

## 12. STORMWATER MANAGEMENT

As discussed in Section 6 of this Report, Woodard & Curran assessed the regulatory triggers/thresholds for permitting under MaineDEP Site Location of Development (Site Law) and MaineDEP Stormwater Law for the proposed re-development project. It is our understanding that the proposed project should not be subject to Site Location of Development standards since it will result in less than three acres of new Structure area from what was in existence in 1970 (establishment of Site Law), but that because the proposed project will disturb more than one acre of land and result in more than one acre of new impervious area, MaineDEP Stormwater Law applies and a Stormwater Permit will be required. The City of Portland has delegated review for Stormwater Permits, so approval will be obtained as part of the formal Site Plan application, to be submitted at a later date. A letter documenting these determinations was provided to the MaineDEP, which is attached to Section 6 for your reference

Section 5 of the City of Portland Technical Manual requires submission of a stormwater management plan pursuant to the regulations of Maine DEP Chapter 500 Stormwater Management Rules, including Basic, General and Flooding standards. The following section discusses stormwater management relative to the Basic, General and Flooding Standards.

### 12.1 BASIC STANDARD (SOIL EROSION AND SEDIMENTATION CONTROL)

This standard addresses soil erosion and sedimentation control, inspection and maintenance, and good housekeeping practices during construction. Site plans, details, and erosion and sediment control notes demonstrating compliance with the Basic Standard will be provided as part of future Site Plan Applications, when additional design detail will allow for the identification of the necessary controls.

### 12.2 GENERAL STANDARD (WATER QUALITY)

The General Standard requires that stormwater quality treatment be provided for no less than 95% of new impervious area and no less than 80% of new developed area. In accordance with Section 5.II.D. of the City of Portland Technical Manual, all projects not subject to requirements of an existing Site Law or Stormwater Management Law Permit that include redevelopment of non-roof impervious area greater than 5,000 square-feet and are subject to City of Portland review, shall provide stormwater quality treatment in accordance with the General Standards for no less than 50% of the redeveloped impervious area. The runoff from any upgradient area must be either directed away from the stormwater treatment measure or that measure must be sized to treat the runoff from the upgradient area.

**Table 4** and **Table 5** summarize the project areas and identify the requirements for the project to comply with the City's stormwater quality treatment standards.

**Table 4: 58 Fore Street Project Area Summary**

Total Existing Developed Area (Proposed Re-Developed Area)	9.66 Acres
Total Proposed Developed Area	11.30 Acres
Net Change Developed Area (Total New Developed Area)	1.64 Acres
Total Proposed Impervious Area	10.75 Acres
Total Re-Developed Impervious Area	8.57 Acres
Total New Impervious Area	2.18 Acres

**Table 5: 58 Fore Street Stormwater Quality Treatment Compliance**

Required Treatment of New Impervious Area (95%)	2.07 Acres
Required Treatment of New Developed Area (80%)	1.31 Acres
Required Treatment of Redeveloped Impervious Area	4.29 Acres
Total Impervious Area Required to be Treated	6.36 Acres

A Conceptual Stormwater Management Areas Plan is included in the drawings attached to Section 3 of this Report, which shows the conceptual water quality treatment areas and drainage infrastructure. This Plan shows the proposed stormwater treatment zones, which have been delineated based on proposed grading and topography, in addition to possible locations of stormwater treatment systems. As shown by this figure, stormwater runoff from the Site will be collected and treated in compliance with the City's requirements.

Proposed stormwater management measures for compliance with the General Standard will consist of Best Management Practices (BMPs), such as tree box filters, subsurface proprietary treatment systems (i.e. StormFilter, Jellyfish), rain gardens, or subsurface filtration systems. These BMPs will be designed according to the most recent MaineDEP Stormwater BMP guidance; design calculations will be submitted as part of future Site Plan submissions. Additional Low Impact Development (LID) measures, such as rainwater reuse systems, green roofs, and roof dripline filters, may also be incorporated for stormwater credits as part of the detailed Site Plan submission. Building elements will be designed in an environmentally sensitive and sustainable manner, so as to provide stormwater quality improvements to the extent possible.

### **12.3 FLOODING STANDARD (WATER QUANTITY)**

As noted in Section 9 of this Report, we are requesting a waiver from providing additional storage of stormwater for the Flooding Standard, due to the fact that the project will discharge directly into the ocean. Stormwater runoff from the Site will be conveyed exclusively to the ocean via a direct discharge piped system located on the project property, or via sheet flow for areas directly adjacent to the sea wall.