

Fall 12-16-2016

A Green Oasis: What Makes Community Gardens Worth Saving? While Researchers Amass Evidence of Benefits, Advocates Develop New Strategy to Prove Their Value.

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Recommended Citation

Wolfram, Joel, "A Green Oasis: What Makes Community Gardens Worth Saving? While Researchers Amass Evidence of Benefits, Advocates Develop New Strategy to Prove Their Value." (2016). *CUNY Academic Works*.
http://academicworks.cuny.edu/gj_etds/149

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HED: A Green Oasis

DEK: What makes community gardens worth saving? While researchers amass evidence of benefits, advocates develop new strategy to prove their value.

By Joel Wolfram

A garden at risk

It may have been early November, but the temperature was above 90 degrees at Green Valley Community Garden's late-season farmers market. The summer-like heat owed to the sunshine filtering through the 25 by 40-foot greenhouse that shelters the market, allowing it to operate through the end of chilly December in the Brownsville neighborhood of eastern Brooklyn.

But after this season, the fate of the greenhouse and most of the land used by the community farm around it is uncertain. The land belongs to the New York City Department of Housing Preservation and Development (HPD), which last April told the gardeners they must vacate four out of the five contiguous city lots the garden has been operating on for over 20 years. This would leave the gardeners with just a sliver of land on the corner of New Lots Avenue and Sackman Street. On the rest of the property, the agency plans to build up to 20 units of housing it said will be affordable for low-to-middle income households.

The news blindsided Green Valley's lead gardener, Brenda Duchene. "When I got that letter, I'm like, 'what?'" said Duchene, her tone incredulous.

Unless the gardeners and their advocates can convince the agency to back down, everything in the other four lots will have to go: the greenhouse, a colony of bees that produces over 100 pounds of honey per year, long rows of raised beds for growing vegetables, and mature plum and cherry trees.

Green Valley is one of about a dozen gardens operating on land owned by HPD that are set to be uprooted by the agency's plans to build new affordable housing developments. Many garden activists see it as the latest chapter in a history of adversarial relations between the city and community gardens that residents have started on vacant, city-owned lots all over the five boroughs since the 1970s.

But the city's attitude toward the do-it-yourself green spaces, originally seen as temporary tenants of blighted properties, has become friendlier over time. These days, City Hall, and even HPD, "see the value of community gardens," said Lenny Librizzi, the director of green infrastructure at GrowNYC, an urban greening non-profit.

Indeed, City Hall agreed to preserve 34 gardens operating on HPD land in December last year, transferring them to the city Department of Parks and Recreation and saving the vast majority that were operating on the agency's property from future

development. Those that weren't spared were to be offered alternate sites, and there are currently plans to re-integrate four of these gardens into the new housing development planned for their plots. But officials say they can't preserve existing community gardens in every case when there are competing priorities at stake. HPD has to "strike the right balance" between "the need to protect precious green space with the need to house New York families," said a spokesperson for the housing agency.

Gardens activists like Aziz Dehkan, executive director of the New York City Community Garden Coalition, see this as a false choice. "HPD and the city have always created a wedge between affordable housing and open space community gardens," says Dehkan.

But, even if activists like Dehkan don't accept the premise that, in some cases, there is a necessary tradeoff between development and community gardens, his Community Garden Coalition is implementing a new project that it hopes will boost the value of community gardens in the city's calculus. It could do this, in part, by highlighting a measureable environmental benefit that gardens can provide to their communities.

Neighborhoods have long prized gardens as open spaces that promote health and well being, foster community-building, and provide sources of fresh produce in low-income communities, like Brownsville, that are lacking in it. Researchers are now attempting to tease out the public health benefits of community gardens as one metric of their value. This research has grown prolifically over the past several years, but the science is still catching up with the claims of urban gardening gospel.

Meanwhile, the Community Garden Coalition's project, "Gardens Rising," will generate a more straightforward metric of gardens' value. It calls for design and infrastructure improvements on 47 gardens on Manhattan's Lower East Side that will make them better sinks for stormwater, alleviating floods and sewer overflows that pollute the city's waterways. Dehkan hopes that the millions of gallons of diverted stormwater will demonstrate to the city that the green oases play a vital role in the city's future.

"We know that community gardens are part of the resiliency and sustainability of this great city," Dehkan said at a panel discussion in November. "We need to prove it to the city."

A source of healthy eating in an ailing neighborhood

When Brenda Duchene heard about the plans to oust Green Valley, it wasn't the first time she had to face the prospect of the farm's destruction at the hands of city government. The news was especially shocking because Green Valley was one of the 34 gardens on HPD land transferred to the parks department last year for preservation as community gardens.

“If this lot was supposedly transferred to parks, why are you looking at it again in April?” Duchene said.

Unbeknownst to Duchene, it turned out that city records only showed Green Valley as a tenant on one out of the five lots that comprise the garden. But that shouldn’t matter, garden advocates say. It’s been occupying the entire space since the ’90s, and the parks department, which comes by for annual inspections, was aware of its extent.

“The long-held view of both users of the space and Parks staff is that Green Valley encompasses the entire area of the garden, all five tiny tax lots,” said Paula Segal, executive director of 596 Acres, an organization that advocates for community gardens, in a letter to Mayor Bill De Blasio and HPD’s commissioner.

Duchene said the potential loss of the farm’s over 20-year-old fruit trees, was “gonna hurt my heart.” The trees provide the farmers’ market with fresh fruit in the summertime, and losing the greenhouse and the other cultivation space put the market’s viability in jeopardy.

“Most of the produce is grown there,” said Duchene, who assumed leadership of the garden five years ago. Her vision, gardeners said, transformed Green Valley into the productive community farm that it is today, growing a bountiful variety of crops that supply the farmers’ market, from the fuzzy tomatoes to the bumpy bitter melons that could still be plucked from the vines in November.

Eudene Stanton was one of several community members attending the November farmers’ market who said that the garden provided an important source of quality fruits and vegetables that local supermarkets lack. “You can come here and you can pick it,” Stanton said in a Caribbean-inflected accent, the legacy of her upbringing in Barbados. She stood in front of a dense row of collard green plants inside the greenhouse, across from a table bearing eggplants, cucumbers, and bell peppers. For Stanton, 66, Green Valley “means healthy eating to me and some place close by that I can come to.”

Brownsville is a community that struggles with a variety of social and public health challenges. With 37 percent of residents living below the poverty line, the community district that encompasses the neighborhood is the seventh poorest in the city, according to a [community health profile](#) prepared by the New York City Department of Health and Mental Hygiene. Residents in the majority black neighborhood experience high rates of obesity, diabetes, and deaths caused by hypertension. The community members involved with Green Valley are well aware of these grim realities, and see the garden as playing an important role in addressing them.

Last May, HPD issued a “[Healthy Brownsville](#)” report outlining the area’s socio-economic disparities and public health challenges. The report highlighted the lack of access to parks and open space in the community. Ironically, HPD’s own report even seemed to cite the impending loss of Green Valley among the issues faced by a community underserved in green space.

“Residents also have to fight to keep some of existing park space,” the report states, and goes on to cite “four existing community gardens on land controlled by HPD that are slated to be converted to housing development.”

An HPD spokesperson declined to comment on the apparent contradiction between the recommendations and the agency’s decision to uproot Green Valley. Speaking generally, the spokesperson said: “There have been many tough decisions for us to make as we plan with communities to build affordable housing.”

Measuring the goods a garden grows

The housing agency’s position raises the question of how community gardens should factor into these decisions when the green spaces are pitted against other worthy goals like affordable housing in communities like Brownsville. How do you weigh the benefits of a community garden against the up to 20 affordable residences HPD plans to build on the land being cultivated by Green Valley?

Green Valley’s supporters prize the fresh fruits and vegetables that low-income residents can buy using their food stamp benefits, and praise its influence on local diets. Their claims have some support in a growing amount of research that shows that healthy eating is among a range of health benefits associated with community gardening.

A scientific paper published this year that reviewed existing research found that participating in a community garden has been associated with eating more fruits and vegetables, being more physically active, and having lower rates of obesity. Among the dozens of studies the paper cited was one from 2008 that surveyed residents in Flint, Michigan. The study found that people who had at least one community gardener in their household ate fruits and vegetables more often than those who didn’t, and were 3.5 times more likely to eat them at least five times per day. Other studies have made similar findings.

But according to Katherine Alaimo, a professor at Michigan State University who worked on both the Flint study and the review paper, the research has yet to tease out precisely how the different qualities of community gardens could influence these health outcomes, and whether there is a cause and effect relationship. It could be that people participate in a community gardens because they already like vegetables and being active, she said, and not the other way around. But, Alaimo said the consistency of the evidence gave her a strong hunch that the many facets of community gardens interact to play a distinct role promoting healthy behaviors.

“A community garden is a green and beautiful place, it provides food access, it provides a place to be active, it provides social connection with other gardeners and people in the neighborhood,” Alaimo said. “It’s kind of like this wrap-around hug,” she said, that makes people want to eat healthy and be active.

Alaimo and a colleague at the University of Colorado are about to launch the first experiment of its kind, with funding from the American Cancer Society, to put this hypothesis to the test. They’re partnering with urban gardens in Denver for a trial that will randomly assign participants who haven’t gardened before to receive a community garden plot or remain on a wait list. The trial will assess the diets, levels of physical activity, body mass index, and mental health in the two groups before and a year after the gardeners begin digging in the dirt, as well as in between.

If this rigorous experimental trial confirms the results of previous research on community gardens, Alaimo said, “I think that’s going to elevate the evidence.”

Improving health in urban communities is just one goal among many valued by community gardeners. At the November panel discussion, which was hosted by the NYC Food Policy Center at Hunter College and brought together leaders in the community gardening movement to talk about the “power” of community gardens, panelists emphasized the social benefits of their cherished green oases.

“What we hear as much as anything from our gardeners is that gardens pull blocks and neighborhoods together,” said Bill LoSasso, the director of the NYC Department of Parks and Recreation’s GreenThumb program, which licenses and supports 600 community gardens across the five boroughs. Other panelists spoke about gardens connecting people from diverse backgrounds, and providing character-building opportunities for youth.

Community gardens and urban agriculture also serve as venues for social justice activism, as Nevin Cohen documents in his new book, *Beyond the Kale: Urban Agriculture and Social Justice Activism in New York City*. A professor at the CUNY School of Public Health, Cohen says they are places where people come together around food to confront the effects of “structural oppression” based on race, gender, and class.

“The food is important, but it’s not the main goal” for many gardeners, he says. For example, community gardens aren’t just a source of fresh produce, but also “help people understand the disparities in the food system—why their neighborhood may not have fresh fruits and vegetables, and why they’re being marketed by fast food companies and soda companies.”

Alaimo also said that there is a “rich” amount of research that supports the notion that community gardens can change communities for the better. Studies show that community garden participation “enhances community engagement, and empowers

residents to get involved on a variety of civic issues,” according to the review paper she co-authored. Alaimo said that those findings haven’t been tested by the kind of experiment that she will be working on in Denver to study health benefits, but she finds the evidence “compelling.”

The New York Community Garden Coalition, however, isn’t waiting for the results of new studies to accumulate before it gets to work strengthening its case for community gardens, using some hard data of yet another kind.

Gardens Rising

“Middle Earth.” “El Pueblo.” “Mundo Verde.” “Great North.” “Southlands.” The Gardens Rising study divided up the 47 community gardens on the Lower East Side into different regions with these fanciful names. One aim of the recently released feasibility study for the project was to create a stronger identity for a proposed “Community Gardens District” in the Manhattan neighborhood—the birthplace of the city’s community gardens—that would grant the green spaces greater protection.

Besides the catchy monikers, the project recommends a “toolkit” of green infrastructure improvements customized for each garden. Gardens Rising is receiving \$2 million in funding from the New York State Governor’s Office of Storm Recovery, most of which will be used to implement the new features. Many of them are designed to optimize the gardens’ capacity to absorb or retain stormwater, which can contribute to a chronic source of pollution in the city’s waterways. When heavy rainfalls flow into New York’s so-called combined sewer system—in which sewage and stormwater drain into the same pipes—the system is often overwhelmed. Raw sewage overflows from drainage outlets into the East River, the harbor, and myriad other bodies of water that border the metropolis. Green infrastructure alleviates this problem by capturing the rainwater for storage and re-use, infiltrating it into the ground, or using plants to soak it up, resulting in less rainwater entering the sewers.

The Gardens Rising toolkit consists of low-tech devices and landscape features that perform these functions, like porous pavement, rain barrels, wetlands, and so-called right-of-way bioswales: sort of mini-gardens built into curbs outside their parent community gardens that channel runoff from the street into the ground. Without the improvements, the 7.5 acres of green space represented by the Lower East Side gardens already infiltrate 1.3 million gallons annually, according to the feasibility study. After implementing new green infrastructure, it’s projected that an additional 890,477 gallons per year will be infiltrated, plus an additional 36,200 gallons captured for storage.

“We always talk about community gardens as a neighborhood thing, and how the value of it is on the social level,” said the Community Garden Coalition’s Dehkan.

“But this gives us a measurable—a quantitative metric of what community gardens do.”

The nature of the metric is important too, he said. It appealed to the goals of sustainability and resiliency of City Hall’s [OneNYC](#) plan. In addition, the city’s Department of Environmental Protection already has a green infrastructure plan in place, through which it has built hundreds of bioswales across the city. Earlier this year, the department finished construction of [70 more of the curbside rain gardens](#) in several Brooklyn neighborhoods that would capture 6 million gallons of rain water per year.

Dekhan said the green infrastructure toolkit could be replicated in community gardens all over the city, giving them another way to demonstrate their worth that could keep them more secure from development threats faced by gardens like Green Valley.

Lenny Librizzi, who works with community gardens as the green infrastructure director at GrowNYC, offered cautious agreement that calculations of stormwater capture could help further persuade city officials that gardens are worth saving.

“Where there is the potential of development, where the garden isn’t protected, then there has to really be an analysis of, ‘Well, the garden provides this much value, is that better or worse than how many units of housing can be built on the property?’” he said.

The green infrastructure measures “can’t hurt,” he said, “if it’s another number.”

Green Valley Keeps Up the Fight

On December 17th, with a little over a month to go before the city’s deadline for Green Valley to vacate the disputed land, about 20 or so supporters of the garden huddled together in the greenhouse. The needle on the thermometer this time read 35 degrees. The year’s first snow accumulation had turned to freezing rain, and icy chunks slid off the arched roof of the structure as the demonstrators—including leaders from local government, urban farming activists, and a director of a local culinary skills program—took their turns making short speeches declaring their support. Brenda Duchene was front and center.

After an invocation featuring chants of “SAVE OUR FARM,” the speakers talked about Brownsville’s health problems, mentioned other housing plans they said would bring in thousands of new residents, and said the farm was a necessary green space that provided food to the community. They said local residents should get to decide the fate of their open spaces and their communities. Many praised Duchene for her work over the years.

"Ms. Duchene, she teaches our children that tomatoes don't come out of a can," said a member of a local community board.

Green Valley is using the old-fashioned tools of community organizing and activism that helped save the garden the first time around, when it was one of the many city gardens that won preservation last year. Gardeners have collected hundreds of signatures in a petition drive to save the garden, and organizations across the city have sent the mayor's office letters of support. Duchene said she even spoke personally with the mayor at a holiday party for New York City community boards held at Gracie Mansion.

HPD still hasn't budged on its plans, but these tactics have had some success. The agency has extended the looming eviction deadline twice, and Green Valley won a meeting with a deputy mayor scheduled for December 28. "Community gardens and affordable homes are critically important to the health of our neighborhoods, and we take the input of all New Yorkers seriously," said City Hall spokesperson Melissa Grace about the upcoming talk.

Regardless of the outcome of the meeting, gardeners and their advocates said they would keep fighting to save the farm.

"We'll take this fight to wherever we need to take it, we'll take it to City Hall, we'll take it to the court," said 596 Acres' Paula Segal. "We will continue to stand strong in support of this space, which is community run, and a source of power for people who live in Brownsville."

"I'm not packing up," Duchene said, defiantly. She agreed that affordable housing was important, but insisted it should not come at the cost of places like Green Valley.

"One should not outweigh the other," Duchene said. "We need them both."