



# CITY OF PORTLAND ENVIRONMENTAL SERVICES



1120 SW Fifth Avenue, Room 1000, Portland, Oregon 97204 ■ Nick Fish, Commissioner ■ Michael Jordan, Director

## Memo

Date: March 7, 2019

To: Morgan Tracy, Bureau of Planning and Sustainability

From: Elisabeth Reese Cadigan, BES Systems Development *ERC*  
Fred MacGregor, BES Stormwater System Planning *FM*  
Marie Walkiewicz, BES Watershed Services *MW*

Re: Residential Infill Project

Portland's Bureau of Environmental Services appreciates the opportunity to participate in the development of the Residential Infill Project (RIP). Environmental Services manages Portland's wastewater and stormwater infrastructure to protect public health and the environment. Environmental Services understands the challenges Portland is facing with expected growth and housing demands over the next twenty years, and the important role that the project will have in helping Portland meet these demands in a sustainable manner. We offer the following comments on the draft RIP proposal, as it relates to the city's sanitary and stormwater systems.

Environmental Services manages more than 1,900 miles of sanitary and combined sewers in the City of Portland. Sanitary flows from single-family residential lots represent a minor portion of the flows carried by any given pipe, and sanitary flows from additional dwelling units on those single-family properties are unlikely to significantly affect the system. While it is possible that the additional densities allowed through the RIP could exacerbate existing local capacity issues in isolated areas, we do not anticipate the project will cause significant problems for either property owners or the system. In our sanitary and combined system planning efforts, Environmental Services regularly analyzes our system, in conjunction with planning projections from the Bureau of Planning and Sustainability, and determines priority areas for both capacity and structural upgrades. Over time, these capital projects will address any localized issues created through the increased densities allowed by the RIP.

The RIP's potential impacts on the City's management of stormwater is a more complex issue. Environmental Services manages a complicated network of pipes and ditches, streams and wetlands, engineered facilities, drainageways, and infrastructure to convey, detain, and treat stormwater runoff. The Stormwater Management Manual (SWMM) sets requirements to minimize impacts of stormwater runoff from the development of private property and public right-of-way. In most parts of Portland, these requirements address the potential impacts from RIP-related development. Since RIP does not propose increases in impervious area over what is currently allowed in the zoning code, Environmental Services is generally supportive of the project.

In some parts of Portland, however, challenging site conditions like steep slopes and poorly draining soils can complicate stormwater management, even under current development regulations. In those areas, it is technically difficult to fully address the altered stormwater runoff patterns from increased impervious areas. In addition, in some areas of the City the existing stormwater infrastructure is utilized at its maximum capacity and solutions to address these capacity issues are limited. For these geographic areas, Environmental Services will conduct further analysis and develop more detailed modeling scenarios through our Stormwater System Plan (SWSP) to fully understand the potential impacts of development stimulated by the infill project.

Environmental Services is currently developing the citywide SWSP, which will inform future investments in the stormwater management system. When complete, the SWSP and the supporting analysis will provide a deeper understanding of the stormwater system's condition at the city and basin (local) scales, including the effects of altered stormwater runoff patterns and how well the storm system can handle those changes. As the SWSP analysis advances, it will inform future SWMM requirements; we expect future SWMM regulations to reflect variations in conditions at the local scale, which may influence how infill development is regulated for stormwater management. This may result in refined regulations and/or future investments in the stormwater system to meet increased demand.

Environmental Services' 2018 Strategic Plan emphasizes the value of "One City" and collaboration with partner bureaus to develop mutually beneficial practices to achieve service delivery. For Environmental Services, that means considering citywide goals like housing and infill development when assessing service delivery and risk. As system planning analyses advance, we will continue to work with our partner bureaus to identify strategies that support Portland's housing and employment needs, and ensure essential and cost-effective investments in the City's stormwater and sanitary systems. We look forward to continuing to partner with Planning and Sustainability on these efforts.