

The Climate Change Adaptation Program

Philadelphia Water is a combined drinking water, wastewater, and stormwater utility that provides drinking water to approximately 1.6 million customers and wastewater services to 2.2 million people in Philadelphia and its surrounding suburbs. As part of its effort to be America's model 21st century urban water utility, Philadelphia Water employs innovative technologies, leading research and adaptive management strategies. In 2014 Philadelphia Water developed a Climate Change Adaptation Program (CCAP) to better understand the impacts that climate change will have on its water systems and how it needs to plan and invest for a future that will look different than the past.

WHY? Impacts from climate change are now inevitable. There is scientific consensus that climate change impacts in Philadelphia will include:

- **more rain**
- **extreme storms**
- **higher air temperatures**
- **rising sea levels**

These impacts will challenge the functioning and reliability of Philadelphia's water systems.

HOW? CCAP will identify the most urgent risks to Philadelphia Water and adaptation strategies to address these risks. This will help ensure that climate change is addressed proactively, and that investments are made cost effectively and with the best information available. The CCAP will proceed in four phases:

- 1 Vulnerability Survey
- 2 Technical Risk Assessment
- 3 Adaptation Strategy Development
- 4 Adaptation Strategy Implementation

Adaptation is the alteration of human systems in response to or in anticipation of shifting climate conditions in order to minimize harm and exploit opportunities resulting from climate change impacts.

- IPCC AR4, 2007

WHEN? The process is estimated to take at least three years. This timeline will allow the CCAP to thoroughly characterize the climate-related risks facing the utility and develop appropriate strategies to reduce those risks and increase resilience. Current adaptation strategies include the Green City, Clean Waters program.

OUTCOME: A series of climate change adaptation strategies will inform what Philadelphia Water must do to effectively plan for and adapt to climate change. Recommendations from the CCAP will inform major capital investments, operational and design standards, and long-term plans.

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