, diverse neighborhood showed most stewardship was from within the community (Westphal et al. 2014).

How can we characterize the urban environmental stewardship network?

Organizational network analyses have been completed for New York City, Baltimore, and Seattle (Connolly et al. 2013, 2014; Romolini 2013). These analyses explore who is connected to whom in a city's stewardship network. In terms of network analysis, this means identifying who is central to the network and who is peripheral. UCINET software was used to explore stewardship network centrality and density.

In New York City, prominent actors with a high number of ties and important network positions were identified. Thus, all organizations that were more than two standard deviations away from the mean in terms of both in-degree ties and betweenness were identified as "bridge organizations," or brokers. These organizations have a number of other organizations connecting with them by exchanging knowledge, materials, labor, and financial resources. As network theory predicts, these organizations are playing a crucial role in sharing information and resources in order to coordinate action across the network. These groups help bridge across sectors (public/private) and scales (citywide/neighborhood) in the complex management of urban environments (Connolly et al. 2013).
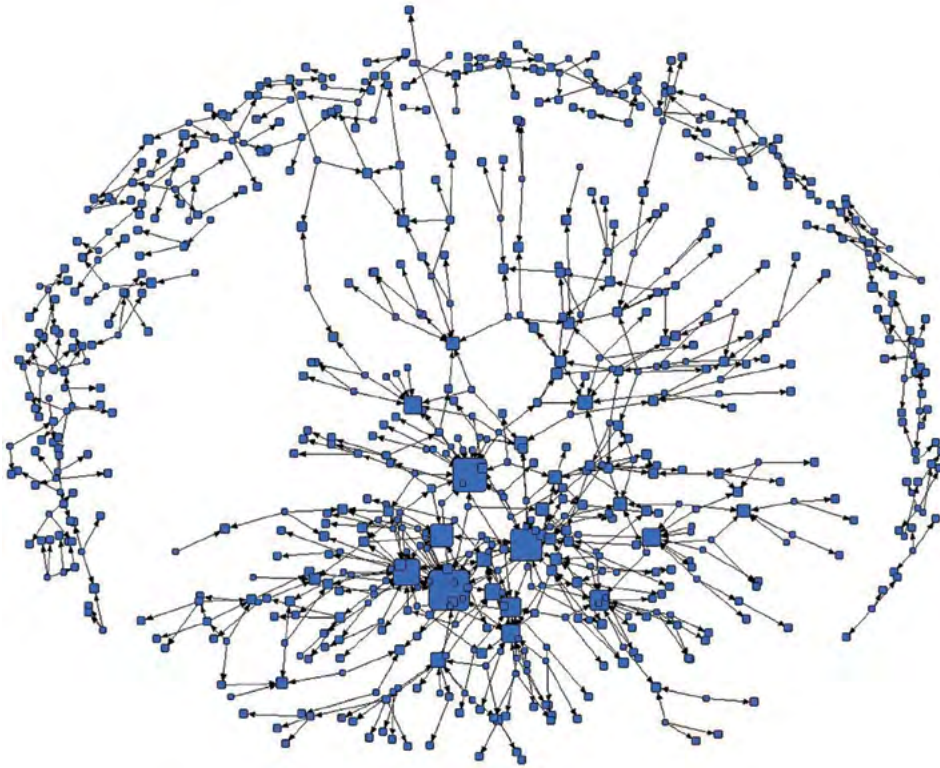
Figure 9.—New York City civic-to-civic network.

New York City's civic-to-civic network is much more decentralized and polycentric than the civic-to-public network, demonstrating different functions within the social-ecological system for these networks, and highlighting the importance of the most connected "bridge organizations" (Fig. 9). Examination of the civic-to-civic network identified that groups are clustered according to the types of sites that they steward in the urban environment. The civic stewardship network also includes clusters of groups with broad civic missions that extend beyond environmental stewardship. Figure 10 shows the civic-to-government network, which is 28.4 percent centralized compared to the 3.28 percent centralization in the civic-to-civic network. The difference between these measures demonstrates that civic stewardship groups coordinate activities amongst themselves across diffuse small-scale clusters seen in the civic-to-civic network, and then tend to focus those activities at the citywide level via connections with government agencies.

The stewardship network is also organized according to ecological function and geography. The stewardship network evolved over three different periods, 1970 to 1990, 1990 to 2000, and 2000 to present, leading to the development of a hybrid governance structure of government along with civic and business sectors managing ecosystem services in the city. These data show that the social and spatial structure of these networks matter for urban environmental stewardship outcomes (Connolly et al. 2014).

Baltimore and Seattle were analyzed using the same methods; each city's information network was examined for measures of centralization and centrality. Baltimore's network exhibited 18 percent centralization, which was five times the centralization found in Seattle. Interestingly, in Baltimore, analysis of the types of centrality revealed that organizations that held the most ties (degree centrality) were not the same as those most often found in bridging roles (betweenness centrality). These two network measures are considered to be proxies for activity and influence; therefore, the most active members of Baltimore's network were not always the
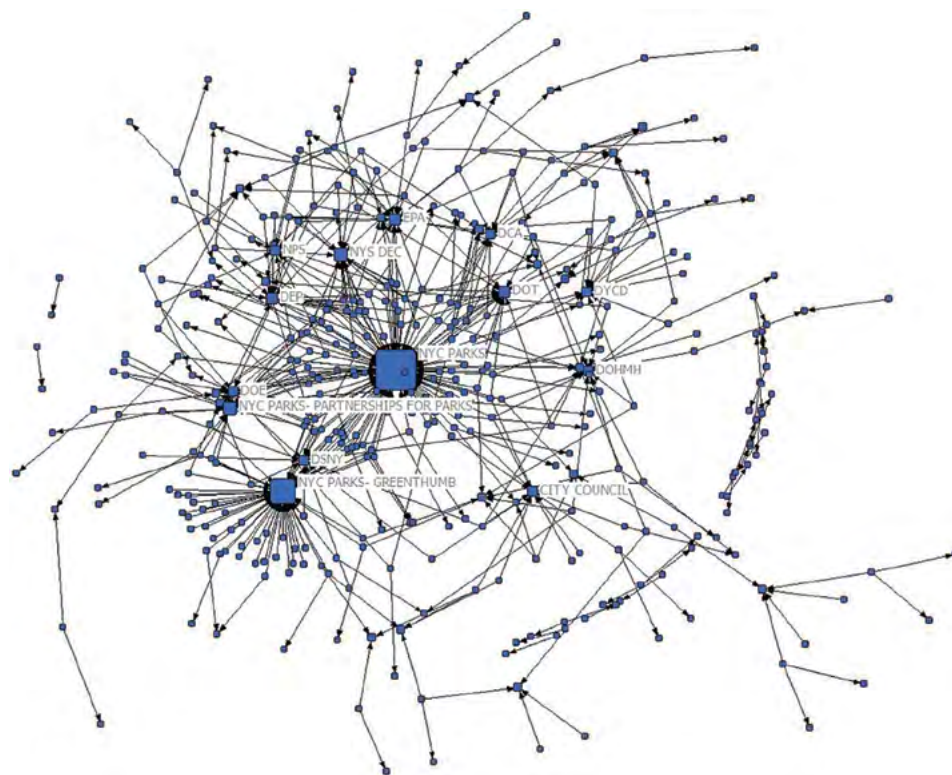
Figure 10.—New York City civic-to-public network.

most influential. This is an important point as we think about who makes decisions in any given community and how groups that are making contributions with labor and time are (or are not) part of that process of deliberative democracy.

Social-Ecological Questions

Other questions examined with STEW-MAP are socio-ecological in nature. In New York City, the density of stewardship groups has been compared to vegetation change (derived from Landsat satellite data) and urban development (change in building footprint) from 2000 to 2010. Most neighborhoods lost vegetation during the study period. Neighborhoods that gained vegetation tended to have, on average, more stewardship groups. We contextualize the ways in which stewardship groups led to the observed decadal- and neighborhood-scale changes in urban vegetation cover (Locke et al. 2014).

In Chicago, this detailed assessment of who is stewarding where is being compared to the Chicago Wilderness Green Infrastructure Vision in order to see where there might be synergies to build upon in conserving land and water of significant conservation issues as well as where there may be stewardship "deserts." Further research would be needed to understand the reasons behind the absence of stewardship, starting with verifying that stewardship was, indeed, absent from the area and not just from the database.

In Baltimore and Seattle, social network and spatial regression analyses were conducted to explore relationships among variations in land cover and network measures at the neighborhood level. Both the number of organizations and the number of ties between them correlated significantly and negatively with the percentage of tree canopy in Baltimore neighborhoods. There was no correlation between the number of organizations or their network characteristics and the abundance of tree canopy in Seattle (Romolini et al. 2013).

Public Applications and Visualization

Equally important to the scientific findings provided by a STEW-MAP study are the applications and visualizations of urban environmental stewardship that can be made publicly available. Data providers and other core partners in a STEW-MAP project may be presented with initial findings from the study and can provide valuable feedback since they are often the land managers, educators, and advocates of the urban environment who will find the data useful in their everyday operations.

Once a STEW-MAP database is finalized, queries may be conducted as requested by natural resource agencies and nonprofits. For example, it is possible to conduct a spatial query for all groups in a certain neighborhood, in a county, or within a certain radius of a park. Queries may also be run for groups of a certain type—for example, all groups who work on street trees. If the database is made publicly available, it is possible to build search functions so that anyone can search for a group by name, organization type, or geographic location (for example, see http://www.oasisnyc.net/stewardship/stewardshipsearch.aspx or http://stewmap.cnt.org). Finally, individual agencies as well as researchers can integrate the STEW-MAP data with other spatial data sets, including maps of parks, trees, or other green infrastructure in order to answer questions about the role of stewardship in the urban landscape.

LESSONS LEARNED

It is important to cultivate long-term, community-based natural resource stewardship for a wide variety of reasons including to foster innovation, to strengthen democratic practices through civic engagement, and to nurture a life-long respect and understanding of nature from busy city streets to suburban woodlots to our national forests and grasslands. STEW-MAP creates a framework to connect and strengthen the capacity of stewardship groups and to measure, monitor, and maximize the contribution of our civic resources.

With the proper planning and data management framework, STEW-MAP can produce valuable data about the landscape of environmental stewardship within any given locality or across a particular theme. Implementation of the project can also strengthen connections between core research partners and local civic or government data providers. In implementing STEW-MAP several times, we have learned some lessons key to success.

Have GIS Expertise on Your Team

The mapping component of STEW-MAP has the potential to provide some of the most interesting and useful visual representations of the data, but collecting and displaying accurate geographic information on stewarded sites and turfs is a challenge. Early involvement of a project partner with strong GIS, database development, and geographic data visualization skills is critical.

Establish the Population that You are Studying so that You Can Determine Response Rate

In the Chicago region, prior to beginning the survey, the researchers chose not to create a population dataset of stewardship groups and organizations. This presented some challenges during data analysis and made it impossible to know how many groups across the region had not participated. For future projects, we strongly recommend establishing a population dataset ahead of time in order to strengthen the scientific rigor of the data analysis and track participation (see the Determining the Population subsection, page 9). After the population data set is determined to be complete (via saturation), additional groups may still be identified (and invited to participate) as the data collection progresses.

Clearly Communicate Your Definition of Stewardship

STEW-MAP's broad definition of stewardship actively tries to include a range of work done on behalf of local environments, some of which may not be considered stewardship under more narrow definitions. For example, community gardening, vacant lot or beach clean-ups, and activism or advocacy focused on toxics, trash, or brownfields may be considered non-traditional stewardship activities but they are counted as stewardship in STEW-MAP. The STEW-MAP definition is intended to include stewardship done on a very small scale that, when aggregated with other small-scale stewardship, can have noticeable impacts on a neighborhood or a city.

It is important to communicate the project's definition of stewardship to intended survey participants, decision makers, and other project stakeholders so that they understand what the project is assessing. In the Chicago Wilderness-region, the term "steward" is specifically used for people who have completed special training to serve as forest preserve site stewards. In carrying out the project, project leaders needed to be sure to explain that they were trying to collect data on more than just forest preserve-focused sites and activities.

Expanding the Tool

Representing the world of environmental stewardship using STEW-MAP requires the collection, management, and visualization of large amounts of data. In this era of rapidly changing technologies and open-source solutions, there are more options than ever before in how to build numeric and geospatial databases. Multiple cities have now completed projects, with the iterations producing a clearer picture of project needs.

The Forest Service is now designing a multi-city platform for displaying and storing STEW-MAP data as an interactive, Web-based spatial database that will include links to additional data sources from STEW-MAP and related research partnerships.

For the latest information on STEW-MAP and who to contact for questions and assistance, visit: http://www.nrs.fs.fed.us/urban/monitoring/stew-map/. This site will continue to be updated over time as visitors can access online data sets, protocols, GIS maps, and network models, as well as findings from STEW-MAP and STEW-MAP-related projects from around the world.

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APPENDIX 1: PROJECT TEAMS AND WEBSITES

Below is a complete list of research teams at the U.S. Forest Service and project partners, by city.

USDA Forest Service

Website: http://www.nrs.fs.fed.us/urban/monitoring/stew-map/

This site will continue to be updated over time as visitors can access online data sets, protocols, GIS maps, and network models, as well as findings from STEW-MAP and STEW-MAP-related projects from around the world.

USDA Forest Service research team:

Dale J. Blahna, Seattle

Lindsay K. Campbell, New York City

Cherie LeBlanc Fisher, Chicago

J. Morgan Grove, Baltimore

Michelle L. Johnson, New York City

Dexter H. Locke, Clark University

Sarah Low, Philadelphia

Jarlath O'Neil-Dunne, University of Vermont Spatial Analysis Lab

Sonya Sachdeva, Chicago

Erika S. Svendsen, New York City and Philadelphia

Lynne M. Westphal, Chicago

Kathleen L. Wolf, Seattle

New York City

Websites:

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

http://www.oasisnyc.net/stewardship/stewardshipsearch.aspx

Research Collaborators:

Dana R. Fisher, Program for Society and the Environment at the University of Maryland

James J.T. Connolly, Northeastern University

Technical Support:

Jarlath O'Neil-Dunne, University of Vermont Spatial Analysis Lab

Steve Romalewski, Center for Urban Research at the CUNY Graduate Center

Christy Spielman, Center for Urban Research at the CUNY Graduate Center

Local Partners:

American Littoral Society, Northeast Chapter

Brooklyn Botanic Garden

Citizens Committee for New York City

Grow NYC

Horticultural Society of New York

Hudson River Foundation – NYC Environmental Fund

Million Trees NYC

New York City Department of Parks and Recreation GreenThumb Program

New York City Housing Authority

New York City Soil and Water Conservation District

New York-New Jersey Harbor Estuary Program

New York Restoration Project

Open Accessible Space Information System (OASIS)

Partnerships for Parks

Trees New York

Trust for Public Land

U.S. Environmental Protection Agency, Region 2

Wave Hill

Baltimore

Website: http://www.beslter.org/frame4-page_3d_28.html

Collaborators:

Michele Romolini, Loyola Marymount University Center for Urban Resilience

Parks and People Foundation

Tree Baltimore

Citizens Planning and Housing Association

Baltimore Office of Sustainability

Blue Water Baltimore

Baltimore Ecosystem Study

Baltimore Green Space

Chicago

Website: http://stewmap.cnt.org/

Collaborators:

Center for Neighborhood Technology

The Field Museum

Chicago Wilderness

Seattle

Website: http://depts.washington.edu/stewmap/

Collaborators:

Michele Romolini, Loyola Marymount University Center for Urban Resilience

Tim Nyerges, Oliver Bazinet, and Caitlin Singer, University of Washington College of the Environment

Weston Brinkley, Forterra / Street Sounds Ecology

City of Seattle Parks and Recreation

EarthCorps

Philadelphia

Website:
http://www.nrs.fs.fed.us/philadelphia/
http://www.drfisher.umd.edu/

Collaborators:

Dana R. Fisher, Program for Society and the Environment at the University of Maryland

City of Philadelphia Mayor's Office of Sustainability

Pennsylvania Horticultural Society

Philadelphia Parks and Recreation

Philly STAKE

APPENDIX 2: SURVEY PROTOCOLS

Office of Management and Budget (OMB) approved survey protocol

Welcome to the STEW-MAP survey!

Burden Statement

The Stewardship Mapping and Assessment Project or STEW-MAP is collecting information about civic groups and organizations that do environmental stewardship work in your region.

STEW-MAP uses the following definition of stewardship:

> *Stewardship is conserving, managing, caring for, monitoring, advocating for, and educating the public about local environments. This may include planting trees, restoring a prairie, advocating for open space preservation, gardening in a schoolyard, cleaning up a vacant lot, or many other kinds of activities.*

By completing this survey, you will be helping potential volunteers, public agencies, funders, and other stewards find your group and learn about what it does. You will also be able to learn about other stewardship groups in your region.

Your participation is completely voluntary. Your personal contact information will not be made public or used for any other purposes than by the research team to contact you if there are any questions about information you provide on the survey.

If you wish to have your organization's basic contact information and the place(s) you work displayed on the stewardship map for the region, you will have an opportunity to let us know in section two of this survey. All of the information you provide will help us to visually display the network of stewardship activities in your region.

Please use the following URL to start the survey.

SURVEY URL Here

However, if you would prefer paper version or to complete the survey over the telephone, please contact XXX.

STEW-MAP projects have already been done in Baltimore, Chicago, New York City, Philadelphia, and Seattle. Please visit www.stewmap.net to learn more.

Thank you for your time and participation!

STEW-MAP Survey

Section 1: Contact information

Your personal information will remain anonymous and we will not share the identifying information below with anyone outside of the research team. We may contact you if we have questions about information you provide on this survey.

Your Name: _____

Your Phone Number: (_____)_____- _____

Your E-mail: _____

Section 2: Contact Information for your group or organization

If you are affiliated with more than one group or organization (from now on, we'll just say "group" to keep things simple), please fill out the survey for each one. If you are not able to answer all of the questions, please reach out to someone else in your group and ask them to fill out the survey.

Group Name:_____(required)

Website (if available): _____

Mailing Address: _____
(with city/state/zip) __

Group E-mail: _____

Group Phone Number: (_____)_____-_____

Does your group wish to be on the online stewardship map?
The information associated with your group on the map will be limited to group name, website, mailing address, group email, and group phone number – plus your stewardship territory, which will be addressed later in the survey.

Yes _____ No _____

Section 3: General stewardship activities

Does your group do any of the following? Please select all that apply.

- ☐ Conserve or preserve the local environment?
- ☐ Take care of a place in the local environment (for example, a community garden, a block of street trees, an empty lot, a riverbank, a schoolyard, a forest preserve)?
- ☐ Restore or transform local habitat (e.g., daylighting a stream, brownfield to prairie restorations)?
- ☐ Monitor the quality of the local environment? This can include monitoring air or water quality, dumping, or species monitoring.
- ☐ Advocate for the local environment?
- ☐ Educate the public about the local environment?

[In the electronic version of the survey, if none of the above are selected, a pop-up appears that says "Thank you for your interest in filling out this survey. Your group's work does not meet our definition of environmental stewardship so we have no further questions. If you feel you have gotten this in error, please go back to the survey and continue."]

Section 4: Basic information about your group

What is your group's legal designation?
Please choose the most appropriate response.

- ☐ 501(c)(3) (or has applied)
- ☐ 501 (c)(4) (or has applied)
- ☐ Community group without 501(c)(3) or 501(c)(4) status (for example, a community garden group or block club)
- ☐ Local government agency
- ☐ State government agency
- ☐ Federal government agency
- ☐ Public administration district
- ☐ Private firm, for-profit business
- ☐ Other – please specify: _____

What does your group work on?

Please choose all that apply.

☐ Public health (including mental health, crisis intervention, health care)

☐ Education

☐ Transportation

☐ Housing and shelter

☐ Community improvement and capacity building

☐ Environment (including gardening, climate change, forestry, ecological restoration,   water and air protection, and land management)

☐ Toxics/pollution related

☐ Animal related

☐ Human services (including day care, family services)

☐ Youth

☐ Economic development

☐ Employment, job related

☐ Legal services, civil rights

☐ Arts, culture, creative practices

☐ Recreation and sports (including birding and fishing)

☐ Crime, criminal justice

☐ International, foreign affairs, and national security

☐ Research in science and/or technology

☐ Faith-based activities

☐ Power/electricity generation

☐ Energy Efficiency

☐ Private grant making foundation

☐ Seniors

☐ Food

☐ Other – please specify: _____

If you had to choose just one activity, what would you say is your group's *primary* focus?
Please choose one.

☐ Public health (including mental health, crisis intervention, health care)

☐ Education

☐ Transportation

☐ Housing and shelter

☐ Community improvement and capacity building

☐ Environment (including gardening, forestry, ecological restoration, water and air protection, and land management)

☐ Toxics/pollution related

☐ Animal related

☐ Human services (including day care, family services)

☐ Youth

☐ Economic development

☐ Employment, job related

☐ Legal services, civil rights

☐ Arts, culture, creative practices

☐ Recreation and sports (including birding and fishing)

☐ Crime, criminal justice

☐ International, foreign affairs, and national security

☐ Research in science and/or technology

☐ Faith-based activities

☐ Power/electricity generation

☐ Energy Efficiency

☐ Private grant making foundation

☐ Seniors

☐ Food

☐ Other – please specify: _____

Section 5: Your group's stewardship activities

Considering all of the programs, activities, and services your group works on,   what percentage of your group's effort has been for environmental stewardship   during the past year?
Please select one.

- ☐ 0-19%
- ☐ 20-39%
- ☐ 40-59%
- ☐ 60-79%
- ☐ 80-100%

What type(s) of setting has your group physically done stewardship work in   within the past year?
Please choose all that apply.

Water & Water-Related

- ☐ Watershed / Sewershed

- ☐ Stream / River / Canal

- ☐ Waterfront / Beach / Shoreline

- ☐ Wetland

- ☐ Other

Land

Natural / Restoration Area

- ☐ Prairie

- ☐ Forest/Woodland

- ☐ Park

- ☐ Community Garden

- ☐ Urban farm

- ☐ Playing field / Ball field / playground?

- ☐ Dog run or dog park

- ☐ Botanical Garden/Arboretum

- ☐ Trails / Bike paths / Greenway / Rail-trail

- ☐ Public Right of Way (Street ends, roadside, traffic island, greenstreet)
- ☐ Street Tree

Building

☐ Residential building grounds (apartment courtyard, back yard, etc.)

☐ Vacant land/Vacant lot

☐ School yard or grounds; outdoor classroom

☐ Grounds of public building other than school (e.g. city hall, library, hospital)

☐ Courtyard / Atrium / Plaza

☐ Flower box / Planter

☐ Rain gardens, rain barrels, permeable pavement, bioswales

☐ Green buildings

☐ Rooftop

☐ Brownfield property

☐ Recreation center

☐ Other – please specify: _____

Please tell us in your own words *why* your group thinks stewardship work is important.

_____

_____

_____

_____

Section 6: Where your group does stewardship

Please describe in detail the boundaries of where your group has physically done stewardship work within the past year. You can list multiple locations.
Examples: "On Main Street, between Maple and Crestview" —"the empty lot at 456 Broad Street " – "Jenkins Park" – "Northeast corner of the Lincoln Savanna" —"The Mary R. Stewart Nature Preserve" — "City of Elm Grove" – "ZIP code XXXXX" —"The West Side neighborhood in Madison" —"Washington County" —"the Green River Watershed" —"Statewide in Indiana"

_____

_____

_____

_____

Does your group have a Geographic Information System (GIS) file showing the boundaries of where you have done stewardship work within the past year that you would like to provide? Your GIS file will be used to accurately show your stewardship sites or territory on the online stewardship map. If you check 'yes,' the research team will contact you to get the file.

☐ Yes   ☐ No

Who owns the property or properties on which your group has physically done   stewardship work within the past year?
Please choose all that apply.

☐ Federal government

☐ State government

☐ County government

☐ City/Local government

☐ Other government (e.g. Port Authority)

☐ Individual

☐ Corporation (including joint ventures, real estate investment groups)

☐ Nonprofit

☐ Don't know

☐ Other – please specify: _____

Who is the owner of the *primary* property or properties on which your group has done stewardship work within the past year?
Please choose one.

☐ Federal government

☐ State government

☐ County government

☐ City/Local government

☐ Other government (e.g. Port Authority)

☐ Individual

☐ Corporation (including joint ventures, real estate investment groups)

☐ Nonprofit

☐ Don't know

Other – please specify: _____

<div style="background-color:#5a3a1a; color:white; text-align:center; font-weight:bold;">Section 7: The structure of your group</div>

What year was your group founded? _____

Note: for national or regional groups/organizations please tell us the approximate year your chapter was founded.

Approximately how many of the following does your group have?

Note: for national groups/organizations please provide regional information.

Full-time Staff: _____

Part-time Staff: _____

Members: _____

Regular Volunteers: _____

Note: regular volunteers are those who routinely volunteer in your group's activities. This is different from volunteers who may come out for a single work day.

For those volunteers who come out occasionally, please estimate the total number of hours they contribute per month.

Hours: _____

What is your group's estimated annual budget for the current year?

$_____   ☐ Prefer not to answer

What is your primary funding source?

Please select one.

☐ Government agencies

☐ Foundations

☐ Endowment

☐ Individual memberships

☐ Fees/program income

☐ Corporate giving/sponsorship

Other: _____

Section 8: Organizational Services

What types of services does your group provide?

Please select all that apply.

☐ Educational curricula

☐ Legal resources

☐ Buildings/facilities

☐ Plant materials/equipment

☐ Technical assistance

     ☐ Labor (volunteers/students/interns)

     ☐ Grants

     ☐ Community organizing

     ☐ Computing / internet

     ☐ Public relations/outreach

     ☐ Data

     ☐ Other: _____

How does your group share information with the public?
Please select all that apply.

     ☐ N/A, we don't share information

     ☐ National media

     ☐ Local media

     ☐ Direct mailing / newsletters

     ☐ Door-to-door outreach

     ☐ Flyers / signs

     ☐ Website

     ☐ Listserv

     ☐ Blog

     ☐ National conferences/meetings

     ☐ Regional conferences/meetings

     ☐ City conferences/meetings

     ☐ Neighborhood-based conferences/meetings

     ☐ Radio

     ☐ TV

     Other: _____

Section 9: Stewardship Networking

Please tell us about your group's relationship to other groups/organizations.   Please list one group per box, additional boxes will appear if you need them.

Please list groups/organizations with which you regularly collaborate on stewardship or environment-focused projects or programs. These may be community-based groups,   nonprofits, private companies, faith-based organizations, etc. You can list as many as you wish.

_____   _____

_____   _____

_____   _____

_____   _____

_____   _____

[On the electronic version of the survey, additional entry slots will continue to appear as the existing

ones fill up until the respondent has listed as many organizations as they wish.]

Please list groups that you go to for advice, data, or expertise related to stewardship or environmental issues. You can list as many as you wish.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

[On the electronic version of the survey, additional entry slots will continue to appear as the existing ones fill up until the respondent has listed as many organizations as they wish.]

Please list groups/organizations/agencies you have gotten funding from in the last two years. You can list as many as you wish.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

[On the electronic version of the survey, additional entry slots will continue to appear as the existing ones fill up until the respondent has listed as many organizations as they wish.]

Section 10: Final Section

Is there anything else you would like to tell us about your group or this survey?

_____
_____
_____
_____
_____
_____

This concludes the STEW-MAP survey.
Thank you for your participation.

USDA Forest Service   OMB 0596-0240
                                                                EXP. 08/31/2018

Welcome to the STEW-MAP survey!

Burden Statement

The Stewardship Mapping and Assessment Project or STEW-MAP is collecting information about civic groups and organizations that do environmental stewardship work in your region.

STEW-MAP uses the following definition of stewardship:

> *Stewardship is the conserving, managing, caring for, monitoring, advocating for, and educating the public about local environments. This may include planting trees, restoring a prairie, advocating for open space preservation, gardening in a schoolyard, cleaning up a vacant lot, or many other kinds of activities.*

By completing this survey, you will be helping potential volunteers, public agencies, funders, and other stewards find your group and learn about what it does. You will also be able to learn about other stewardship groups in your region.

Your participation is completely voluntary. Your personal contact information will not be made public or used for any other purposes than by the research team to contact you if there are any questions about information you provide on the survey.

Please use the following URL to start the survey.
                         SURVEY URL Here

If you would prefer paper version or to complete the survey over the telephone, please contact XXX.

STEW-MAP projects have already been done in Baltimore, Chicago, New York City, Philadelphia, and

Seattle. Please visit www.stewmap.net to learn more.

Thank you for your time and participation!

STEW-MAP Survey

Section 1: Contact information

Your personal information will remain anonymous and we will not share the identifying information below with anyone outside of the research team. We may contact you if we have questions about information you provide on this survey.

Your Name: _____

Your Phone Number: (_____)_____- _____

Your E-mail: _____

Section 2: Basic Information about your group or organization

If you are affiliated with more than one group or organization (from now on we'll just say "group" to keep things simple), please fill out the survey for each group. If you are not able to answer all of the questions, please reach out to someone else in your group and ask them to fill out the survey.

Group Name:_____(required)

Website (if available): _____

Mailing Address: _____
(with city/state/zip) __

Does your group wish to be on the online stewardship map?
The information associated with your group on the map will be limited to group name, website, mailing address, group email, and group phone number – plus your stewardship territory, which will be addressed later in the survey.

Yes _____ No _____

Section 3: General Stewardship Activities

Does your group do any of the following? Please select all that apply.

☐ Conserve or preserve the local environment?

☐ Take care of a place in the local environment (for example, a community garden, a block of street trees, an empty lot, a riverbank, a schoolyard, a forest preserve)?

☐ Restore or transform local habitat (e.g., daylighting a stream, brownfield to prairie restorations)?

☐ Monitor the quality of the local environment? This can include monitoring air or water quality, dumping, or species monitoring.

☐ Advocate for the local environment?

☐ Educate the public about the local environment?

[In the electronic version of the survey, if none of the above are selected, a pop-up appears that says "Thank you for your interest in filling out this survey. Your group's work does not meet our definition of environmental stewardship so we have no further questions. If you feel you have gotten this in error, please go back to the survey and continue."]

Section 4: Basic information about your group

What is your group's legal designation?
Please choose the most appropriate response.

☐ 501(c)(3) (or has applied)

☐ 501 (c)(4) (or has applied)

☐ Community group without 501(c)(3) or 501(c)(4) status (for example, a community garden group or block club)

☐ Local government agency

☐ State government agency

☐ Federal government agency

☐ Public administration district

☐ Private firm, for-profit business

☐ Other – please specify: _____

If you had to choose just one activity, what would you say is your group's *primary* focus?
Please choose one.

☐ Public health (including mental health, crisis intervention, health care)

☐ Education

☐ Transportation

☐ Housing and shelter

☐ Community improvement and capacity building

☐ Environment (including gardening, forestry, ecological restoration, water and air protection, and land management)

☐ Toxics/pollution related

☐ Animal related

☐ Human services (including day care, family services)

☐ Youth

☐ Economic development

☐ Employment, job related

☐ Legal services, civil rights

☐ Arts, culture, creative practices

☐ Recreation and sports (including birding and fishing)

☐ Crime, criminal justice

☐ International, foreign affairs, and national security

☐ Research in science and/or technology

☐ Faith-based activities

☐ Power/electricity generation

☐ Energy Efficiency

☐ Private grant making foundation

☐ Seniors

☐ Food

☐ Other – please specify: _____

Section 5: Your group's stewardship activities

Considering all of the programs, activities, and services your group works on, what percentage of your group's effort has been for environmental stewardship during the past year?
Please select one.

☐ 0-19%
☐ 20-39%
☐ 40-59%
☐ 60-79%
☐ 80-100%

What type(s) of setting has your group physically done stewardship work on within the past year?
Please choose all that apply.

Water & Water-Related

☐ Watershed / Sewershed

☐ Stream / River / Canal

☐ Waterfront / Beach / Shoreline

☐ Wetland

☐ Other

Land
Natural / Restoration Area

☐ Prairie

☐ Forest/Woodland

☐ Park

☐ Community Garden

☐ Urban farm

☐ Playing field / Ball field / playground?

☐ Dog run or dog park

☐ Botanical Garden/Arboretum

☐ Trails / Bike paths / Greenway / Rail-trail

☐ Public Right of Way (Street ends, roadside, traffic island, greenstreet)

☐ Street Tree

Building

☐ Residential building grounds (apartment courtyard, back yard, etc.)

☐ Vacant land/Vacant lot

☐ School yard or grounds; outdoor classroom

☐ Grounds of public building other than school (e.g. city hall, library, hospital)

☐ Courtyard / Atrium / Plaza

☐ Flower box / Planter

☐ Rain gardens, rain barrels, permeable pavement, bioswales

☐ Green buildings

☐ Rooftop

☐ Brownfield property

☐ Recreation center

☐ Other – please specify: _____

Section 6: Where your group/organization does stewardship

Please describe in detail the boundaries of where your group has physically   done stewardship work within the past year. You can list multiple locations.
Examples: "On Main Street, between Maple and Crestview" —"the empty lot at 456 Broad Street " – "Jenkins Park" – "Northeast corner of the Lincoln Savanna" —"The Mary R. Stewart Nature Preserve" — "City of Elm Grove" – "ZIP code XXXXX" —"The West Side neighborhood in Madison" —"Washington County" —"the Green River Watershed" —"Statewide in Indiana"

_____

_____

_____

_____

Does your group have a Geographic Information System (GIS) file showing the   boundaries of where you have done stewardship work within the past year that you would like to provide? Your GIS file will be used to accurately show your stewardship sites or territory on the online stewardship map. If you check 'yes,' the research team will contact you to get the file.

☐ Yes ☐ No

Section 7: The structure of your group/organization

What year was your group founded? _____

Note: for national or regional groups/organizations please tell us the approximate year your chapter was

founded.

Approximately how many of the following does your group have?
Note: for national groups/organizations please provide regional information.

Full-time Staff: _____
Part-time Staff: _____

What is your group's estimated annual budget for the current year?

$_____   ☐ Prefer not to answer

What is your primary funding source?
Please select one.

    ☐ Government agencies
    ☐ Foundations
    ☐ Endowment
    ☐ Individual memberships
    ☐ Fees/program income
    ☐ Corporate giving/sponsorship
  Other: _____

Section 8: Organizational Services

What types of services does your group provide?
Please select all that apply.

    ☐ Educational curricula
    ☐ Legal resources
    ☐ Buildings/facilities
    ☐ Plant materials/equipment
    ☐ Technical assistance
    ☐ Labor (volunteers/students/interns)
    ☐ Grants
    ☐ Community organizing
    ☐ Computing / internet
    ☐ Public relations/outreach
    ☐ Data
    ☐ Other: _____

Section 9: Final Section

Is there anything else you would like to tell us about your group or this survey?

_____

_____

_____

_____

_____

_____

This concludes the STEW-MAP survey.
Thank you for your participation.

USDA Forest Service

OMB 0596-0240
EXP. 08/31/2018

Welcome to the STEW-MAP survey!

Burden Statement

PAPERWORK REDUCTION and PRIVACY ACT STATEMENTS: *According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number.* Response to this request is voluntary. No action may be taken against for refusing to supply the information requested. The permanent data will be anonymous.

BURDEN ESTIMATE STATEMENT: Public reporting burden for this form is estimated to be 1 minute per completed response. Direct comments regarding the burden estimate or any other aspect of this form to: Survey contact Name, full address and email address.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

The Stewardship Mapping and Assessment Project or STEW-MAP is collecting information about civic groups and organizations that do environmental stewardship work in your region.

By completing this survey, you will be helping potential volunteers, public agencies, funders, and other stewards find your group and learn about what it does. You will also be able to learn about other stewardship groups in your region. Your participation is completely voluntary.

Please use the following URL to start the survey.

SURVEY URL Here

STEW-MAP projects have already been done in Baltimore, Chicago, New York City, Philadelphia, and Seattle. Please visit www.stewmap.net to learn more.

Thank you for your time and participation!

STEW-MAP Survey

Section 1: Basic Information about your group or organization

Group Name:_____(required)

Zip code of mailing address: _____

Section 2: General Stewardship Activities

Does your group do any of the following? Please select all that apply.

☐ Conserve or preserve the local environment?

☐ Take care of a place in the local environment (for example, a community garden, a block of street trees, an empty lot, a riverbank, a schoolyard, a forest preserve)?

☐ Restore or transform local habitat (e.g., daylighting a stream, brownfield to prairie restorations)?

☐ Monitor the quality of the local environment? This can include monitoring air or water quality, dumping, or species monitoring.

☐ Advocate for the local environment?

☐ Educate the public about the local environment?

[In the electronic version of the survey, if none of the above are selected, a pop-up appears that says "Thank you for your interest in filling out this survey. Your group's work does not meet our definition of environmental stewardship so we have no further questions. If you feel you have gotten this in error, please go back to the survey and continue."]

Section 3: Basic information about your group/organization

What is your group's legal designation?
Please choose the most appropriate response.

☐ 501(c)(3) (or has applied)

☐ 501 (c)(4) (or has applied)

☐ Community group without 501(c)(3) or 501(c)(4) status (for example, a community garden group or block club)

☐ Local government agency

☐ State government agency

☐ Federal government agency

☐ Public administration district

☐ Private firm, for-profit business

☐ Other – please specify: _____

If you had to choose just one activity, what would you say is your group's *primary* focus?
Please choose one.

☐ Public health (including mental health, crisis intervention, health care)

☐ Education

☐ Transportation

☐ Housing and shelter

☐ Community improvement and capacity building

☐ Environment (including gardening, forestry, ecological restoration, water and air protection, and land management)

☐ Toxics/pollution related

☐ Animal related

☐ Human services (including day care, family services)

☐ Youth

☐ Economic development

☐ Employment, job related

☐ Legal services, civil rights

☐ Arts, culture, creative practices

☐ Recreation and sports (including birding and fishing)

☐ Crime, criminal justice

☐ International, foreign affairs, and national security

☐ Research in science and/or technology

☐ Faith-based activities

☐ Power/electricity generation

☐ Energy Efficiency

☐ Private grant making foundation

☐ Seniors

☐ Food

☐ Other – please specify: _____

What year was your group founded? _____
Note: for national or regional groups/organizations please tell us the approximate year your chapter was founded.

This concludes the STEW-MAP survey.
Thank you for your participation.

The following are examples of outreach correspondences to use with the STEW-MAP project. Outreach needs to be customized based on how the person's contact information is obtained. In some cases, partner organizations would actually send the letter or email on behalf of the STEW-MAP research team. This is done so that the letter is received from an organization with which the recipient already has a relationship. It also allows some customization based on characteristics of the recipients (for example, an organization that supports local community gardening efforts might customize the text for gardeners). In all cases, these customizations would be only minor wording changes.

Introductory Postcard or Email

Dear Eco-Steward:
If you are a gardener, park advocate, beach cleaner, environmentalist, eco-educator, or community organizer – **we need your help to put your group on the map!**

We are in the process of developing the first-ever comprehensive map of civic stewardship groups working throughout the city. The Stewardship Mapping and Assessment Project (STEW-MAP) will create a publicly available database and map of stewardship groups. Right now we are starting with you.

Don't let your hard work go unrecognized.

Over the next year, researchers from the US Forest Service and [other main project partners] will work to collect information about where and how environmental stewards are working throughout the city. Please look forward to receiving a survey from us within the next two weeks. The survey will arrive through your email, however if you would prefer to receive a paper copy of the survey, please contact us at: [CONTACT INFORMATION].

We are excited to invite you to participate in this important and ground-breaking project. Once you receive the survey we are asking that you take the time to complete and return it as soon as you possibly can.

Para una versión en español, favor de email: [email address]

Sincerely,

The STEW-MAP team

OMB Control Number: 0596-0240

Email or Letter with Survey Link

Dear [Partnership or Coalition] Member(s)

About two weeks ago you received a [postcard or email] asking you to participate in the Stewardship Mapping and Assessment Project (STEW-MAP). Today we are sending you the URL so that you can complete the survey as soon as possible.

<div align="center">Survey URL here</div>

If your group does any work on behalf of the environment (community gardening, ecological restoration, monitoring, advocacy, environmental education, or other activities), we want to hear from you! The information in this survey will be used by our STEW-MAP team to develop a publicly available, online database of stewardship organizations working on environmental projects throughout the city. This will be the first of its kind in this city – and we are starting with you.

Once open, the survey will take about 30 minutes to complete. This is completely voluntary and you are not required to respond to a collection of information from a federal agency unless it displays a currently valid OMB Control Number. The Control Number for this collection is: 0596-0240. All responses are completely anonymous and we will never publicly connect your organization with any responses. If you are not able to finish the survey at one time, you can start now and complete as much as you can. You can save your work and return later. We would like to have your survey completed within the next two weeks.

If you have any questions about this survey or would like more information, please contact a member of the STEW-MAP team at (email address here).

Sincerely,

STEW-MAP Team

Follow-up email for someone who hasn't completed the survey after 2 weeks:

Dear Eco-Steward,

This is such a busy time of year for everyone who cares about the environment. We understand how valuable your time is and hope that you can find about 30 minutes to complete the STEW-MAP survey for your group.

We need information from groups like yours so that we can get a well-rounded picture of who is doing environmental stewardship work in our city. The survey can be found at:

[Survey URL]

If you are not able to finish the survey at one time, you can start now and complete as much as you can. You can save your work and return later.

Thank you in advance for contributing to the STEW-MAP project by completing the survey. Please contact us if you have any questions.

Sincerely,
[STEW-MAP team]
[contact information]

Optional follow-up, thank you message for someone who filled out the survey but said no to being on the online map

Hello [Partnership or Coalition] Member(s)

On behalf of the Stewardship Mapping and Assessment Project, I would like to thank you for completing the Stew-MAP survey for your organization. At one point in the survey, you indicated that you did not wish to be included on the stewardship map. If you have reconsidered and would like to add your organization to the map, please log back into your survey and you will be able to view or update your previous responses. If you would like to log back in, please use the following steps:

    1. Use the following link to access the survey [URL Here]
    2. In the box, at the bottom of the welcome page enter your email address exactly as you provided it on the survey (the email used to send you this note)
    3. Click the "Continue" button
    4. On the next screen, click on the link for your organization
    5. Use the navigation buttons at the bottom of each page until you reach the following question "Does your group/organization wish to be on the online stewardship map?"
        Click "Yes" and your group will be added to the online map.

Please do not hesitate to be in touch if you have any questions.

Sincerely,

Signature
Email address

Optional follow-up, thank you message for someone who started to fill out the survey but did not complete it

Hello, XXX. Thank you for starting the Stew-MAP survey for [group name]. You can see yourself on the online stewardship map at [URL]. We know that your time is valuable and hope that you can find the time to complete the survey in the next few weeks. We need information from groups like yours so that we can get a well-rounded picture of who is doing environmental stewardship work in our city.

Please follow these steps to log back into the survey to answer skipped questions or update your previous responses:

      1. Go to the bottom of the welcome page [URL]
      2. In the box, enter your email address exactly as you provided it on the survey (the email used to send you this note)
      3. Click the "Continue" button
      4. Click on the link for your organization on the next screen
      5. Page through the survey using the navigation buttons at the bottom of each page.

Please do not hesitate to be in touch if you have any questions.

Sincerely,

Signature
Email address

OMB-approved Census Interview Guide

Target Respondents: large stewardship organizations, environmental coalition or umbrella groups, and local government agencies.

Paperwork Reduction Act Statement

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0240. This information will be used to conduct an assessment of environmental stewardship activities in this community. The time required to complete this information collection is estimated to average 15 minutes per response, including the time forlocatingand sharing pertinent contact lists with us.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Script:

Hello, I am contacting you on behalf of the STEW-MAP project which is assessing environmental stewardship work in this region.

[At this point, we will convey the gist of the PRA Statement and USDA Discrimination Statement above. We will offer a written version of both if requested.]

We are compiling a contact list of stewardship groups and organizations. We will only use this information to contact stewardship groups to participate in the STEW-MAP survey. Any format that is easiest for you will work for us (for example, fax, hard copy, digital file).

Would you please share your list of local stewardship group contacts for us to use as part of the STEW-MAP project?

Thank you for helping us with this project.

[Most people contacted for this information will already know about STEW-MAP from past conversations and/or may be partners on the project. However, if the person should ask for more information about STEW-MAP before answering the question about sharing their contact lists, we will use the following script:]

STEW-MAP Background

As you know, civic environmental stewards across the United States are involved in activities like planting trees, organizing community gardens, offering classes, leading conservation efforts, monitoring plants and animals, and cleaning up nearby parks or natural areas. In urban areas, effective management of parks, public forests, natural areas, parkways, and other public open spaces increasingly relies on the work of civic environmental stewardship groups and coalitions.

At present, no natural resource agency or organization is collecting and sharing comprehensive environmental stewardship data at the local level. STEW-MAP (the Stewardship Mapping and Assessment Project) aims to fill this gap. There are three phases to STEW-MAP:

- Phase One is a census of stewardship groups in the target city or region – essentially putting together a master list of known stewardship groups. That is what we are asking for from you.

- Phase Two is a survey which will be distributed to all of the organizations identified in Phase One to collect information about what they work on, how their group is structured, where they work, and what other groups they collaborate with.

- Phase Three is follow-up interviews with key longstanding organizations identified during Phase Two to collect more detailed information about their stewardship histories and experiences.

The information collected via STEW-MAP will help natural resource decision makers, land managers, and stewards themselves understand the extent and distribution of local civic environmental stewardship across a city or metropolitan region. This information can be used to guide local resource allocation decisions and policies regarding care of forests and other natural resources.

OMB-approved Follow-up Interview Protocol

<u>Target Respondents</u>: leaders at key environmental hub organizations as identified in the social network section of the STEW-MAP survey. Specific organizations will be selected based on being named the most frequently by other groups in responses to the social network questions.

Paperwork Reduction Act Statement

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0240. The time required to complete this information collection is estimated to average 1 hour, which includes participating in a one-on-one interview about your organization's history of environmental stewardship work.

_____

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Script:

We are asking 10 people from this city to participate in interviews about local environmental stewardship work. You were chosen because other environmental stewards consider your organization to be a leader in the local environmental stewardship community. By participating in this interview, you will be involved in a research study about the ways that your organization is working to conserve, manage, monitor, advocate for and educate the public about the local environment. During the interview, we will ask you about your organization and how it has historically worked to steward the environment. Your participation is voluntary. If you feel uncomfortable at any time, feel free to stop the interview.

[At this point, we will convey the gist of the PRA Statement and USDA Discrimination Statement above. We will offer a written version of both if requested.]

Although the interview will ask for your name and contact information, all personal identifying information will be substituted with randomly generated identification codes once the study is completed. The code sheet that will link your name and contact information to your interview will be kept in a locked file cabinet. If you have comments regarding the conduct of this research or questions about your rights as a research participant, you should contact _____ [fill in specific information for each STEW-MAP project].

If at any time you have questions or comments regarding the interview or the overall project, please feel free to contact the project researchers, _____ [fill in specific information for each STEW-MAP project].

For all of the following questions, please consider the programs of your organization that deal directly with environmental stewardship.

Please state your name, your position and how long you have been working/volunteering with [use organization name].

1. What year was your organization founded? Can you tell me the story of its founding? (Who, where, how?) Have there been any major milestones in your organization's history? Has the work of your organization changed since the time of its founding? If so, in what way?

2. Can you describe the area where your group physically worked when your organization was founded? If it has changed at all over time, can you describe the ways it has changed (and why)?

3. Does your organization have individual members? If so, please explain what members do (if there are many types of "membership" please explain how members are distributed across these different types). Has membership in your organization changed since the organization was founded? If so, how?

4. Are there particular government policies or programs that have historically shaped your organization's work to a large extent (e.g. dedicated funding, administrative practices or partnerships, laws that affect your work)? Can you provide examples?

5. Do you work with specific civic organizations, community organizations and non-profits around the city? Who and how? *(Follow up regarding resources and formal agreements.)* Have your connections to these groups changed over time? If so, how?

6. Do you work with specific government agencies in the city? Who and how? *(Follow up regarding resources and formal agreements.)* Have your connections to these groups changed over time? If so, how?

7. Do you work with specific business groups and/or businesses around the city? Who and how? *(Follow up regarding resources and formal agreements.)* Have your connections to these groups changed over time? If so, how?

8. Have you had any challenges – or experienced constraints to your stewardship efforts – in working with particular organizations, individuals, or entities over the years? If so, please tell me more about this. Has your relationship to these groups or individuals changed over time? If so, how?

9. Is there anyone else that you think I should speak with about environmental efforts in this city [or area or region] over the last 25 years?

10. Would you be willing to be contacted again for follow-up questions? If so, please confirm your email address.

STEW-MAP:
The Citywide Stewardship Census

The intent of this study is to understand environmental stewardship in New York City. We define stewardship as the act of conserving, managing, monitoring, advocating for, and educating the public about their local environments.

In this assessment we ask questions about your organization, who you work with, where you work, what you do, and how you do it. It should take about 15-20 minutes to complete.

Based on the information we collect, we will develop maps to show how people work together to improve the urban environment of New York City. Thank you for participating in this effort.

ORGANIZATIONAL CONTACT INFORMATION

ORGANIZATION NAME: _____

WEB SITE (IF AVAILABLE): _____

MAILING ADDRESS: _____

CITY _____ STATE _____ ZIP _____

KEY CONTACT NAME: _____

ORGANIZATION EMAIL: _____

ORGANIZATION PHONE: _____

DOES YOUR ORGANIZATION WISH TO BE LISTED IN A PUBLIC, ONLINE STEWARDSHIP DATABASE?
☐ YES ☐ NO

This identifying information is confidential. We will not share your name, personal email, personal phone number, or other identifying information with anyone.

RESPONDENT NAME:

_____

RESPONDENT EMAIL:

_____

RESPONDENT PHONE:

_____

STEW-MAP: *The Citywide Stewardship Census*

SECTION I

Tell us about your group's environmental stewardship activities

1. **DOES YOUR GROUP AIM TO CONSERVE THE LOCAL ENVIRONMENT?**
☐ YES   ☐ NO

2. **DOES YOUR GROUP MANAGE SOME AREA OF THE LOCAL ENVIRONMENT?**
☐ YES   ☐ NO

3. **DOES YOUR GROUP MONITOR THE QUALITY OF THE LOCAL ENVIRONMENT?**
☐ YES   ☐ NO

4. **DOES YOUR GROUP ADVOCATE FOR THE LOCAL ENVIRONMENT?**
☐ YES   ☐ NO

SECTION II

Tell us about us about what your organization does

5. **DOES YOUR GROUP AIM TO EDUCATE THE PUBLIC ABOUT THE LOCAL ENVIRONMENT?**
☐ YES   ☐ NO

6. **WHAT IS YOUR GROUP'S PRIMARY FOCUS?** *(Please select all that apply)*
☐ PUBLIC HEALTH *(Including Mental Health, Crisis Intervention, Health Care)*
☐ EDUCATION
☐ HOUSING AND SHELTER
☐ COMMUNITY IMPROVEMENT AND CAPACITY BUILDING
☐ ENVIRONMENT *(Including Gardening, Forestry, Water And Air Protection)*
☐ ANIMAL RELATED
☐ HUMAN SERVICES *(Including Day Care, Family Services)*
☐ EMPLOYMENT, JOB RELATED
☐ LEGAL SERVICES, CIVIL RIGHTS
☐ ARTS, CULTURE
☐ RECREATION AND SPORTS *(Including Birding And Angling)*
☐ CRIME, CRIMINAL JUSTICE
☐ INTERNATIONAL, FOREIGN AFFAIRS, AND NATIONAL SECURITY
☐ RESEARCH IN SCIENCE, TECHNOLOGY, AND SOCIAL SCIENCES
☐ RELIGION RELATED
☐ PRIVATE GRANTMAKING FOUNDATION
☐ SENIORS
☐ YOUTH
☐ TRANSPORTATION RELATED
☐ DEVELOPMENT *(Including Business, Community, Real Estate)*
☐ OTHER: _____

7. **WHAT IS YOUR GROUP'S MISSION STATEMENT?** *(200 words or less please.)*

_____

_____

_____

_____

8. **WHAT YEAR WAS YOUR ORGANIZATION FOUNDED?**

_____

STEW-MAP: *The Citywide Stewardship Census*

9.   AT WHICH TYPES OF SITES DOES YOUR GROUP PHYSICALLY WORK?
(Please circle all that apply)

WATER	**LAND**	**BUILDING**
WATERSHED/SEWERSHED	"NATURAL"/ RESTORATION AREA	GREEN BUILDING
STREAM/RIVER/CANAL	PARK	ROOFTOP
WATERFRONT/BEACH/ SHORELINE	COMMUNITY GARDEN	COURTYARD/ATRIUM/ PLAZA
	VACANT LAND	FRONT YARD / BACK YARD
	PLAYING FIELD/BALLFIELD	SCHOOL YARD
	DOG RUN	APARTMENT GROUNDS
	STREET TREE	
	BOTANICAL GARDEN	
	GREENWAY/RAIL-TRAIL	
	FLOWER BOX/PLANTER	
	PUBLIC RIGHT OF WAY (E.G. STREET ENDS, ROADSIDE, TRAFFIC ISLAND, GREENSTREET)	
	URBAN FARM	

10.   MY ORGANIZATION: *(Please check and fill in all that apply.)*

☐ IS A 501(C)(3)
☐ HAS APPLIED FOR 501(C)(3) STATUS
☐ RECEIVES FUNDING THROUGH THE FOLLOWING
   501(C)(3) ORGANIZATION: _____
☐ IS A BRANCH OF A LARGER 501(C)(3)
☐ IS A COMMUNITY GROUP WITHOUT 501(C)(3) STATUS
☐ IS A SCHOOL-AFFILIATED COMMUNITY GROUP
☐ IS A RELIGIOUS CONGREGATION (CHURCH, SYNAGOGUE, MOSQUE, ETC),
   BUT NOT A 501(C)(3)
☐ IS NOT TAX EXEMPT (PRIVATE FIRM, ETC)
☐ IS A GOVERNMENT AGENCY
☐ IS A 501(C)(4)
☐ IS A PUBLIC – PRIVATE PARTNERSHIP
☐ OTHER: _____

Since the purpose of this study is to learn more about nonprofit organizations and community groups, if you chose "is not tax exempt" or "is a government agency", you do not need to complete the entire form. Please return the form in the enclosed envelope. Thank you.

11.   HOW MANY OF THE FOLLOWING DOES YOUR ORGANIZATION HAVE?
(Please circle the appropriate range in each category)

PAID STAFF	VOLUNTEERS	MEMBERS
0 – 1	0 – 1	0 – 1
2 – 3	2 – 3	2 – 3
4 – 5	4 – 5	4 – 5
6 – 10	6 – 10	6 – 10
11+	11+	11+

STEW-MAP: *The Citywide Stewardship Census*

SECTION III

Tell us where your group conducts its stewardship activities

12. WHERE DOES YOUR GROUP PHYSICALLY WORK?

12A. INTERNATIONAL: _____ *(Please specify where)*

12B. NATIONAL/STATEWIDE
- ☐ ALL STATES
- ☐ NEW YORK
- ☐ NEW JERSEY
- ☐ CONNECTICUT
- ☐ OTHER: _____ *(Please list)*

12C. COUNTIES / BOROUGHS

NYC
- ☐ BRONX COUNTY, NY
- ☐ KINGS COUNTY (BROOKLYN), NY
- ☐ NEW YORK COUNTY (MANHATTAN), NY
- ☐ QUEENS COUNTY, NY
- ☐ RICHMOND COUNTY (STATEN ISLAND), NY

LONG ISLAND
- ☐ NASSAU COUNTY
- ☐ SUFFOLK COUNTY

WESTCHESTER + SURROUNDING COUNTIES
- ☐ ORNAGE COUNTY
- ☐ PUTNAM COUNTY
- ☐ ROCKLAND COUNTY
- ☐ WESTCHESTER COUNTY

NEW JERSEY
- ☐ BERGEN COUNTY
- ☐ ESSEX COUNTY
- ☐ HUDSON COUNTY
- ☐ MIDDLESEX COUNTY
- ☐ MONMOUTH COUNTY
- ☐ PASSAIC COUNTY
- ☐ UNION COUNTY

☐ OTHER: _____

12D. NYC COMMUNITY BOARDS: *(Please list borough and number)*

_____
_____
_____

12E. NYC NEIGHBORHOODS: *(Please specify)*

_____
_____

13. PLEASE DESCRIBE IN DETAIL THE BOUNDARIES OF WHERE YOUR GROUP CURRENTLY WORKS. 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."; "the Arthur Kill between Staten Island and New Jersey"; "All of the shoreline in the Hudson River Estuary"; "all of ZIP code 10007"; "The Croton Watershed"; "The Guangdong Province of China"

_____
_____
_____
_____

14. **WHO OWNS THE PROPERTY ON WHICH YOUR ORGANIZATION TYPICALLY WORKS?** *(Please choose all that apply.)*

☐ FEDERAL GOVERNMENT
☐ STATE GOVERNMENT
☐ LOCAL GOVERNMENT
☐ OTHER GOVERNMENT (E.G. NY-NJ PORT AUTHORITY): _____
☐ INDIVIDUAL
☐ CORPORATION (INCLUDING JOINT VENTURES, REITS)
☐ NONPROFIT

SECTION IV

Tell us about your organization's relationship to other groups

15. **PLEASE LIST UP TO THREE GROUPS/ORGANIZATIONS IN EACH OF THE FOLLOWING CATEGORIES WITH WHICH YOU COLLABORATE.**

BUSINESS GROUPS

_____
_____
_____
_____
_____

CIVIC GROUPS /COMMUNITY GROUPS/NONPROFITS

_____
_____
_____
_____
_____

GOVERNMENT AGENCIES

_____
_____
_____
_____
_____

SCHOOL GROUPS

_____
_____
_____
_____
_____

STEW-MAP: *The Citywide Stewardship Census*

SECTION V

Tell us a bit more about what your group does

16.   WHAT TYPE OF SERVICES DOES YOUR GROUP CURRENTLY PROVIDE?
(Select all that apply)

☐ EDUCATIONAL CURRICULA
☐ LEGAL RESOURCES
☐ BUILDINGS/FACILITIES
☐ PLANT MATERIALS/EQUIPMENT
☐ TECHNICAL ASSISTANCE
☐ LABOR: (VOLUNTEERS/STUDENTS/INTERNS)
☐ GRANTS
☐ COMMUNITY ORGANIZING
☐ COMPUTING / INTERNET
☐ PUBLIC RELATIONS/OUTREACH
☐ DATA
☐ OTHER _____

17.   HOW DOES YOUR GROUP SHARE INFORMATION WITH THE PUBLIC?
(Select all that apply)

☐ N/A, WE DON'T SHARE INFORMATION
☐ NATIONAL MEDIA
☐ LOCAL MEDIA
☐ DIRECT MAILING / NEWSLETTERS
☐ DOOR-TO-DOOR OUTREACH
☐ FLYERS / SIGNS
☐ WEBSITE
☐ LISTSERV
☐ BLOG
☐ NATIONAL CONFERENCES/MEETINGS
☐ REGIONAL CONFERENCES/MEETINGS
☐ CITY CONFERENCES/MEETINGS
☐ NEIGHBORHOOD-BASED CONFERENCES/MEETINGS
☐ RADIO
☐ TV

18.   WHAT IS YOUR ORGANIZATION'S ANNUAL BUDGET? *(Select one range)*

☐ $0 – $1,000
☐ $1,000 – $10,000
☐ $10,000 – $50,000
☐ $50,000 – $100,000
☐ $100,000 – $200,000
☐ $200,000 – $500,000
☐ $500,000 – $1 MILLION
☐ $1 – $2 MILLION
☐ $2 – $5 MILLION
☐ $5 MILLION +

19.   WHAT IS YOUR PRIMARY FUNDING SOURCE? *(Select one)*

☐ GOVERNMENT AGENCIES
☐ FOUNDATIONS
☐ ENDOWMENT
☐ INDIVIDUAL MEMBERSHIPS
☐ FEES/PROGRAM INCOME
☐ CORPORATE GIVING/SPONSORSHIP
☐ OTHER _____

This concludes the STEW-MAP assessment.
Thank you for your participation.

Please mail back the assessment in the
enclosed envelope.

☐ **PLEASE CHECK HERE IF YOU OR ANOTHER PERSON FROM YOUR ORGANIZATION**
 IS WILLING TO PARTICIPATE IN A FOLLOW-UP INTERVIEW OR FOCUS GROUP
 RELATED TO THE STEW-MAP PROJECT.

☐ **PLEASE CHECK HERE IF YOU WOULD LIKE TO RECEIVE A COPY OF THE REPORT.**

FEEL FREE TO CONTACT STEW-MAP WITH ANY QUESTIONS OR COMMENTS AT
STEWMAP@COLUMBIA.EDU

STEW-MAP: *The Citywide Stewardship Census*

Chicago Stew-MAP Survey

Section 1: Contact information

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.

Your Name: _____

Your Phone Number: (_____) _____ - _____

Your E-mail: _____

Section 2: Basic Information about your group/organization

If you are affiliated with more than one group or organization, please fill out the survey separately for each group.

Group/Organization Name: _____

Website (if available): _____

Mailing Address: _____
(with city/state/zip) _____

Group/Organization E-mail: _____

Group/Organization Phone Number: (_____) _____-_____

Does your group/organization wish to be on the online stewardship map?

Yes _____   No _____

Note: The information associated with your group on the map will be limited to group/organization name, website, mailing address, group/organization email, group/organization phone number, what you primarily work on – plus your geographic territory, which will be addressed later in this survey.

Section 3: Your group/organization's environmental stewardship activities

Does your group/organization do any of the following?

Conserve the local environment?   □ Yes   □ No

Take care of a place in the local environment (for example, a community garden, a block of street trees, an empty lot, a riverbank, a schoolyard, a forest preserve)?   □ Yes   □ No

Restore or transform local habitat (e.g., daylighting a stream, brownfield to prairie restorations)?   □ Yes   □ No

Monitor the quality of the local environment? This can include monitoring air or water quality, dumping, or species monitoring?   □ Yes   □ No

Advocate for the local environment?   □ Yes   □ No

Educate the public about the local environment?   □ Yes   □ No

Section 4: Basic information about your group/organization

What is your group/organization's legal designation?
Please choose the most appropriate response.

□ 501(c)(3) (or has applied)

□ 501 (c)(4) (or has applied)

□ Community group/organization without 501(c)(3) or 501(c)(4) status (e.g., a block club)

□ Local government agency

□ State government agency

□ Federal government agency

□ Public administration district (such as a school, Port Authority, university campus, hospital)

□ Private firm, for-profit business

□ Other – please specify: _____

What does your group/organization work on?
Please choose all that apply.

☐ Public health (including mental health, food, crisis intervention, health care)

☐ Education

☐ Transportation

☐ Housing and shelter

☐ Community improvement and capacity building

☐ Environment (including gardening, forestry, ecological restoration, water and air protection)

☐ Toxics/pollution related

☐ Animal related

☐ Human services (including day care, family services)

☐ Youth development

☐ Economic development

☐ Employment, job related

☐ Legal services, civil rights

☐ Arts, culture, creative practices

☐ Recreation and sports (including birding and fishing)

☐ Crime, criminal justice

☐ International, foreign affairs, and national security

☐ Research in science and/or technology

☐ Faith-based activities

☐ Power/electricity generation

☐ Energy Efficiency

☐ Other – please specify: _____

If you had to choose just one activity, what would you say is your group's *primary* focus?
Please choose <u>one</u>.

☐ Public health (including mental health, food, crisis intervention, health care)

☐ Education

☐ Transportation

☐ Housing and shelter

☐ Community improvement and capacity building

☐ Environment (including gardening, forestry, ecological restoration, water and air protection)

☐ Toxics/pollution related

☐ Animal related

☐ Human services (including day care, family services)

☐ Youth development

☐ Economic development

☐ Employment, job related

☐ Legal services, civil rights

☐ Arts, culture, creative practices

☐ Recreation and sports (including birding and fishing)

☐ Crime, criminal justice

☐ International, foreign affairs, and national security

☐ Research in science and/or technology

☐ Faith-based activities

☐ Power/electricity generation

☐ Energy Efficiency

☐ Other

Section 5: Your group/organization's stewardship activities

Considering all of the programs, activities, and services your group/organization works on, what percentage of your group/organization's effort has been for stewardship during the past year? Please select one.

☐ 0-19%   ☐ 20-39%   ☐ 40-59%   ☐ 60-79%   ☐ 80-100%

What type(s) of setting has your group/organization done stewardship work in within the past year?
Please choose <u>all</u> that apply.

Water & Water-Related

☐ Watershed / Sewershed

☐ Stream / River / Canal

☐ Waterfront / Beach / Shoreline

☐ Wetland

Open Spaces & Natural Areas

☐ Prairie

☐ Forest/Woodland/Savanna

☐ Park

☐ Community Garden

☐ Urban farm

☐ Playing field / Ball field

☐ Dog run or dog park

☐ Public garden (e.g. botanical garden, arboretum)

☐ Trails / Bike paths / Greenway / Rail-trail

Nature in Built Places

☐ Residential building grounds (apartment courtyard, back yard, etc.)

☐ Vacant land/Vacant lot

☐ School yard or grounds; outdoor classroom

☐ Grounds of public building other than school (e.g. city hall, library, hospital)

☐ Courtyard / Atrium / Plaza

☐ Street Trees/ Boulevard/ Traffic Island/ Greenstreet/ Parkway (Public right of way)

☐ Flower box / Planter

☐ Rain gardens, rain barrels, permeable pavement, bioswales

☐ Green buildings

☐ Green roofs

☐ Brownfield property

☐ Other – please specify: _____

Please tell us *why* your group/organization does stewardship work.

_____
_____
_____
_____

<div style="background-color:#5a3e1b; color:white; padding:4px;">

Section 6: Where you group or organization conducts stewardship activities.

</div>

Please describe <u>in detail</u> the boundaries of where your group/organization has physically done stewardship work within the past year. You can list multiple locations. If you do not physically work on a particular site, you can list your service area.
Examples —"We have a community garden In Chicago, on Halsted between 130th and 131st" — "restoration workdays in Coral Woods" —"Environmental monitoring on the Southwest corner of the Middle Fork Savanna" —"Outdoor education classes at the Ivanhoe Dune & Swale Nature Preserve" — "Our energy conservation program service area is all of ZIP code 46368"—"We consider our territory all of the Fox River Watershed in Wisconsin" —"Environmental advocacy statewide in Indiana"

_____
_____
_____
_____

Does your group/organization have a Geographic Information System (GIS) file showing the boundaries of where you do stewardship work that you would be willing to share with us?
We would only use your file to show your stewardship territory on the stewardship map.

☐ Yes   ☐ No

Who owns the property or properties on which your group/organization has physically done stewardship work within the past year? Please choose <u>all</u> that apply.

☐ Federal government

☐ State government

☐ County government (e.g. Forest Preserve District)

☐ City/Local government

☐ Other government (e.g. Port Authority)

☐ Individual

☐ Corporation (including joint ventures, real estate investment groups)

☐ Nonprofit

☐ Don't know

☐ Other – please specify: _____

Who is the owner of the _primary_ property or properties on which your group/organization has done stewardship work within the past year? Please choose one.

☐ Federal government

☐ State government

☐ County government (e.g. Forest Preserve District)

☐ City/Local government

☐ Other government (e.g. Port Authority)

☐ Individual

☐ Corporation (including joint ventures, real estate investment groups)

☐ Nonprofit

☐ Don't know

☐ Other

Section 7: The structure of your group/organization.

Approximately **what year was your group/organization founded? _____**
Note: For national or regional groups/organizations, please tell us the year your chapter was founded.

Approximately **how many of the following does your group/organization have:**
Note: For national groups/organizations, please provide regional information.

Full-time Staff: _____
Part-time Staff: _____
Members: _____
Regular Volunteers: _____
Note: regular volunteers are those who routinely volunteer in your group/organization's activities. This is different from volunteers who may come out for a single work day.

For those volunteers who come out occasionally, can you _estimate_ the total number of hours they contribute?

Hours: _____ (per week/per month/per year – please select one time period)

What is your group/organization's _estimated_ annual budget for the current year?

$_____   ☐ Prefer not to answer

Section 8: Group/Organizational Relationships

Please tell us about your group/organization's relationship to other groups/organizations. For all questions in this section, we are interested in hearing about all possible collaborations – federal, state, and local governments; private companies; other nonprofits, schools, or community groups; etc.

Please list up to ten group/organizations *from which you seek information, advice, or expertise* **related to environmental stewardship:**

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Please list up to ten groups/organizations *to which you provide information, advice, or expertise* **related to environmental stewardship:**

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Please list up to ten groups/organizations *from which you receive funding* **related to environmental stewardship:**

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Please list up to ten groups/organizations *to which you provide funding* **related to environmental stewardship:**

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

PARTNERSHIPS:

Does your group/organization belong to any coalitions, partnerships, or working groups/organizations that share information, plan strategy, or coordinate activities?

☐ Yes ☐ No

If yes, please list the coalition(s) your group/organization is active in.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Section 9: Final Section

Is there anything else you would like to tell us about your group/organization or this survey?

_____
_____
_____

Thank you very much for your participation. If you have questions about the survey or the project, please contact Cherie LeBlanc Fisher at clfisher@fs.fed.us or 847-866-9311 x12.

Survey protocol for Baltimore

Baltimore Stewardship Mapping & Assessment Project

Baltimore Stewardship Mapping & Assessment Project:
Caring for the Land, Water, and People of Baltimore

Does your organization work on behalf of the environment in some way? This may include planting trees, advocating for clean streets, restoring a watershed, gardening in a schoolyard, or some other stewardship activity. We would like to learn about these activities, including what your organization does, where, and why.

Our aim is to understand environmental stewardship in Baltimore. **We define stewardship as *conserving, managing, caring for, monitoring, advocating for, and educating the public about local environments*.** Based on the information we collect, we will develop an interactive online map, a public resource database, and reports to show where and how people work together to improve the environment of the region.

Similar projects are being conducted in New York City, Chicago, and Seattle. The resulting products of these surveys have already helped stewardship organizations connect with each other, obtain new resources and partners, and support residents as they work on behalf of their local environment.

This survey should take about **20-30 minutes** to complete, depending on your knowledge of your organization. We greatly appreciate your time in completing the survey. It will help us to develop a complete picture of stewardship in the Baltimore area, and to provide this information back to you so that you can use it to support your future work.

Note: Please scroll down and use the red Forward (>>) and Back (<<) buttons at the bottom of each page to navigate through the survey.

SURVEY SPONSORS:

Please enter your contact information to get started.

Your personal information is confidential. We will not share any of the identifying information with anyone outside of the research team. However, we may contact you if we have questions about information you provide on this survey.

Your name:
[   ]

Your title or position description:
[   ]

Your phone number:
(Ex: 123-456-7890)
[   ]

Your email address:
[   ]

Basic information about your group/organization.

If you are affiliated with more than one group or organization, you will receive separate survey invitations for each group. Please complete the survey for the group or organization named in the email invitation.

If you are not able to answer all of the questions, please reach out to another in your organization and ask them to fill out the survey.

Group/Organization Name:

Department/Office Name:

Website (if available):

Website of stewardship program (if different):

Group/Organization Email:

Group/Organization Phone:
(Ex: 123-456-7890)

Mailing Address (including City, State, Zip):

Address 1:

Address 2:

City:

State:

Zip:

May we list your organization's information in a public stewardship database? In other cities, this resource has helped stewards who share interests to find each other and collaborate if they wish.

○ Yes.

○ No, do not list my organization's information.

Please note:

By clicking "No," your organization will be anonymously represented in reports, but *will not* be included on the interactive online map or in the public database.

If you'd like to be included on the map and in the database, return to the last question and choose "Yes."

If you still wish for your organization to remain anonymous, we still want to hear from you! Please click the forward arrow below to continue the survey.

From this point on you will be asked a series of questions about your group or organization.

Please do your best to respond based on the entire group or organization, rather than your own personal experiences or preferences.

As you take the survey, if you find that you are not the appropriate person or authorized to complete survey questions, please feel free forward the link to the person(s) who is better suited or qualified to respond.

Note: Please scroll to the bottom of each page and answer the questions as completely as possible. Your responses are important and will ensure we can produce the best quality interactive map, public resource database, and reports. Thank you!

Please tell us about your group/organization's environmental stewardship activities.

How often does your organization do the following types of stewardship activities?

	Never	Sometimes	Often
Conserve the local environment? *For example, land preservation, protection and sustainable use of natural resources, etc.*	○	○	○
Take care of a place in the local environment? *For example, a community garden, a block of street trees, an empty lot, a riverbank, a schoolyard, a forest preserve, etc.*	○	○	○
Restore or transform local ecosystem? *For example, daylighting a stream, brownfield recovery, habitat restoration, etc.*	○	○	○
Monitor the quality of the local environment? *For example, monitoring air or water quality, dumping, species, etc.*	○	○	○
Advocate for the local environment? *For example, lobbying or advising, letter writing campaigns, etc.*	○	○	○
Educate the public about the local environment? *For example, through a newsletter, website, workshops, etc.*	○	○	○

Thank you for your interest in filling out this survey.

Based on your response to the last question, your group/organization's activities do not fit into our research definition. If you made a mistake while filling out the last question(s), please click the Back arrow (<<) below to update your response.

Please tell us about your group/organization.

What is your group/organization's legal designation? (Please choose the most appropriate response).

○ 501(c)(3) (or has applied)

○ 501(c)(4) (or has applied)

○ Community group/organization without 501(c)(3) or 501(c)(4) status (such as a block club)

○ School district

○ Federal government agency

○ State government agency

○ Local government agency

○ Public institution (not an agency)

○ Quasi governmental organization (such as a port authority)

○ Private firm, for-profit business

○ Other (please specify)

[_____]

You have identified your organization as for-profit.

For this survey, please answer stewardship questions based only on the stewardship work that your business does that is <u>volunteer or pro bono</u>.

Please tell us more about your group/organization.

Below is a list of possible purposes and functions of organizations. How well does each of the following describe the purpose or function of your group or organization?

	Not at all	Somewhat	Very well
Public health (including mental health, food, crisis intervention, health care)	○	○	○
Education	○	○	○
Housing and shelter	○	○	○
Community improvement and capacity building	○	○	○
Environment (including gardening, forestry, ecological restoration, water and air protection)	○	○	○
Toxics/pollution related	○	○	○
	Not at all	Somewhat	Very well
Animal related	○	○	○
Human services (including day care, family services)	○	○	○
Youth development	○	○	○
Economic or business development	○	○	○
Employment, job related	○	○	○
Legal services, civil rights	○	○	○
	Not at all	Somewhat	Very well
Arts, culture, creative practices	○	○	○
Recreation and sports (including birding and fishing)	○	○	○
Crime, criminal justice	○	○	○
International, foreign affairs, and national security	○	○	○
Research in science and/or technology	○	○	○
Faith-based activities	○	○	○
	Not at all	Somewhat	Very well
Power/electricity generation	○	○	○
Energy efficiency	○	○	○
Other (please specify)	○	○	○

Please tell us more about your group/organization's stewardship work.

Considering all of the programs, activities, and services your group/organization does, what percentage of your effort is for stewardship?

We define stewardship as conserving, managing, caring for, monitoring, advocating for, and educating the public about local environments.

0 - 19%	20 - 39%	40 - 59%	60 - 79%	80 - 100%
○	○	○	○	○

Stewardship activities.

Below are possible project sites/settings. How often does your group or organization do stewardship work at each of the following site types?

WATER AND WATER-RELATED

	Never	Sometimes	Often
Watershed / Sewershed	○	○	○
Stream / River / Canal	○	○	○
Waterfront / Beach / Shoreline	○	○	○
Wetland	○	○	○

OPEN SPACES & NATURAL AREAS

	Never	Sometimes	Often
Prairie / Savanna	○	○	○
Forest / Woodland	○	○	○
Park	○	○	○
Community garden	○	○	○
Urban farm	○	○	○
	Never	Sometimes	Often
Playing field / Ball field	○	○	○
Dog run / Dog park	○	○	○
Public garden (botanical garden, arboretum, etc.)	○	○	○
Trails / Bike path / Greenway / Rail-trail	○	○	○

NATURE IN BUILT PLACES

	Never	Sometimes	Often
Residential building grounds (apartment courtyard, back	○	○	○

yard, etc.)

Vacant land / Vacant lot

Brownfield property

School yard or grounds; outdoor classroom

	Never	Sometimes	Often

Grounds of public building other than school (city hall, library, hospital, etc.)

Courtyard / Atrium / Plaza

Street trees / Boulevard / Traffic island / Greenstreet / Parkway (Public right of way)

Rain garden / Rain barrel / Permeable pavement / Bioswale

	Never	Sometimes	Often

Green building

Green roof

Flower box / Planter

Other site type (please specify)

Please tell us <u>why</u> your group/organization does stewardship work.

Where your group/organization conducts stewardship activities.

What is the broadest geographic scope of your group or organization's stewardship activities?

- ○ International
- ○ National
- ○ Multiple states
- ○ State of Maryland
- ○ Regional (several neighboring counties, a landscape element such as the Chesapeake Bay, etc.)
- ○ Baltimore County
- ○ Baltimore City
- ○ Local (one or more neighborhoods, specific greenspaces within the city, etc.)

Where your group/organization conducts stewardship activities.   In the box below, please describe in detail the boundaries of where your group/organization has done work in the last year. You can list multiple locations. *Please be as specific as possible, as this text will help us to draw your stewardship activity areas on the online interactive map.*

For example:
"Druid Hill Park" – "Baltimore County" – "the 1800 block of Duncan Street" - "The Chesapeake Bay" – "along the Gwynns Falls Trail" – "all of zip code 21226"

Please identify the Baltimore neighborhoods in which your group or organization works.

Please select **all** neighborhoods where you do stewardship work.

These neighborhood names and boundaries are those used by the city and may differ from other sources. If you are unsure, please visit Baltimore CityView to view neighborhood maps or type in a specific address to find your neighborhood: http://cityview.baltimorecity.gov/CityView.

Note: this alphabetical list represents all 271 Baltimore neighborhoods. Please take the time to scroll through the entire list and choose every neighborhood where you do work. Grouping by neighborhood is an important aspect of describing where stewardship occurs in the city.

- ☐ None. My group does not work within Baltimore City.
- ☐ All neighborhoods (citywide)
- ☐ Abell
- ☐ Allendale
- ☐ Arcadia
- ☐ Arlington
- ☐ Armistead Gardens
- ☐ Ashburton
- ☐ Baltimore Highlands
- ☐ Baltimore-Linwood
- ☐ Barclay
- ☐ Barre Circle
- ☐ Beechfield
- ☐ Belair-Edison
- ☐ Belair-Parkside
- ☐ Bellona-Gittings
- ☐ Berea
- ☐ Better Waverly
- ☐ Beverly Hills
- ☐ Biddle Street
- ☐ Blythewood
- ☐ Bolton Hill

- ☑ Gay Street
- ☐ Glen
- ☐ Glen Oaks
- ☐ Glenham-Belford
- ☐ Graceland Park
- ☐ Greektown
- ☐ Greenmount Cemetary
- ☐ Greenmount West
- ☐ Greenspring
- ☐ Grove Park
- ☐ Guilford
- ☐ Gwynns Falls
- ☐ Gwynns Falls/Leakin Park
- ☐ Hampden
- ☐ Hanlon-Longwood
- ☐ Harford-Echodale/Perring Parkway
- ☐ Harlem Park
- ☐ Harwood
- ☐ Hawkins Point
- ☐ Heritage Crossing
- ☐ Herring Run Park
- ☐ Highlandtown

- ☐ Orangeville
- ☐ Orangeville Industrial Area
- ☐ Original Northwood
- ☐ Otterbein
- ☐ Overlea
- ☐ Panway/Braddish Avenue
- ☐ Park Circle
- ☐ Parklane
- ☐ Parkside
- ☐ Parkview/Woodbrook
- ☐ Patterson Park
- ☐ Patterson Place
- ☐ Pen Lucy
- ☐ Penn North
- ☐ Penn-Fallsway
- ☐ Penrose/Fayette Street Outreach
- ☐ Perkins Homes
- ☐ Perring Loch
- ☐ Pimlico Good Neighbors
- ☐ Pleasant View Gardens
- ☐ Poppleton
- ☐ Port Covington

Booth-Boyd	Hillen	Pulaski Industrial Area
Brewers Hill	Hoes Heights	Purnell
Bridgeview/Greenlawn	Holabird Industrial Park	Radnor-Winston
Broadway East	Hollins Market	Ramblewood
Broening Manor	Homeland	Reistertown Station
Brooklyn	Hopkins Bayview	Remington
Burleith-Leighton	Howard Park	Reservoir Hill
Butcher's Hill	Hunting Ridge	Richnor Springs
Callaway-Garrison	Idlewood	Ridgeley's Delight
Cameron Village	Inner Harbor	Riverside
Canton	Irvington	Rognel Heights
Canton Industrial Area	Johns Hopkins Homewood	Roland Park
Carroll - Camden Industrial Area	Johnston Square	Rosebank
Carroll Park	Jones Falls Area	Rosemount
Carroll-South Hilton	Jonestown	Rosemount East
Carrollton Ridge	Joseph Lee	Rosemount Homeowners/Tenants
Cedarcroft	Kenilworth Park	Sabina-Mattfeldt
Cedmont	Kernwood	Saint Agnes
Cedonia	Keswick	Saint Helena
Central Forest Park	Kresson	Saint Josephs
Central Park Heights	Lake Evesham	Saint Paul
Charles North	Lake Walker	Sandtown-Winchester
Charles Village	Lakeland	SBIC
Cherry Hill	Langston Hughes	Seton Business Park
Cheswolde	Lauraville	Seton Hill
Chinquapin Park-Belvedere	Levindale	Sharp-Leadenhall
Christopher	Liberty Square	Shipley Hill
Claremont-Freedom	Little Italy	South Clifton Park
Clifton Park	Loch Raven	Spring Garden Industrial Area
Coldspring	Locust Point	Stadium Area
Coldspring Homestead Montebello	Locust Point Industrial Area	Stonewood-Pentwood-Winston
Concerned Citizens of Forest Park	Lower Herring Run Park	Taylor Heights
Coppin Heights/Ash-Co-East	Loyola/Notre Dame	Ten Hills
Cross Country	Lucille Park	The Orchards
Cross Keys	Madison Park	Towanda-Grantley

Curtis Bay	Madison-Eastend	Tremont
Curtis Bay Industrial Area	Mayfield	Tuscany-Canterbury
Cylburn	McElderry Park	Union Square
Darley Park	Medfield	University of Maryland
Dickeyville	Medford	Uplands
Dolfield	Mid-Govans	Upper Fells Point
Dorchester	Mid-Town Belvedere	Upton
Downtown	Middle Branch/Reedbird Parks	Villages of Homeland
Druid Heights	Middle East	Violetville
Druid Hill Park	Midtown-Edmondson	Wakefield
Dunbar-Broadway	Millhill	Walbrook
Dundalk Marine Terminal	Milton-Montford	Waltherson
East Arlington	Mondawmin	Washington Hill
East Baltimore Midway	Montebello	Pig Town
Easterwood	Moravia-Walther	Waverly
Eastwood	Morgan Park	West Arlington
Edmondson Village	Morgan State University	West Forest Park
Ednor Gardens-Lakeside	Morrell Park	West Hills
Ellwood Park/Monument	Mosher	Westfield
Evergreen	New Southwest/Mount Clare	Westgate
Evergreen Lawn	Mount Holly	Westport
Farifield Area	Mount Vernon	Wilson Heights
Fairmont	Mount Washington	Wilson Park
Fallstaff	Mount Winans	Winchester
Federal Hill	Mt Pleasant Park	Windsor Hills
Fells Point	New Northwood	Winston-Govans
Forest Park	North Harford Road	Woodberry
Forest Park Golf Course	North Roland Park/Poplar Hill	Woodbourne Heights
Four by Four	Northwest Community Action	Woodbourne-McCabe
Frankford	O'Donnell Heights	Woodmere
Franklin Square	Oakenshawe	Woodring
Franklintown	Oaklee	Wyman Park
Franklintown Road	Oldtown	Wyndhurst
Garwyn Oaks	Oliver	Yale Heights

Structure and administration of your group/organization.

Approximately what year was your group/organization founded?

Note: for national or regional groups/organizations please tell us the approximate year your chapter was founded.

Year of founding: [   ]

Approximately how many of the following does your group/organization have:

Full-time staff: [   ]

Part-time staff: [   ]

Members: [   ]

Regular volunteers *(those who routinely volunteer in activities. This is different from volunteers who may come out for a single work day)*: [   ]

For those volunteers who come out occasionally, can you estimate how many hours they contribute? (Please choose either hours per week, month, or year.)

○ Volunteer hours per week:
[   ]

○ Volunteer hours per month:
[   ]

○ Volunteer hours per year:

Communication with the public.

How often does your group/organization share information with the public in the following ways?

	Never	Sometimes	Often
National media	○	○	○
Local media	○	○	○
Direct mailing / Newsletters	○	○	○
Door-to-door outreach	○	○	○
Flyers / Signs	○	○	○
	Never	Sometimes	Often
Website	○	○	○
Listserv	○	○	○
Social media (blog, Facebook, Twitter, etc.)	○	○	○
National conferences/meetings	○	○	○
Regional conferences/meetings	○	○	○
	Never	Sometimes	Often
City conferences/meetings	○	○	○
Neighborhood-based conferences/meetings	○	○	○
Radio	○	○	○
TV	○	○	○
Other (please specify)	○	○	○

Financial Resources.

What is your group/organization's estimated annual budget for the current year?

○ Approximate annual budget (in dollars): [   ]   ○ Prefer not to answer.

Please indicate the level of funding your group/organization has received in the last year from the following sources.

	No funding	Minor funding	Major funding
Corporate giving / Sponsorship	○	○	○
National foundation	◉	○	○
Local foundation	○	◉	○
Endowment	○	○	○
	No funding	Minor funding	Major funding
Fees / Program income	○	○	○
Fundraisers (sales, events, dinners, etc.)	○	○	○
Individual donations	○	○	○
Memberships	○	○	○
	No funding	Minor funding	Major funding
Federal government	○	○	○
State government	○	○	○
Municipal government	○	○	○
Other (please specify) [ ]	○	○	○

Relationships among groups and organizations.

You're almost there! In this final section of the survey, please tell us about your group's relationship to other groups and organizations.

For all questions in this section, we are interested in hearing about all possible relationships <u>in the past year</u>. These relationships may include federal, state, and local government organizations; private companies; nonprofits, schools, or community group/organizations; etc.

These questions will allow us to develop network maps to understand how resources are being shared by stewardship groups. Please be as specific as possible and use organization names rather than general terms.

Information, Advice, & Expertise *Received*.

Please list up to ten groups/organizations from whom you received information, advice, or expertise related to environmental stewardship in the past year.

These may include federal, state, and local government organizations; private companies; nonprofits, schools, or community group/organizations; etc.

Please use organization names rather than general terms: for example, list out "Baltimore Office of Sustainability" and "Baltimore Rec & Parks" instead of the general term "city agencies"

Group/Organization 1

Group/Organization 2

Group/Organization 3

Group/Organization 4

Group/Organization 5

Group/Organization 6

Group/Organization 7

Group/Organization 8

Group/Organization 9

Group/Organization 10

Information, Advice, & Expertise *Provided*.

Please list up to ten groups/organizations to whom you provided information, advice, or expertise related to environmental stewardship in the past year.

Group/Organization 1

Group/Organization 2

Group/Organization 3

Group/Organization 4

Group/Organization 5

Group/Organization 6

Group/Organization 7

Group/Organization 8

Group/Organization 9

Group/Organization 10

Funding *Received.*

Please list up to ten groups/organizations <u>from whom you received funding related to environmental stewardship in the past year.</u>

These may include federal, state, and local government organizations; private companies; nonprofits, schools, or community group/organizations; etc.

Please use organization names rather than general terms: for example, list out "Baltimore Office of Sustainability" and "Baltimore Rec & Parks" instead of the general term "city agencies"

Group/Organization 1

Group/Organization 2

Group/Organization 3

Group/Organization 4

Group/Organization 5

Group/Organization 6

Group/Organization 7

Group/Organization 8

Group/Organization 9

Group/Organization 10

Funding *Provided.*

Please list up to ten groups/organizations <u>to whom you provided funding related to environmental stewardship in the past year.</u>

Group/Organization 1

Group/Organization 2

Group/Organization 3

Group/Organization 4

Group/Organization 5

Group/Organization 6

Group/Organization 7

Group/Organization 8

Group/Organization 9

Group/Organization 10

Partnerships.

Does your group/organization belong to any **coalitions, partnerships, or working groups** to share information, plan strategy, or coordinate activities?

○ Yes

○ No

Partnerships.

Please list the coalition(s), partnership(s), and working group(s) your group/organization is active in. (Use a comma or paragraph break to separate multiple entries.)

Final question...

Before you exit the survey, is there anything else you would like to tell us about your group/organization or this survey?

```



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Please note: Clicking the Forward (>>) button below will record your answers and end the survey. Your responses will be saved and you will not be able to return to the survey.

If you have not finished the survey, please click the Back (<<) button below to return to previous questions, or close your browser window to return at another time.

This concludes the Baltimore stewardship assessment. Thank you for your participation! We may follow up with an email to clarify your responses, and we will send out an announcement when the report and stewardship maps are available.

Feel free to contact us with any questions or comments at: baltimore.stewardship@gmail.com.

12/6/10

SEATTLE STEW-MAP SURVEY

Does your organization work on behalf of the environment in some way? This may include planting trees, advocating against toxics, restoring a riparian area, gardening in a schoolyard, or some other stewardship activity. We would like to learn about these activities, including what your organization does, where, and why.

The intent of this study is to understand environmental stewardship in the Seattle region. We define **stewardship as conserving, managing, caring for, monitoring, advocating for, and educating the public about local environments.**

A similar study was conducted in New York City, and it has helped stewardship groups connect with each other, obtain new resources and partners, and has helped support citizens as they work on behalf of their local environment.

This survey should take about **20-30 minutes** to complete. Based on the information we collect, we will develop maps to show where and how people work together to improve the environment of the region. Thanks in advance for completing the survey; your input will help us to develop a complete picture of stewardship in the Seattle area.

1. Please enter your contact information to get started.

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.

> **Your name:**
>
> **Your title or position description:**
>
> **Your phone number:**
>
> **Your email:**

From this point on you will be asked a series of questions about your group or organization. Please try to provide responses that indicate the conditions or situations of the entire organization or group, rather than just your own personal experience or preferences.

2. Basic Information about your group/organization.

> **Group/organization name:**

Web site (if available):

Mailing Address (with City, State, ZIP):

Group/organization Email:

Group/organization Phone:

Does your group/organization wish to be listed in a public, online stewardship database? In other cities, this database allows stewards who share interests to find each other and collaborate if they wish. YES/NO

3. Please tell us about your group/organization's environmental stewardship activities:

How often does your organization do the following types of stewardship activities?	Never	Sometimes	Often
Conserve the local environment?			
Take care of a place in the local environment (for example, a community garden, a block of street trees, an empty lot, a riverbank, a schoolyard, a forest preserve)?			
Restore or transform local ecosystem (for example, daylighting a stream, brownfield recovery, or habitat restoration)			
Monitor the quality of the local environment? (for example, monitoring air or water quality, or species monitoring)?			
Advocate for the local environment?			
Educate the public about the local environment?			

*Skip logic: If anyone answers "never" to all questions, jump to a page that says:

"Thank you for your interest in filling out this survey. Based on your response to the last question, your group/organization's activities do not fit into our research definition.

If you made a mistake while filling out the last question(s), please click the Back arrow (below) to update your response."

Please tell us about your group/organization:

4. What is your group/organization's legal designation? (Please choose the most appropriate response).

- **501(c)(3) (or has applied)**
- **501 (c)(4) (or has applied)**
- **Community group/organization without 501(c)(3) or 501(c)(4) status (such as a block club)**
- **School district**
- **Federal government agency**
- **State government agency**
- **Local government agency**
- **Public institution (not an agency)**
- **Quasi governmental (such as a port authority)**
- **Private firm, for-profit business** → If checked, then pop-up with a note that says, "For this survey, please answer stewardship questions based only on the stewardship work that your business does that is <u>volunteer or pro bono</u>."
- **Other (please specify) _____**

5. Tell us about what your group/organization does:

Below is a list of possible purposes and functions of organizations. How well does each of the following describe the purpose or function of your group or organization?	not at all	somewhat	very well
Public health (including mental health, food, crisis intervention, health care)			
Education			
Housing and shelter			
Community improvement and capacity building			
Environment (including gardening, forestry, ecological restoration, water and air protection)			
Toxics/pollution related			
Animal related			

Human services (including day care, family services)			
Youth development			
Economic or business development			
Employment, job related			
Legal services, civil rights			
Arts, culture, creative practices			
Recreation and sports (including birding and fishing)			
Crime, criminal justice			
International, foreign affairs, and national security			
Research in science and/or technology			
Faith-based activities			
Power/electricity generation			
Energy Efficiency			
Other _____			

6. Considering all of the programs, activities, and services your group/organization does, what percentage of your effort is for stewardship?

0 – 19%	20 – 39%	40 – 59%	60 – 79%	80 – 100%

7. Below are possible project sites/settings for stewardship. In the past year, how often did your group or organization do stewardship work at each of the site types?	never	sometimes	often
WATER & WATER-RELATED			
Watershed / Sewershed			
Stream / River / Canal			
Waterfront / Beach / Shoreline			
Wetland			
OPEN SPACES & NATURAL AREAS			
Prairie/Savanna			
Forest/Woodland			

Park			
Community garden			
Urban farm			
Playing field / Ball field			
Dog run or dog park			
Public garden (botanical garden, arboretum, etc.)			
Trails / Bike paths / Greenway / Rail-trail			
NATURE IN BUILT PLACES			
Residential building grounds (apartment courtyard, back yard, etc.)			
Vacant Land / Vacant Lot			
Brownfield property			
School yard or grounds / Outdoor classroom			
Grounds of public building other than school (city hall, library, hospital, etc.)			
Courtyard / Atrium / Plaza			
Street trees / Boulevard/ traffic island / greenstreet / parkway (Public right of way)			
Rain gardens / rain barrels / permeable pavement / bioswales			
Green buildings			
Green roofs			
Flower box / Planter			
Other _____			

8. Please tell us <u>why</u> your group/organization does stewardship work. [Freeform answer.]

12/6/10

Please tell us where your group/organization physically conducts stewardship activities:

9.-What is the broadest geographic scope of your group or organization's stewardship activities?

> **International**
>
> **National**
>
> **Multiple states**
>
> **State of Washington**
>
> **Regional (e.g. several neighboring counties, a landscape element such as the Puget Sound, etc.)**
>
> **County**
>
> **City of Seattle**
>
> **Local (e.g. one or more neighborhoods, specific greenspaces within the city, etc.)**

10. Please identify all Seattle neighborhoods in which you work. Click on the neighborhood name for a map. If you are still unsure, please visit the City Clerk's website for additional maps: http://clerk.ci.seattle.wa.us/~public/nmaps/neiglist.htm.

[LIST OF NEIGHBORHOODS HOTLINKED TO CITY CLERK'S NEIGHBORHOOD MAPS]

11. Please describe in detail the boundaries of where your group/organization has done work in the last year. Be as specific as possible. You can list multiple locations.

> **For example:**
> **"Interlaken Park" – "All of King County" – "the traffic circle on Belmont and E Thomas" – "The Puget Sound" – "along the Duwamish River" – "the Bradner Gardens P-Patch"**

12. Approximately what year was your group/organization founded? _____

Note: for national or regional groups/organizations please tell us the approximate year your chapter was founded.

13. Approximately how many of the following does your group/organization have:

> **Full-time staff: _____**
> **Part-time staff: _____**
> **Members: _____**

Regular Volunteers: _____ (note regular volunteers are those who routinely volunteer in your group/organization's activities. This is different from volunteers who may come out for a single work day).

For those volunteers who come out occasionally, can you estimate how many hours they contribute? per . . . . week _____ or month _____ or year _____

14. How often does your group/organization use the following methods to share information with the public?	never	sometimes	often
N/A, we don't share information			
National media			
Local media			
Direct mailing / newsletters			
Door-to-door outreach			
Flyers / signs			
Website			
Listserv			
Social media (e.g. blog, Facebook, Twitter)			
National conferences/meetings			
Regional conferences/meetings			
City conferences/meetings			
Neighborhood-based conferences/meetings			
Radio			
TV			
Other (please specify) _____			

15. What is your group/organization's estimated annual budget for the current year?

_____

☐

Check box: Prefer not to answer

16. Please indicate the level of funding your group/organization has received in the last year from the following sources.	no funding	minor funding	major funding
Corporate giving/sponsorship			
Local foundation			
National foundation			
Endowment			
Fees/program Income			
Fundraisers (events, dinners, etc.)			
Individual donations			
Memberships			
Federal government			
State government			
Municipal government			
Other (Please Specify) _____			

GROUP/ORGANIZATIONAL RELATIONSHIPS
In the final section of the survey, please tell us about your group or organization's relationship to other groups and organizations.

For all questions in this section, we are interested in hearing about all possible collaborations. These may include federal, state, and local government; private companies; nonprofits, schools, or community group/organizations; etc.

17. In the past year, <u>did</u> you seek information, advice, or expertise from other groups or organizations?

Please list up to ten groups/organizations from whom you received information, advice, or expertise related to environmental stewardship:

18. In the past year, did you offer information, advice, or expertise to other groups or organizations?

Please list up to ten group/organizations to whom you provided information, advice, or expertise related to environmental stewardship:

19. Please list up to ten group/organizations from whom you received funding related to environmental stewardship in the past year:

20. Please list up to ten group/organizations to whom you provided funding related to environmental stewardship in the past year:

21. Does your group/organization belong to any coalitions, partnerships, or working groups to share information, plan strategy, or coordinate activities? Yes/No

    If yes, please list the coalition(s) your group/organization is active in.

22. Is there anything else you would like to tell us about your group/organization or this survey?

This concludes the Seattle stewardship assessment. Thank you for your participation. We will send you an announcement when our report and stewardship maps are available.

Feel free to contact us with any questions or comments at: stewards@u.washington.edu

STEW-MAP:
The Citywide Stewardship Census

STEW-MAP: *The Citywide Stewardship Census*

The intent of this study is to understand environmental stewardship in Philadelphia. We define stewardship as the act of conserving, managing, monitoring, advocating for, and educating the public about their local environments.

In this assessment we ask questions about your organization, who you work with, where you work, what you do, and how you do it. It should take about 15–20 minutes to complete.

Based on the information we collect, we will develop maps to show how people work together to improve the urban environment of Philadelphia. Thank you for participating in this effort.

ORGANIZATIONAL CONTACT INFORMATION

This identifying information is confidential. We will not share your name, personal email, personal phone number, or other identifying information with anyone.

RESPONDENT NAME:

_____

RESPONDENT EMAIL:

_____

RESPONDENT PHONE:

_____

_____
ORGANIZATION NAME

_____
WEB SITE (IF AVAILABLE)

_____
MAILING ADDRESS

_____
CITY   **STATE**   **ZIP**

_____
KEY CONTACT NAME

_____
ORGANIZATION EMAIL

_____
ORGANIZATION PHONE

DOES YOUR ORGANIZATION WISH TO BE LISTED IN A PUBLIC, ONLINE STEWARDSHIP DATABASE?
☐ YES ☐ NO

STEW-MAP: *The Citywide Stewardship Census*

SECTION I

Tell us about your group's environmental stewardship activities

1. **DOES YOUR GROUP AIM TO CONSERVE THE LOCAL ENVIRONMENT?**
   ☐ YES ☐ NO

2. **DOES YOUR GROUP MANAGE SOME AREA OF THE LOCAL ENVIRONMENT?**
   ☐ YES ☐ NO

3. **DOES YOUR GROUP MONITOR THE QUALITY OF THE LOCAL ENVIRONMENT?**
   ☐ YES ☐ NO

4. **DOES YOUR GROUP ADVOCATE FOR THE LOCAL ENVIRONMENT?**
   ☐ YES ☐ NO

SECTION II

Tell us about us about what your organization does

5. **DOES YOUR GROUP AIM TO EDUCATE THE PUBLIC ABOUT THE LOCAL ENVIRONMENT?**
   ☐ YES ☐ NO

6. **WHAT IS YOUR GROUP'S PRIMARY FOCUS?** *(Please select all that apply)*
   ☐ PUBLIC HEALTH *(Including Mental Health, Crisis Intervention, Health Care)*
   ☐ EDUCATION
   ☐ HOUSING AND SHELTER
   ☐ COMMUNITY IMPROVEMENT AND CAPACITY BUILDING
   ☐ ENVIRONMENT *(Including Gardening, Forestry, Water and Air Protection, Ecological Restoration and/or Land Management)*
   ☐ ANIMAL RELATED
   ☐ HUMAN SERVICES *(Including Day Care, Family Services)*
   ☐ EMPLOYMENT, JOB RELATED
   ☐ LEGAL SERVICES, CIVIL RIGHTS
   ☐ ARTS, CULTURE
   ☐ RECREATION AND SPORTS *(Including Birding and Angling)*
   ☐ CRIME, CRIMINAL JUSTICE
   ☐ INTERNATIONAL, FOREIGN AFFAIRS, AND NATIONAL SECURITY
   ☐ RESEARCH IN SCIENCE, TECHNOLOGY, AND SOCIAL SCIENCES
   ☐ RELIGION RELATED
   ☐ PRIVATE GRANTMAKING FOUNDATION
   ☐ SENIORS
   ☐ YOUTH
   ☐ TRANSPORTATION RELATED
   ☐ DEVELOPMENT *(Including Business, Community, Real Estate)*
   ☐ OTHER: _____

7. **WHAT IS YOUR GROUP'S MISSION STATEMENT?** *(200 words or less please.)*
   _____
   _____
   _____

8. **WHAT YEAR WAS YOUR ORGANIZATION FOUNDED?**
   _____
   _____
   _____

STEW-MAP: *The Citywide Stewardship Census*

9. **AT WHICH TYPES OF SITES DOES YOUR GROUP PHYSICALLY WORK?**
    (Please circle all that apply)

WATER	LAND	BUILDING
WATERSHED/SEWERSHED	"NATURAL"/ RESTORATION AREA	GREEN BUILDING
STREAM/RIVER/CANAL	PARK	ROOFTOP
WATERFRONT/BEACH/ SHORELINE	COMMUNITY GARDEN	COURTYARD/ATRIUM/ PLAZA
WETLAND	VACANT LAND	FRONT YARD / BACK YARD
	PLAYING FIELD/BALLFIELD	SCHOOL YARD
	DOG RUN	APARTMENT GROUNDS
	STREET TREE	RECREATION CENTER
	BOTANICAL GARDEN / ARBORETUM	
	GREENWAY/RAIL-TRAIL	
	FLOWER BOX/PLANTER	
	PUBLIC RIGHT OF WAY (E.G. STREET ENDS, ROADSIDE, TRAFFIC ISLAND, GREENSTREET)	
	URBAN FARM	

10. **MY ORGANIZATION:** *(Please check and fill in all that apply.)*
    ☐ IS A 501(C)(3)
    ☐ HAS APPLIED FOR 501(C)(3) STATUS
    ☐ RECEIVES FUNDING THROUGH THE FOLLOWING
       501(C)(3) ORGANIZATION: _____
    ☐ IS A BRANCH OF A LARGER 501(C)(3)
    ☐ IS A COMMUNITY GROUP WITHOUT 501(C)(3) STATUS
    ☐ IS A SCHOOL-AFFILIATED COMMUNITY GROUP
    ☐ IS A RELIGIOUS CONGREGATION (CHURCH, SYNAGOGUE, MOSQUE, ETC),
       BUT NOT A 501(C)(3)
    ☐ IS NOT TAX EXEMPT (PRIVATE FIRM, ETC)
    ☐ IS A GOVERNMENT AGENCY
    ☐ IS A 501(C)(4)
    ☐ IS A PUBLIC – PRIVATE PARTNERSHIP
    ☐ OTHER: _____

    Since the purpose of this study is to learn more about nonprofit organizations and community groups, if you chose "is not tax exempt" or "is a government agency", you do not need to complete the entire form. Please return the form in the enclosed envelope. Thank you.

11. **HOW MANY OF THE FOLLOWING DOES YOUR ORGANIZATION HAVE?**
    (Please circle the appropriate range in each category)

PAID STAFF	VOLUNTEERS	MEMBERS
0 – 1	0 – 1	0 – 1
2 – 3	2 – 3	2 – 3
4 – 5	4 – 5	4 – 5
6 – 10	6 – 10	6 – 10
11+	11+	11+

STEW-MAP: *The Citywide Stewardship Census*

12. **WHO OWNS THE PROPERTY ON WHICH YOUR ORGANIZATION TYPICALLY WORKS?**
(Please choose all that apply)
☐ FEDERAL GOVERNMENT
☐ STATE GOVERNMENT
☐ LOCAL GOVERNMENT
☐ INDIVIDUAL
☐ CORPORATION (INCLUDING JOINT VENTURES, REITS)
☐ NONPROFIT
☐ OTHER: _____

SECTION III

Tell us about your organization's relationship to other groups

13. **PLEASE LIST THE NAMES OF ALL OF THE ORGANIZATIONS WITH WHICH YOU COLLABORATE REGULARLY WITHIN THE FOLLOWING CATEGORIES.**

COMMUNITY GROUPS (CIVIC GROUPS, NON PROFITS, ETC.)

_____   _____

_____   _____

_____   _____

_____   _____

_____   _____

BUSINESSES AND/OR BUSINESS GROUPS (CHAMBERS OF COMMERCE, BUSINESS IMPROVEMENT DISTRICTS, ETC.)

_____   _____

_____   _____

_____   _____

_____   _____

_____   _____

GOVERNMENT AGENCIES/PROGRAMS (LOCAL, STATE, AND/OR FEDERAL)

_____   _____

_____   _____

_____   _____

_____   _____

_____   _____

SCHOOL GROUPS/PROGRAMS (PRE K-12, COLLEGES AND UNIVERSITIES, ETC.)

_____   _____

_____   _____

_____   _____

_____   _____

_____   _____

STEW-MAP: *The Citywide Stewardship Census*

SECTION IV
Tell us a bit more about what your group does

14. **WHAT TYPE OF SERVICES DOES YOUR GROUP CURRENTLY PROVIDE?**
(Select all that apply)
- ☐ EDUCATIONAL CURRICULA
- ☐ LEGAL RESOURCES
- ☐ BUILDINGS/FACILITIES
- ☐ PLANT MATERIALS/EQUIPMENT
- ☐ TECHNICAL ASSISTANCE
- ☐ LABOR: (VOLUNTEERS/STUDENTS/INTERNS)
- ☐ GRANTS
- ☐ COMMUNITY ORGANIZING
- ☐ COMPUTING / INTERNET
- ☐ PUBLIC RELATIONS/OUTREACH
- ☐ DATA
- ☐ OTHER: _____

15. **HOW DOES YOUR GROUP SHARE INFORMATION WITH THE PUBLIC?**
(Select all that apply)
- ☐ N/A, WE DON'T SHARE INFORMATION
- ☐ NATIONAL MEDIA
- ☐ LOCAL MEDIA
- ☐ DIRECT MAILING / NEWSLETTERS
- ☐ DOOR-TO-DOOR OUTREACH
- ☐ FLYERS / SIGNS
- ☐ WEBSITE
- ☐ LISTSERV
- ☐ BLOG
- ☐ NATIONAL CONFERENCES/MEETINGS
- ☐ REGIONAL CONFERENCES/MEETINGS
- ☐ CITY CONFERENCES/MEETINGS
- ☐ NEIGHBORHOOD-BASED CONFERENCES/MEETINGS
- ☐ RADIO
- ☐ TV

16. **WHAT IS YOUR ORGANIZATION'S ANNUAL BUDGET?** *(Select one range)*
- ☐ $0 – $1,000
- ☐ $1,000 – $10,000
- ☐ $10,000 – $50,000
- ☐ $50,000 – $100,000
- ☐ $100,000 – $200,000
- ☐ $200,000 – $500,000
- ☐ $500,000 – $1 MILLION
- ☐ $1 – $2 MILLION
- ☐ $2 – $5 MILLION
- ☐ $5 MILLION +

17. **WHAT IS YOUR PRIMARY FUNDING SOURCE?** *(Select one)*
- ☐ GOVERNMENT AGENCIES
- ☐ FOUNDATIONS
- ☐ ENDOWMENT
- ☐ INDIVIDUAL MEMBERSHIPS
- ☐ FEES/PROGRAM INCOME
- ☐ CORPORATE GIVING/SPONSORSHIP
- ☐ OTHER: _____

STEW-MAP: *The Citywide Stewardship Census*

- [ ] OGONTZ
- [ ] OLD CITY
- [ ] OLDE KENSINGTON
- [ ] OLDE RICHMOND
- [ ] OLNEY
- [ ] OVERBROOK
- [ ] OVERBROOK FARMS
- [ ] OVERBROOK PARK
- [ ] OXFORD CIRCLE
- [ ] PACKER PARK
- [ ] PARADISE
- [ ] PARKWOOD
- [ ] PENNSPORT
- [ ] PENNYPACK WOODS
- [ ] POINT BREEZE
- [ ] PORT RICHMOND
- [ ] POWELTON VILLAGE
- [ ] QUEEN VILLAGE
- [ ] RHAWNHURST
- [ ] RITTENHOUSE SQ.
- [ ] SAUNDERS PARK
- [ ] SHARED BY PARADISE & EAST FALLS
- [ ] SHARSWOOD
- [ ] SHAWMONT VALLEY
- [ ] SOCIETY HILL
- [ ] SOMERTON
- [ ] SOUTH PHILADELPHIA
- [ ] SOUTHWEST
- [ ] SOUTHWEST CENTER CITY
- [ ] SPRING GARDEN
- [ ] SPRUCE HILL
- [ ] ST. HUGH
- [ ] STRAWBERRY MANSION
- [ ] SUMMERDALE
- [ ] TACONY
- [ ] TIOGA
- [ ] UNIVERSITY CITY
- [ ] UPPER HOLMESBURG
- [ ] UPPER NORTHWOOD
- [ ] UPPER ROXBOROUGH
- [ ] WALNUT HILL
- [ ] WALTON PARK
- [ ] WASHINGTON SQUARE WEST
- [ ] WEST FAIRHILL
- [ ] WEST KENSINGTON
- [ ] WEST MT. AIRY
- [ ] WEST OAK LANE
- [ ] WEST PARKSIDE

- [ ] WEST POPLAR
- [ ] WEST POWELTON
- [ ] WEST SHORE
- [ ] WHITAKER
- [ ] WHITMAN
- [ ] WINCHESTER
- [ ] WINCHESTER PARK
- [ ] WISSAHICKON
- [ ] WISSINOMING
- [ ] WYNNEFIELD
- [ ] WYNNEFIELD HEIGHTS
- [ ] YORKTOWN
- [ ] OTHER: _____

STEW-MAP: *The Citywide Stewardship Census*

19. **DOES YOUR GROUP WORK IN THE ENTIRE NEIGHBORHOOD(S) OR JUST A SPECIFIC PART?**
    ☐ ALL ☐ PART

20. **DOES YOUR GROUP WORK ON MULTIPLE PROPERTIES?**
    ☐ YES ☐ NO

21. **DOES YOUR GROUP WORK OUTSIDE OF PHILADELPHIA COUNTY?**
    ☐ YES ☐ NO

22. **PLEASE DESCRIBE IN DETAIL THE NEIGHBORHOODS, BOUNDARIES AND/OR PROPERTY ADDRESSES WHERE YOUR GROUP WORKS. BE AS SPECIFIC AS POSSIBLE AND YOU CAN LIST MULTIPLE LOCATIONS.**
    For example: "On Fairmount Ave. between 22nd St. and 25th St"; "Walnut Hill Neighborhood"; "South of South St and East of Broad St."; "the Cobbs Creek between Market St and Island Ave"; "all of ZIP code 19119"; "The Tacony Creek Watershed"; "The Guangdong Province of China"

    _____

    _____

    _____

    _____

    _____

    _____

    _____

    _____

STEW-MAP: *The Citywide Stewardship Census*

This concludes the STEW-MAP assessment.
Thank you for your participation.

Please return the survey in the provided envelope.

☐   **PLEASE CHECK HERE IF YOU OR ANOTHER PERSON FROM YOUR ORGANIZATION IS WILLING TO PARTICIPATE IN A FOLLOW-UP INTERVIEW OR FOCUS GROUP RELATED TO THE STEW-MAP PROJECT.**

☐   **PLEASE CHECK HERE IF YOU WOULD LIKE TO RECEIVE A COPY OF THE REPORT.**

FEEL FREE TO CONTACT STEW-MAP WITH ANY QUESTIONS OR COMMENTS AT STEWMAP.PHILLY@GMAIL.COM

APPENDIX 3: NEW YORK CITY SURVEY INVITATION MATERIALS

This is the initial recruitment letter that was used in New York City.

Dear New York City Eco-Steward:

If you are a gardener, a park advocate, a dog walker, a beach cleaner, a kayaker, an environmentalist, an educator, or a community organizer—**we need your help in putting your group on the map!**

Don't let your hard work go unrecognized.

STEW-MAP (the Stewardship Mapping and Assessment Project) is New York City's first ever comprehensive map of the more than 5,000 civic environmental groups working in our amazing city. Please fill out the enclosed form in order to be a part of this new effort—it will only take 15 minutes of your time.

A dozen different citywide greening groups and 20 other organizations are working together with researchers from the US Forest Service and Columbia University to develop this project. Together we will **count, map, and connect** all the different forms of environmental work happening in NYC.

Remember: it is the people who clean and green NYC for the present and the future.

Major citywide partners include:

- Partnerships for Parks
- Citizens for New York City
- Council on the Environment of New York City
- NYC Department of Parks and Recreation GreenThumb Program
- New York City Housing Authority
- New York-New Jersey Harbor Estuary Program
- Environmental Protection Agency, Region 2
- Hudson River Foundation
- Trust for Public Land
- And more than 20 other participating data providers!

For more information on the study, see the enclosed letter and the instructions at the beginning of the form. We thank you for your participation!

Para una versión en español, favor de email: stewmap@columbia.edu.

Sincerely,

The STEW-MAP team

This is the postcard reminder that was used in New York City.

GET ON THE MAP

You work hard for your city, and the environment.

Get the recognition you deserve.

The US Forest Service and Columbia University are working with citywide greening groups to count, map, and connect all the different environmental work in NYC, from gardening to park advocacy to beach cleanup.

The Stewardship Mapping and Assessment Project (STEW-MAP) is the first ever inventory of environmental groups working in New York City, and we want your group on the map.

You were sent a form from the STEW-MAP team, now all you have to do is fill it out, and you're on the map.

If you've lost or did not receive your form, or have any other questions, contact:

Lindsay Campbell
(212) 637-4175
stewmap@columbia.edu

APPENDIX 4: STEW-MAP FACT SHEET

Mapping Urban Environmental Stewardship with STEW-MAP

The Stewardship Mapping and Assessment Project (STEW-MAP) is a national USDA Forest Service research program designed to answer the questions: *Which environmental stewardship groups are working across urban landscapes, and where, why, and how?*

STEW-MAP defines a "stewardship group" as a civic organization or group that works to conserve, manage, monitor, advocate for, and/or educate the public about their local environments. This work includes efforts that involve water, forests, land, air, waste, toxics, and energy. Many civic stewardship groups work within, alongside, or independent of public agencies and private businesses in managing urban places. STEW-MAP is both a study of urban stewardship socio-spatial characteristics and a publicly available online tool to help support those networks.

New York City Stewardship Organization Offices

To date, STEW-MAP has collected information from thousands of local stewardship groups, first in New York City and later in Baltimore, Chicago, Seattle, and Philadelphia. These groups include neighborhood block associations, kayak clubs, tree planting groups, community gardeners, regional environmental coalitions, nonprofit educational institutions, and museums. A Los Angeles STEW-MAP project is underway as of this writing and other cities, including Washington, DC and San Juan, Puerto Rico are also interested in conducting STEW-MAP studies.

What does STEW-MAP show?

New York City Stewardship Organizations near Greenspace

Stewardship maps tell us about the presence, capacity, geographic turf, and social networks of environmental stewardship groups in a given city or region. For the first time, these social infrastructure data are treated as part of green infrastructure asset mapping. For example, the interactive mapping website developed in New York City (NYC) currently displays data for 405 groups citywide alongside other open space data layers. Chicago's STEW-MAP data are also available online, allowing stewardship groups to find others working near them and/or working on similar issues. Other STEW-MAP projects continue to expand the NYC model and have created new maps and resources for their cities.

Why is STEW-MAP important?
STEW-MAP can highlight existing stewardship gaps and overlaps in order to strengthen organizational capacities, enhance citizen monitoring, promote broader civic engagement with on-the-ground environmental projects, and build effective partnerships among stakeholders involved in urban sustainability. Long-term community-based natural resource stewardship can help support and maintain our investment in green infrastructure and urban restoration projects. STEW-MAP creates a framework to connect potentially fragmented stewardship groups with the ultimate goal of measuring, monitoring, and optimizing the contribution of our civic resources.

Who can use STEW-MAP?
STEW-MAP is a tool for natural resource managers, funders, policymakers, educators, stewardship groups, and the public. For example, managers in NYC have queried STEW-MAP to find stewardship groups working near specific forest restoration projects run by MillionTreesNYC, a public-private tree-planting initiative. Funders or community organizers can also identify areas with the greatest or least presence of stewardship groups, taking into account organization size and focus area. Those seeking to disseminate policy information can target the most connected groups to quickly and effectively reach an entire network or a subset of groups. Members of the public who want to know who is working in a particular neighborhood or who can provide technical resources for a project can search the database, which displays results as a list or on a map.

Learn more at www.nrs.fs.fed.us/nyc/focus/stewardship_mapping

The Stewardship Mapping and Assessment Project (STEW-MAP) is designed to answer who, where, why and how environmental stewardship groups are caring for our urbanized landscapes. This report is intended to be a guide for those who wish to start STEW-MAP in their own city. It contains step-by-step directions for how to plan and implement a STEW-MAP project. STEW-MAP is both an empirical study of a city's or region's civic environmental stewardship resources and a publicly available online database to help support environmental stewardship broadly in these cities. The project adds a social layer of information to biophysical and urban geographic information on "green infrastructure" in cities. STEW-MAP highlights existing stewardship gaps and overlaps in order to strengthen organizational capacities, enhance citizen monitoring, promote broader public engagement with on-the-ground environmental work, and build effective partnerships among stakeholders involved in urban sustainability.

KEYWORDS: environmental stewardship, public engagement, partnerships, urban landscapes, geospatial mapping, social networks

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