

**IMPACT STATEMENT**

**Legislation title:** Authorize a contract with Brown and Caldwell for professional services in development of the BES Resiliency Master Plan (RMP) for an estimated cost of \$499,299, Cost Center ESEN000019, Internal Order 9ESEN0000089 (Ordinance)

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

The City has a strong interest in improving infrastructure resiliency to reduce the risk of infrastructure and community service failures and improve the City's ability to bounce back following a major natural disaster. Improving Bureau of Environmental Services (BES) sewer and stormwater infrastructure resiliency will reduce the risk of public exposure to sewage and minimize sewage contamination for watersheds and public waterways after a natural disaster, and improve recovery times for the regional economy after a natural disaster.

The BES Engineering Services group manages planning and implementation of projects for the renewal and expansion of Portland's sewer and stormwater collections and treatment systems. A part of the management responsibility is to plan for future population growth and infrastructure rehabilitation through the Capital Improvement Program (CIP), and to prepare for natural events that may test the resiliency of the sewer/stormwater systems.

BES is creating the BES Resiliency Master Plan (RMP) in order to develop a prioritized approach to improving resiliency to earthquakes and climate change. The results of the RMP will be used to identify benefits and costs of actions for resiliency; to integrate resiliency further into the BES CIP and operational practices; and to recommend an optimal strategy for resiliency investment to protect ratepayers while managing long-term rate impacts.

The RMP will evaluate risk and prioritize risk reduction approaches for climate change and earthquake hazards. The risk evaluation and recommendations for earthquake hazards will identify best design practices to reduce risk of structural failure of infrastructure during seismic events, prioritizing investments where risk of failure is greatest. The risk evaluation for climate change resiliency will assess risks to providing current levels of service for wastewater and stormwater conveyance and treatment under a range of future climate scenarios. The RMP will provide recommendations for how BES can support resiliency in the community and in natural systems susceptible climate change pressures through green infrastructure investments, policy changes, and other operational strategies.

BES plans to implement strategic improvements over the next five decades to reach these goals. The RMP will provide analysis and recommendations to inform both short-term and long-term investments in BES' capital program, as well as to inform policy decisions and rate projections. Improvements will be made that will impact multiple geographic areas of the City and will target improvements to reduce vulnerabilities in natural hazard zones. The risk assessment and recommendations for risk reduction will incorporate equity considerations to address the needs of vulnerable communities.

**Financial and budgetary impacts:**

The scope of work's final budget for professional services is \$499,200. 31% of the contract total, or \$154,783 has been committed for subcontracting with M/W/ESB firms. Funds are available in the Sewer System Operating Fund, FY2016-FY2018, Bureau of Environmental Services.

The proposed legislation will not create, eliminate or re-classify any positions now or in the future. BES' Asset Systems Management staff and Design Services staff will provide support for and management of planning contract.

If authorized, the proposed legislation will result in a contract with Brown and Caldwell for the development of the BES Resiliency Master Plan.

**Community impacts and community involvement:**

The Oregon Resilience Plan outlined recovery targets and an approach of gradually improving community resiliency to a Cascadia earthquake over a 50-year timeframe. The BES RMP will identify priorities and an implementation approach for improving BES infrastructure resiliency where the risks to the community are greatest.

Critical infrastructure is spread throughout the City of Portland and so recommendations from the RMP will improve many areas of the City over a long period of time. Recommendations from the RMP will include changes to existing planned capital projects, and may also include new proposed capital projects if necessary for prioritized risk reduction. Construction work will not be a part of this project and no immediate physical impacts to communities will occur during the project. Over time, as recommended projects are implemented through the BES capital program, construction impacts to communities will be managed as they are for all infrastructure reinvestment projects.

The BES RMP incorporates the results of the public involvement that was conducted during the 2016 Natural Hazards Mitigation Plan (NHMP). The NHMP included assessment of earthquake, flooding, and landslide disasters in the Portland metro area which directly relates to the RMP. The NHMP had strong community involvement in the development of actions within the Plan, a high survey response rate during the plan development and extensive outreach to the community to review the proposed plan. Following completion of the BES RMP, the results will be presented to the Portland Utility Board and described to the community through ratepayer communications and ongoing Bureau outreach efforts.

This project will make recommendations for improvements in many areas of the city including those with highly liquefiable soils or within flood and landslide zones and so the RMP will inherently address communities living within naturally hazardous areas. As noted in the Oregon Resiliency Plan, a key driver for resiliency is the ability to support individual households and regional economies to recover quickly from a natural disaster so that financial livelihoods are not significantly damaged. The RMP will reduce risk related to providing utility services for the community in addition to protection of public health following natural disasters. The project will also make resiliency recommendations based on an equity lens to ensure that vulnerable communities are included in resiliency planning. The project will prioritize resiliency and risk reduction for critical community sites such as hospitals, police stations, fire stations, schools, etc. that play key roles to community recovery in the aftermath of a natural disaster.

**Budgetary Impact Worksheet**

188249

**Does this action change appropriations?**

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

<b>Fund</b>	<b>Fund Center</b>	<b>Commitment Item</b>	<b>Functional Area</b>	<b>Funded Program</b>	<b>Grant</b>	<b>Sponsored Program</b>	<b>Amount</b>