



May 25, 2018

Via electronic mail ([waterrateboard@phila.gov](mailto:waterrateboard@phila.gov))

Water Rate Board  
1515 Arch Street  
17th Floor  
Philadelphia, PA 19102-1595

Re: **Comments to the Water Rate Board on Philadelphia Water Department's  
2018 Rate Proceeding**

Dear Members of the Water Rate Board,

On behalf of Citizens for Pennsylvania's Future (PennFuture) and Natural Resources Defense Council (NRDC), we write to provide comments on the above-referenced Philadelphia Water Department (PWD) rate proceeding.

PennFuture is a statewide environmental nonprofit advocacy group invested in protecting and improving water quality in Philadelphia and across Pennsylvania. PennFuture intervened in the PWD rate proceedings in 2008, 2012, and 2016 in support of a stormwater management plan that protects and enhances our waterways through the use of green infrastructure. NRDC is a national environmental advocacy organization that has worked for many years, including jointly with PennFuture, to improve water quality protections in Philadelphia. PennFuture and NRDC have submitted numerous comments on the development and implementation of PWD's Combined Sewer Overflow Long Term Control Plan Update (LTCPU), draft Clean Water Act permits related to Philadelphia's water pollution control plants and municipal separate storm sewer system, and PWD's assessment of its financial capability to implement the LTCPU.

The Pennsylvania Department of Environmental Protection (PADEP) and PWD entered into a Consent Order and Agreement (CO&A) to address Philadelphia's combined sewer overflows on June 1, 2011. The CO&A requires PWD to implement the LTCPU, which is a first-of-its-kind CSO compliance approach based primarily on green stormwater infrastructure,

such as roadside plantings, rain gardens, permeable pavement, and green roofs that soak up rainwater before it can overwhelm the city’s sewers, reducing the need to invest in costly expansion of the wastewater collection and treatment system itself..

Over the course of 25 years, this program, known as *Green City, Clean Waters*, is bound by enforceable deadlines to create enough green infrastructure to manage runoff from 9,564 impervious acres across Philadelphia’s combined sewer areas (referred to as “greened acres”), and to eliminate the amount of pollution that otherwise would be removed by capturing and treating 85% of the baseline annual wet weather flow in the sewer system. Because of the PWD’s long-term commitment to *Green City, Clean Waters*, the Department must have reliable, long-term funding to ensure the success of the program.

While our comments below focus on the importance of funding *Green City, Clean Waters*, no less important is the need to ensure that all residents of Philadelphia have affordable access to clean, safe water and sewer services that meet their basic needs. To that end, we strongly support the Tiered Assistance Program (TAP) and support any steps that can be taken to improve its effectiveness. With an effective TAP as a central part of an equitable rate structure, PWD can raise the revenue needed to meet its capital and operating needs while keeping service affordable for everyone in Philadelphia.

### **1. Compliance with *Green City, Clean Waters* is in the best interest of Philadelphians.**

*Green City, Clean Waters* was chosen through a process designed to select the most cost-effective and technically feasible alternative to reduce sewage pollution in Philadelphia’s rivers and streams and achieve compliance with the federal Clean Water Act, while providing a wide range of additional benefits to the city and the Department’s ratepayers. The program garnered, and still has, widespread public support.<sup>1</sup> Of the alternatives originally analyzed, *Green City, Clean Waters* was by far the least expensive.<sup>2</sup> “Overall LTCP costs [to PWD], which include the management of greened acres, are estimated at 1.2 billion dollars in net [2012] value.”<sup>3</sup> Additionally, because of the plan’s reliance on PWD stormwater regulations to force investment by developers in green infrastructure on private property (discussed in point #2 below), the LTCP estimated that an additional “\$1.1 Billion dollar investment [by developers] in 2009 dollars [will be] applied toward the City’s greening goals [i.e., towards meeting greened acre requirements].”<sup>4</sup> In “future dollars” – i.e., not inflation-adjusted to 2009 dollars –the total level of public and private investment envisioned all along is much higher than \$2.3 billion. Claims that the costs of the program have ballooned to \$4.5 billion appear to be misplaced; it appears

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<sup>1</sup> *Green City, Clean Waters* (Sept. 1, 2009) (hereinafter *Green City, Clean Waters*), at 10-1, available at [http://www.phillywatersheds.org/lcpcu/LTCPU\\_Complete.pdf](http://www.phillywatersheds.org/lcpcu/LTCPU_Complete.pdf).

<sup>2</sup> See *id.* at 9-2. PWD estimated that building traditional “gray” infrastructure to achieve the same CSO reductions would cost billions of dollars more. At the upper bound of costs, a complete sewer separation, eliminating all CSOs, was estimated to cost \$16 billion.

<sup>3</sup> Administrative Order for Compliance on Consent between EPA and PWD (2012) (hereinafter Administrative Order) ¶¶ 16 and 21, available at [http://www.phillywatersheds.org/doc/EPA\\_Signed\\_%20AOCC.pdf](http://www.phillywatersheds.org/doc/EPA_Signed_%20AOCC.pdf).

<sup>4</sup> *Green City, Clean Waters* at 10-58.

that this larger number represents the sum of the public and private costs, in future dollars – not an increase in the total cost of the program.

Further, *Green City, Clean Waters* would achieve many tangible benefits beyond Clean Water Act compliance that other approaches would not. Implementation of green stormwater practices has the potential to realize substantial triple bottom line benefits—economic, environmental, and social.<sup>5</sup> Implementation of the practices *Green City, Clean Waters* prioritizes is expected to enhance recreational use and aesthetic enjoyment (reflected in property values), decrease heat stress and energy use while improving air quality, and decrease poverty through job creation. And these benefits are being realized even early in *Green City, Clean Waters*' implementation. For example, a recent study of health and safety effects of urban green stormwater infrastructure in Philadelphia suggested that its installation may be a deterrent to the possession and manufacture of illegal drugs in public spaces.<sup>6</sup>

Green stormwater infrastructure is also helping to improve the economy of Philadelphia. As Sustainable Business Network outlines in their 2016 assessment of the economic impact of *Green City, Clean Waters* in its first five years, sixty of the evaluated local green stormwater infrastructure businesses represented an annual economic impact of almost \$60 million within the Philadelphia area, supporting 430 local jobs, and generating nearly \$1 million in local tax revenues.<sup>7</sup>

Not only is *Green City, Clean Waters* offering these environmental, economic, and social benefits to the City of Philadelphia, it is also preventing potential financial penalties that would result from violating binding settlement agreements with government agencies. The Environmental Protection Agency (EPA) has a National Enforcement Initiative to keep raw sewage and contaminated stormwater out of our Nation's water. Through this initiative, EPA has targeted the largest municipalities to reduce stormwater runoff and unlawful discharges of raw sewage. The agency has assessed 1,071 of the 1,103 large sanitary sewer systems across the country and initiated enforcement actions against 59 systems, including against Philadelphia.<sup>8</sup> Philadelphia is bound not only by the CO&A entered into with PADEP in 2011, but also a parallel Administrative Order on Consent entered into with EPA in 2012. Along with these enforcement actions comes increased oversight and monitoring by both EPA and PADEP. Should Philadelphia fail to comply with these agreements, the City is subject to significant penalty amounts. Penalties start at \$25,000 per month for each violation (for the first 6 months)

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<sup>5</sup> *Green City, Clean Waters* Supplement Documentation, vol 2 (A Triple Bottom Line Assessment of Traditional and Green Infrastructure Options for Controlling CSO Events in Philadelphia's Watersheds, (Aug. 24, 2009)), available at [http://www.phillywatersheds.org/ltcpu/Vol02\\_TBL.pdf](http://www.phillywatersheds.org/ltcpu/Vol02_TBL.pdf).

<sup>6</sup> Michelle Kondo, et al., *The Impact of Green Stormwater Infrastructure Installation on Surrounding Health and Safety*, 105 AM. J. OF PUB. HEALTH e114 (March 2015).

<sup>7</sup> Sustainable Business Network, *Economic Impact of Green City, Clean Waters: The First Five Years* (Jan. 29 2016), available at [http://gsipartners.sbnphiladelphia.org/wp-content/uploads/2014/07/Local-Economic-Impact-Report\\_First-Five-Years-GCCW\\_full-downloadable-web2.pdf](http://gsipartners.sbnphiladelphia.org/wp-content/uploads/2014/07/Local-Economic-Impact-Report_First-Five-Years-GCCW_full-downloadable-web2.pdf).

<sup>8</sup> EPA, National Enforcement Initiative: Keeping Raw Sewage and Contaminated Stormwater Out of Our Nation's Waters, <https://www.epa.gov/enforcement/national-enforcement-initiative-keeping-raw-sewage-and-contaminated-stormwater-out-our> (last visited May 18, 2018).

and increase up to \$100,000 monthly for uncured violations of 13 months or more.<sup>9</sup> Avoiding the cost of these violations is in the best financial interest of Philadelphians and can only be achieved through proper implementation of *Green City, Clean Waters*.

**2. Private property has a role to play in the success of *Green City, Clean Waters*, through investments both by property owners and by PWD.**

From its beginning, *Green City, Clean Waters* contemplated the necessity of private development and investment in the success of the program.<sup>10</sup> As far back as 2006, Philadelphia acknowledged the opportunity that redevelopment on private property had to address impacts from stormwater. Since then, all new development and/or redevelopment sites disturbing greater than 15,000 square feet of earth are required to infiltrate, retrain, or treat the first inch of stormwater on-site. In 2015, Philadelphia's stormwater regulations were amended to increase the runoff depth managed from 1 to 1.5 inches, decrease the release rate from 0.24 cfs/acre to 0.05 cfs/acre for slow release systems, and increase volume reduction requirement from 20% to 100%.<sup>11</sup> All of these regulatory mechanisms advance the goals of *Green City, Clean Waters* through private development.

Moreover, PWD's stormwater regulations shift a major portion of the cost of compliance with the state and federal enforcement orders away from PWD and its ratepayers and onto private property developers. Just as developers must meet building code requirements for the design and construction of their projects, and factor those costs into their development budgets, so too must they meet PWD's stormwater management requirements as a cost of doing business. By successfully administering this regulatory program, PWD receives "credit" towards its own Clean Water Act compliance obligations – every "greened acre" created by development projects counts towards the 9,564 greened acres required under the CO&A.

Beyond the formal update to the stormwater regulations, PWD has worked with the City Planning Commission, the Development Services Committee, and City Council to find other cost neutral mechanisms to incentivize developers to maximize stormwater management.<sup>12</sup> These have included the development of two new zoning code revisions that incentivize green stormwater development in exchange for height increases or density bonuses and an expansion of the Green Roof Tax Credit. Green infrastructure created under these incentive programs also counts towards PWD's "greened acre" compliance obligations.

Finally, PWD invests directly in green infrastructure retrofits on already-developed private properties. This provides a cost-savings to ratepayers, as compared to investing only in green infrastructure on public property, because many of the most cost-effective areas to site

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<sup>9</sup> Consent Order and Agreement with PADEP (hereinafter CO&A) ¶ 8.d.iii; *see also* 2018 Rate Proceeding, PWD Statement No. 1, Direct Testimony and Schedules of Debra McCarty, 1-21:19-22 (March 14, 2018).

<sup>10</sup> *Green City, Clean Waters*, at 1-2 (describing PWD's vision as including "[r]equirements and incentives for green stormwater infrastructure to manage runoff at the source on private land").

<sup>11</sup> *Green City, Clean Waters*, Evaluation and Adaptation Plan, 2016 (hereinafter 2016 EAP), at 4-2, *available at* [http://phillywatersheds.org/doc/Year5\\_EAPBody\\_website.pdf](http://phillywatersheds.org/doc/Year5_EAPBody_website.pdf).

<sup>12</sup> *Id.* at 4-6.

green stormwater infrastructure projects remain on privately owned land. For these private land owners, stormwater charges on impervious surfaces do not create a sufficient incentive for developers to invest in building green infrastructure.<sup>13</sup>

To address this problem, PWD launched the Stormwater Management Incentive Program (SMIP) in 2011 to provide low interest loans to non-residential property owners for the construction of stormwater retrofit projects on privately owned property. The resulting greened acres are counted towards PWD's compliance requirements within *Green City, Clean Waters*. In SMIP's first year, PWD awarded \$3.35 million to seven projects. In its second year, PWD incentivized another 14 projects through SMIP within a budget of \$5 million.<sup>14</sup> In the first five years of *Green City, Clean Waters*, SMIP resulted in 163.7 greened acres managed.<sup>15</sup> Despite these successes, initially, PWD saw limited participation from the large industrial and commercial properties where the return on investment would be most beneficial.<sup>16</sup>

To incentivize implementation of green stormwater infrastructure on these large industrial and commercial properties, PWD developed the Greened Acre Retrofit Program (GARP) in 2014.<sup>17</sup> GARP provides grant funding to companies or contractors to construct stormwater projects across multiple properties in Philadelphia's combined sewer area. This model reduces the administrative burden on the property owners, encourages growth in the private sector, and produces cost effective stormwater management for which the city can take credit for towards its *Green City, Clean Waters* goals. In the first two years of implementing the program, GARP incentivized the construction of 62.8 greened acres.<sup>18</sup> GARP has been profiled as a model of innovation for securing cost-effective green infrastructure.<sup>19</sup> In fact, other cities are now looking to the GARP approach for inspiration to help them meet green infrastructure targets under their own CSO enforcement orders.<sup>20</sup>

In the first five years of *Green City, Clean Waters*, greened acres as a result of private investment accounted for 658 greened acres—almost 80% of the total 837 greened acres achieved.<sup>21</sup> The SMIP and GARP programs accounted for 235 of the total greened acres

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<sup>13</sup> See NRDC, et. al., *Financing Stormwater Retrofits in Philadelphia and Beyond* (Feb. 2012), available at <https://www.nrdc.org/sites/default/files/StormwaterFinancing-report.pdf>.

<sup>14</sup> 2018 Rate Proceeding, PWD Statement No. 6, Direct Testimony and Schedules of Erin Williams, 6-7:4-6 (March 14, 2018)(hereinafter PWD Statement No. 6).

<sup>15</sup> 2016 EAP at 4-17.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> See, NRDC, *Wanted: Green Acres – How Philadelphia's Greened Acre Retrofit Program is catalyzing low-cost green infrastructure retrofits on private property* (2015), available at <https://www.nrdc.org/sites/default/files/philadelphia-green-infrastructure-retrofits-IB.pdf>.

<sup>20</sup> New York City Department of Environmental Protection, 2017 Green Infrastructure Annual Report, p. 44 (2018) (discussing "Private Incentive Retrofit Program"),

[http://www.nyc.gov/html/dep/pdf/green\\_infrastructure/gi\\_annual\\_report\\_2018.pdf](http://www.nyc.gov/html/dep/pdf/green_infrastructure/gi_annual_report_2018.pdf); NRDC, *Catalyzing Green Infrastructure on Private Property: Recommendations for a Green, Equitable, and Sustainable New York City* (2017), available at <https://www.nrdc.org/sites/default/files/catalyzing-green-infrastructure-on-private-property.pdf>.

<sup>21</sup> *Id.* at 2-15.

achieved in the first five years.<sup>22</sup> These programs allow PWD to take compliance credit for greened acres “on project sites that would otherwise be inaccessible and at a cheaper price than it would cost the Department to build equivalent projects on public property.”<sup>23</sup> Development of green stormwater infrastructure on private property is essential to achieving the goals of *Green City, Clean Waters* and programs like SMIP and GARP are necessary to encourage this development.

**3. A predictable funding stream is essential to successful implementation of SMIP and GARP.**

The success of the SMIP and GARP initiatives are dependent on a secure source of funding. Insecurity of the funding backing these programs could inhibit participation by property owners with qualifying projects, and by green infrastructure design and construction firms, who may become unwilling to invest significant time and effort to obtain grant funds that may not actually materialize. This would significantly reduce the number of greened acres PWD is able to take credit for towards reaching the goals of *Green City, Clean Waters*. The growing success of these programs demonstrates that the business and development communities are growing more comfortable with working with PWD to implement green stormwater infrastructure. Green infrastructure design and construction businesses require consistency and dependability in their funding stream in order to buy materials needed, meet payroll obligations, and plan for future projects. To work with PWD, both they and property owners need to know that they can recover funds for the green infrastructure projects they spend time and resources designing. Without dependable funding for SMIP and GARP, PWD cannot make these assurances.

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Thank you for your consideration of these comments.

Sincerely,

/s  
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<sup>22</sup> *Id.* See also PWD Statement No. 6, 6-9:13-16.

<sup>23</sup> *Id.* at 6-9:1-4.