CITY OF PORTLAND INNOVATION PROJECT
ROUND 2 PROJECT PROPOSAL

Fill in the expandable shaded areas. No more than 3 pages please.

Project Title: Water Quality Map Widget   **Innovation Request Amount:** $17,000

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Problem/Opportunity Statement:
Describe the challenge your proposal seeks to address, or opportunity it seeks to capture.

According to the Pew Research Center, government entities should provide citizens a variety of both online and offline methods to access information[1]. For the past ten years, the Portland Water Bureau's Water Line, a customer service hotline dedicated to water quality questions and concerns, has provided information to citizens through only one method: the phone. While providing government access through the phone is still relevant, 87% of American adults believe it is important that government agencies provide general information to the public on government websites[1]. This proposed project will expand the Water Line's capabilities and align it to fit the changing needs of our society by developing an online and mobile-enhanced, map-based tool that citizens can use to access real-time information about water quality and water service disruptions around the City.

The Water Line staff are an important resource to the Portland Water Bureau (PWB) by responding to roughly 2,500 water quality calls per year. They field a wide range of questions, from helping customers troubleshoot the cause of an off taste or odor in their water, to coordinating and responding to lead-in-water testing requests. One type of customer concern, dirty or discolored drinking water, is a situation that presents a number of challenges to customers calling the Water Line. Since Portland has an unfiltered drinking water system, it is normal for sediment to accumulate at the bottom of water main pipes. Dirty water events can happen when this sediment is stirred up following planned or emergency situations such as construction, fire line testing, and water main breaks. These types of events can lead to two customer service challenges:
1) A large and sudden influx of customer calls can leave customers on hold for extended periods of time.
2) Customers report that they expected to find information on the PWB website, and were frustrated by the lack of online information.

This project, proposed through the 2014-15 City Innovation Program, is to develop an online and mobile-enhanced, map-based tool, called Portland Works, that allows the PWB, and other participating bureaus, to be more effective and responsive to Portland residents. Recognizing that other bureaus may have similar online communication needs, this project will be a platform that can be a shared resource between the bureaus for residents to find an up-to-date map of activities conducted by City bureaus in one place.

[1]Pew Research Center (2010) *Government Online: The internet gives citizens new paths to government services and information*. http://pewinternet.org/Reports/2010/Government-Online.aspx.

Lead Bureau & Partners:
List the bureau taking lead and the other bureaus, governments, nonprofits, or private sector organizations involved. Confirm these partners are onboard.

Lead bureau: The Portland Water Bureau, will be the lead agency to coordinate with the Bureau of Technology Services to develop the Portland Works tool.

Other participating bureaus: Initial discussions have taken place with the Bureau of Technology Services to develop a cost estimate and schedule for the project. In addition the Portland Bureau of Transportation has expressed interest in participating in the development and use of the tool. We will continue to reach out to other agencies throughout the development and roll-out phases of the project, including the Bureau of Environmental Services, Bureau of Development Services, Parks and Recreation and the Bureau of Planning and Sustainability.

Describe the process undertaken to develop proposal:
Where did the idea originate? How has it evolved? Were other solutions considered? Who was involved?

PWB Water Line staff originally developed the idea of Portland Works, with the initial focus solely on providing information on water quality activities. However, after input from other staff, the proposal scope has expanded to include other bureaus.

Other solutions that were considered:
- Use of PWB Water Quality website: Regardless if this innovation grant project is funded, improving web content will occur to provide general information for the public. However, this web content will be static and not include event-specific information.
- Create a planned and emergency events webpage: This would be inefficient for both the City and residents as PWB staff would be burdened with regularly updating this list so that it does not grow stale; and residents may not be able to effectively find what is happening near them if projects are in list form.
- Post information on the Water Bureau's Water Blog: Even though dirty water events are infrequent and usually affect small numbers of residents at a time, there would be a large archive of dirty water postings that would negatively affect perceptions about drinking water quality.

Additional development of Portland Works included researching similar tools that are used by other utilities, including the tool developed by Severn Trent Water in the UK: http://www.stwater.co.uk/my-supplies/live-updates/.

Detailed Project Description:

The Innovation Grant would provide funding for the Bureau of Technology Services (BTS) to develop the interactive map platform. This project will have two deliverables:
- Map-based user interface, similar to Google maps, that is accessed by Portland residents on computers and mobile devices.
- A user interface for City staff to input location and event information.

This map-based tool would provide Portland residents a comprehensive view of City projects happening near their homes, places of business, or schools. This would also allow the PWB, and other interested bureaus, to communicate to residents in real-time about either planned or emergency projects or issues. Examples of situations that could be included in the tool are water system issues, sewer work, road construction, development, or park projects. The grant would be used for BTS development of Portland Works that could then be placed on the website of any participating bureau.

Key functions:
- Unique symbols for each type of event and bureau
- Ability to search by address or intersection
- Filter to view only type of events customer is interested in
- Pop-up window for each event with standard information:
  - Event type and title
  - Short event description including cause and duration
  - Lead bureau and optional contact for more information
  - Automatic expiration of each event so map doesn't need to be updated, or get outdated

Potential Outcomes:
Address equity and opportunity. Who would benefit from the project outcome? Who might be burdened? How does this project make Portland, and/or the City organization, better? Does it create efficiencies? Be specific.

Benefits are two-fold:
1) Residents
   - Provides additional sources of information; multiple ways to find the same information.
   - On-the-go information: in the same amount of time it takes to find the phone number online, they can find and access the map, potentially resolving their question or issue.
   - Can see what is happening around the City and the estimated length of the project. Information provided on the tool is useful beyond just a water quality application.
   - Enables resident to independently locate information and potentially resolve questions on their own.
   - 24/7 accessibility – Most customer service numbers are only available during normal business hours.
2) City
   - Improves customer service.

- Reduces burden on front line staff.
- One, central resource that all front line staff around the City can reference in real-time when on the phone with a customer and can direct to correct bureau.

Burdened: City staff who would be responsible to upload information to Portland Works.

Making Portland better and efficiencies:
- Provides better transparency of activities and the work that goes into maintaining City facilities.
- One resource used by multiple bureaus.
- The City is viewed as efficient and responsive and improves public perception

Metrics for Success:

How do you propose to track progress and project outcomes?

To monitor project progress and outcomes, the metrics that will be compared before and after deployment of Portland Works by Water Line staff will include number of calls to the Water Line and number of page views to the PWB webpage that Portland Works is posted to. To provide customers the opportunity to provide feedback online, a customer feedback link will be provided on the same page as the Portland Works widget, which will direct to an online survey/customer feedback form developed by PWB staff using TrackIT. Additionally, the project will be tracked qualitatively through polling of Water Line staff and front line staff in participating bureaus for general customer feedback they may have received.

Implementation Plan and Schedule:

Identify start and end dates, major milestones, and risks to proposed timeline.

Project start date: February 1, 2015   Project end date: September 1, 2015

Major milestones and dates: May 1, 2015: Go live date for PWB website.
                                            September 1, 2015: Go live date for all city bureaus.

Risks to timeline: **As with all projects, there are other priorities that may take precedent and delay the work on the project, or technical complexities in the development that may also extend the project timeline.**

Innovation Funding Request: $17,000

Using the table below, provide a line item breakdown of the funding request including: expected staff time and FTE requirements, contract costs, internal and external materials and services, ongoing operational and maintenance costs, and any other additional costs/resources related to the project that will be funded by your bureau outside of the actual Innovation fund request. Include cost savings or revenue, if applicable. Please add rows and descriptions to the table as needed.

Description	FY2014-15 Total Innovation Fund Budget	FY2014-15 Total Budget	Ongoing* Total Budget	In this column, give concise descriptions on what your *estimated budget* dollars represent (i.e. vendor, service, FTE etc.)
Personnel Services		0	0	
External Materials & Services	0	0	0	
Internal Materials & Services	$17,000	0	0	**Estimated 170 hours at $100/hour of BTS development time.**
Ongoing Operational	N/A	0	0	
Ongoing Maintenance	N/A	$500	$500	**Funding to BTS to update and improve as needs arise. Funding would be from the PWB Water Quality Information annual budget**
Other	0	0	0	
Total Cost Estimate	$17,000	$500	$500	

*Identify what funding sources you have confirmed for ongoing requirements in the right column.