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

In the Matter of the Philadelphia Water
Department's Proposed Change in Water, Fiscal Years 2019-2021
Wastewater and Stormwater Rates and Related
Charges

Direct Testimony
of
Stephanie Wein
on behalf of
PennEnvironment Research & Policy Center

Dated: April 20, 2018

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DIRECT TESTIMONY OF STEPHANIE WEIN

I. Introduction and Purpose of Testimony

Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE RECORD.

A1. My name is Stephanie Wein. My organizational address is 1429 Walnut St, Suite 1100, Philadelphia, Pennsylvania.

Q2. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A2. I am the Clean Water & Conservation Advocate for PennEnvironment Research & Policy Center. PennEnvironment Research & Policy Center is the statewide research and public education organization dedicated to protecting our air, water, and open spaces. We investigate problems, craft solutions, educate the public and decision-makers. The PennEnvironment Research & Policy Center represents thousands of members in the City of Philadelphia who are also ratepayers to the Philadelphia Water Department and will be affected by any changes approved by the Rate Board.

Q3. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A3. The purpose of my testimony is to describe why a rate hike is justified to maintain and expand the Philadelphia Water Department’s green infrastructure program.

II. Stormwater Management in Philadelphia

Q4. WHAT ARE THE WATER INFRASTRUCTURE PROBLEMS FACING PHILADELPHIA?

1 A4. When Philadelphia is deluged with heavy rainstorms, the City is faced with the dual
2 problems of street flooding and sewage overflows. The impermeable surfaces
3 throughout the city - our streets, roofs and parking lots - often mean we have more
4 water than we can adequately absorb. In a heavy rain event, this water - carrying with
5 it litter, oil, fertilizers and pesticides from our neighborhoods - has nowhere to go,
6 leading to local flooding and overwhelming our combined-sewer system. This causes
7 sewage to enter our urban city streams like the Wissahickon and Tacony, as well as the
8 Schuylkill and Delaware and Schuylkill Rivers. This effluent renders adds to the
9 pollution problems already facing these important waterways, making it harder to
10 achieve the goals laid out by the Clean Water Act, to make all of our rivers and streams
11 swimmable and fishable. These combined-sewer overflows harm aquatic ecosystems,
12 decrease biodiversity and can lead to dead zones in the Delaware and Schuylkill Rivers,
13 as well as downstream in the Delaware Bay.

14
15 Dating back to 1994, the EPA has mandated cities manage their combined sewer
16 systems in a way that prevents large outflows of sewage from entering our waterwaysⁱ
17 and now is under consent-decree with the Pennsylvania Department of Environmental
18 Protection. The consent-decree states that Philadelphia must reduce the city's
19 combined sewer overflow from 16 billion gallons to 8 billion gallons a year, while
20 hitting specific benchmarks along the way.

21
22 To add to these challenges, climate models indicate that Philadelphia will only see an
23 increase in extreme weather events in the coming yearsⁱⁱ, meaning more heavy
24 downpours and intense winter storms, putting even greater pressure on the City's
25 already stressed stormwater system.

26
27 This is all on top of a sewer system facing decades of underinvestment and many
28 portions of antiquated infrastructure. The Water Department maintains of more than

1 6,000 miles of water mains and sewers. Between July 1, 2016 and June 30, 2017, there
2 were 715 water main breaks in Philadelphia, which impacted about 700 neighborhood
3 blocks. The first 15 days of January 2018 alone saw 176 water main breaksⁱⁱⁱ.

4
5 Together, these combined stressors force the Philadelphia Water Department to seek
6 additional revenue sources in order to upgrade the system and address these challenges.

7
8 **Q5. WHY IS PHILADELPHIA PURSUING A GREEN INFRASTRUCTURE**
9 **STORMWATER SOLUTION?**

10 A5. Increasing green infrastructure such as bioswales and use of pervious surfaces, reduces
11 flooding and the amount of sewage entering our waterways after a rain event by
12 absorbing this water directly into the ground. This environmentally sound approach
13 avoids expensive infrastructure construction projects that disrupt neighborhoods and fail
14 to directly address the problem of excessive water and impermeable surfaces. Utilizing
15 green infrastructure projects reduces pressure on stormwater systems at every point in
16 Philadelphia's watersheds by collecting rain as it falls into rain gardens, is absorbed by
17 porous pavement, flows into stormwater planters, and is collected by retrofitted
18 impermeable surfaces. We are already seeing incredible successes through PWD's green
19 infrastructure efforts. Five years into the program, the combined sewage overflows have
20 been reduced by 1.5 billion gallons annually^{iv}.

21
22 **Q6. PLEASE DESCRIBE THE BENEFITS OF THE GREENED ACRE RETROFIT**
23 **PROGRAM AND THE STORMWATER MANAGEMENT INCENTIVES**
24 **PROGRAM**

25 A6. Two programs responsible for reducing much of the stormwater flow are the Greened
26 Acre Retrofit Program Grant (GARP) and the Stormwater Management Incentives
27 Program (SMIP). SMIP and GARP provide grants to private, non-residential entities to
28 install green infrastructure on their property for properties. Both SMIP and GARP help

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bring green infrastructure to large areas in Philadelphia by setting acreage and runoff volume requirements for program grantees and incentivizing multiple contiguous properties being retrofitted simultaneously, both of which have helped accelerated the City’s transition to green infrastructure. By seeking matching funds from property owners, the programs reduce the cost to the taxpayer when compared for retrofitting a similar amount of impermeable acreage on publicly owned land.

Q7. ARE THERE ADDITIONAL BENEFITS TO A GREEN INFRASTRUCTURE APPROACH TO STORMWATER MANAGEMENT?

A7. Beyond managing the flow of the water itself, there are additional environmental benefits of green infrastructure approach. Green stormwater infrastructure can restore habitat along our waterways and in cities, increases urban biodiversity, and increase and enhance access to green spaces for communities within Philadelphia.

Q8. CAN YOU DESCRIBE WHY RATE INCREASES ARE NECESSARY TO FUND GREEN INFRASTRUCTURE?

A8. Clearly the benefits of the SMIP and GARP grant programs, and the prioritization of green infrastructure projects in Philadelphia by the Philadelphia Water Department, are far reaching. The proposed rate increases would help expand SMIP and GARP grant-making ability, which is necessary for the city of Philadelphia to reduce combined sewer overflow, minimize flooding and protect our water. If we want the infrastructure to keep our waterways clean, we have to support it.

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ⁱ <https://www.epa.gov/npdes/npdes-cso-control-policy>

ⁱⁱ <https://beta.phila.gov/media/20160504162056/Growing-Stronger-Toward-a-Climate-Ready-Philadelphia.pdf>

ⁱⁱⁱ <https://philly.curbed.com/2018/1/17/16901804/philadelphia-water-main-break-what-to-do>

^{iv} <http://www.phillywatersheds.org/5Down>