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Nick Fish, Commissioner  
Michael Stuhr, P.E., Administrator

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## IMPACT STATEMENT

**Date:** June 4, 2018

**Council Date:** July 11, 2018

**Legislation Title:** Authorize an Intergovernmental Agreement for \$60,000 with Portland State University to Research Future Extreme Rainfall and Large-Scale Meteorological Patterns over the Bull Run Watershed (Ordinance)

**Contact Name:** Kavita Heyn, Climate Science Program Manager

**Contact Phone:** (503) 823-4724

**Presenter Name:** Eddie Campbell, Water Group Manager  
Kavita Heyn, Climate Science Program Manager

### **Purpose of proposed legislation and background information:**

The Water Bureau seeks to enter into a two-year Intergovernmental Agreement with the Portland State University Institute for Sustainable Solutions (ISS) to provide technical expertise and research into future extreme rainfall and large-scale meteorological patterns over the Bull Run Watershed.

For purposes of long-term water supply planning and the operational management of the Bull Run Watershed and drinking water system, the City desires to understand the large-scale meteorological patterns that cause extreme rainfall over the watershed and how these weather systems could change in a warmer climate. Historically, several extreme rainfall events in the Bull Run Watershed have resulted in flooding, landslides and turbidity events, necessitating the shut-down of the supply to meet regulatory drinking water standards. Severe storms have also damaged conduits, roads, culverts and other infrastructure in and around the watershed. While these storms increase risks to the water system, the Bull Run supply is also very reliant on regular patterns of seasonal rainfall to fill and refill reservoirs before and after the peak summer supply season. Changes to rainfall patterns could affect how the City plans for and operates its drinking water system.

The research involves a set of tasks using climate information, weather and snow data, and computer modeling systems to identify, characterize, and assess large-scale

meteorological patterns (LSMPs) that are associated with historical extreme rainfall over the Bull Run Watershed. The research will then analyze how these LSMPs and extreme rainfall events might change with a warmer climate.

**Financial and budgetary impacts:**

This legislation authorizes an Intergovernmental Agreement not to exceed \$60,000 over two years. Funding of \$30,000 is allocated in the FY 2018-19 Water Bureau budget and funding will be requested in FY 2019-20 Budget.

**Community impacts and community involvement:**

The Intergovernmental Agreement with Portland State University's Institute for Sustainable Solutions (ISS) provides the Water Bureau with weather and climate information necessary for the bureau's long-term water supply planning. Continuing to assess the potential impacts of climate change on the Bull Run Watershed is a specific action identified in the joint City of Portland and Multnomah County 2015 Climate Action Plan (CAP). Development of the CAP entailed a community engagement process. Community leaders serving low-income households and communities of color were engaged to help ensure that all Portlanders benefit from the City and County's climate action efforts. The bureau anticipates that an improved understanding of these weather and climate phenomena on the City's primary drinking water source will have a beneficial community impact.

**100% Renewable Goal:**

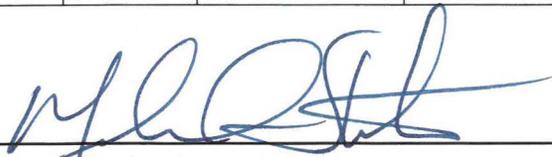
This action does not increase or decrease the City's total energy or renewable energy use because it is a research-based project.

**Budgetary Impact Worksheet**

**Does this action change appropriations?**

- YES: Please complete the information below.
- NO: Skip this section

Fund	Fund Center	Commitment Item	Functional Area	Funded Program	Grant	Sponsored Program	Amount

  
 Michael Stuhr, P.E., Administrator

6/7/18  
 Date