

**BEFORE THE PHILADELPHIA WATER, SEWER, AND STORM WATER RATE  
BOARD**

In the Matter of a Request for Stormwater Fee Exemption for Community Gardens

**Written Testimony, Position and Summary for Neighborhood  
Gardens Trust, Norris Square Neighborhood Project, and the  
Village of Arts and Humanities**

**November 30, 2016**

## **Introduction**

Neighborhood Gardens Trust (NGT), the Village of Arts and Humanities (Village), and Norris Square Neighborhood Project (NSNP) (the Parties) are each committed to preserving and promoting community gardening in the Philadelphia area and would be directly impacted by the Water Rate Board's decision regarding stormwater fee exemptions.

On June 28, 2016, Mayor James F. Kenney signed Bill No. 160523, an ordinance passed by the Philadelphia City Council that allows community gardens a special discounted rate for stormwater management services. The ordinance directs the Philadelphia Water, Sewer and Storm Water Rate Board (Rate Board) to establish a special discounted stormwater charge, in an amount up to and including 100 percent, for community gardens. On July 20, 2016, community garden representatives requested that the Water Department initiate a proceeding before the Rate Board to consider the stormwater charge exemption.

The stormwater fee addresses the cost of managing the environmental challenges posed by stormwater runoff. Impervious urban surfaces, rooftops, and vacant lots with compacted soil all contribute to increased runoff, which in turn strains man-made stormwater management infrastructure and increases the risk of water pollution in Philadelphia.

For the reasons set forth below, community gardens alleviate these stresses on stormwater infrastructure and provide positive benefits to urban economic, social and ecological systems. As a result, community gardens should be entitled to the full 100 percent exemption from stormwater charges.

1. Community gardens contribute to an effective alternative stormwater management system that significantly reduces overall runoff.
2. Community gardens generate various positive social and economic community impacts that benefit Philadelphia's triple bottom line.

3. The current stormwater fee imposes a heavy financial and administrative burden on community garden organizations, disproportionate to their slim operating costs and great benefit provided to their communities and the environment.

### **1. Stormwater Management Benefits of Community Gardens**

Community gardens offer substantial, tangible stormwater management benefits that should in turn be accounted for when the Rate Board calculates stormwater fees.

Community gardens play a key role in Philadelphia's work to become a more environmentally sustainable city through improved stormwater management. Overall, community gardens have the lowest runoff rate of any urban land use.<sup>1</sup> In this respect, community gardens reduce overall pollution levels in the Philadelphia area's water systems by preventing sewage and other pollutants from running into rivers and causing downstream public health and environmental harms. As climate change continues, heavy precipitation will take a larger toll on urban infrastructure and could even lead to greater health concerns, increased flooding, streambank erosion, and degradation of aquatic habitats. With additional stormwater burdens, stormwater management will be an increasingly important task for Philadelphia to undertake.<sup>2</sup>

While expensive water main upgrade projects can mitigate additional runoff, "green infrastructure" such as urban agriculture provides a more sustainable, effective, and economical alternative. Green infrastructure solutions include runoff management through natural systems, or engineered systems that act as natural systems, that treat or contain polluted runoff and

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<sup>1</sup> Kevin Levy, "Sustainability in Philadelphia: Gardens and Their Role in Stormwater Management" (Unpublished Paper, University of Pennsylvania, 2009), 19.

<sup>2</sup> Heather Knizhnik, "The Environmental Benefits of Urban Agriculture on Unused, Impermeable and Semi-Permeable Spaces in Major Cities, with a Focus on Philadelphia, PA" (Unpublished Paper, University of Pennsylvania, 2012), 17.

decrease the amount of pollutants entering waterways. Compared to other urban land uses, community gardens are one of the most effective forms of “green” stormwater management.<sup>3</sup>

Community gardens reduce urban stormwater runoff in two key ways. First, community garden soil is substantially more porous than other urban land surfaces—such as roads, parking lots, roofs, and even grass-covered lots—and captures more water. Garden soil contains additional organic material that improves soil productivity, porosity, and quality. In addition to soil composition improving permeability, frequent tilling, the growth of plant roots, and presence of living organisms such as earthworms, improve soil porosity. These characteristics increase water infiltration and replenishment of groundwater aquifers, which in turn reduces runoff.<sup>4</sup>

Second, community gardens contribute to stormwater diversion through surface-level water capture. Many community gardens contain rain barrels and other water capture systems that both reduce stormwater runoff and provide a free source of water for gardeners. A single average rain barrel can hold up to 55 gallons of water, much of which would otherwise be left to run off on land used for other purposes.<sup>5</sup> For example, Urban Tree Connection (UTC)—a Philadelphia non-profit that transforms abandoned urban land into community green spaces and gardens—heavily relies on rain barrel water capture as a source of irrigation. UTC exemplifies the way in which community gardens do not merely consume water, but capture and conserve water that would otherwise enter a stormwater treatment facility.<sup>6</sup> Between high soil porosity and rain water barrel use, many community gardens are optimizing their operations to effectively manage stormwater runoff. Southwark Queen Village Community Garden exemplifies this

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<sup>3</sup> Ibid., 17.

<sup>4</sup> Ibid., 17-23.

<sup>5</sup> Ibid.

<sup>6</sup> Misako Scott (office manager for UTC) in testimony to Philadelphia Water Department Rate Board, October 25, 2016, transcript, <http://www.phila.gov/water/rateboard/2016Special/Transcript-10.25.16-PublicHearing.pdf>.

closed-system model. Southwark, one of the oldest community gardens in Philadelphia, runs multiple educational programs and assists individuals in maintaining their personal gardens, all while maintaining their own gardens.<sup>7</sup> These spaces grow their own food and use water collected from green roofs for irrigation, without creating any stormwater runoff.

In short, Philadelphia's community gardens represent an effective and important tool in the city's current and future stormwater management efforts. Stormwater rate fees should account for these contributions to Philadelphia's environmental sustainability efforts.

## **2. Benefits of Community Gardening to Philadelphia's Triple Bottom Line**

Beyond the positive environmental impacts that community gardens generate, these spaces create tangible social and economic benefits, further contributing to Philadelphia's triple bottom line. These benefits further justify the exemption of community gardens from the stormwater fee.

In terms of social benefits, multiple studies have shown that community gardens help build social capital and community cohesiveness, particularly in ethnically, racially, culturally, and socioeconomically diverse neighborhoods. "The strong sociocultural values surrounding food growing, cooking, and sharing," the Johns Hopkins Center for a Livable Future writes, "help facilitate the role of gardens as a social bridge, and support communities in maintaining and appreciating cultural traditions associated with food."<sup>8</sup> To this end, community gardens promote community unity, encourage cultural preservation and understanding, and provide

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<sup>7</sup> Tom Hardenbergh (representing Southwark Queen Village Community Garden) in testimony to Philadelphia Water Department Rate Board, October 25, 2016, transcript, <http://www.phila.gov/water/rateboard/2016Special/Transcript-10.25.16-PublicHearing.pdf>.

<sup>8</sup> Santo, et al, "Vacant Lots to Vibrant Plots," Johns Hopkins Center for a Livable Future (May, 2016): 4.

valuable spaces for youth education and development. NSNP illustrates the community-building potential of community gardens. One of NSNP's sites, Las Parcelas, is a cultural center that features murals, gardens, and, during the summer, traditional Puerto Rican food cooked by members of a partner community organization. A group of neighborhood women over 20 years ago built the gardens and continue to coordinate community support to preserve them. In addition to serving as a community meeting place, Las Parcelas hosts formal environmental education programming for youths and promotes intergenerational learning by connecting older, more experienced gardeners with younger community members.<sup>9</sup>

With respect to economic impacts, community gardens improve home property values and provide healthy, affordable food to urban residents. In economically disadvantaged neighborhoods, community gardens have been associated with higher property values and tax revenues for properties within a 1,000-foot radius.<sup>10</sup> Particularly in cases where organizations repurpose abandoned and vacant parcels, neighborhoods experience the immediate social and economic benefits that community gardens bring. For over 20 years, the Village has transformed over 120 abandoned, blighted urban plots into public art pieces such as murals and sculpture gardens in North Philadelphia.<sup>11</sup> NGT has acquired and maintained over 30 gardens, many of which were at one point vacant, debris-filled lots. Las Parcelas, the NSNP collection of gardens, sits on the former site of an open-air drug market that embodied many of the challenges facing the community 20 years ago.

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<sup>9</sup> Domenic Vitiello and Michael Nairn, "Community Gardening in Philadelphia: 2008 Harvest Report," (Unpublished Paper, University of Pennsylvania, 2008): 14, [http://www.farmlandinfo.org/sites/default/files/Philadelphia\\_Harvest\\_1.pdf](http://www.farmlandinfo.org/sites/default/files/Philadelphia_Harvest_1.pdf).

<sup>10</sup> Levy, "Sustainability in Philadelphia," 8.

<sup>11</sup> Abby Scher, "Art in the Village," *Yes! Magazine*, May 25, 2005, accessed November 19, 2016, <http://www.yesmagazine.org/issues/what-makes-a-great-place/art-in-the-village>.

Community gardens also have a positive impact on community health. They broaden access to fresh, organic, and culturally appropriate produce, which in turn reduces costs on groceries and foods that would be otherwise unaffordable in grocery stores. And they create meaningful public and personal health benefits that indirectly lower community healthcare expenses, as members of gardening households consume more fruits and vegetables, develop healthier eating habits, and benefit from the physical activity of working outdoors.<sup>12</sup>

Philadelphia provides a stormwater fee exemption to publicly owned vacant lots—including parcels that do not even actively manage stormwater like community gardens do. This exemption recognizes the city’s additional burden of taking over distressed property from private property owners and aims to reduce the additional costs associated with the vacant lot ownership. Since the Parties and other community garden organizations have assumed a similar burden through their work transforming abandoned city properties, we believe that they too deserve a 100% stormwater fee exemption.<sup>13</sup>

We urge the Rate Board to consider the unique social and economic value that community gardens bring to the city, in conjunction with the cost and administrative burden imposed by the fee, described below.

### **3. Burden of Stormwater Fee on Philadelphia’s Community Gardens**

The stormwater fee imposes a disproportionately large burden on the urban agriculture organizations that help realize these triple bottom line benefits.

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<sup>12</sup> Santo, et al, “Vacant Lots to Vibrant Plots,” Johns Hopkins Center for a Livable Future (May, 2016): 13.

<sup>13</sup> Joanne Dame (representing the Philadelphia Water Department) in testimony to Philadelphia Water Department Rate Board, October 25, 2016, transcript, <http://www.phila.gov/water/rateboard/2016Special/Transcript-10.25.16-PublicHearing.pdf>.

Overall for FY16, the stormwater fees totaled \$14,064 for NGT, \$6,856 for the Village, and \$6,153 for NSNP. The Parties, like many non-profits, operate with restricted budgets. Many of the grants and donations that they rely on can only be used for specific purposes (e.g., specific improvements, education programs, etc.). As a result, even though the stormwater fees already represent a sizable portion of these entities' overall budgets, the magnitude of their effect is even more substantial when restricted funds are taken into account. And, of course, as stormwater rates increase over FY17 and FY18, these impacts would grow. Additionally, each Party currently manages a collection of parcels that are owned by other individuals or organizations, many of which the Parties intend to acquire in the coming years. As the Parties' inventories of land expand, the increasing fee rates would carry an even larger impact on the organizations' limited budgets.

The stormwater fee creates a heavy administrative cost for the Parties and similar community garden organizations. Time and manpower are limited resources for all non-profits, and community garden organizations are no exception. In her testimony to the Rate Board on October 25, 2016, Aviva Kapust, executive director of the Village, described the clerical burden of paying stormwater fees for each of the organization's 50+ parcels:

I didn't prepare something tonight because I, like many of these people, are really busy doing the work of our organizations. But I did glance across my office at a book shelf where the bottom three shelves are full of blue envelopes [of bills for each of the Village's parcels]. So many of those actually have been categorized or in binders. A lot of them have been digitized as well. And when you are talking about the kinds of the number of properties that over time the Village has acquired and taken care of and restored, the administrative cost is astronomical.<sup>14</sup>

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<sup>14</sup> Aviva Kapust (representing the Village of Arts and Humanities) in testimony to Philadelphia Water Department Rate Board, October 25, 2016, transcript, <http://www.phila.gov/water/rateboard/2016Special/Transcript-10.25.16-PublicHearing.pdf>.



This burden is not unique to the Village. Especially as the Parties continue to acquire and maintain more properties, the administrative costs of tracking, managing, and paying the stormwater fees will become even greater. Only a full stormwater exemption would eliminate this additional administrative cost.

While a stormwater fee exemption would make a large impact on the Parties' budgets, the exception would minimally affect the Philadelphia Water Department's bottom line. A financial analysis performed by the Water Department concluded that a 100 percent stormwater fee discount to known community gardens between July 1, 2016 and June 30, 2018 would result in only a de minimis reduction in revenue for FY17 and FY18.<sup>15</sup> The Water Department determined that the reduction in revenue would be small enough that it would not have to raise other rates and charges. In short, other city customers would not have to pay more in order to offset the fee exemption for community gardens.

Given the significant environmental, social, and economic benefits of community gardens, and the heavy financial and administrative costs of the current fee structure on community gardening organizations, we urge the Rate Board to accept the Water Department's request for the 100 percent fee discount.

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<sup>15</sup> Philadelphia Water Department, "Request for Community Garden Stormwater Charge Discount (PWD Exhibit No. 1)" (Public Notice, Philadelphia, October 2, 2016).