



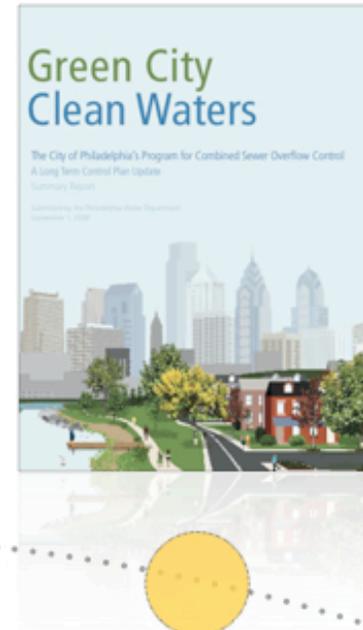
Climate Change Adaptation in Philadelphia

April 17th, 2013

Alex Dews - Policy and Program Manager, Mayor's Office of Sustainability

Scott Schwarz - General Counsel, Philadelphia Water Department

Integrated Sustainability Planning



2012

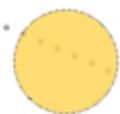


2015

2015



2030



2035

Climate Volatility and Change

Since 2010, Philadelphia has experienced:

The snowiest winter ever

The two warmest summers ever

The most days over 90 degrees ever

The warmest July ever

The wettest month ever

The wettest year ever

Two hurricanes

And a derecho.



MEASUREMENT AND INFORMATION SHARING

CDP Cities 2011
Global Report on C40 Cities



Fig. 02: Emerging practices from C40 Cities in climate change governance

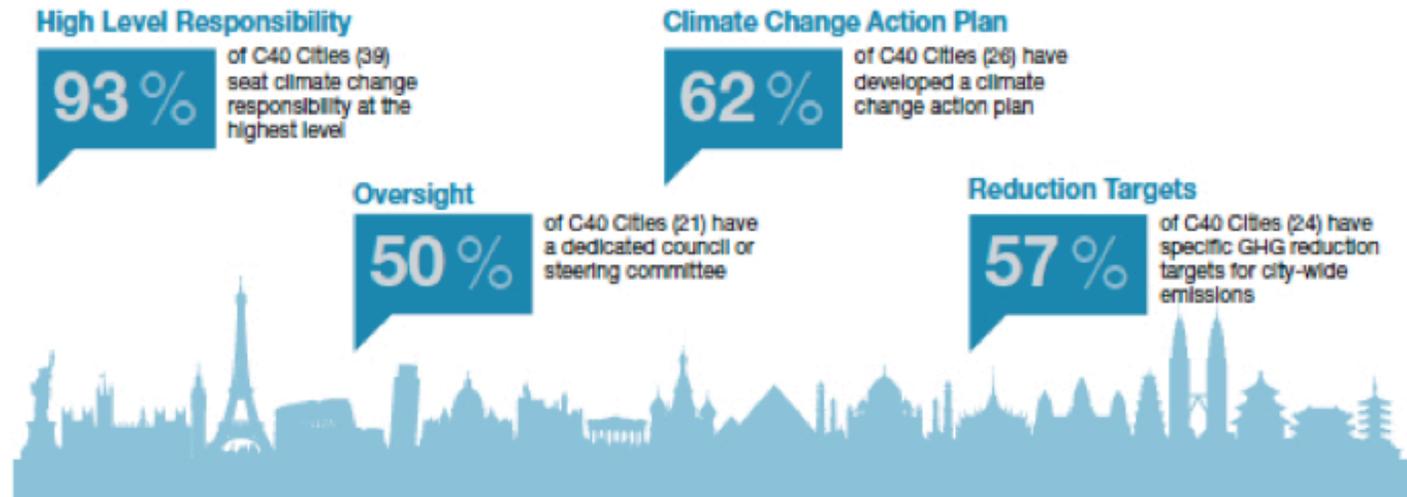
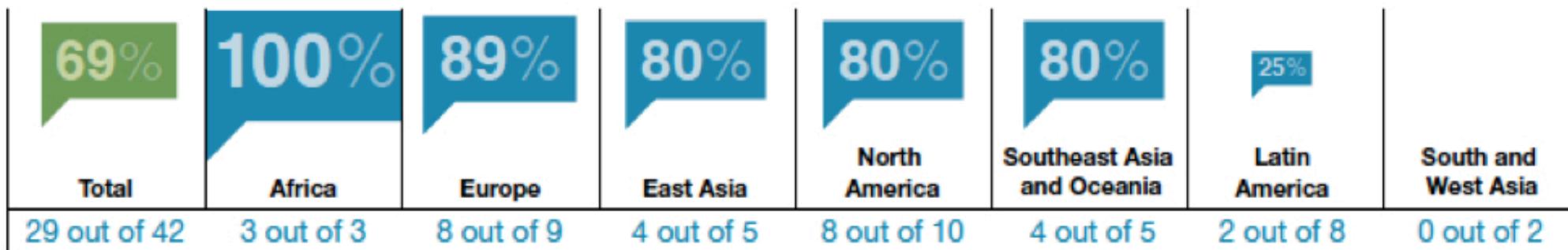


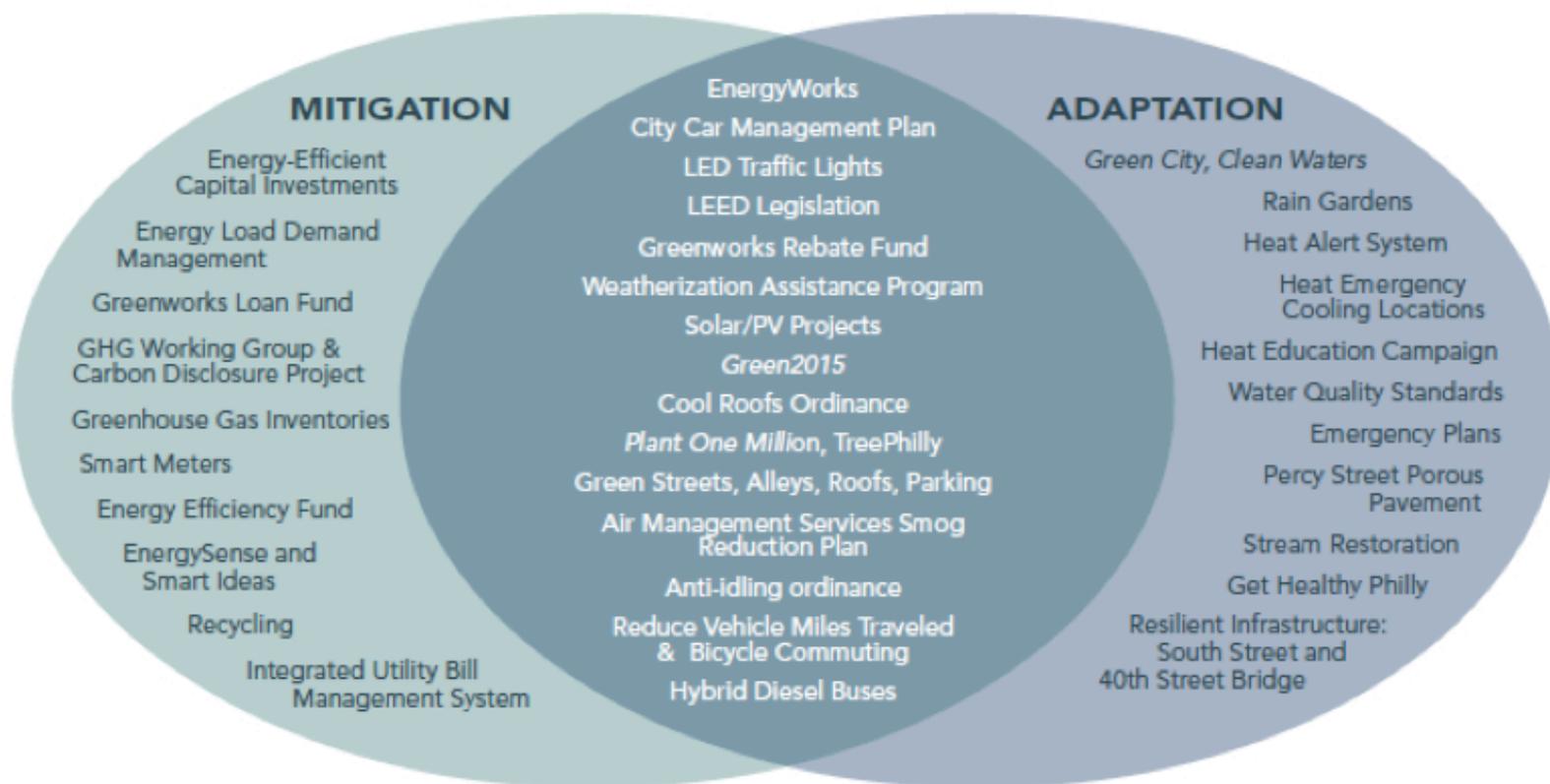
Fig. 07: Cities that incorporate reduction targets into master planning, by region



...% as regional percentage

Climate Adaptation Planning Process

Philadelphia's Climate Mitigation and Adaptation Initiatives



December 2011
Columbia Framework

August 2012
Internal Adaptation Framework

December 2012
Working Group Surveys Complete

June 2012
Greenworks Update

September 2012
Convened Adaptation Working Group

April 2013
Intensive Planning Process thru summer

Climate Adaptation Working Group Survey

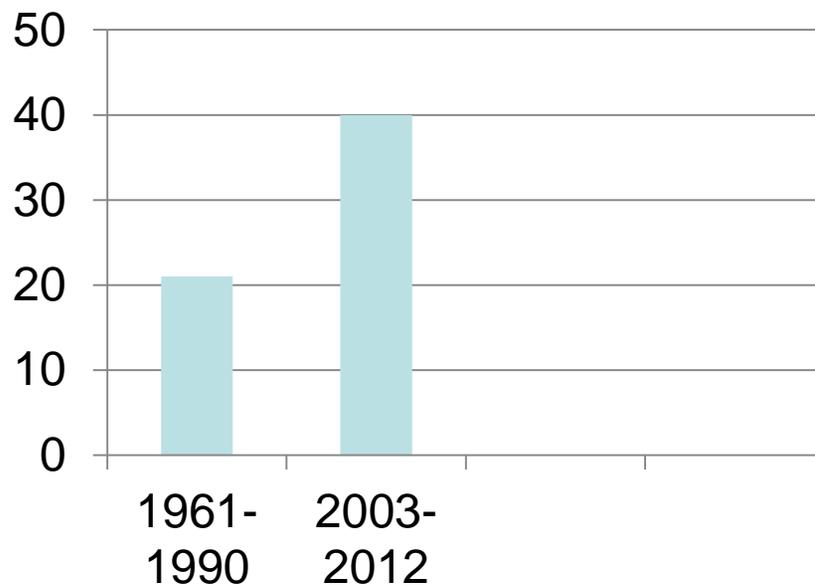
2. The scientific literature identifies the following most likely effects of climate change for the Philadelphia region. Please rank each of the following in terms of significant impact on your department:

	Significant	Somewhat significant	Moderate	Minimal or no impact
Sea level rise	41.7% (5)	33.3% (4)	0.0% (0)	25.0% (3)
Extreme heat events, annual/seasonal temperature increases	45.5% (5)	54.5% (6)	0.0% (0)	0.0% (0)
Drought	16.7% (2)	41.7% (5)	16.7% (2)	25.0% (3)
Increase in heavy downpours, increased annual/seasonal precipitation	58.3% (7)	33.3% (4)	0.0% (0)	8.3% (1)

Temperature Data and Trends

Philadelphia

**Average number of days
in center city with
temperatures over 90°F
(30°C)**



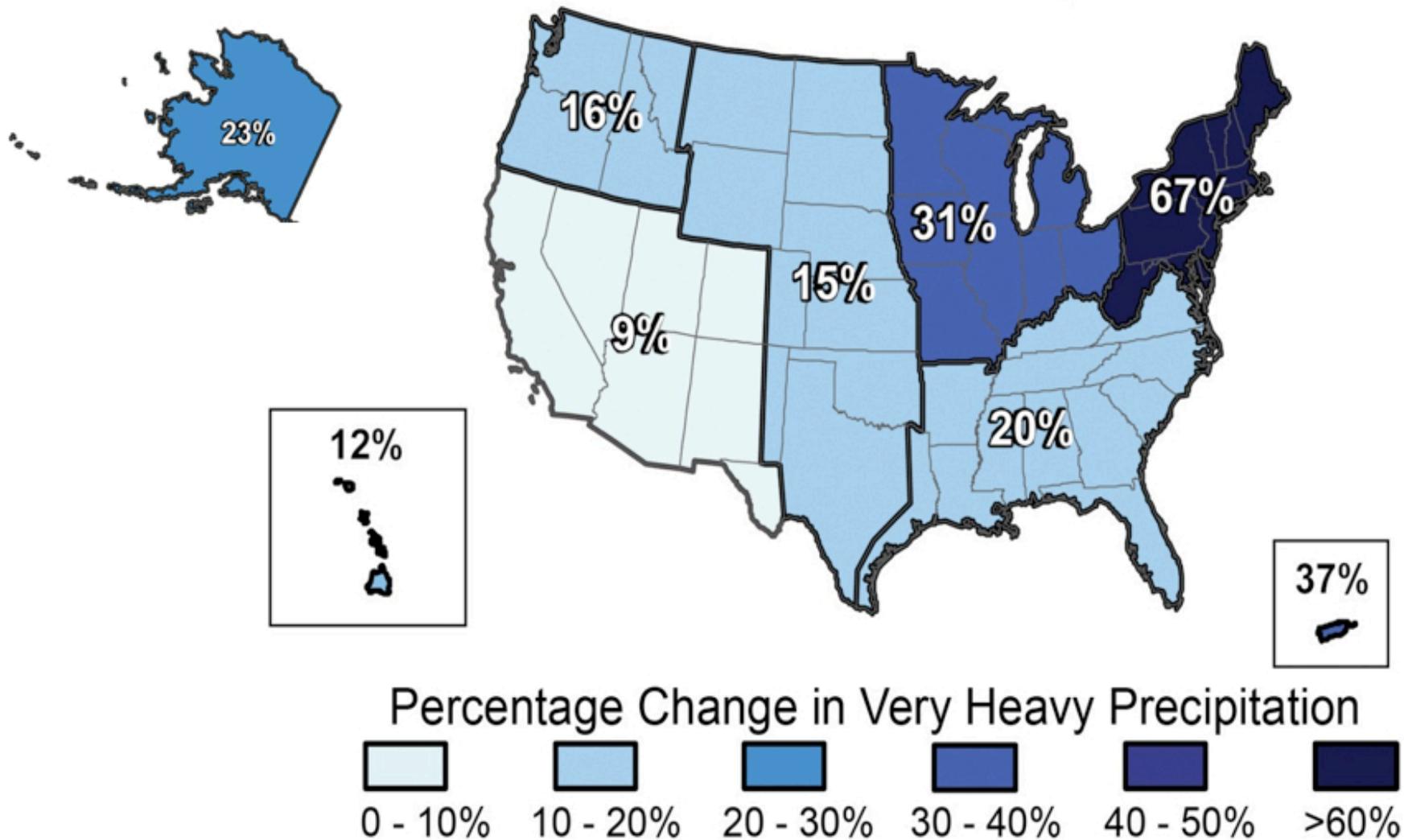
United States

“Since the 1970s, unusually hot summer temperatures have become more common in the United States, and heat waves have become more frequent.”

Source: EPA Report, Climate Change Indicators in the United States, 2012.

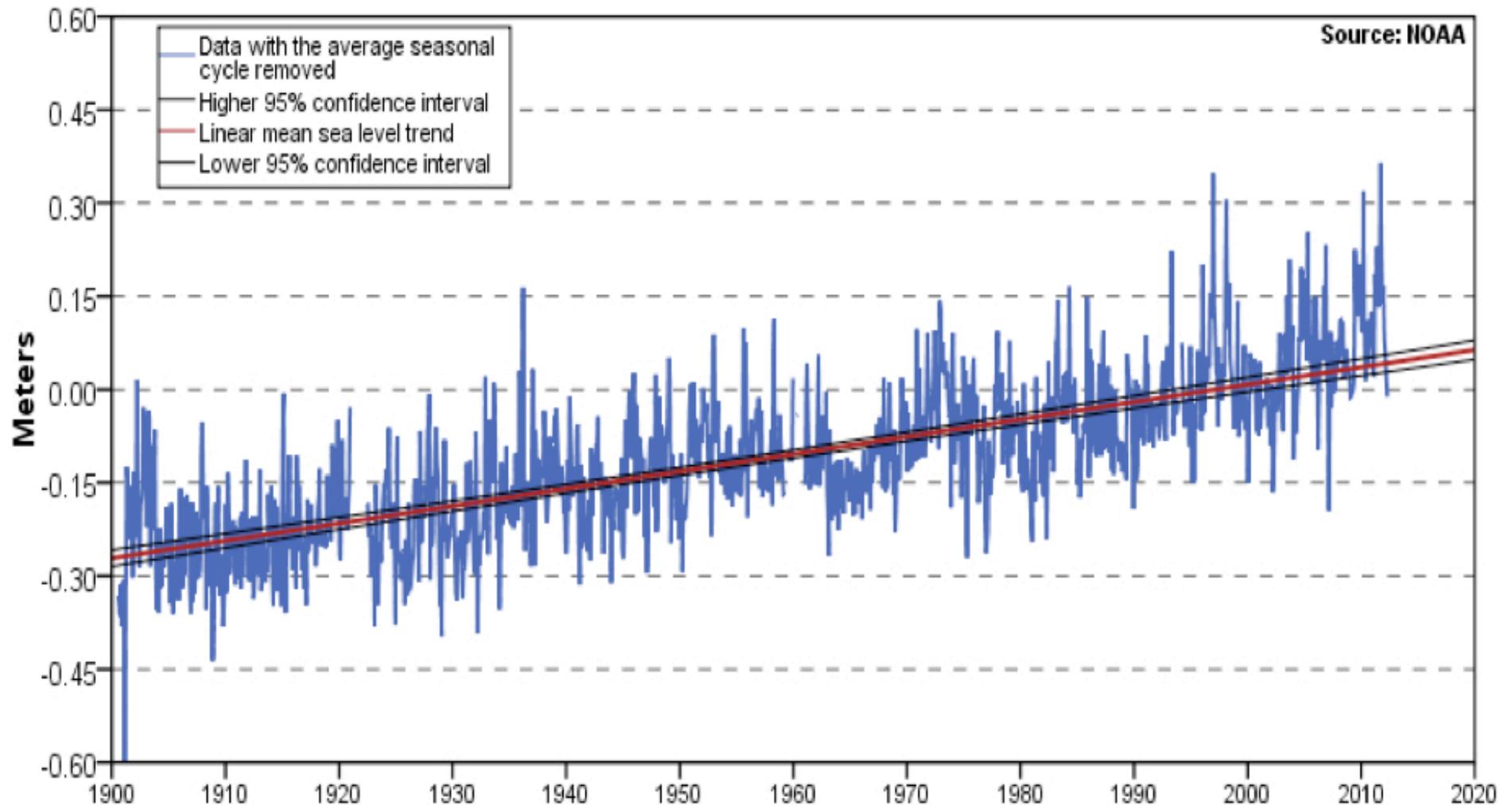
Observed Increases in Heavy Rainfall

Increases in the amount of precipitation falling in heaviest 1% of daily events, 1958-2007



Sea Level Rise Past Occurrences (NOAA)

Philadelphia, PA 2.79 ± 0.21 mm/yr



Public - Percy Street Porous Paving



Private - Parcel based Stormwater Billing and SMIP Program

Stormwater Billing Help 27th and Master

Parcel Info [More info](#)

1401 N MARSTON ST

OPA/BRT Account	292072500
Owner	JAYKAY INVESTMENTS INC
Property Type	Non-Residential
Gross Area	790 ft ²
Impervious Area	197 ft ²
Account #053-53940-01401-002	
Account Holder	JAYKAY INVESTMENTS INC
Address	1401 N MARSTON ST
Service Type	3 - Stormwater Only
Meter Size	No Meter

1401 N MARSTON ST
[Apply for SWAPP](#)
[More info](#)

Measure Legend

- Parcel
- Impervious Surfaces
 - Roof
 - Other Impervious

Toggle Layers

- Aerial Photo
- Impervious Surface

Map labels: MARSTON ST, ETING ST, KERSHAW ST, TANNEY ST

Map labels: COLLEGE, N 22nd St

www.phillystormwater.org



Washington Avenue Green and Race Street Connector



Stormwater Management Development Standards



Energy Efficiency and Demand Response



Air Quality and Heat Health Alert Programs

READY NOTIFYPA Find Out First!

Sign up for ReadyNotifypA

When situations arise in Southeastern Pennsylvania that may affect you and your family, ReadyNotifypA lets local officials notify you quickly by E-mail, or text message to your cell phone or other E-mail enabled device. Be among the first to find out and stay informed during an emergency. For more information about what to do during an emergency and to sign up for ReadyNotifypA, visit www.phila.gov/ready.

www.phila.gov/ready
or call 3-1-1

READY PHILADELPHIA Or Not?

Stay Cool Guide:
How To Protect Your Health
When It's Hot

PHILADELPHIA

AQI Value	Actions to Protect Your Health From Ozone
Good (0–50)	None
Moderate (51–100*)	Unusually sensitive people should consider reducing prolonged or heavy outdoor exertion.
Unhealthy for Sensitive Groups (101–150)	The following groups should <u>reduce</u> prolonged or heavy outdoor exertion: <ul style="list-style-type: none"> • People with lung disease, such as asthma • Children and older adults • People who are active outdoors
Unhealthy (151–200)	The following groups should <u>avoid</u> prolonged or heavy outdoor exertion: <ul style="list-style-type: none"> • People with lung disease, such as asthma • Children and older adults • People who are active outdoors Everyone else should limit prolonged outdoor exertion.
Very Unhealthy (201–300)	The following groups should <u>avoid all</u> outdoor exertion: <ul style="list-style-type: none"> • People with lung disease, such as asthma • Children and older adults • People who are active outdoors Everyone else should limit outdoor exertion.



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www.phila.gov/green