Environmental Stewardship in New York City Parks and Natural Areas: assessing barriers, creating opportunities, and proposing a new way forward

Dana M. Baker
Yale School of Forestry & Environmental Studies
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Introduction

Citizen-based environmental stewardship programs are increasingly used as key approaches by government agencies to improve ecosystem function and landscape health in degraded or vulnerable systems. Stewardship programs are also touted to increase community resilience, to improve civic engagement, and to strengthen partnerships between government agency and the local community (Romolini et al. 2012; Fisher et al. 2012). Ideally, such programs work to connect individuals to the natural world by providing meaningful opportunities for engagement and learning. Yet, difficulties arise in how this sense of interconnection is brought into action and what activities constitute meaningful and legitimate engagement in natural areas. Current approaches have tendencies to over-simplify complex socio-cultural desires that drive patterns of park and natural area use.

In this report I hope to address a fundamental need of New York City's Department of Parks and Recreation (NYC Parks) to establish a clear, adaptable framework for the implementation of citizen-based environmental stewardship programs. I also want to propose a new way forward by encouraging managers and practitioners to use the process of social engagement as a goal in and of its self. Reorienting the current process of citizen engagement to allow communities to define, plan, and implement public programs in their own terms and on their own grounds will have a greater social and ecological impact across the city. Additionally, a bottom-up approach, facilitated by NYC Parks, will establish clear channels of communication between institutions and will legitimize distinct modes of engagement. In turn, this process will help build long lasting relationships between community institutions and NYC Parks.

Methodology

This report draws from my experience working on the 2014 New York City Social Assessment of parks and natural areas. It also draws on interviews and informal discussions with various environmental NGOs, officials of NYC Parks, and homeowner associations, each who have a mutual and vested interest in defining how natural areas are used and managed. Through this process, and in participating in the 2014 Social Assessment, I learned a great deal about people's social lives, values, needs, and priorities. The Urban Resources Initiative, at Yale University, and the USDA Forest Service provided the funding and support for this research. While the New York City Urban Field Station provided guidance and supervision.

2014 Social Assessment of NYC Parks and Natural Areas

NYC Parks manages approximately 30,000 acres of land across the city. One third of this land is designated as natural areas and is managed for a multitude of uses, other than active recreation. Other management values include biodiversity, ecosystem services, water control, and wildlife habitat (US ForestService & NYC Urban Field Station 2014). In the summer of 2013, a team of social scientists and ecologists from the US Forest Service collaborated with NYC Parks and the

Natural Areas Conservancy to conduct a social assessment of public green space in the Jamaica Bay region of Queens (Campbell et al. 2014). The goal of this project was to better understand the human use of the space. This project served as the foundation for and the pilot of the 2014 Social Assessment.

Parks and natural areas included in the 2014 Social Assessment were picked based on several factors. First, study areas are defined as followed (see appendix for study area map produced by USFS Urban Field Station of each study area):

> All public Park properties that are managed by the NYC Department of Parks & Recreation and that contain a "Natural Area." These Natural Areas are designated as Forever Wild Natural Areas and Forever Wild Natural Areas Preserves within the NYC Parks property data layers (US Forest Service & NYC Urban Field Station 2014).

Parks in all boroughs were then further categorized and prioritized based on individual size and the total percentage of natural area present. The resulting list of natural areas included in the 2014 assessment excluded heavily studied parks, such as Central Park in Manhattan and Prospect Park in Brooklyn (US Forest Service & NYC Urban Field Station 2014). From the resulting list, each study site was further delineated into zones by considering key characteristics that fragment the area into smaller units based, such as land-cover features, infrastructure, habitat-type, and park management designations.

Working in pairs, we followed structured observational protocols to sweep park interiors and edges. Each site was visited three times throughout the summer field season: once during a weekday (between 8 am-4 pm), once on a weekday evening (after 4pm), and once of a weekend (between 8am and 8pm). The process of returning to a site helped account for temporal variation in park visitation. On the first site visit, full protocols were executed in all parts of the park. This included: interior observations, edge observations, and rapid interviews. Subsequent visits (weekday evening and weekend day) entailed a more rapid assessment including only human observations and interviews within the park interior only.

Within the interior of each park, we counted and categorized human activities by considering scales of sociability and levels of engagement. Direct human observation included quantitative tallies of all people observed within the park site, including what each person was doing, where in the park they were observed (the particular zone), and the their approximate age. Rapid interviews were conducted based on a random sample of every third adult encountered within the study site (note: no interviews were conducted on park edges or with minors) and all interview refusals were recorded. In addition to direct human observation, we observed and documented all signs of human use in each zone. This included informal sitting areas, memorials, substantial dumping sites, informal trails, art, murals, signage and stickers, and any unofficial structures or forts. The park edge was defined as the interface between the park and the rest of the neighborhood and we made note

of the character of each park edge and all informal entry points, or desire lines, into the park. Sometimes this edge was clearly defined by a guardrail or sidewalk. At other times, the boundary between the park and the community was less than clear.   Lastly, detailed field notes were taken on a daily basis. Our field notes worked to capture the overall feeling of the study area, in addition to detailing notable features, patterns, and surprises. Daily field notes included observations such as if there was significant street tree damage, the presence of litter, or an abundance of shopping carts in one area and not another. We noted what languages we overheard throughout the day and if people only used one playground area as opposed to another.

Assessing the Stewardship Potential in Alley Pond Park

Ally Pond Park in northeastern Queens was identified as a geographic area of focus for several reasons. First, the Natural Resources Group, a division within the NYC Parks, is in the process of writing a new *Alley Creek Watershed Management and Habitat Restoration Plan* (NYC Department of Parks and Recreation 2014). This process gave me insight into how city agency engages the community and allowed me to better understand the dialogue between community actors and city agency. Second, the Alley Creek watershed represents one of the most intact watersheds in New York City (NYC Department of Parks and Recreation 2014). Third, one summer field season did not allow me to survey all groups involved in environmental stewardship across the city. However, this focus allowed me to gain a deeper understanding of the inherent social and cultural complexities faced by both city agencies and community organizations.

I talked to local park management, those working in park facilities, naturalists, photographers, professors at local community colleges, fishermen, shellfish collectors, foragers, runners, dog park presidents, and first-time park users. Additionally, I spoke with NYC Park officials working at the Citywide level and to program administrators in the Department of Education. I met with people working across institutions, at various scales of management, in and around the Alley Creek Watershed. I undertook these conversations to gain a deeper understanding of the institutional perspectives and the political context of stewardship programming and citizen engagement.

Formal interview questions varied somewhat, depending on the interviewee. Generally, however I was interested in learning the history of the organization, how a person personally defined environmental stewardship, their perception of environmental degradation in the urban context, and how their organization works to mediate this degradation. I was interested to learn specific methods of engagement within the community, motivations, and the technical expertise found within the institution.

Part 1: A Citywide Context

Defining Environmental Stewardship in Urban Space

Environmental stewardship, first proposed by Aldo Leopold, has theoretical roots as a personal, human ethic. Environmental stewardship is "dealing with man's relation to land and to the animals and plants that grow upon it" (Leopold 1989). It is widely described as the commitment one holds to the land, where land has broad, natural, place-based connotations. It is entrenched with an intrinsic respect for nature and an ongoing commitment to active 'earth keeping' (Carr 2002). Stewardship means and manifests differently in each person. The interactions between people and natural areas persist and are bound with personal and cultural identities, social class, and personal views about nature. Environmental stewardship in New York City manifests in a multitude of contexts and activities having broad ecological and social impacts. Forms of environmental stewardship emerge on different scales: from the highly organized and formal programming of the Natural Area Volunteers (NAV) to the individual and largely subversive practices of urban foragers.

New York City's division of Forestry, Horticulture, and Natural Resources released a Stewardship Assessment report in July of 2014 (Monaco & Greenfeld 2014). This report broadly outlines the department's strategy to increase civic engagement and stewardship potential across the city's natural areas. The report states that stewardship "can be understood as a series of programs that relate back to, complement and support the large management goals for the division". To reach stated goals the department will, "engage New Yorkers with street trees, green infrastructure installations, forests and wetlands" (Monaco & Greenfeld 2014). Here, it is important to acknowledge that this strategy does not recognize stewardship as a personal, individual ethic.

The vast majority of stewardship programming seeks only to secure voluntary work forces for restoration projects. As stated, "the key to success is capturing volunteers and groups along the engagement spectrum… while simultaneously improving our natural resources" (Monaco & Greenfeld 2014). The scope of current environmental stewardship programming supported and implemented by NYC Parks remains too narrow to engage large parts of the community. Current modes of engagement and the overall focus of such programming create barriers for active and meaningful civic participation. Some of these barriers include the scheduling of the event during the week, lack of interest in the activity offered, and high level of physical fitness needed by an individual to participate. Additionally, there is a perception among some New York City citizens that the stewardship activities offered by the Natural Area Volunteers (NAV), a NYC Parks stewardship program, are "maintenance work" and "chores".

The Stewardship Assessment (2014) also touches on a concept titled the 'Volunteer Engagement Spectrum.' This concept recognizes the various human interests present in the use of natural areas, however makes several assumptions about individual awareness, engagement, and empowerment. First, it assumes a causal relationship between awareness and engagement. That if someone knows

about a stewardship opportunity they will automatically participate. Second, the spectrum assumes that being engaged in park restoration activities leads to individual empowerment, assuming those not currently involved, or participating, are disempowered. On the other hand, one may be aware, yet unable to participate in the opportunities provided because of scheduling conflicts or physical health. Or one may be empowered, but choosing not to participate because they do not like the opportunities provided.

The urgency to develop citywide environmental stewardship programs needs to be met with a diversification of the type of opportunities offered and a broadened conceptualization of what environmental stewardship is. Environmental stewardship needs to be reimagined and brought back to its original values, as first imagined by Aldo Leopold.

Academics and policymakers continue to examine environmentalism, the importance of environmental stewardship, and the expanding use of volunteer workforces to accomplish restoration across the United States, with several of these studies focused on New York City (Fisher et al. 2010). Notably, the Stewardship Mapping and Assessment Project, STEW-MAP, a project designed and implemented by the US Forest Service, brings to light the vast network of existing partnerships between environmental organizations, as well as the social and spatial interactions of this network. Additionally, this research gives great insight into the connection between various ideologies, management types, the capacities of organizations, and the social outcomes derived from participation in this network (USFS 2013). Other reports, such as Fisher et al.'s (2010), *Who volunteers to steward the urban forest in New York City?* And Tidball and Krasney's (2007), *From risk to resilience: what role for community greening and civic ecology in cities?* (Tidball & Krasny 2007) provide great insight into the topics at hand. City agency and other environmental organizations can directly utilize this research to enhance their own organizational capacity and to fill gaps in their current knowledge.

The Value of Parks and Natural Areas in the Community

Despite some barriers to implementing public stewardship programs, natural areas and city parks are highly used and highly valued spaces. Parks and natural areas in New York City are vital to its functioning as a city. The importance of parks and open spaces in the urban context is best stated by William Burch, a professor of emeritus of natural resource management at Yale University,

> Public parks and open spaces are critical catalysts for improving health and being, strengthening social cohesion, fostering democratic principles and providing benefits to urban biophysical systems (Grove & Burch 1997).

Individuals use parks to run and walk, to find solitude, to connect with friends, to fish, to build forts, to pray, and to dig up worms with their children. One man told me, as he threw his Frisbee on to a parkway on-ramp, "I've got no where else to play." Another woman, while standing in the middle of a tulip tree forest aptly states, "this area is a god send for my mental and physical self. It is untamed and natural."

Parks as Destinations: Fort Washington

Parks are destinations and serve as community gathering points. For example, one senior home near Fort Washington Park uses a small triangular lawn located between the Henry Hudson Parkway and the on-ramp to play bingo each night during the summer. The scene is dazzling. On the grassy slopes, beneath a dense canopy of trees, 10 card tables are unfolded. Each table had 4-hinged chairs surrounding it and each is covered with a different sized white cloth. Small plastic solar lanterns are placed in the center of each table emitting a dim halo of light. I look around. Street lamps are noticeably absent from where they usually stand on the sidewalks. A popcorn machine is popping on one side, atop a cooler two pitchers of lemonade stand sweating, an old cassette player plays an upbeat Caribbean- Latin mix. As dusk envelopes, I approach the man standing nearest the brass cage. He must be the man in charge. I ask his name and what he is doing in the park, learning most of the players milling about are immigrants from the Dominican Republic. They live together in the building over there. He points across the street. He emphasizes, twice, that the group does not play for money, nor do they gamble. They come each night to enjoy each other's company, to gossip, and to enjoy the outdoors while the weathers' still nice. Encounters such as this highlight the fact that community engagement and participation is contextual and relative. This highly engaged bingo-playing group does not care, nor are probably aware, if an invasive species is growing along the parkway ramp. However, they are active participants in their own communities, they are engaged in each-others lives, and highly value this particular piece of the park.

In a different example, the modes of engagement and stewardship are rooted in the cultural and social identity of immigrant families from fishing communities in Central America. Dotted along the Hudson River's edge are a series of fishing huts. My last count in the beginning of September 2014, found seven in total. Each is made slightly differently, however each uses the same basic construction design and material. Weathered, flat wooden planks make up the floor while long poles are woven and tied strategically together on 3 sides for an open, breezy floor plan. A matrix of tarps are stretched across the top providing shade. The side facing the river is left open, so one can presumably sit and dangle their feet over the rivers edge. What is striking about these huts, and what provoked me to return several times throughout the summer, is the great care users took in the upkeep of the area. These are not homeless encampments, but serve as places for groups of men to gather after a days work, have a beer and fish along the river. I asked one fisherman, whom I had seen several times before, where they put all their trash, thinking he would nod to the river. He replied, "Aw! We make sure to throw everything out in the bin at the top of the hill. Sometimes, our youth will leave a mess. But, we are the fathers, we pick up after them too." This fisherman does not conceptualize his activities as a form of stewardship.

On the Fear of Natural Areas

There is the general perception that natural areas are unsafe, that one will be attacked, or will get lost if they go too far inside the wooded areas (Brownlow 2006; Chiesura 2004). One interviewee states, in reference to whether she goes into the natural areas of the Bronx park, "Tonight, we just passing

through. We try to stay safe, it's safer out here".   The perception that natural areas are unsafe results in the vast majority of individuals only using the recreational areas: the basketball and handball courts, the playgrounds, and playing fields. Parks and natural areas continue to be associated with criminal activity and are explicitly implicated as being unsafe agents across the city. For the most part, parks continue to be used as corridors, as a way to get from one place to another.

However, this fear presents unique opportunities for organizations and institutions to develop targeted campaigns to increase access and to reconnect people with the natural environment. In another interview, a park worker in Fort Washington Park brings forth the idea that flowers and gardens give the perception that the area is cared for by the community and is thus safer. He does not go to the park in his neighborhood, one train stop away explaining "Our parks need color too. Like in my neighborhood there is no color. That's why I come here, that's why I bring my little girl here. Its nicer, there's flowers." The perception that parks are not cared for perpetuates feelings of fear. Increasing opportunities for neighborhood groups to plant flowers, paint fences, and to come together to care for their own parks can achieve multiple social and ecological goals. This can be achieved through the creation and expansion of park programs that fund small grants for communities and individuals. Programs, such as *It's My Park Day* and *I Love My Block,* support ideas instigated within the community, allowing the community to define their own goals and implement their own programs, with support from city agency.

On Urban Foraging

People collect oysters and mussels, subsistence fishermen fish off the city's docks and along the bay, firewood collectors continue to gather under the forest canopy. Foraging is an important activity providing many non-economic values including the development and transmission of ecological knowledge, recreational opportunities, mental and physical wellbeing, spiritual fulfillment, reinforcement of cultural identities, and it plays a role in the strengthening of social ties (Mclain et al. 2012; McLain et al. 2014). Gatherers come from diverse backgrounds and are thus likely to differ in their motivations, the kinds of products sought out, depth of ecological knowledge, and the techniques used for gathering plants. City residents continue to interact with diverse urban landscapes finding edible, medicinal, and craft related species in formally and informally managed spaces. Yet, low visibility makes understanding urban gathering and identifying ways for management efforts to support sustainable practices difficult (McLain et al. 2014; Dove 2013).

Strategic encouragement of urban gathering could be an important strategy for developing and maintaining ecologically sustainable systems. For example, encouraging the gathering of mugwort at certain times of year and reaching out to the community who harvest and use this plant has the potential to aid land managers in stopping its active propagation. Stopping its active propagation may help to conserve the time, energy, and monetary funds used for its control and eradication. Developing enforceable policies will require gaining the trust and involvement of a broad spectrum of people and needs to account for the specific species, products, and specific sociological contexts.

Part II: Assessing the Stewardship Potential: Alley Pond Park and Watershed

Characterizing Environmental Stewardship Groups in the Watershed

Stewardship groups form for different purposes at different social and geographical scales. Such groups give communities a sense of pride, while providing a means for social interaction, community cohesion, and a sense of belonging. Groups are formed under self-interest, altruism, and to concentrate the power of group action (Carr 2002). A mixture of social, political and biophysical considerations also define the activities and goals of stewardship groups. Organizations use different strategies to pursue institutional values and goals. Each group of participants is uniquely engaged in the community and the surrounding environment, for example a local running club's activities and goals are vastly different from activities organized by the local angler's club. Understanding how various groups operate, the various perspectives present, values, and strategies used to accomplish stated goals is an important first step to finding new entry points in the community. New entry points will help establish long-term, productive partnerships and friendships.

For ecological and social management goals to be achieved the facilitation of greater levels of engagement and civic participation needs to occur. In and around, Alley Pond Park there are dozens of formal and informal organizations operating at various scales within the community. Core partnering institutions include groups such as the Alley Pond Environmental Center (APEC), Udalls Cove Preservation Committee, and the Douglas Manor Environmental Association (DMEA). These three groups are highly visible, active, and vocal. Each group works to promote individual goals and works within their capacity to achieve stated outcomes. They are repeatedly cited in NYC Parks reports as being key stewards of the local environment.

It is important to recognize the many other groups also engaged in community activities in the watershed. Groups including the Alley Pond Striders, Alley Pond Pet Lovers Association, and the Alley Pond Hikers and Trail Crew Association, each represent institutions working in less visible spheres of the community. Partnering with less visible groups will provide managers with a greater diversity of perspectives and a deeper understanding of community dynamics. In addition, non-profit institutions such as libraries, religious centers, and senior centers can also provide unique partnership opportunities that will help foster wide spread engagement.

Yet, levels of disconnect exist between local stewardship groups and NYC Parks. Neither group fully trusts in the actions of the other. For example, in several conversations with NYC Parks personnel I heard a particular stewardship organization be referred to as a 'black hole'. In another example, while out kayaking with members of a local environmental organization, including the group's president, I asked about modes of collaboration with NYC Parks. In response, one group member stated, "the fact is they (parks) inform. They do not ask for input. I am not upset by this, it just is." This comment was in regards to a new green infrastructure project recently installed. All agreed the project was needed to improve water quality, but seemed disappointed in the lack of

opportunity for involvement. This could have been a great opportunity for NYC Parks to garner support not only for the project, but also for their agency.

The following table provides greater detail of the specific characteristics of some groups operating in and around Alley Pond Park. The table describes group type, the area in which the group operates, key or current activities, and ideas for future activities. It is important to note that these ideas are my ideas; the groups themselves did not necessarily suggest these future activities, yet they are ideas that represent new entre points for NYC Parks to engage the community.

Table One: Active Stewardship Groups and Potential Partners for the NYC Parks Department

Group	Group Type	Area of operation	Key Activities	Ideas for future activities	Contact
Bayside Marina	Local business. Yacht club, Kayak storage, Snack bar, Bait shop, rod rental.	Little Neck Bay	Boat rental, kayak storage, fishing dock. 'Snapper Derby'.	Increase programming for estuary education- key group kayakers, rod rentals for students	info@baysidemarinany.com
Bayside Anglers INC.	Non-profit, fishing club	Little neck bay, Little Bay Park	Community outreach, beach cleanups (Annual Family Fishing Festival, BAG Annual Snapper Derby, DEC Children's fishing clinics, national estuaries day festivities. General club meetings are held at 7 pm, first Tuesday at MS 158 (Marie Currie Middle School)	Utilize knowledge and membership base for more beach clean ups, estuary restoration, oyster propagation,	President: Ida Friedland Phone: (973) 714-5471 Email: president@baysideanglers.com
Douglaston Yacht Squadron	Private club	Little Neck Bay	Junior Sailing Club, 30-40 registered kayakers, private open water swimming dock, hosts yearly open water swim competition in bay called 'splash and dash'	Bio- bliz and citizen science program w/ youth group	General Manager: John Veneziano, dclub@nyc.rr.com
APEC Hiking Club and Trail Crew	Charity Organization, Civic association	Alley Pond Park	Trail maintenance, adult education, park clean ups, outdoor recreation, membership to hiking club supports APEC	Partner to increase trail maintenance and trail restoration in high priority areas	tom0153@hotmail.com
Queens County Bird Club	Non-profit, charity organization	Bayside, Alley Pond Park	Field trips, walks, lectures, and presentations for the purpose of finding and identifying birds.	Bio blitz and citizen science in Alley Pond	President: Arie Gilbert ArieGilbert

					@optonline.net
			Promote conservation of open space and parkland for intrinsic value of avian inhabitants. *Data Collection (citizen science)*		
Bayside Historical Society	Non-profit, civic association	Fort Totten, Bayside	Interactive school programs teaching to common core standards. Organizes summer community programs: Bayside day, Croquet Day, Jazz Brunch, other workshops.	May be good way to disseminate information. Programming could include education series of the environmental history of bayside, or develop an exhibit that focuses on the history of NYC parks in NE Queens	-
Alley Pond Pet Lovers Association	Civic association	Alley Pond Park	Organizes yearly park clean up.	Use membership base to promote BMP and trail stewardship	-
Alley Pond Striders	Running Club, civic association, community group	Alley Pond Park	Weekly, Saturday and Sunday morning group runs. Annual 5 km race in park. Plans annual park clean up days. Holiday parties. The Alley Pond 5 Mile Race is the largest local race in New York City. Group also has very active newsletter.	Use membership base to promote BMP (Over 250 community members, updated website, and Facebook page	Managing Director: Ken Kaiser apstriders@aol.com www.apstriders.org
Queens Coalition for Parks and Green Spaces		Queens County			Fred Kress 718-341-1395
Urban Park Rangers	NYC Parks Dept.	Alley Pond Park, NE queens parks.	Outdoor science education.	Support citizen science, expand programming to include kayak tours and oyster farming,	Sg. Marc MarcSanchez
Queensborough Community College	Public institution	Oakland Lake	Nature Blog.	Partner with parks to develop curriculum, citizen science.	Dr. Eugene Harris, professor of biology
Douglas Manor Environmental Association (DMEA)/ Douglas Manor Association	Homeowners association, registered non-profit	Douglas Manor	*Manor Matters* community newsletter.	Kayak + bio-bliz, citizen science, million trees, green infrastructure	Jamie Sutherland, office@dmanyc.org 718-225-3111
Udall's Cove	Non- profit	Little Neck	Restoration, invasive	-	President:

Preservation Committee	Bay	management, trail maintenance, beach clean ups, storm water management.	Walter Mugden, udallscove @aol.com

Habitat Restoration, Community Participation, and Stewardship in the Alley Creek Watershed

Characterization of Habitat Restoration

Habitat restoration projects in Alley Creek Watershed date back several decades (NYC Department of Parks and Recreation 2014). A multitude of different ecological projects have been completed: invasive species removal, reforestation, forest management, erosion control, kettle pond restoration, and green infrastructure, each funded under various mechanisms at different points in time. The habitat management and restoration needs of the area were again assessed this year and a new report was written (NYC Department of Parks and Recreation 2014). Yet, habitat management needs, goals, and recommendations remain thematically similar to historical issues.   Similar problems continue to exist today that existed 20 years ago.

Restoration projects in the area have brought many degrees of success. Additionally, restoration projects have gone far to bring deserved attention and resources back into urban parks, such as Alley Pond Park. For example, water quality in Little Neck Bay is far better today than it was in the 1970s. Yet, the implementation of projects within parks continue to be completed within the constraints of the agency's capital procedures and do not necessarily align with changing community uses, values, or perceptions of park areas.

Characterization of Community Participation

A disconnect persists between those working to achieve management goals and the goals and needs of community actors. The recent closure of Oakland Lake illustrates current disconnect between the community, everyday parks users and NYC Parks. This particular capital improvement project, aiming to restore the 46-acre Oakland Lake Park, was first announced in 2011. At this time, the project went through the mandated public review sessions and a public commenting process. However, when the lake was finally fenced off this past summer for the next year (2014-2015), many in the community remained skeptical about the need for the project. Eugene Harris, a professor at neighboring Queens Community College states, "its crazy that they're caging in the entire lake. I can't see why they couldn't do it in portions so that the public can at least enjoy part of it" (Personal communications: 2014). The following dialogue, was written in the Times Ledger comments section in regards to an article published in October titled *Oakland Lake Shuttered* (Soto 2014). This dialogue highlights community rhetoric and the increasing disconnect between individual community members and actions of the parks department.

Yes, let's shut the park without any notice because as per usual gov't has total contempt for the citizenry! Let's continue this failed project. This is a highly wild area not needing a walkway. Those who don't want to get their shoes dirty should go somewhere else. More shoddy construction, more kickbacks to those involved. Kickbacks , pure and simple !

... on the other hand, the delays and delays with the work down at Fort Totten have now proved laughable. Some high ranking officials in the parks department, and the politicians, should review the status of the work and move a mountain or two.

Only a handful of people I interviewed about Oakland Lake's closure spoke positively about the project. Yet, there is no doubt this project will have an overall positive ecological impact in the area. However, the importance of this impact was not effectively communicated to individuals living in the community, nor was the project communicated in a language that was understood by the community. The current policy process implemented by NYC Parks inherently limits access, understanding, and on-going communication with the greater community. Complex language and top-down approaches continue to dominate community meetings, while mandated public comment periods and outreach meetings draw few people. In addition, the goals and objectives of individuals and various institutions do not always align with the larger goals NYC Parks. Recognizing this disconnect provides great opportunity to realign engagement strategies in order to promote collaboration, communication, and ultimately healthy, sustainable neighborhoods.

Recommendations: The Way Forward

Opportunities and Barriers to Stewardship in the Alley Creek Watershed

Engaging neighbors and community members can be the most challenging part of any project implementation. Yet, communities that are given a platform to work together, to achieve shared values and ideas can realize great success. Changing administrative procedures, so that stewardship opportunities are defined and implemented within the community will help to further engage individuals and to secure lines of communication. Thus, no issue, plan, or solution is developed outside of this community network. Most importantly, this process will help to strengthen trust between the community and parks management. Working together can involve sharing human resources, curriculum, or helping each other understand the perceptions and the needs of the community. Ongoing workshops and learning opportunities can provide capacity development for land managers and maintenance staff building the knowledge base of parks workers.

New ways of engaging with community groups and individual actors should focus on the collaborative process, rather than a stated goal, objective, or outcome. Listed below are some new ways to think about community engagement and opportunities to promote environmental sustainability. Beyond these opportunities, many challenges exist in facilitating and encouraging community participation and civic engagement. However, recognizing that challenges and barriers exist is the first step to create the forward momentum needed to overcome such obstacles.

- **Hold community events:** community events are a great way to meet neighbors and have fun. They will promote ongoing dialogue and will help establish long-term relationships. Monthly community coffee events will allow residents to ask questions about up coming projects. Meeting on a regular basis, promotes face- to- face communication and allows for curious residents to ask questions and to express concerns in an informal, non-biased setting. Monthly events will also begin the process of building long-term relationships with residents. Other informal events, such as outdoor movie nights, potluck dinners, walking groups, encourage neighborhood community and collaboration. If these events are hosted, in collaboration with the Parks Department, it will build community trust in NYC Parks. In addition, events and programs should take advantage of new installations and green-space. This will build community involvement and support for the project and for all future projects. Other examples of community events can include native plant workshops, urban wildlife programs, and children's gardening classes appeal to a large part of the community.

  Of the 97 events held in Alley Pond Park in the 2014 calendar year about a quarter (20 in total) focused on nature and nature activities. Of these 20 events, just two were dedicated to getting people out onto the water (both canoeing events on Oakland lake). A list of all the events held in Alley Pond Park can be found in the appendix.

- **Use social media:** creating a Facebook page or blog for community events is a great way to start conversations and to connect with community members. A Facebook page, specifically for Alley Pond Park, can help with the dissemination of educational materials and to let community members know about volunteer opportunities.

  One of the most common responses from people across the city was that they don't know about volunteer opportunities happening in their community. Facebook will only appeal to a fragment of the population, yet it will target a younger generations of park users. In addition, the use of this platform has the potential to make communication easy, accessible, and can serve as a neutral platform to update the public on projects, upcoming meetings, and serve as a place for citizens to ask questions.

- **Be inclusive:** tailor communication and events to as many people in the community as possible. Make sure text is large enough to read by seniors, that signage is posted in different languages, and make sure to offer activities for young children, so parents feel welcome to attend gatherings. Ensure access to meetings for people with disabilities.

- **Be resourceful:** recognize the wealth of resources available within the community. During the course of a projects implementation involve student groups and environmental clubs to, for

example help build new boardwalks or paths. Reach out to the local Boy and Girl Scout troops for collaboration on restoration projects. Connect with senior homes and assisted living groups in the area to plant new plantings and to help maintain garden areas. Choosing the right people for specific tasks based on their skills, background, and interests will increase community ownership of any project.

- **Hold competitions:** design idea competitions by asking community members to submit proposals that showcase what they think needs to be done in their community and what they want to see done. For example, collaborations can be made between government agency and the local community college students to design creative ideas to reuse vacant lots in and around natural areas, or rain gardens on campus. Competitions can include other topics such as ecology, arts, culture, health and wellbeing, and infrastructure.

Instituting small grant competitions for community and school groups will promote stewardship throughout the wider community and will promote knowledge sharing of best management practices. Local business districts, school science clubs, libraries, and gardening clubs can also be included. Build program with the expectation that there will be a diversity of project submissions. This recognizes that the needs, strengths, character, and history of each neighborhood. Also, it may be important to recognize more than one winner because the goal to learn and share practices promoting stewardship and environmental conservation.

- **Elementary and high School environmental club challenges:** using the structure provided by the public school system, NYC Parks can instigate an environmental club competition. By giving each classroom a 'toolbox' of best management practices to chose from, NYC Parks in turn supports science education, hands-on experiential learning, and possibly natural areas restoration. A program such as this can also incorporate teacher trainings and a partnership with Urban Park Rangers.

- **Expand modes engagement:** engage with local libraries, sailing clubs, senior homes, and local businesses (cafes, bookstores) by hosting monthly speaker series on various topics, in each of these locations. This will help foster on-going dialogue and learning, where the social process is main objective as opposed to structural goals.

- **Education, training, and leadership programs for NYC Parks employees:** education, training and leadership training will increase awareness of management goals, help to share knowledge, and will build stronger social relationships within the agency. Training programs can be paired with other training of trainers programs or department competitions. Ideas for trainings can include rain-garden construction, bio-swales, native plantings, disconnecting downspouts and the installation of rain barrels.

- **Training of trainer's event series:** a Training of trainers (TOT) program will bolster local capacity, skill, and provide the community extended learning opportunities. For example, if one goal of the Parks Department is to reduce urban run-off, the development of a TOT could be an effective means to increase awareness and engagement on the issue through the community. For example, if there is a need to improve storm water management on private property to reduce runoff, utilize the APEC membership base to create a weekend workshops on natural planting and rain gardens. A demonstration garden could be made by participants at APEC and used as an education tool in the future.

- **Disconnect downspouts, install rain barrel program, bio-swales, and rain-gardens:** educate and empower citizens in methods and benefits of being environmental sustainable. Opportunities include having volunteers of all ages decorate rain barrels and plant greenery around the barrels to handle rainwater overflow. This will increase community excitement for the program. Have neighbors decorate the rain barrels to add character. To raise community excitement, host a competition for the most beautiful rain barrel on the block. Another great starting point for a program of this nature could be to link with local high school environmental clubs or the biology department at Queensborough Community College.

Top Barriers

- **Lack of opportunity**: there is a general lack of opportunity for community members to engage with Parks management in neutral, casual settings (note: not all individuals consider APEC neutral territory). In addition, people lack knowledge about how to participate in volunteer activities and stewardship events. For example, on several occasions I heard people mention that they would have liked to volunteer with the Million Trees plantings that occurred earlier in the year, yet large volunteer groups were brought in from Manhattan for this project, thus NYC Parks did not engage people from the community to help. Also, scheduling conflicts exist limiting participation for some groups. For example, scheduling events in the middle of the day or only on weekends may not be the most inclusive approach.

- **Policy process:** the overall policy process used by NYC Parks is top-down and oriented to meet the agency's agenda, not that of the community. This may be because of the lack of time, resources and capital limitations, available to actively build and maintain community partnerships. Yet, reprioritizing goals and methods of implementation may help to

- **Definitions of stewardship:** individuals, groups, and other government agencies each have a different definition and conceptualization of what environmental stewardship is. Thus, goals between individuals and land managers do not align.

Reimagining Community Partnerships

There are a number of opportunities to build new, innovative partnerships, to instigate creative forms of engagement in the wider community, and to refocus existing collaborations. Described below are a few starting points and new ways to think about engaging with new and existing partners in and around the Alley Creek Watershed.

- **Queensborough Community College (QCC):** QCC represents a community institution with a ready work force of biology students ready to learn how to apply classroom knowledge in the natural world. A close partnership with the professors and students can provide the long-term technical assistance needed by the Parks Department. QCC is focused on building the technical skills of its students for direct application in the workforce. A partnership with parks can train students in hands-on environmental monitoring techniques, data collection, green landscaping, and outdoor educational programming. Alley Pond Park can serve as their 'living classroom'. For example, a class on environmental restoration could use an area of the park (identified as a priority by parks) to remove invasive plants, such as mugwort, and reestablish natural plant communities. The Parks Department can offer an internship program for participating students to train with the urban park rangers, researchers at the urban field station, or teachers at APEC during summer months. A certification program can also be integrated into this program for students in green landscaping, infrastructure, or outdoor education.

- **Alley Pond Environmental Center (APEC):** represents another community institution that is comprised of active, environmentally informed citizens working to bolster environmental knowledge in the community. Yet, programming at APEC does not always align with parks restoration and management needs. While, APEC may not constitute neutral ground for all and supporting more programs here may marginalize other groups in the community, it does provide a membership base that is informed and motivated. NYC Parks can provide APEC with the technical expertise and guidance to develop new programs that work towards meeting the environmental issues prioritized by park management.

  For example, if meadow management and native plantings for biodiversity are identified as top priorities, provide APEC the expertise and resources to pilot new programs and workshops on this topic. Work together to create a long-term vision and goal for the program. This vision should be inclusive of the entire community and, ideally, include youth groups, seniors, and business owners. Build curriculum on native pollinators, vegetable and honey production, insects, birds and other creatures that create a healthy and bio-diverse urban habitat. Ideally, such projects in the community should to be visible and accessible to the general public. Lastly, produce signage to for

- **Bayside Marina:** many community members do not engage with the Little Neck Bay environment, nor do they have the opportunity to engage in activities on the water. Just two events in the past year focused on the water (both were canoeing on Oakland Lake, see appendix

for dates). Increasing the number and type of water related events sponsored by the parks department would help connect people to the Bay. This could include guided canoeing or kayaking through the restored marshes, increased the support for fishing rod rentals, or even youth sailing classes. Strengthening the partnership with Bayside Marina could help to facilitate these events.

Ecological goals take a large-scale commitment of resources, agency organization, and communication across various levels of social institution. Involving the community in urban watershed management programs fills gaps between what public institutions can achieve and what the community needs. Yet, without clear messaging and an on-going commitment to connect such approaches to the needs and values of diverse urban communities, such initiatives will ultimately fail. Thus, for ecological and social goals to be met, government agency and city leaders must work to engage community residents in the process of establishing their own goals and in creating their own programs. Citywide programs will help neighborhoods take action to improve ecological health and social resiliency.

Conclusion

Current approaches to promote environmental stewardship simplify complex socio-cultural desires that drive patterns of park and natural area use. The concept of stewardship needs to be reimagined through all public agencies and built on the strength of the individuals within the community, as first proposed by Aldo Leopold. It should be based on an ecological framework that sees natural areas as shared community resources, placing human action directly in the center. It is clear that natural areas provide important environmental, social, and ecological services integral to the urban infrastructure of New York City. However, current approaches to community engagement include very little actual engagement. Policies and programs need to do more than just create public, private and community partnerships and meaningful engagement must be achieved. The adaptive challenges faced by city agencies require change in numerous places across organizational boundaries and efforts need to focus on engaging people: individuals, organizations, and city agency staff by making the engagement of various user groups the goal in and of its self. These challenges require knowledge, innovation, and cooperation.

Acknowledgments

Appendix

2014 Social Assessment Sites
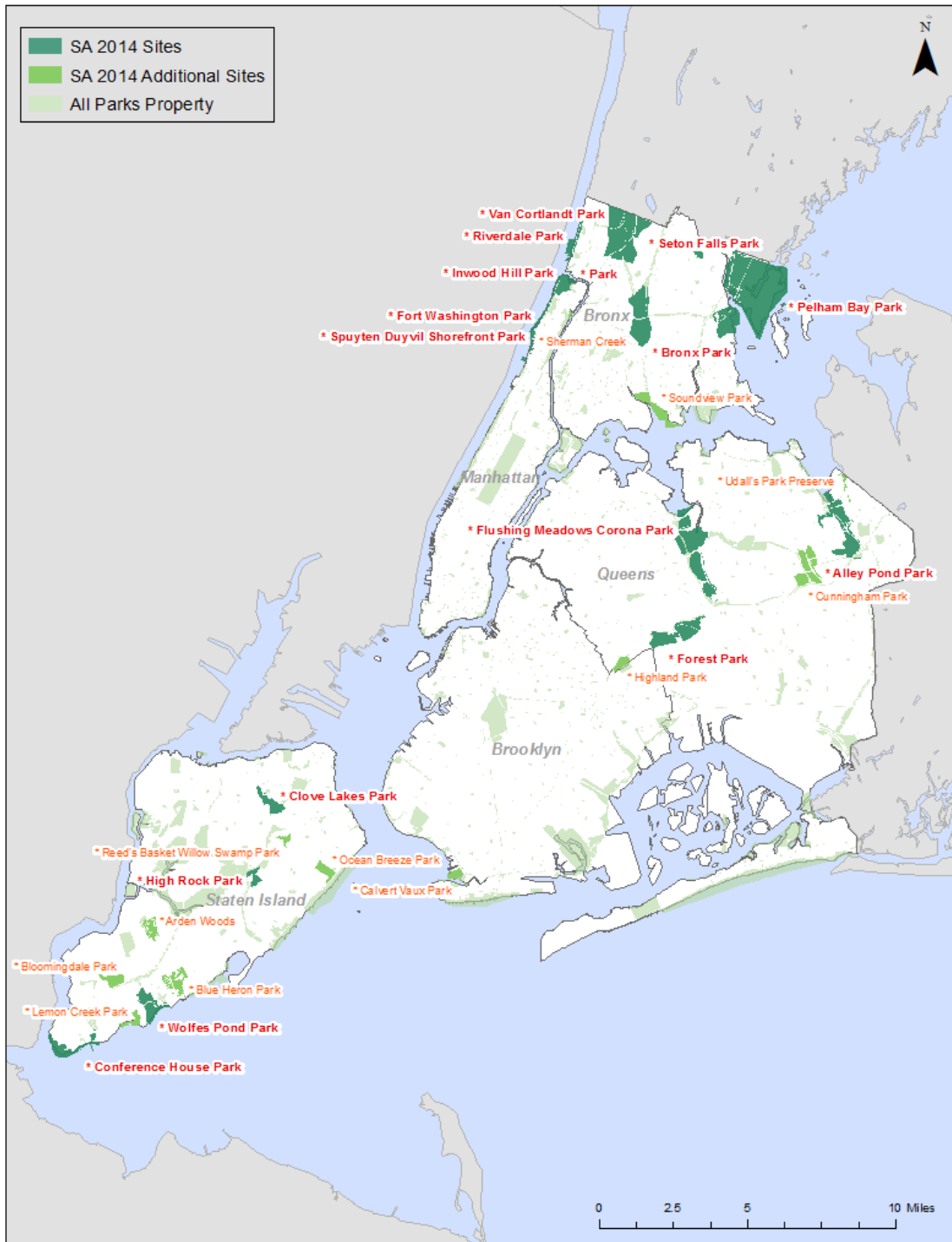
* Map produced by USFS at the Urban Field Station.

2014 Events in Ally Pond Park

Total number of events= 97
Total number having to do with environmental stewardship= 20

1. **Sunday, January 12, 2014. <u>Nature Exploration Hike (moderate)</u>. 11:00 a.m. Category:** <mark>Nature, Tours</mark>

2. **Saturday, February 1, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

3. **Saturday, February 8, 2014 <u>Fitness Bootcamp</u>, 1:00 p.m.–2:00 p.m. Category:** Fitness

4. **Saturday, February 15, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

5. **Sunday, February 16, 2014. <u>Birding: Owls</u>. 1:00 p.m. Category:** <mark>Birding, Nature</mark>

6. **Saturday, February 22, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

7. **Saturday, March 1, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

8. **Saturday, March 8, 2014.<u>Wilderness Survival</u>. 11:00 a.m. Category:** <mark>Nature</mark>
9. **<u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

10. **Saturday, March 15, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

11. **Saturday, March 22, 2014. <u>Fitness Bootcamp</u>.1:00 p.m.–2:00 p.m. Category:** Fitness

12. **Saturday, March 29, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Accessible, Fitness

13. **Saturday, April 5, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

14. **Saturday, April 12, 2014. <u>Birding: Spring Migrants</u>. 10:00 a.m. Category:** <mark>Birding, Nature</mark>
15. **<u>Fitness Bootcamp</u>.1:00 p.m.–2:00 p.m. Category:** Fitness

16. **Monday, April 14, 2014. <u>Birding for Kids</u>. 1:00 p.m. Category:** <mark>Birding, Nature, Kids, Kids' Week</mark>

17. **Saturday, April 19, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

18. **Saturday, April 26, 2014.<u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

19. **Saturday, May 3, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m.Category:** Fitness

    Sunday, May 4, 2014.
20. **<u>Pets & Pals/ Walk 4 Paws Party</u>. 12:00 p.m.–3:00 p.m. Category:** Arts & Crafts, Games, Kids, Dogs
21. **<u>Hike to Alley Giant (Moderate)</u>. 1:00 p.m. Category:** <mark>Nature, Tours</mark>

    Saturday, May 10, 2014.
22. **<u>MillionTreesNYC Planting Event at Alley Pond Park</u>. 9:00 a.m.–1:00 p.m. Category:** Education, <mark>Nature</mark>, Volunteer
23. **<u>It's My Park Day at Alley Pond Park</u>. 11:00 a.m.–1:00 p.m. Category:** Dogs, Volunteer, <mark>It's My Park Day</mark>
24. **<u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

25. **Saturday, May 17, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

26. **Thursday, May 22, 2014. <u>Alley Pond Park Garlic Mustard Pull</u>. 9:00 a.m.–1:00 p.m. Category:** <mark>Nature</mark>, Volunteer

27. **Saturday, May 24, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

28. **Sunday, May 25, 2014. <u>Basic Canoeing</u>. 1:00 p.m. Category:** <mark>Nature</mark>, Kayaking and Canoeing, Waterfront

29. **Saturday, May 31, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

30. **Sunday, June 1, 2014. <u>Camping Skills Workshop</u>. 11:00 a.m. Category:** Education, <mark>Nature</mark>

31. **Saturday, June 7, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

32. **Saturday, June 14, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

Saturday, June 21, 2014.
33. **<u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness.
34. **<u>Family Camping</u>. 6:00 p.m. Category:** <mark>Nature</mark>, Kids

35. **Saturday, June 28, 2014. <u>Fitness Bootcamp</u>. 1:00 p.m.–2:00 p.m. Category:** Fitness

36. **Sunday, July 6, 2014. <u>Ranger's Choice: Hike and Paddle Excursion Adventure</u>. 10:00 a.m. Category:** <mark>Nature, Kayaking and Canoeing</mark>

37. **Friday, July 11, 2014. <u>Fitness Bootcamp</u>. 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

38. **Friday, July 18, 2014. <u>Fitness Bootcamp</u>. 5:00 p.m.–6:00 p.m.. Category:** Fitness, Outdoor Fitness

39. **Friday, July 25, 2014. <u>Fitness Bootcamp</u>. 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

40. **Saturday, July 26, 2014. <u>Family Camping in Alley Pond Park</u>. 6:00 p.m. Category:** <mark>Nature</mark>

41. **Thursday, July 31, 2014. <u>A Morning of Music with Darlene Graham</u> 10:30 a.m.–11:30 a.m.. Category:** Kids

42. **Friday, August 1, 2014. <u>Fitness Bootcamp</u>. 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

43. **Wednesday, August 6, 2014. <u>Mommy, Music and Me, Inc.: Music Together</u>. 10:30 a.m.–11:30 a.m. Category:** Kids

44. **Friday, August 8, 2014. <u>Fitness Bootcamp</u>. 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

45. **Sunday, August 10, 2014. <u>Alley Pond Park Adventure Course: Free Public Sundays</u>. 9:30 a.m.–12:00 p.m.**

Friday, August 15, 2014.
46. **<u>Puppets in the Park</u>. 10:30 a.m.–11:30 a.m. Category:** Kids, Theater, Free Summer Theater**. <u>Fitness Bootcamp</u>. 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

47. **Sunday, August 17, 2014. <u>Alley Pond Park Adventure Course: Free Public Sundays</u> 9:30 a.m.–**

12:00 p.m.

48. **Friday, August 22, 2014.** <u>**Fitness Bootcamp.**</u> **5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

49. **Sunday, August 24, 2014** <u>**Alley Pond Park Adventure Course: Free Public Sundays**</u> **9:30 a.m.–12:00 p.m.** <u>**Alley Pond Park Adventure Course: Free Public Sundays**</u> **1:00 p.m.–3:30 p.m.**

50. **Friday, August 29, 2014** <u>**Fitness Bootcamp**</u> **5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

   Saturday, August 30, 2014
51. <u>**Alley Pond Park Adventure Course: Staycation**</u>**10:00 a.m.–12:00 p.m.**
52. <u>**Alley Pond Park Adventure Course: Staycation**</u> **1:30 p.m.–3:30 p.m.**

   Sunday, August 31, 2014
53. <u>**Alley Pond Park Adventure Course: Staycation**</u> **10:00 a.m.–12:00 p.m.**
54. <u>**Alley Pond Park Adventure Course: Staycation**</u> **1:30 p.m.–3:30 p.m.**

   Monday, September 1, 2014.
55. <u>**Alley Pond Park Adventure Course: Staycation**</u> **10:00 a.m.–12:00 p.m.**
56. <u>**Alley Pond Park Adventure Course: Staycation**</u> **1:30 p.m.–3:30 p.m.**

   Tuesday, September 2, 2014
57. <u>**Alley Pond Park Adventure Course: Staycation**</u>**. 10:00 a.m.–12:00 p.m.**
58. <u>**Alley Pond Park Adventure Course: Staycation**</u> **1:30 p.m.–3:30 p.m.**

   Wednesday, September 3, 2014
59. <u>**Alley Pond Park Adventure Course: Staycation**</u>**. 10:00 a.m.–12:00 p.m.**
60. <u>**Alley Pond Park Adventure Course: Staycation**</u>**. 1:30 p.m.–3:30 p.m.**

61. **Friday, September 5, 2014** <u>**Fitness Bootcamp**</u>**. 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

62. **Saturday, September 6, 2014.** <u>**Back to School Festival**</u>**. 12:00 p.m.–3:00 p.m. Category:** Arts & Crafts, Kids

   Sunday, September 7, 2014
63. <u>**Alley Pond Park Adventure Course: Free Public Sundays**</u> **9:30 a.m.–12:00 p.m.**
64. <u>**Alley Pond Park Adventure Course: Free Public Sundays**</u>**. 1:00 p.m.–3:30 p.m.**

65. **Sunday, September 7, 2014.** <u>**Nocturnal Wildlife**</u>**. 7:00 p.m. Category:** Education, <mark>Nature</mark>

   Friday, September 12, 2014.
66. <u>**Fitness Bootcamp**</u>**. 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness**.**
67. <u>**Family Camping in Alley Pond Park**</u>**. 6:00 p.m. Category:** <mark>Nature</mark>

   Sunday, September 14, 2014.
68. <u>**Alley Pond Park Adventure Course: Free Public Sundays**</u>**. 9:30 a.m.–12:00 p.m.**
69. <u>**Alley Pond Park Adventure Course: Free Public Sundays**</u> **1:00 p.m.–3:30 p.m.**

70. **Friday, September 19, 2014** <u>**Fitness Bootcamp**</u>**. 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

   Sunday, September 21, 2014.
71. <u>**Alley Pond Park Adventure Course: Free Public Sundays**</u>**. 9:30 a.m.–12:00 p.m.**

72. **Alley Pond Park Adventure Course: Free Public Sundays 1:00 p.m.–3:30 p.m.**

73. **Friday, September 26, 2014. Fitness Bootcamp. 5:00 p.m.–6:00 p.m.Category:** Fitness, Outdoor Fitness

74. **Sunday, September 28, 2014. Alley Pond Park Adventure Course: Free Public Sundays 9:30 a.m.–12:00 p.m.**

75. **Sunday, September 28, 2014. Alley Pond Park Adventure Course: Free Public Sundays 1:00 p.m.–3:30 p.m.**

76. **Friday, October 3, 2014 Fitness Bootcamp 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

Sunday, October 5, 2014.
77. **Alley Pond Park Adventure Course: Free Public Sundays 9:30 a.m.–12:00 p.m.**
78. **Alley Pond Park Adventure Course: Free Public Sundays. 1:00 p.m.–3:30 p.m.**

79. **Friday, October 10, 2014 Fitness Bootcamp 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

Sunday, October 12, 2014.
80. **Alley Pond Park Adventure Course: Free Public Sundays 9:30 a.m.–12:00 p.m.**
81. **Alley Pond Park Adventure Course: Free Public Sundays 1:00 p.m.–3:30 p.m.**

82. **Friday, October 17, 2014 Fitness Bootcamp 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

Sunday, October 19, 2014
83. **Alley Pond Park Adventure Course: Free Public Sundays 9:30 a.m.–12:00 p.m.**
84. **Alley Pond Park Adventure Course: Free Public Sundays 1:00 p.m.–3:30 p.m.**

85. **Friday, October 24, 2014Fitness Bootcamp5:00 p.m.–6:00 p.m.Category:** Fitness, Outdoor Fitness

86. **Saturday, October 25, 2014 MillionTreesNYC Stewardship Day at Alley Pond Park (Oakland Ravine). 9:00 a.m.–1:00 p.m. Category:** Education, Nature, Volunteer

Sunday, October 26, 2014.
87. **Alley Pond Park Adventure Course: Free Public Sundays9:30 a.m.–12:00 p.m.**
88. **Alley Pond Park Adventure Course: Free Public Sundays 1:00 p.m.–3:30 p.m.**

89. **Friday, October 31, 2014 Fitness Bootcamp 5:00 p.m.–6:00 p.m.Category:** Fitness, Outdoor Fitness

90. **Sunday, November 2, 2014 Alley Pond Park Adventure Course: Free Public Sundays9:30 a.m.–12:00 p.m. Alley Pond Park Adventure Course: Free Public Sundays. 1:00 p.m.–3:30 p.m.**

91. **Friday, November 7, 2014. Fitness Bootcamp. 5:00 p.m.–6:00 p.m.Category:** Fitness, Outdoor Fitness

92. **Saturday, November 8, 2014. Nocturnal Wildlife. 6:00 p.m. Category:** <mark>Nature</mark>, Kids

93. **Friday, November 14, 2014Fitness Bootcamp. 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

94. **Friday, November 21, 2014. Fitness Bootcamp. 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor

Fitness

95. **Friday, November 28, 2014. <u>Fitness Bootcamp</u>. 5:00 p.m.–6:00 p.m. Category:** Fitness, Outdoor Fitness

96. **Saturday, November 29, 2014. <u>Nature Exploration Hike (moderate)</u>. 10:00 a.m. Category:** <mark>Nature</mark>

   Friday, December 5, 2014 <u>CANCELLED: Fitness Bootcamp</u>. 5:00 p.m.–6:00 p.m. Category: Fitness, Outdoor Fitness

   Friday, December 12, 2014. <u>CANCELLED: Fitness Bootcamp</u>. 5:00 p.m.–6:00 p.m. Category: Fitness, Outdoor Fitness

97. **Saturday, December 20, 2014. <u>Emergency Preparedness: Extreme Winter Weather</u>. 1:00 p.m. Category:** <mark>Nature</mark>

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