

# Call for Solutions: Tap Water Access and Appeal

The City of Philadelphia is seeking a technology and/or app-enabled solution to promote an increase in drinking tap water among residents.

Underlying this challenge is the [finding](#) that 40 percent of Philadelphians prefer bottled water, with low-income residents more likely to avoid drinking tap water despite its high quality and low cost. Respondents in a recent survey cited convenience, preferred taste, and perception of safety as factors motivating their choice of bottled water.

The proposed solution should be smart city enabled—connecting data, sensors, and/or other technology to motivate and encourage behavior change towards drinking tap water. The solution may build upon existing solutions to direct individuals towards the City's goal of increasing tap water access and appeal. The solution could inform users about some or all of the following:

- Location of tap water access points (public, private-shared, private and restricted locations of water stations across Philadelphia)
- Hydration and health
- Hydration and sustainability
- Savings associated with tap water versus bottled alternatives
- Tap water related information

The solution should also collect data to help the City better understand how and where people choose to drink tap water or bottled alternatives, participant hydration trends, or demographic information about participants. Any data collected during this pilot will be owned by the City, and proposals should include a plan for ensuring the security and anonymity of user data.

To help incentivize behavioral change, the solution may include connecting users to incentives for drinking tap water. Incentives will be developed in coordination with, and provided by, the Philadelphia Water Department or other City departments and programs that promote sustainable practices.

The City is particularly interested in solutions that can be easily maintained, are public-facing, promote healthy hydration habits, and reduce the expense and plastic waste of bottled beverages. Solution providers are welcome to propose a phased approach to the challenge.

Through the Office of Innovation and Technology (OIT), the City will award up to \$34,000 to a solution provider to pilot a technology-enabled approach to addressing this important issue in Philadelphia. The selected pilot will launch in April 2020 and be completed by June 30, 2020.

**Responses are due February 27, 2020 at 5 p.m. and should be submitted via email to: [Pitch.and.Pilot@phila.gov](mailto:Pitch.and.Pilot@phila.gov).**

## Background

Approximately forty percent of Philadelphians report that they drink bottled water instead of tap water. Philadelphia's water meets or exceeds Safe Drinking Water Act and EPA standards for safety, costs significantly less than bottled water, and does not depend on single-use plastic. Despite the dramatic cost difference—bottled water costs 300% more than tap water—a research study by the Philadelphia Water Department and the University of Pennsylvania found that Philadelphians with lower levels of income and education are more likely to purchase bottled water.

Philadelphians' reasons for choosing bottled water include perceiving it as safer, preferring the taste, and finding it more convenient. In response, the Philadelphia Water Department, in partnership with the University of Pennsylvania's Water Center, ImpactED, and PennEnvironment Policy & Research Center, created a marketing campaign for safe, clean tap water called Drink Philly Tap.

The Office of Sustainability's Greenworks program envisions that "all Philadelphians have access to healthy, affordable, and sustainable food and drinking water." To meet this goal, numerous City agencies have developed programs that seek to build connections with multiple audiences and foster a sense of personal ownership of our shared resources.

Other City programs and initiatives that would be supported by increasing consumption of tap water and decreasing the use of bottled alternatives are:

- Get Healthy Philly: Water is the healthiest beverage one can consume. Tap water has the added benefits of being healthy for our wallets and the environment. Get Healthy Philly, the Philadelphia Department of Public Health's (PDPH) Division of Chronic Disease and Injury Prevention, promotes tap water consumption through evaluation, education, and policy and environmental changes. In PDPH's Hydrate Philly collaboration with Philadelphia Parks and Recreation, they introduced appealing new water access to 29 City recreation centers and studied the effects. Water consumption doubled, adult consumption of sugary drinks declined, and the new water access points had so many fewer problems than older units that maintenance savings will cover all costs of the new units after five years.
- Zero Waste and Litter Cabinet: In addition to saving money on purchasing bottled water, an increase in tap water use can help advance Philadelphia's Zero Waste

goals. In 2016, Executive Order 13-16 created the Zero Waste and Litter Cabinet to move the City of Philadelphia toward a Zero Waste and litter-free future. While increasing our rate of plastics recycling is essential, it is also imperative that we reduce the amount of single-use plastic that enters the waste stream. It is estimated that only fifteen percent of the plastic water bottles used in the United States are recycled with the remainder finding their way to landfills or waterways.

## Resources and Additional Information

[“By the Bottle: Who is Drinking Bottled Water in Philly \(and Why Does it Matter\)?](#)

[Drink Philly Tap](#)

[Philadelphia Water Department: Drinking Water Quality](#)

[2018 Drinking Water Quality Report](#)

[Greenworks: A Vision for a Sustainable Philadelphia](#)

[Greenworks Review: 2019](#)

[Hydrate Philly Results](#)

[Zero Waste & Litter Action Plan](#)

[2019 Zero Waste & Litter Progress Report](#)

## About Pitch & Pilot

Pitch & Pilot is a program developed as part of the [SmartCityPHL Roadmap](#) to engage the private sector, academia, and the public in designing smart city solutions for Philadelphia's unique challenges. The program aims to support connections between well-articulated City problems and private sector solutions while meaningfully incorporating input and feedback from the community.

The selected solution provider will be expected to work with a team of City agency partners to conduct a pilot of the proposed solution. Together, the sponsoring departments and solution provider will determine the pilot duration and location. The solution provider will be responsible for collecting baseline data, developing a work plan and securing approval from OIT and other the relevant City offices, and creating a formal written evaluation of the pilot's impact.

In addition to up to \$34,000 to support a pilot project, solution providers can expect the following benefits from participating in Pitch & Pilot:

- **Partnerships:** Solution providers will have access to representatives of and resources from the Department of Public Health, Office of Sustainability, and the Philadelphia Water Department to support piloting their solutions.

- **Testbed:** A pilot project in Philadelphia’s municipal buildings provides an opportunity to prove concepts and refine products in the country’s sixth-largest city. Solution providers will engage relevant users, collect and analyze data, refine or iterate on a product, and demonstrate a solution’s value to the City, to investors, and to other potential customers.
- **Shaping Philly’s Future:** Successful pilots will help the City identify appropriate technologies to address these issues and have the potential to shape future, larger-scale procurements.

## Application Process and Timeline

1. Review the selection process and evaluation criteria.
2. Review the City’s terms and conditions for miscellaneous purchase orders [here](#). The selected solution provider will contract with OIT through a miscellaneous purchase order.
3. Submit questions about the application process to [Pitch.and.Pilot@phila.gov](mailto:Pitch.and.Pilot@phila.gov) by February 13, 2020. Questions and answers will be posted on the [Pitch & Pilot website](#) by February 20, 2020.
4. Complete [the mandatory campaign contribution disclosure forms](#).
5. Send your application by email to [Pitch.and.Pilot@phila.gov](mailto:Pitch.and.Pilot@phila.gov) by February 27, 2020 at 5 p.m.

Questions due	2/13/20
Responses to questions posted	2/20/20
Applications due	2/27/20 by 5 p.m.
*Finalists notified	Week of 3/9/20
*Pitch event	Week of 3/16/20
*Selected vendors notified	3/20/20
Pilot begins	April 2020
Pilot ends	June 2020

*\*These dates are tentative and may be subject to change.*

## Evaluation and Selection

Proposals will be evaluated by the Pitch & Pilot Working Group led by OIT and comprised of representatives from City departments and agencies, University partners, and the private sector with the technical expertise of the Office of Sustainability and the Philadelphia Water Department. Any contract awarded as a result of this process will be between the selected solution provider and OIT.

Solutions will be evaluated based on their alignment with the four guiding principles of the [SmartCityPHL Roadmap](#): locally-inspired, innovative, equitable, and collaborative. We will also consider the criteria below:

- **Responsive:** The proposal addresses the need presented by the problem statement.
- **Inclusive and equitable:** The proposed solution prioritizes disadvantaged Philadelphians and respects the privacy of any data collected.
- **Feasible:** The solution provider has the capability to conduct the proposed pilot.
- **Pilotable:** The proposed solution can be deployed in a limited capacity before ramping up. Solutions should be pilotable indoors in the City of Philadelphia's municipal facilities.
- **Scalable:** The pilot solution can be extended beyond the pilot phase in a way that is sustainable for the City.
- **Innovative:** The proposed solution represents a new approach to addressing an important problem in Philadelphia.

Finalists will be asked to present their ideas in person (or via video chat if in-person participation is impractical) at a pitch event. In addition to further exploring the finalists' alignment with the above criteria, the pitch event will also give them the opportunity to demonstrate their ability to engage relevant stakeholders.

### Submission Outline

Please submit your response in accordance with the following outline, limiting the main contents of your response to ten pages or less. Supplementary information may be included as appendices, but your main submission should provide sufficient information for the evaluation committee to assess your proposal.

1. **Solution Overview:** Please describe your proposed solution and how it addresses the need described in the problem statement. (1500 words or less)
  - How is this problem currently being addressed in Philadelphia and beyond? What distinguishes your solution from others, and what has prevented its adoption before now? Does your solution build upon existing efforts?
  - Have you implemented the proposed solution before? If so, in what context? Please provide a brief description of the situation, location, scope, and results. If not, what steps remain before it can be deployed?
  - What risks are involved in deploying your solution and how do you intend to mitigate those risks?
  - At what scale, for how long, and where would you like to pilot your solution? How will this differ from a larger deployment? What do you expect to learn, and how do you expect to scale up?
2. **Financial Considerations:** Please provide information to help us understand how the adoption of your solution would impact City finances. (1000 words or less)
  - How much funding are you requesting? Please describe the underlying costs of the pilot.

- What is the unit price of your solution?
  - What is your business model at scale? How is it a sustainable solution? What sources of funding or revenue would be required?
  - Does your solution have the potential to generate revenue for the City?
- 3. About You:** Please describe your team and the individuals who will work on the pilot. (1000 words or less)
- Who will work on this project and what is their experience with the relevant subject matter, technology, and population that will be included in this pilot? Please describe any past experience working with city government, prototyping or piloting new solutions, and developing technology in this field.
  - What makes your team uniquely positioned to address this problem?
  - What City resources (personnel, software systems, etc.) will be required during the pilot stage of the project?
  - How do you plan to coordinate and structure the input and technical review from the City agency team critical to developing your pilot solution?
- 4. Inclusion and Equity:** Describe how your solution will prioritize low-income and disadvantaged Philadelphians. (1000 words or less)
- Is your solution beneficial and accessible to low-income or disadvantaged Philadelphians and persons with disabilities? How will you address any physical, financial, language, educational, or technological barriers that might prevent all Philadelphians from accessing your solution?
  - Please explain where in Philadelphia you would like to pilot the solution and why.
  - How do you plan to engage community members during the pilot process and beyond?
- 5. Data:** If relevant, explain how you intend to manage data collected during the pilot and future implementation in a way that protects privacy and security. (500 words or less)
- Does your solution involve collecting data from users?
  - How will you ensure anonymity and security of any data collected?
  - Does your plan involve selling or otherwise monetizing the data that is collected?
- 6. Evaluation:** Please describe how you will evaluate the impact of the pilot. (1000 words or less)
- List any indicators you expect to be impacted by your solution, their baseline levels (if known), and the expected change to that baseline during the pilot period.
  - Explain how you plan to collect data in order to support the evaluation of the pilot.
  - Has the effectiveness of your solution been evaluated previously, either internally or by a third party? If so, please share the context and results.

**Appendix A: [Mandatory Campaign Contribution Disclosure Forms](#)**