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EXECUTIVE SUMMARY

To: Finance Committee

From: Ian Houseal, Assistant to the City Manager, Sustainability Coordinator
Mike Bobinsky, Director of Public Services

Date: August 21, 2014

RE: STORMWATER SERVICE CHARGE PROGRAM

The following is a summary of the Stormwater Service Charge Program. Included with this summary, for recommendation to the full City Council by the Committee are:

- Amendments to Chapter 24: Sewers which establishes the stormwater service charge and program;
- Proposed appropriation from the Sewer Fund to pay for start-up costs for the program;

For Committee reference in consideration of the service charge, the following documents are attached:

- Estimated FY 2016 budget;
- Estimated FY 2017 budget;
- Estimated FY 2016 – FY 2019 summary budgets; and
- Estimated Sewer Fund and Stormwater Fund estimated revenue requirements (FY 2015 – FY 2019) and estimated sanitary sewer and stormwater service charge rates.
- Implementation Schedule;
- Stormwater Credit Manual;

PURPOSE OF THE STORMWATER SERVICE CHARGE PROGRAM

The proposed stormwater service charge is about valuing stormwater and therefore more equitably and fairly paying for sewer and stormwater costs. Instituting a stormwater charge more fairly and equitably distributes costs among the users of the sewer and stormwater systems. More information is available on the City website at http://www.portlandmaine.gov/1331/Stormwater-Service-Charge.

PROPERTIES SUBJECT TO THE STORMWATER SERVICE CHARGE PROGRAM

All properties with rooftops and paved areas are subject to the stormwater service charge. All government properties are subject to the charge including, city, State, and Federal property as they currently are charged for sewer charges. Property tax payers and non-property tax payers are also subject to the charge as they currently are charged for sewer charges.

STORMWATER SERVICE CHARGE PROGRAM EXEMPTIONS

As proposed, all developed properties in the City of Portland are subject to the stormwater service charge with the exception of:

- Land with less than or equal to 400 square feet of impervious area is exempt from charges.
- Publically accessible roads, sidewalks, pathways, and railroads, and airport runway are exempt from charges.
- All islands except for Peaks Island are exempt from charges given the limited services being received with regard to stormwater and sewer.

HOW THE STORMWATER SERVICE CHARGE IS CALCULATED

As proposed, both residential and commercial properties pay the same rate. That rate will be $6.00 per month per 1,200 square feet of impervious area at the initiation of the fee. The square feet of impervious area is rounded to the nearest 1,200 square feet as can be seen in this figure below. To look up a property's impervious area and billing units see http://www.cleangrowthcleanwater.com/calculator.

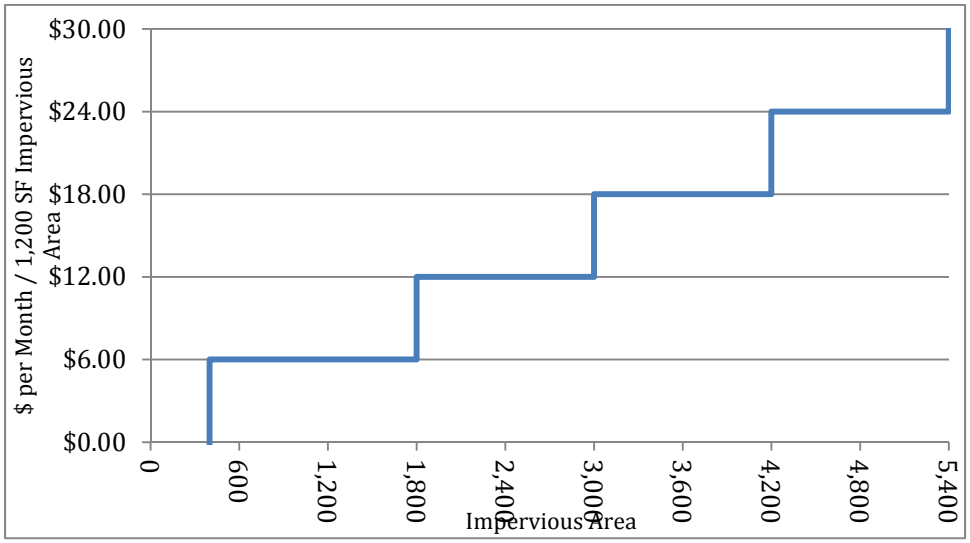


Figure 1: Stormwater Service Charge Rate

There will be a corresponding reduction in the sewer rate of approximately $1.50 per HCF at the initiation of the stormwater service charge.

HOW PROPERTY OWNERS CAN REDUCE CHARGES AND EARN CREDITS

Property owners can reduce their stormwater service charges by:

- **Appeal** - Reducing the amount of impervious area on a property or recalculating charge if appropriate; and
- **Credit** - Building stormwater runoff reducing improvements on their property.

Appeal

An appeals process is available for property owners to have the impervious area of their property re-calculated after taking steps to reduce the amount of impervious area on a property. The appeal must be made in writing. A form will be made available to simplify the process. Additionally, there will be time for property owners to review impervious area of properties during the sample billing period of implementation.

Credit

As proposed, credits are available to both residential and commercial properties. Credits are additive; meaning that multiple types of credits can be applied to a specific property, potentially resulting in a 100% credit of stormwater charges. All improvements must be designed, permitted, and built appropriately. Once permitted and built, a property owner may apply for a credit.

- **Residential Credit**: For residential properties (up to four units), credits are a set charge reduction and are designed to be relatively simple to design and administer.
- **Stormwater Credit**: For any property, credits are a percentage reduction and are designed to match Portland's existing stormwater development standards.

See the Stormwater Credit Manual for more information. Staff has shared the Stormwater Credit Manual with representatives of the Portland Chamber of Commerce, water quality advocates and an outside lawyer for peer review. Comments have been received are being considered.

BILLING ADMINISTRATION

Instituting this new charge will require changes to the way that stormwater is billed and collected. Currently, stormwater is billed through the wastewater (sewer) fee and shows on the water bill sent by the Portland Water District (PWD), and remitted to the City monthly along with wastewater fee collections. With the initiation of the Stormwater Service Charge, the City will bill and collect for stormwater services directly, while PWD will continue to bill for water and wastewater services.

STORMWATER SERVICE CHARGE PROGRAM IMPLEMENTATION

As proposed, in order to adequately allow enough time to prepare Portland's ratepayers for the changes to how revenue will be raised to pay for the sewer and stormwater program, the stormwater service charge will begin in January 2016.

An extensive public information campaign about the new charge will be carried out during the time leading up to January 2016 including:

- Public outreach through meetings and media;
- A mailed sample bill in September of 2015;
- The availability of one-on-one consolation with property owners after receiving the sample bill;
- The availability of a stormwater property look-up tool on the City website (available now); and
- The availability of the Stormwater Credit Manual available at the time the program is approved by the City Council. With the availability of the Stormwater Credit Manual, the public is able to immediately begin the process of determining what credits are available to them and how they will design and apply for any credits.

INCLUSION OF COMBINED SEWER SEPERATION PROGRAM COSTS

In keeping with the Sustainable Stormwater Funding Task Force's Recommendations to the City Council, combined sewer costs associated with Combined Sewer Separation Program will be included in the stormwater service charge moving forward as described in the estimated FY 2017 – FY 2019 budgets.

PROGRAM IMPACTS

There are 18,225 properties in the City of Portland with impervious area. The vast majority of properties, as proposed, will have between 1 – 3 billing units for charges amounting to a $6.00 to $18.00 per month. Additionally, most properties will also see a corresponding $1.50 reduction in their sewer rate offsetting the stormwater service. The following table shows the number of properties in groups of billing unit categories.

Table 1: Distribution of properties by grouping of Stormwater Billing Unit

Billing Units	Property Count
1-3	15,405
4-10	1,763
11-20	386
21-30	180
31-40	112
41-50	79
51-60	54
61-70	42
71-80	34
81-90	20
91-100	23
101-130	43
131-160	26
161-190	18
>190	40
Total	18,225

The following figure documents the projected changes to wastewater service (per HCF) charge over time if **NO** stormwater service charge is implemented and the projected changes to sewer (per HCF) charges and stormwater service charges over time. The projected wastewater service charge is used as a basis for analysis of impact.

The following figure documents the projected changes to wastewater service (per HCF) charges and stormwater service charges over time.

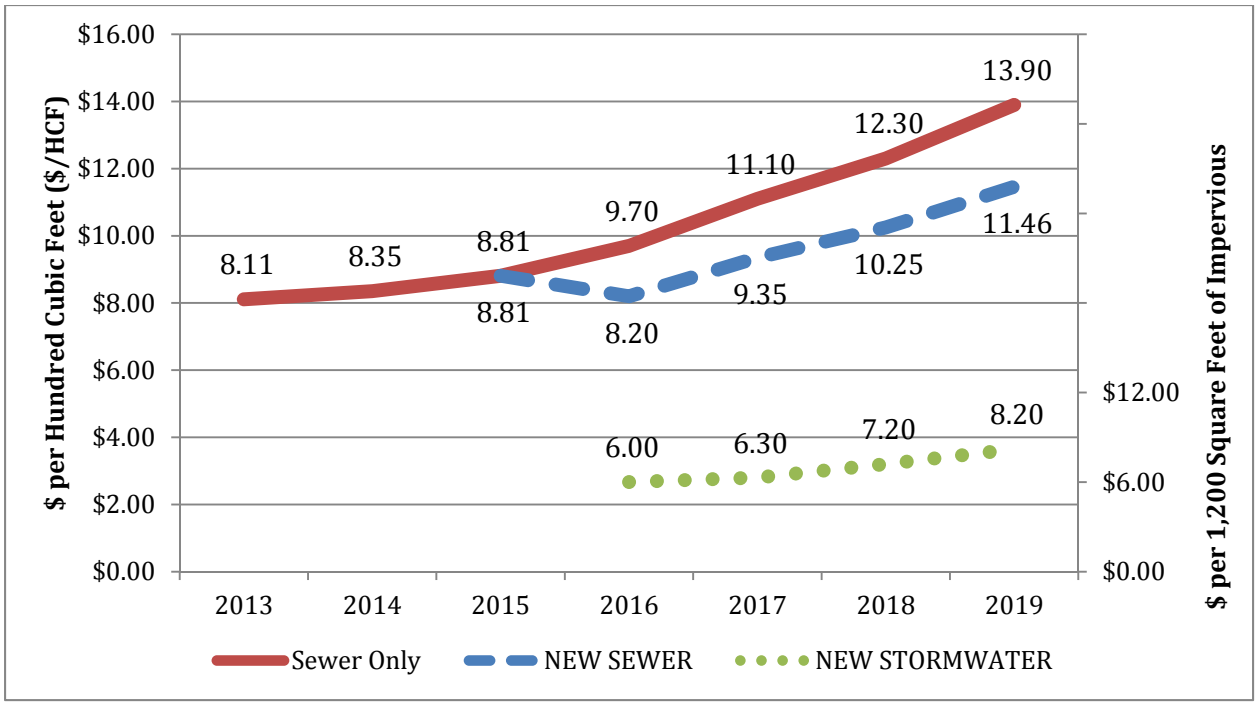


Figure 2: Projected Sewer Rate and Stormwater Rate.

The new Stormwater Service Charge reflects costs currently borne by the Sewer Enterprise Fund, therefore impacts for properties must consider both increased stormwater service charge and decrease in wastewater service charge to account appropriately for "impact." Impacts vary on type of property and relative proportion of Impervious Area to Wastewater Use.

<u>Single Family Residential Homeowners</u>

The following figure shows the distribution of single family residential properties in each Billing Unit. There are approximately 10,500 single family residential properties in Portland excluding all islands except for Peaks Island. For Single Family Residential properties, the average billing unit is 2. On average the monthly stormwater service charge for Single Family Residential properties is $12.00 less reductions to sewer charges.

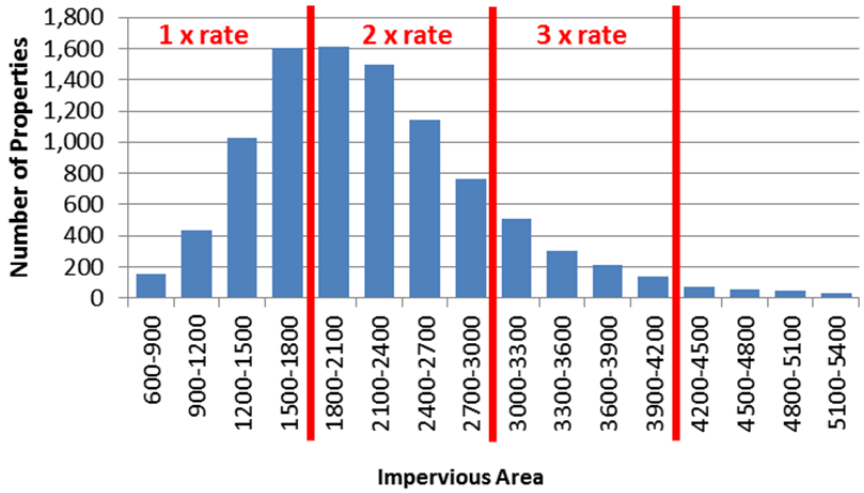


Figure 4: Distribution of the single family residential parcels in each proposed billing unit

The following is an example of the impact of stormwater and wastewater service charge to an average residential homeowner using average wastewater (5 HCF per month) and average IA of 2,200 sf or 2 Billing Units.

Table 2: Impact of stormwater and wastewater service charge to average residential homeowner.

Monthly Bills **WITH** Stormwater Service Charge	
Monthly Sewer Bill	$41.00
Monthly Stormwater Bill	$12.00
Total Monthly Stormwater and Sewer Bills	$53.00
Monthly Wastewater Bill WITHOUT Stormwater Service Charge	$48.50

Non-Single Family Residential Family Properties

The impact to other non-residential facilities is on a case-by-case basis and can be calculated using the stormwater billing units the City has on recording found using the Stormwater Look-up tool available on the City website. Knowing which properties are being reviewed and having access to water bills is essential to using the look-up.

Commercial property impacts, in general:

- **Residential Properties** will have **reduced costs** with the stormwater service charge. Exceptions are extremely low water users or properties with relatively high impervious area. Generally, fully occupied two-family, three-family, and four-family and above will have reduced costs with the stormwater service charge due to the footprint of the building of relatively similar size to single family residential and more water usage due to the occupancy of the building.

- **Downtown Properties** will generally have **reduced costs**. Exceptions are properties with relatively high impervious area properties such as properties exclusively parking lots.

- **Malls and other car oriented businesses** will generally have **increased costs** with the stormwater service charge.

- **Industrial food processing** properties will generally have **reduced costs**.

- **Warehouse** properties will generally have **increased costs**.

Highly Impacted Commercial Properties

There are an estimated total of 161 properties with estimated annual net change greater than $5,000 representing approximately 4% of non-residential properties. These properties will need special attention as the charge is implemented.

Table 3: Most Highly Impacted Commercial Properties

Net Increase Greater Than…	Previously Charged for Sewer Services	Not Previously Charged for Sewer Services	Total
$5,000	114	47	161
$10,000	41	13	54
$15,000	22	3	25
$20,000	13	2	15
$25,000	11	1	12
$30,000	6	1	7
$35,000	3	1	4
$40,000	1	1	1

Net Decrease Greater Than…	Previously Charged for Sewer Services	Not Previously Charged for Sewer Services	Total
$5,000	86	0	86
$10,000	43	0	43
$15,000	25	0	25
$20,000	18	0	18
$25,000	15	0	15
$30,000	12	0	12
$35,000	11	0	11
$40,000	11	0	11

City Properties

The City's estimated net increase is $365,000 per year. This net change includes the School Department. This net increase represents approximately $0.048 to the current year mil rate unless action is taken to reduce the city property's impact on the stormwater system such as applying for credits and reducing impervious area.

City of Portland Stormwater Program
Start-up Appropriation

8/13/2014

Staffing		
Account Clerk II (billing)	$	8,000
Cashier Clerk (collections)		8,000
Programmer Analyst		11,250
Assistant Engineer		25,000
Customer Service Representative		16,000
Overtime		2,000
Benefits		19,110
Total Wages and Benefits	$	89,360
Other		
Mail Sample Invoices	$	20,000
Misc. implementation costs		10,000
Contract engineering (help during sample billing period)		50,000
Outside Legal costs		50,000
Web based interface for payment		30,000
Office Modifications		30,000
supplies/equip		12,500
Total Other	$	202,500
Total Expenditures	$	291,860

Note: A total of 5.0 FTE added

City of Portland Stormwater Program
FY2016 Estimated Budget (6 months)

8/13/2014

Revenue			
Stormwater Billing Units	540,000		
Fee per Unit	$ 6.00		
Est revenue		$	3,240,000
Less Value of Credits at 12%			(388,800)
Less Uncollected est 9%			(289,043)
Excess Revenue (Over)Under Expenditures			(244,092)
Total Net Revenue		**$**	**2,318,065**
Expenditures			
Wages and Benefits		$	1,018,432
Stormwater Management			630,639
Indirect costs			69,575
Billing, lien costs			116,000
Software maint costs			1,500
Staff supplies, computers			2,151
Debt Service (includes new CIP and 50% new CSO)			187,908
Repayment to Sewer Fund for Start up expenses			291,860
Total Expenditures		**$**	**2,318,065**

City of Portland Stormwater Program
FY2017 Estimated Budget

8/13/2014

Revenue:			
Stormwater Billing Units	1,080,000		
Fee per Unit	$ 6.30		
Billable Revenue		$	6,804,000
Less Value of Credits at 12%			(816,480)
Less Uncollected fees at 8%			(544,320)
Excess Revenue (Over)Under Expenditures			(237,825)
Total Net Revenue		**$**	**5,205,375**
Expenditures			
Wages and Benefits		$	2,097,970
Stormwater Management			1,292,810
Indirect costs			143,325
Billing, lien costs			232,000
Software maint costs			3,000
Staff supplies, computers			4,300
Debt Service (includes new CIP and 50% new CSO)			1,431,971
Total Expenditure		**$**	**5,205,375**

City of Portland Stormwater Program
Estimated Budget - FY2016 thru FY2019

8/13/2014

	FY2016 (6 mos)	FY2017	FY2018	FY2019
Revenue				
Stormwater Billing Units	540,000	1,080,000	1,080,000	1,080,000
Fee per Unit	$ 6.00	$ 6.30	$ 7.20	$ 8.20
Total Billable Revenue	$ 3,240,000	$ 6,804,000	$ 7,776,000	$ 8,856,000
Less Estimated Credits	(388,800)	(816,480)	(933,120)	(1,062,720)
Less Allowance for Uncollected	(289,043)	(544,320)	(622,080)	(708,480)
Excess Revenue (Over)Under Expenditures	(244,092)	(237,825)	(270,950)	(271,455)
Total Net Revenue	**$ 2,318,065**	**$ 5,205,375**	**$ 5,949,850**	**$ 6,813,345**
Expenditures				
Wages and Benefits	$ 1,018,432	$ 2,097,970	2,150,419	2,204,180
Stormwater Management	630,639	1,292,810	1,325,130	1,358,258
Indirect costs	69,575	143,325	146,908	150,580
Billing, lien costs	116,000	232,000	240,120	248,524
Software maint costs	1,500	3,000	3,090	3,183
Staff supplies, computers	2,151	4,300	4,500	4,500
Debt Service	187,908	1,431,971	2,079,684	2,844,120
Repayment to Sewer Fund for Start up expenses	291,860	-	-	-
Total Expenditure	**$ 2,318,065**	**$ 5,205,375**	**$ 5,949,850**	**$ 6,813,345**

City of Portland Stormwater Program
Estimated Revenue Requirements and Rates - FY2015 thru FY2019

8/13/2014

	FY2015 app	FY2016 (Jul - Dec)	FY2016 (Jan - Jun)	FY2017	FY2018	FY2019
Revenue Requrements						
Sewer Fund (no Stormwater Charge)	24,189,023	13,076,332	13,076,332	29,356,607	32,057,447	35,986,795
Stormwater Fund	-	-	2,318,065	5,205,375	5,949,850	6,813,345
Adj Sewer Fund (with Stormwater Charge)	24,189,023	13,076,332	10,758,267	24,151,232	26,107,597	29,173,450
Estimated Rates						
Sewer Rate (no stormwater service charge)	$ 8.81	$ 9.70	$ 9.70	$ 11.10	$ 12.30	$ 13.90
With Stormwater Service Charge						
Sewer Rate	$ 8.81	$ 9.70	$ 8.20	$ 9.35	$ 10.25	$ 11.46
Stormwater Rate	$ -	$ -	$ 6.00	$ 6.30	$ 7.20	$ 8.20

JANUARY 2016 START

Stormwater Fee Program Implementation Schedule

Edited: July, 2014

August 21, 2014:

- Presentation to Finance Committee of ordinance, credit manual, and impacts
    - Notice public
    - Receive comments from Committee and public

September 2014:

- Continued review by Finance Committee
    - Bring additional information, based on August meeting
    - Refine ordinance and fee structure (if needed)
    - Make recommendation to City Council
    - Marketing/Outreach

October 2014:

- Finance Committee recommendation presented to City Council
- Council Workshop

November 2014:

- Council adoption of ordinance
    - Ordinance, appropriation, and budget, public hearing
    - Second public hearing

December - July 2015:

- Development of billing system
    - Final test GIS data for completeness, accuracy
    - Final test GIS data against land file for billing information
    - Set up sample accounts
    - Design bill layout
    - Test billing
    - Set up online system
    - Test on line access, communication, and payment process
    - Check payment posting and confirm reconciliation of accounts
    - Test delinquent account activity

April 2015:

- Council adopts first year rate with budget process

July 2015:

- Hire billing staff, train
- Hire engineering staff, train

August 2015

- Create and send sample bill (September 1)
- establish review process and period (by appointment or phone)

September/October 2015:

- Public makes appointments to review billing
    - Appointments by DPS/consultant
- Refines billing file

November 2015:

- Hire collections staff, train
- Check for land file updates

January 2016:

- Actual billing begins

CLEAN WATER equals CLEAN GROWTH

Stormwater Credit Manual

Stormwater Service Charge

CREDITS

City of Portland, Maine

Version 1.0
Last Updated: July 2014

Table of Contents

1.0 Introduction

1.1 Stormwater Mandate

The City of Portland Department of Public Services (DPS) is responsible for the operation and management of the publicly owned stormwater drainage system and the regulation of stormwater runoff from all developed properties in Portland. Its goals include both the protection of the quality of the surface and tidal waters in the Portland area and reduction of the risk of flood damage to citizens or property.

As such, it has construction and maintenance oversight for miles of storm drain pipes, drainage ditches, the combined sewer system or CSS (pipes that carry both sanitary sewage and stormwater runoff) and thousands of structures such as culverts, catch basins, stormwater management controls and water quality treatment facilities. The City is also responsible for the regulation of new development and redevelopment of properties within the City and for meeting State and Federal requirements regarding the quality of streams and tidal waters within the City's jurisdiction.

Raingardens - Bayside Trail

1.2 Stormwater Service Charge

Beginning in 2009, the City began a process of reviewing its stormwater program requirements and costs based on the condition of its stormwater system, combined sewer system, and the quality of its streams and tidal waters. A group of citizen stakeholders provided insight and guidance throughout the process. It was found that the stormwater management issues and costs the City is facing were real, growing and currently not fully addressed largely due to the lack of a dedicated funding source for stormwater management. This process defined an enhanced stormwater management program and identified a stormwater service charge as the most appropriate funding method. These efforts provided the basis for the City to modify Chapter 24 of its local Code of Ordinances to establish a stormwater service Charge:

> *The City Council is responsible for the protection and preservation of the public health, safety, and welfare of the community, and the environment and finds that it is in the best interest of the health, safety, and welfare of the citizens of the City and the community at large and the environment to provide stormwater services accounted for in the City budget as a separate enterprise fund dedicated solely to the provision of stormwater services and to institute funding methods associated therewith.*

Chapter 24, Article V of the Code of Ordinances, revised and approved by the City Council on date, provides for a stormwater service charge to be levied upon all developed land for the cost of providing stormwater services. The basis for this charge is the measured amount of impervious surface area on developed land, as determined by the City and defined in the ordinance and calculated as a monthly charge multiplied per one thousand two hundred (1,200) square feet of impervious area rounded to the nearest one thousand two hundred (1,200) square feet.

1.3 What is a stormwater credit?

A stormwater credit is a conditional reduction in the amount of a stormwater service charge to developed land based on the provision and continuing presence of an effectively maintained and approved on-site stormwater facility (structural control) that reduces the impact of the parcel's impervious area and thus the cost of providing service. The credit is applied only to the portion of a site's impervious area treated.

The structural control limits the impacts to the stormwater drainage system by reducing peak rates of runoff, total runoff volume, temperature, and/or removing pollutants. These measures can include on-site practices such as detention areas for flood control and other structural controls such as wet ponds, raingardens, and other approved designs that manage stormwater quality.

1.4 How can I earn a credit?

The credit structure is focused on structural controls that reduce the impact of development on the stormwater drainage system. Two broad categories of controls are recognized: water quality controls and flood controls. Credits are available for residential properties and non-residential ("other property"), as discussed below.

2.0 Residential Credit

Residential properties are defined as detached dwelling units, duplexes, triplexes and quadraplexes totaling four or fewer units on a property. More than four detached units on a property are considered non-residential for the purposes of stormwater credits.

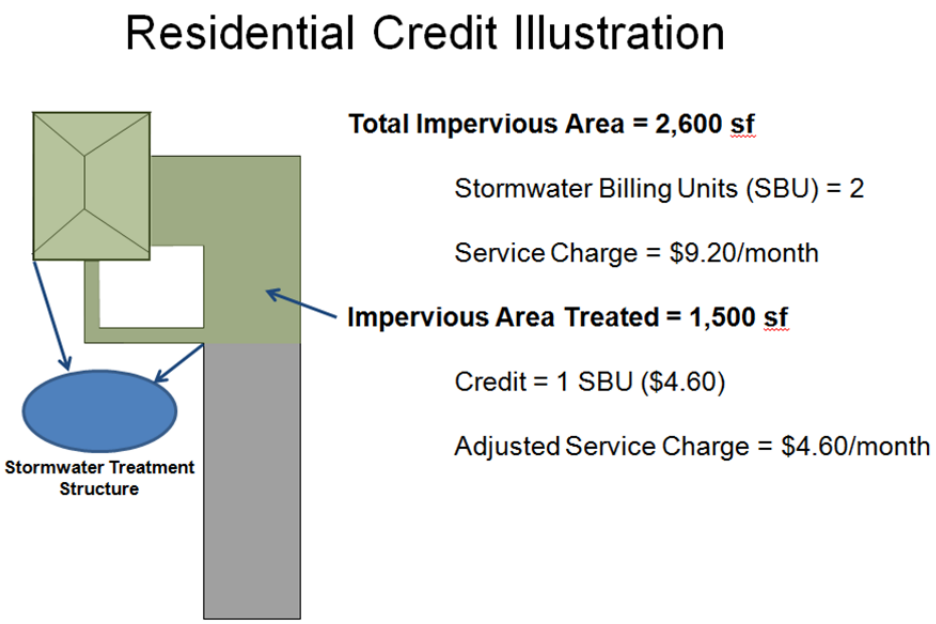
Residential properties have the option of entering the non-residential credit program to obtain a larger credit, but must meet all the requirements thereof with adequate documentation.

Residential Credit: A maximum water quality credit of 0.5 stormwater billing unit (SBU) is available for every whole increment of 600 sf of impervious area (IA) treated up to 1.0 SBU, as outlined in **Table 1** that meets or exceeds the following criteria:

1. The Credits options available to residential properties are:
   - ***Cisterns***;
   - ***Dry Wells***;
   - ***Modified French Drains***;
   - ***Permeable Pavers***; and
   - ***Rain Gardens***.
2. Credits can be combination or used alone up to the maximum obtainable credit. See the **Resdential Credit and Design Guide** for more information.
3. No flood control credit shall be applied to residential properties.

Table 1. Summary of Residential Credits

Stormwater Billing Units (SBU)	IA Treated	Maximum Available Credit
1 SBU = 400 - 1,799 sf	600 sf	0.5 SBU
2 SBU = 1,800 - 2,999 sf	1,200 sf	1.0 SBU
≥3 SBU = greater than 2,999 sf	1,200 sf	1.0 SBU



3.0 Stormwater Credits

The maximum credit that a developed property may receive is 100% of the stormwater service charge. Even if a property is eligible to receive a credit, a credit application must be filed with the City to receive that credit. Credits will not be automatically applied.

3.1 Basic Credits

A Basic Credit of 60% of the stormwater service charge is available to non-residential properties that use approved designs meeting the applicable sections of the Department of Environmental Protection Chapter 500 – Stormwater Management[1] and whose design comply with the current technical standards found in Section 5 of the City of Portland Technical Manual[2] or equivalent. The credit is broken into two parts:

- ***Basic Water Quality Credit***: 50% credit for water quality controls meeting the **General Standard** of the Department of Environmental Protection Chapter 500 – Stormwater Management.

- ***Basic Flood Reduction Control Credit***: 10% credit for flood reduction controls meeting the **Flooding Standard** of the Department of Environmental Protection Chapter 500 – Stormwater Management.

Tree Well Filter – University of Southern Maine

- ***Basic Flood Reduction Control Waiver Credit***: If a property meets the General Standard, and receives or obtains a waiver of the Flooding Standard, as defined in of the Department of Environmental Protection Chapter 500 – Stormwater Management AND discharges directly into a tidal water without flowing through an off-site, publicly-owned man-made conveyance or natural stream system, it will qualify for the normal full compliance Flooding Standard credit of 10% of the stormwater service charge without the need to construct a flood control structure.

3.2 Extra Credits

Additional credit of up to 40% is available for controls that *exceed* the standards in Section 5 of the current Technical Manual, making it possible to obtain up to a 100% total credit. Extra credit is broken into two parts:

[1] www.**maine**.gov/sos/cec/rules/06/096/096c**500**.doc
[2] http://www.portlandmaine.gov/documentcenter/view/2211

- ***Extra Water Quality Credit***: An additional 25% credit of the stormwater service charge is offered for retention and treatment meeting the General Standard but sized for the 95% storm for water quality control (1.6" of runoff).
- ***Extra Flood Reduction Control Credit***: An additional 15% credit of the stormwater service charge is offered for detention meeting the Flooding Standard but also sized for the 2-year through the 100-year storms for flood control where the post-development peak flow rate equals the pre-development peak flow rate for a standard pre-development condition of turf grass over the underlying Hydrologic Soil Group (HSG).

3.3 Minimum Standard Credits

Credits are available for older developments that utilize structural controls that met specific minimal standards in effect at the time of construction, but do not meet the standards in Section 5 of the *current* Technical Manual. These credits will be evaluated on a case by case basis. Minimum credit is broken into two parts:

- ***Minimum Water Quality Credit***: The minimal requirement to attain this credit is treatment with water quality structural controls that can attain the equivalent of 50% Total Suspended Solids (TSS) removal. Attainment of this minimum standard shall qualify for a 25% credit of the stormwater service charge.
- ***Minimum Flood Reduction Control Credit***: The minimal requirement to attain this credit is detention of the 2-year through 10-year storm events where the post-development peak flow rate equals the pre-development peak flow rate for a standard pre-development condition of turf grass over the underlying Hydrologic Soil Group (HSG). Attainment of this minimum standard shall qualify for a 5% credit of the stormwater service charge.

3.4 Other Credits

Credits are also available for properties that have installed stormwater controls on part of their site or are paying a fee to the Long Creek Watershed Management District. These credits are evaluated on a case-by-case basis. These credits are broken into two parts:

- ***Partial Site Control Credit***: Any property that has installed a stormwater control for a minimum of 600 square feet of impervious area can apply for a credit for the impervious area treated based on the requirements listed above regardless of whether the whole impervious area of the site is treated.
- ***Long Creek Watershed Credit***: Participating Landowners Owners of properties that pay a fee to the Long Creek Watershed Management District (LCWMD), known as Participating Landowners[3], will be credited on a dollar-for-dollar basis the sum of that fee against the stormwater service charge up to 100% of the service charge.

[3] Participating Landowners have a Participating Landowner Agreement (PLA) and Memorandum of Agreement (MOA) with the Long Creek Watershed Management District to comply with the "General Permit – Post Construction Discharge of Stormwater in the Long Creek Watershed", issued by the Maine Department of Environmental Protection on November 6, 2009. See http://www.restorelongcreek.org/index.htm for more information.

4.0 How to Apply

Applicants who are proposing to construct new systems to receive a credit for the stormwater service charge must follow all current local, state and federal design standards, regulatory review and permitting requirements.

4.1 Complete and Submit the Credit Application Form

All applicants must complete and submit a Credit Application Form found in **Section 7** (Residential Credit) and **Section 7** (Stormwater Credit) to the Department of Public Services (DPS.)

- ***Residential Credits***: To apply for a Residential Credit complete the Credit Application Form found in **Section 7**. For these credits, the submittal requirements are relaxed reflecting the generally smaller and more standard designs. As shown on the application form in **Section 7**, impervious area treated, location sketch, dimensions of the practice used demonstrating the volume capture, and photos, other clarifying details, right-of-entry for inspection agreement, and maintenance commitment statement are all that is needed.

  Although the residential credit is specific to a property, the residential credit is also specific to an owner. In the event that a property is transferred to another owner, the new owner will need to reapply of the residential credit to receive credit.

- ***Stormwater Credits***: To apply for Stormwater Credit complete the Credit Application Form found in **Section 7**. For these credits sufficient documentation must be provided using the application form in **Section 7** to furnish proof of all critical contributing impervious area, design dimensions and calculations. Chapter 500 documentation of original submittal and proof of maintenance through the periodic reports will normally suffice prepared by a certified professional. Alternately, original sets of plans plus certification and documentation that the current structure has been maintained as designed and built can be submitted. Where these are not available, new measurements, calculations and other documentation must be performed by a certified professional experienced in such designs.

  Although the stormwater credit is specific to a property, the stormwater credit is also specific to an owner. In the event that a property is transferred to another owner, the new owner will need to reapply of the stormwater credit to receive credit.

4.2 Administrative Review for Completeness

Once DPS has received your application, an administrative completeness review will be conducted. If the application is not complete, DPS will contact the applicant to request additional information within 30 days of receipt of the application. DPS is not responsible for performing calculations or measurements to certify the eligibility of the site and structure for credit. These are the responsibility of the applicant.

4.3 Credit Approval

Once a complete application has been received, the applicant will be notified in writing within 60 days of receipt of the application whether the credit has been approved or denied. The applicant can file an appeal if the application is denied.

5.0 Maintenance and Inspection

5.1 Required Annual Maintenance Reporting

Stormwater structural controls are only effective if they are maintained. So, once a credit is earned for that structural control, the credit will be continued as long as it is maintained and performing as planned. Annual documentation is required in order to continue receiving stormwater credits. Residential Credits are assumed to be maintained and functioning until deemed otherwise.

- ***Residential Credit***: These credits are assumed maintained and functioning until deemed otherwise. See Residential Credit and Design Guide for recommended maintenance activities that will ensure your stormwater control facility is functional for years to come.

  Although the residential credit is specific to a property, the residential credit is also specific to an owner. In the event that a property is transferred to another owner, the new owner will need to reapply of the residential credit to receive credit.

- ***Stormwater Credits***: The required reporting documentation and timing is described in Section 5 of the City of Portland Technical Manual, Appendix B - Section 4 and in Chapter 32 of the Code of Ordinances, Article III Post-Construction Stormwater Management.

  Although the stormwater credit is specific to a property, the stormwater credit is also specific to an owner. In the event that a property is transferred to another owner, the new owner will need to reapply of the stormwater credit to receive credit.

5.2 Right to Inspect

The City may request an inspection of the structural control on a property at any time, as granted by the applicant at the time of application for credit. The City reserves the right to suspend an existing credit upon inspection of a structural control that is found to be non-functioning, until such time that the property owner performs remedial actions and submits a renewal application for credit.

6.0 Residential Credit and Design Guide

Consult a professional for installation of any stormwater control practice. Be sure to follow all current local, state and federal design standards, regulatory review and permitting requirements.

6.1 Available Residential Credits

Design guidance is provided for the following residential structural controls that may be used to meet the retention and treatment criteria of the Residential Credit:

Cisterns

Drywells

Rain Gardens

Modified French Drains

Permeable Pavers

6.2 Sizing

Residential credits are obtained through the retention and treatment of the first inch of stormwater runoff from impervious area.

To qualify for the Residential Credit the combination of residential structural controls used must be designed to hold 1 inch or runoff from either 600 or 1,200 square feet of impervious area treated (rooftop, driveway, etc.). As calculated:

Stormwater Billing Units (SBU)	IA Treated	Volume of Runoff to Treat	Maximum Available Credit
1 SBU = 400 - 1,799 sf	600 sf	50 cubic feet	0.5 SBU
2 SBU = 1,800 - 2,999 sf	1,200 sf	100 cubic feet	1.0 SBU
≥3 SBU = greater than 2,999 sf	1,200 sf	100 cubic feet	1.0 SBU

It should be noted that the actual sizing of structural control may need to be modified from the designs provided in this guide if they are not sized to capture the first inch of runoff.

Cistern

Design Guidance

Cisterns are low impact development practices that store rainwater for later use. Rain is collected from a downspout system, screened to remove trash and leaves and conveyed to a storage container for subsequent use. Unless an advanced filtration system is used, water stored in the cistern is for non-potable water use only. If properly sized, they can provide significant reductions in stormwater runoff charges, volumes and pollutant loads from residential sites.

1,500 Gallon Cistern
Source: LID Urban Design Tools

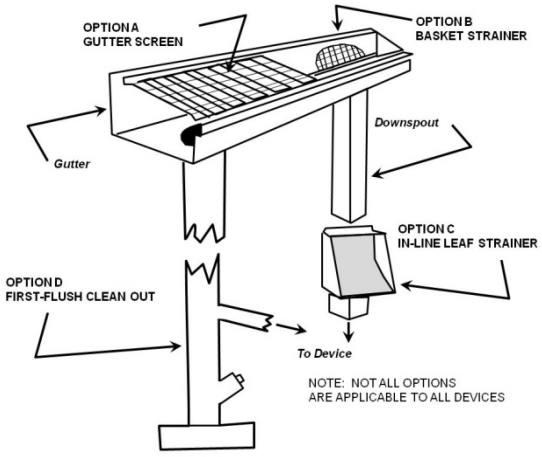
Location

- Consider the size of the contributing drainage areas, and projected water needs, to determine how large a storage tank is needed. Cisterns should drain only impervious areas – preferably rooftops.
- Pick a location keeping in mind: (1) ease in connecting roof drains, (2) overflow to downslope areas, (3) level area, (4) location relative to intended water uses, (5) other utility conflicts, (6) electrical connections if applicable, (7) residential emergency ingress/egress, (8) leaf screen option, (9) location of hoses or other water distribution components, and (10) aesthetic considerations.

Design

- Cistern capacity must be designed for a 1 inch storm. A good rule of thumb is that when sizing a cistern for the one inch rain standard, each square foot of rooftop will contribute 0.6 gallons of runoff. A one-hundred square foot roof surface will fill a 55 gallon barrel.
- If the cistern cannot hold the full inch one alternative is to divert overflow to another low impact development structure such as a rain garden.
- Measure contributing roof area width from the drip line of the overhang to the roof peak ignoring the slope, and the length. The width times the length in feet is the drainage area. Multiply that by 0.6 gallons and that is the size of the cistern you will need to fully meet the one-inch rainfall standard.
- All holding tanks should be opaque to prevent algae growth.

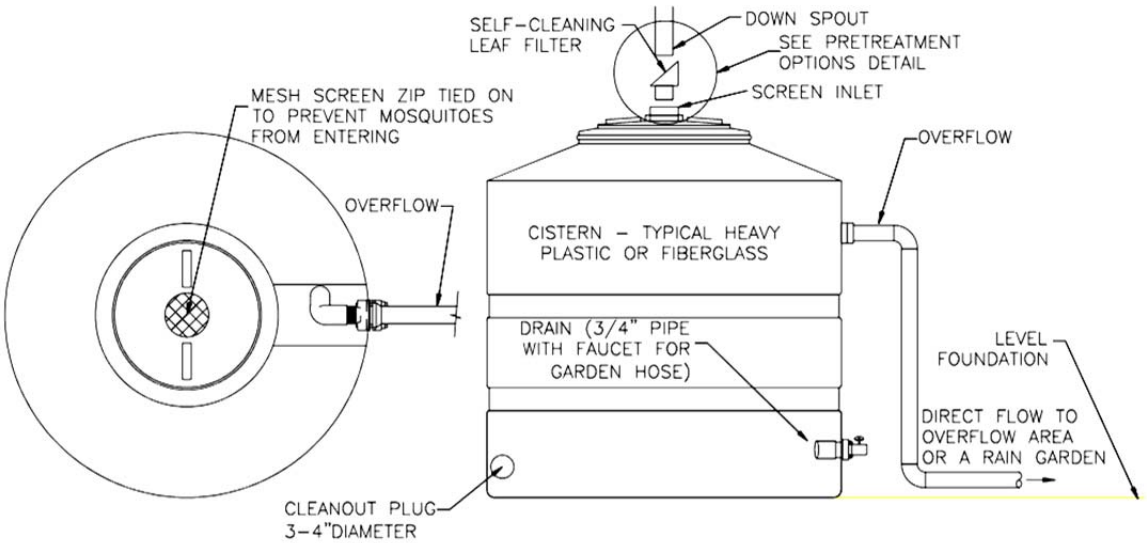
- Pretreatment of water entering the cistern will remove debris, dust, leaves, and other material. Pretreatment options are illustrated on the specification sheet. One or more options should be chosen.
- The cistern should have an overflow pipe so that when the tank reaches capacity, the rainwater will be directed away from adjacent buildings. More than one cistern can be linked to increase storage capacity.
- Drainage system components leading to the cistern should have a minimum slope of 2% for gravity drainage to the cistern.
- Gravity feed drip irrigation kits are available from several suppliers as well as complete instructions on how to design an irrigation system for the low pressure of a cistern system without a pump.



PRETREATMENT OPTIONS DETAIL

Maintenance

- To maintain the storage capacity of the cistern rainwater should be used regularly and a draw down plan initiated.
- Routine checks of the intake and leaf screening components should be done once in the spring and periodically during the fall if leaves fall on the contributing roof area.
- Insure mosquito screen is tight.
- Inspect and if necessary clean out tank annually by scrubbing and letting water drain through low flow plug.
- Check connections for leaks; and inspect overflow for erosion.

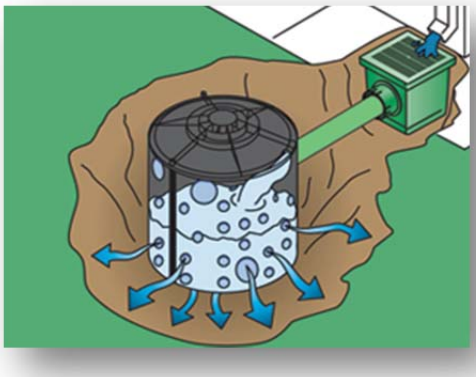


Typical Components

Drywell

Design Guidance

Dry wells are comprised of seepage tanks set in the ground and surrounded with stone that are designed to intercept and temporarily store stormwater runoff until it infiltrates into the soil. Alternately the pit can be filled with stone with water entering via a perforated pipe with a perforated standpipe in place of the tank.



Source: www.earthcontactproducts.com/

Dry wells are particularly well suited to receive rooftop runoff entering the tank via an inlet grate (shown right) or direct downspout connection (below right). When properly sized and laid out dry wells can provide significant reductions in stormwater runoff and pollutant loads.

Design

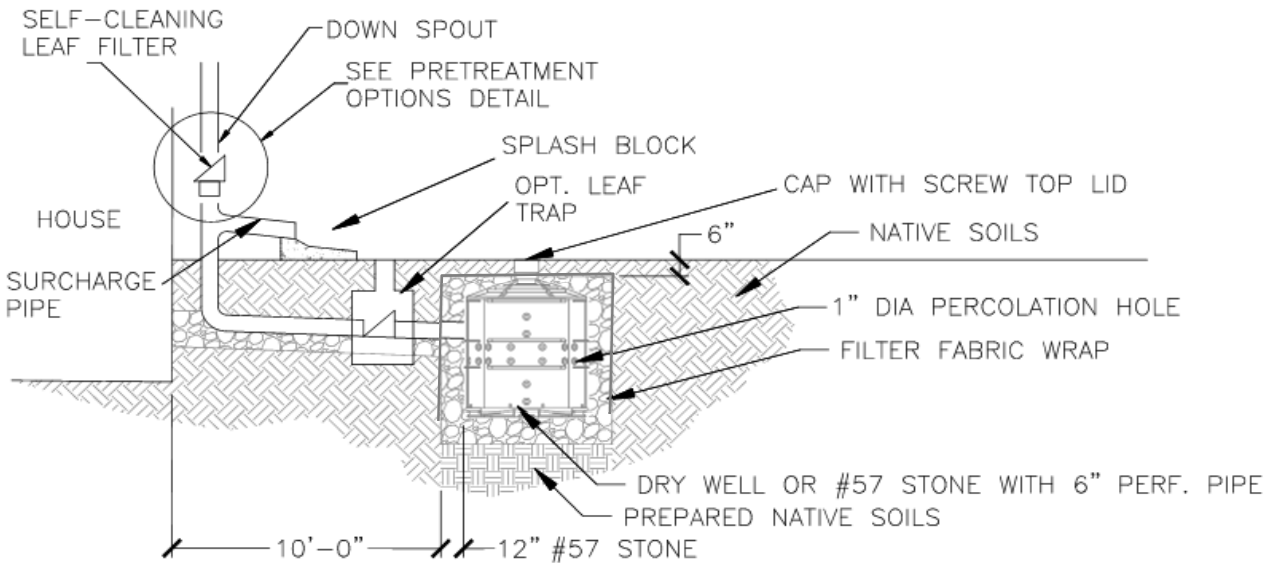
- Dry wells should be located at least 10 feet from building foundations.
- Drainage of driveways or other areas where vehicle fluids could be transported to the subsurface environment are not recommended.
- To reduce the chance of clogging, dry wells should drain only impervious areas, and runoff should be pretreated with at least one of the leaf removal options to remove debris and larger particles.
- The height of the tank should not exceed 45 inches unless infiltration testing has been done to insure a drain time of 72 hours or less.
- Dry wells should be located in a lawn or other pervious (unpaved) area and should be designed so that the top of the dry well is located as close to the surface as possible.
- Dry wells should not be located: (1) beneath an impervious (paved) surface; (2) above an area with a water table or bedrock less than two feet below the trench bottom; (3) over other utility lines; or, (4) above a septic field. Always call Dig Safe to locate utility lines before you dig.

Construction

- Consider the drainage area size and the soil infiltration rate when determining the size of the dry well, (see table below).
- The sides of the excavation should be trimmed of all large roots that will hamper the installation of the permeable drainage fabric used to line the sides and top of the dry well.
- The dry well hole should be excavated 1 foot deeper and two feet larger in diameter than the well to allow for a 12 inch stone fill jacket.

- The native soils along the bottom of the dry well should be scarified or tilled to a depth of 3 to 4 inches.
- Fill below and around dry well approximately 12 inches of clean, washed #57 stone. #57 stone averages ½ inch to 1-1/2 inches.
- Fill the final 6 inches of the excavation with native soil. Optionally pea gravel or #8 stone can be carried to the surface.
- For rooftop runoff, install a leaf screen in the gutter or down spout prior to entering the dry well to prevent leaves and other large debris from clogging the dry well. For non-rooftop runoff, precede dry well with an in ground sump grate inlet leaf trap.

- An overflow, such as a vegetated filter strip or grass channel, should be designed to convey the stormwater runoff generated by larger storm events safely bypassing the dry well.
- The optional design involves placement of a vertical standpipe connected to the inlet pipe. See figure below.



Typical Components

The table below can be used to size a dry well system. Given the tank height and diameter the contributing drainage area in square feet treated can be read. So, for example, if a 10 by 50 foot roof is to be treated the total roof area is 20*50 = 500 square feet. This could be handled by one tank 60” high, 30” diameter. It can also be handled by two tanks 30” high and 24” in diameter.

If you elect to measure infiltration rate and find it is higher than 0.5 in/hr length of the dry well size can be reduced. For every 0.5 in/hr increase in measured infiltration rate above 0.5 in/hr

Gravel Bed Depth (inches)	Tank Height (inches)	Tank Inside Diameter (inches)				
		24	30	36	42	48
		Contributing Area Captured (square feet)				
6	30	258	345	447	563	692
12	30	285	380	490	615	755
6	60	461	622	809	1022	1263
12	60	489	657	852	1075	1325

Hole Depth (inches)	6" Perforated Standpipe Gravel Filled Hole Diameter (inches)				
	24	30	36	42	48
	Contributing Area Captured (square feet)				
24	30	46	65	88	114
30	38	58	82	110	142
36	46	69	98	132	171
42	53	81	114	154	199
48	61	92	130	176	228
60	76	115	163	219	285

subtract ten percent of the required dry well size as measured in square feet captured. Note that infiltration rates in Portland are typically low due to the soil conditions.

Maintenance

Annual maintenance is important for dry wells, particularly in terms of ensuring that they continue to provide measurable stormwater management benefits over time.

- Inspect gutters and downspouts removing accumulated leaves and debris.
- Inspect dry well following rainfall events.
- If applicable, inspect pretreatment devices for sediment accumulation. Remove accumulated trash and debris.
- Inspect top layer of filter fabric for sediment accumulation. Remove and replace sediment accumulation if clogged.

Rain Garden

Design Guidance

Rain gardens are small, landscaped depressions that are filled with a mix of native soil and compost, and are planted with trees, shrubs and other garden-like vegetation. They are designed to temporarily store stormwater runoff from rooftops, driveways, patios and other areas around your home while reducing runoff rates and pollutant loads in your local watershed. A rain garden can be a beautiful and functional addition to your landscape.

Location

- Rain gardens should be located to receive the maximum amount of stormwater runoff from impervious surfaces, and where downspouts or driveway runoff can enter garden flowing away from the home.
- Swales, berms, or downspout extensions may be helpful to route runoff to the rain garden.
- Locate at least 10 feet from foundations, not within the public right of way, away from utility lines, not over septic fields, and not near a steep bluff edge. Call Dig Safe before you dig to locate the utility lines on your property.
- Rain gardens on steep slopes (>10%) may require an alternative design with terracing.

Design

- The size of the rain garden will vary depending on the impervious surface draining to it and the depth of the amended soils. Use the table to determine the required surface area.
- A maximum ponding depth of 6 inches is allowed within rain gardens. On average, rain gardens drain within a day which will not create a mosquito problem.
- Design rain garden entrance to immediately intercept inflow and reduce its velocity with stones, dense hardy vegetation or by other means such as a forebay.
- If sides are to be mowed rain gardens should be designed with side slopes of 3:1 (H:V) or flatter.
- Soils for rain gardens should be amended native soils containing: 2/3 native soils and 1/3 compost.
- A mulch layer consisting of 2-3 inches of non-floatable organic mulch (fine shredded hardwood mulch, pine straw, or leaf compost) should be included on the surface of the rain garden. Pine bark and wood chips should not be used.
- Often rain gardens have a better

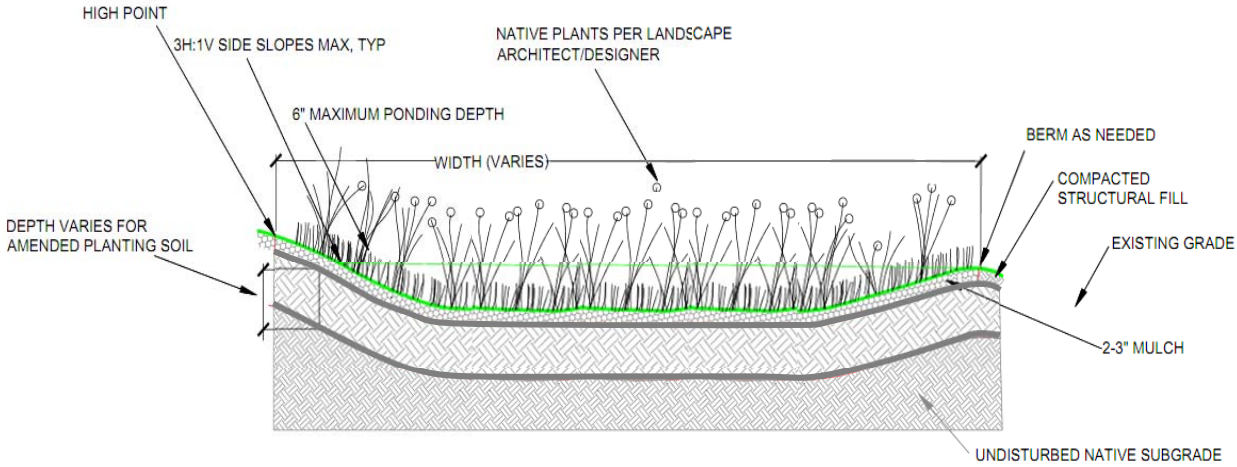
Contributing Drainage Area (square feet)	Depth of Amended Soil (inches)			
	18	24	30	36
	Area of Rain Garden (square feet)			
100	6.6	5.7	5.1	4.6
500	35	30	25	23
1000	65	60	50	45
2000	135	115	100	90
3000	200	170	150	140
4000	260	230	200	185
5000	330	290	255	230

appearance and can be more easily maintained if they have defined edges similar to a normal garden.

- The overflow from the rain garden should be non-eroding and can consist of a small berm or even an inlet grate set at the proper elevation in the garden. The grate should be set at a slant or be domed to allow clogging debris to fall off.

Vegetation

- Vegetation commonly planted in rain gardens includes native trees, shrubs and other herbaceous vegetation. When developing a landscaping plan, you should choose vegetation that will be able to stabilize soils and tolerate the stormwater runoff rates and volumes that will pass through the rain garden.
- Vegetation used in rain gardens should also be able to tolerate both wet and dry conditions.
- As with any garden in the first season the vegetation may require irrigation to become well established. It may be appropriate to plant more densely than a normal garden to obtain the benefit of plant soil stabilization and evapotranspiration as soon as possible.



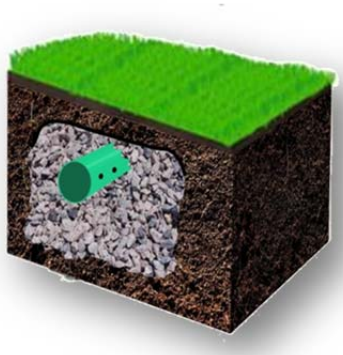
Maintenance

Routine garden maintenance should include weeding, deadheading, replacing dead plants, and replenishing mulch when depleted. Catching areas of erosion is also important as is correcting standing water problems. If standing water persists it may be necessary to place a perforated underdrain in the garden daylighting downstream.

Modified French Drain

Design Guidance

Modified French Drains (MFD) are shallow trench excavations filled with stone that are designed to intercept and temporarily store stormwater runoff until it infiltrates into the soil. MFDs can provide significant reductions in stormwater runoff and pollutant loads. They are particularly well suited to receive rooftop runoff, but can also be used to receive stormwater runoff from other small impervious areas. The perforated pipe is daylighted at its end allowing for overflow of larger storms and a failsafe mechanism should infiltration not be as anticipated.



Design

- MFD trenches should be located at least 5 feet from building foundations and 10 feet from buildings with basements. The top end of the MFD can be adjacent to the building to connect downspouts but should be directed away from the structure.

- MFDs should slope away from the structures. The slope of the MFD pipe should be between 0.5% and 6%. It can be serpentine or multi-pronged in construction if sufficient slope is available.
- To reduce the chance of clogging, MFDs should drain only impervious areas, and runoff should be pretreated with at least one of the leaf removal options to remove debris and larger particles.
- MFD gravel depths should be at least 18 inches and no more than 36 inches.
- MFDs should be located in a lawn or other pervious (unpaved) area and should be designed so that the top of the MFD is located as close to the surface as possible to reduce digging.
- MFDs should not be located: (1) beneath an impervious (paved) surface; (2) above an area with a water table or bedrock less than two feet below the trench bottom; (3) over other utility lines; or, (4) above a septic field. Always call Dig Safe to locate utility lines before you dig.
- The downstream end of the pipe must daylight for overflows more than ten feet from the property line.

Construction

- As a rule-of-thumb there should be about 23 cubic feet of stone for every 100 square feet of rooftop. The table provides MFD length requirements for different depths.
- The assumed width in the table is 24 inches. The width can be from 18 to 32 inches. Required lengths should be adjusted proportionately if other widths are used.

- The sides of the excavation should be trimmed of all large roots that will hamper the installation of the permeable drainage fabric used part way down the sides and above the gravel layer on top of the MFD.
- The native soils along the bottom of the MFD should be scarified or tilled to a depth of 3 to 4 inches.
- Fill the MFD with clean, washed #57 stone embedding a six inch diameter perforated pipe in the top of the stone such that the stone covers the top of the pipe. #57 stone averages ½ inch to 1-1/2 inches.
- The pipe should have 3/8 inch perforations, spaced 6 inches on center, and have a minimum slope of 0.5% and a maximum slope of 6%.

Rooftop Area (square feet)	Depth of Gravel From Top of Pipe (inches)			
	18	24	30	36
	Required Linear Feet of MFD			
100	6	5	4	3
500	30	25	20	15
1000	60	45	40	35
2000	120	95	75	65
3000	185	140	115	100
4000	245	190	155	130
5000	305	235	195	165

- The perforated pipe must daylight at the downstream end of the trench.
- An overflow, such as a grass channel, should be designed to convey the stormwater runoff generated by larger storm events safely out of the downstream end of the MFD.
- Place permeable landscape fabric over gravel to keep soil or pea gravel from migrating into the gravel and filling the pore spaces, and leave four to six inches above the pipe to the ground surface.
- Cover with top soil and sod or with pea gravel.
- For rooftop runoff, install one or more leaf screen options prior to entering the MFD to prevent leaves and other large debris from clogging the MFD. For driveway or parking runoff a screened inlet grate over a sump or pea gravel pit can be used to settle out material prior to entering the pipe.

Vegetation

- A MFD is normally covered with topsoil and managed turf or other herbaceous vegetation.
- As an alternative, the area above the surface of a MFD may be covered with pea gravel (or larger depending on the inflow rates) to allow for incidental lateral inflow along the edge of ground level impervious surfaces.
- The downstream end of the pipe must be stabilized and can be landscaped for aesthetics.

Maintenance

- Inspect gutters/downspouts removing accumulated leaves and debris, cleaning leaf removal system(s).
- Inspect any pretreatment devices for sediment accumulation. Remove accumulated trash and debris.
- Inspect MFD following a large rainfall event to insure overflow is operating and flow is not causing problems.

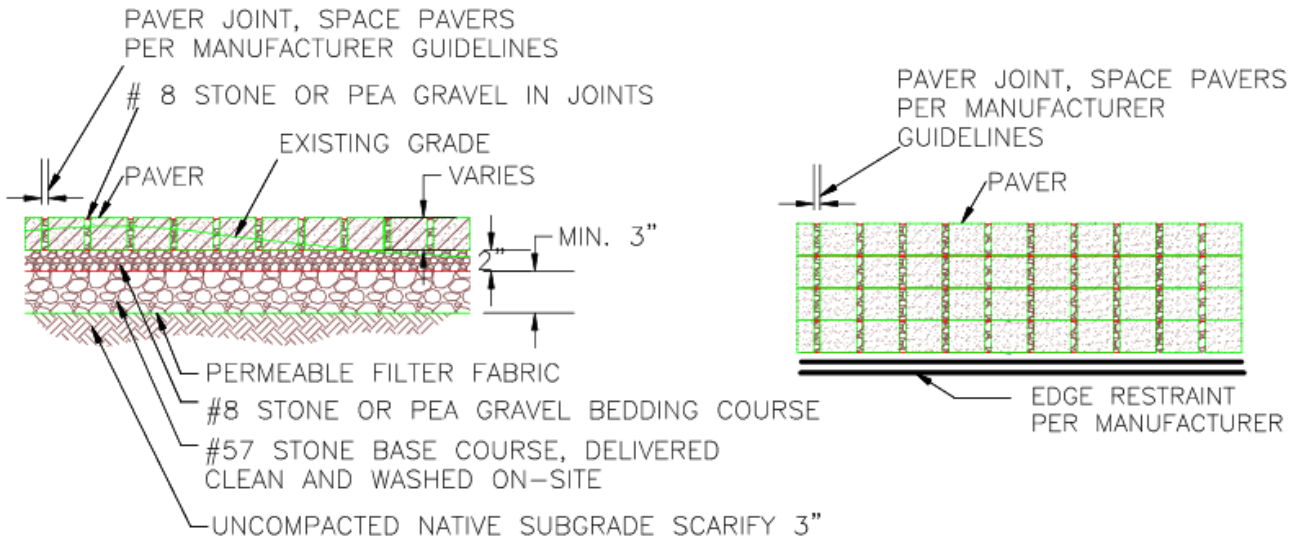
Permeable Pavers

Design Guidance

Permeable pavers are an alternative to traditional paving surfaces that can decrease stormwater runoff around your home. They are well suited for use when constructing sidewalks, parking areas, patios, and driveways. Permeable pavers consist of permeable interlocking or grid concrete pavers underlain by a drainage layer. A permeable paver system allows stormwater runoff to pass in between the paver surface and into an underlying stone reservoir, where it is temporarily stored and allowed to infiltrate into the underlying soils. Permeable pavers can provide significant reductions in stormwater runoff and pollutant loads in your watershed.

Design

- Maximum contributing drainage area ratio to surface area is 4:1.
- Permeable paver systems should be located at least 5 feet from building foundations and 10 feet from buildings with basements.
- Permeable pavers should not be located: (1) above an area with a water table or bedrock less than two feet below the gravel bottom; (2) over other utility lines; or, (3) above a septic field. Always call Dig Safe to locate utility lines before you dig.
- Permeable pavers should drain only impervious areas. Drainage from other areas onto the pavers will eventually clog them.
- The desirable soil infiltration rate suitable for a paver system is 0.50 inches per hour (in/hr) or greater. If there is concern due to tight soils when digging an infiltration test should be done. If the rate is less than 0.5 in/hr an underdrain leading to daylight should be provided. Professional assistance should be obtained in this case.
- Permeable paver systems should be installed on slopes less than 6% to help insure even distribution of runoff over the infiltration surface, and should slope away from structures.



Typical Components

Construction

The table at the right provides Permeable Paver area size requirements for different depths of the #57 stone layer. This stone averages in size from ½ inch to 1-1/2 inches.

Example: A roof top is 1000 square feet. For a stone depth of 8 inches the required area of permeable pavers 280 sq ft.

Contributing Drainage Area (square feet)	Depth of Lower Stone Storage Layer (inches)				
	3	4	5	6	8
	Area of Pavers (square feet)				
100	54	45	39	34	27
500	280	230	200	170	140
1000	550	460	390	340	280
2000	1090	910	780	680	550
3000	1630	1360	1170	1020	820
4000	2180	1810	1560	1360	1090
5000	2720	2270	1940	1700	1360

- Permeable paver systems require multiple layers. Manufacturer's instructions, if they exist, should be followed in lieu of these guidelines.
- The top course consists of the pavers and a crushed aggregate material swept between the paver joints, such as #8 stone or 1/8" to 3/8" pea gravel. The thickness of this layer varies depending upon the depth of the paver.
- The bedding course consists of 2 to 3 inches of #8 stone or 1/8" to 3/8" pea gravel. The bedding course provides a level bed for setting the pavers evenly.
- The aggregate base course consists of #57 stone, a minimum of 3 inches. The aggregate base course acts as a reservoir to provide stormwater storage capacity and must be compacted.
- As an option, a permeable drainage fabric can be used to separate the aggregate base course and the subgrade.
- The subgrade layer is the layer of native soils below the gravel and the permeable drainage fabric (if used). The subgrade soil layer should be prepared by scarifying or tilling to a depth of 3 to 4 inches.

Maintenance

Maintenance is very important for permeable pavers systems, particularly in terms of ensuring that they continue to provide measurable stormwater management benefits over time.

- Remove accumulated sediment and debris from joint space monthly.
- Observe the permeable paver system for excessive ponding during storm events and repair as needed.
- Vacuum, sweep, or blow permeable paver surface quarterly to keep the surface free of sediment. New #8 stone may need to be swept into the space between stones as needed.
- Inspect permeable paver surface for deterioration annually. Repair or replace any damaged areas as needed.

7.0 DRAFT Credit Application Forms

DRAFT Residential Credit Application Form

DRAFT Stormwater Credit Application Form

7.1 DRAFT Residential Credit Application

Applicant Information

Full Name: _____
Last First M.I.

Address: _____
Street Address Apartment/Unit #

_____
City State Zip Code

Phone: ( ) _____ Email Address: _____

Mailing Address: _____
(if different than property address)

Lead_CBL: _____

Credit Information

Check one:
- ☐ This is the first credit application for this property.
- ☐ This is a new credit request or reapplication.
- ☐ This is a reapplication after a credit suspension.

Type of Credit & Calculation

☐ Stormwater Quality Credit (0.5-1 SBU)

Type of structural control: _____

☐ Square footage of the impervious area treated: _____
Area treated must be at least 600 square feet.

☐ Location of the facility on the site and area treated (sketch attached)

☐ Other details as necessary per the design type

☐ Photos attached

Monthly Stormwater Service Charge: _____ Minus SBU Credit: _____

Adjusted Monthly Stormwater Service Charge: _____

Owner Certification

By signing below, I hereby certify that I own or live at the property subject to the stormwater service charge and I further declare, under penalty of perjury, that the information provided by me in this application is the truth to the best of my knowledge and belief.

_____
Signature

_____
Date

Version 1, February 2014

7.2 DRAFT Stormwater Credit Application Form

Applicant Information

Full Name: _____
Last First M.I.

Address: _____
Street Address Apartment/Unit #

_____
City State Zip Code

Phone: ( ) _____ Email Address: _____

Mailing Address: _____
(if different than property address)

Parcel ID Number _____

Credit Information

Check one:
☐ This is the first credit application for this property.
☐ This is a reapplication after a credit suspension or denial.

Type of Credit

☐ **Stormwater Quality Credit (25% up to 75%)**

Type of credit application: ☐Minimum (25%) ☐Basic (50%) ☐Basic + Extra (75%)

Type of structural control(s) utilized: _____

- ☐ Design Calculations included
  - ☐ Impervious area treated for each facility
  - ☐ Calculated Water Quality Volume
  - ☐ Design and sizing of facility to hold this volume
- ☐ Construction plans or as-built drawings included
  - ☐ Location of facility on the site
  - ☐ Other details as necessary per design type consistent with General Standards

☐ **Flood Reduction (Detention) Credit (5% up to 25%)**

Type of credit application: ☐Minimum (5%) ☐Basic or Waiver (10%)
☐Basic + Extra (25%)

- ☐ If Waiver, show site plan with discharge points of all off site flows and tidal waters
- ☐ Design Calculations included
  - ☐ Impervious + Non-Impervious area treated for each facility
  - ☐ Detailed calculation and demonstration of facility volume(s)
  - ☐ Calculations demonstrating peak flow reduction for design storm(s)
- ☐ Construction plans or as-built drawings included
  - ☐ Location of facility on the site
  - ☐ Discharge point(s) off site
  - ☐ Other details as necessary per design type consistent with Flooding Standard

Note: Include photographs of each Facility

Credit Calculation (use additional forms as needed)

Stormwater Service Charge ($/mo.): _____

Stormwater structural control #1:

Impervious area treated in SF (1A): _____
1,200 SF (1B) _____
% Credit for structural control #1 (1C): _____

Credit for SSC1:
(1A/1B*1C)*$4.60 = _____

Stormwater structural control #2:

Impervious area treated in SF (2A): _____
1,200 SF (2B) _____
% Credit for structural control #1 (2C): _____

Credit for SSC2:
(2A/2B*2C)*$4.60 = _____

Minus Subtotal of Credits ($/mo.): _____

Adjusted Stormwater Service Charge ($/mo.): _____

Example: 36,000 SF IA total site. 24,000 SF IA treated for the basic credit. Service charge = $138.00/mo.

Impervious area treated in SF (1A): 24,000
1,200 SF (1B)
% Credit for structural control #1 (1C): 60%

Credit for SSC1:
(1A/1B*1C)*$4.60 =
(24,000/1,200)*(60%)* ($4.60)= $55.20

Minus Total of Credits ($/mo.): **$55.20**
Adjusted Stormwater Service Charge ($/mo.): **$82.20**

Owner Certification

By signing below, I hereby certify that I own or live at the property subject to the stormwater service charge and I further declare, under penalty of perjury, that the information provided by me in this application is the truth to the best of my knowledge and belief. If the services of a certified professional were required/used their seal and/or signature is affixed to submitted information.

_____
Signature

_____
Date

Version 1, February 2014

Chapter 24 SEWERS*

***Cross reference(s)--**Buildings and building regulations, Ch. 6; disposal of wastes by food service establishments, § 11-26; land use, Ch. 14; streets, sidewalks and other public places, Ch. 25.

State law reference(s)--Sewers and drains, 30 M.R.S.A. § 4351 et seq.

ARTICLE I. IN GENERAL

Sec. 24-1. ~~Reserved.~~Purpose

The city is responsible for the health and safety of the public and maintaining over 300 miles of sewer line comprised of the sanitary sewer and storm sewer lines themselves, catch basins, manholes, detention ponds, underground waste water storage facilities, and sewer pump stations.

The city maintains a sewer system in order to convey domestic wastewater and stormwater runoff from private and public property for treatment at the Publicly Owned Treatment Works.

The city maintains a stormwater drainage system in order to convey stormwater runoff away from private and public property to minimize flooding, reduce pollution discharge to waters of the State of Maine, and to control erosion of streams and channels.

The city council finds that funding the comprehensive wastewater and stormwater programs to properly operate this infrastructure should be equitably paid for by properties making use of sewer and stormwater services provided by the city

according to costs incurred to provide those services.

Sec. 24-2. Definitions. ~~Reserved.~~

For the purposes of this chapter, all words shall have their normal meanings and such meanings as may be in common use in the field of wastewater treatment. Certain words are more particularly defined. For the purposes of this Chapter, the term:

Act shall mean the Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, U.S.C. § 1251 et seq., and the regulations promulgated thereunder, as amended from time to time.

Building drain shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste and other drainage pipes inside the walls of the building and conveys it to the building sewer, which begins eight (8) feet outside the outer face of the building wall.

Building sewer shall mean the extension from the building drain to the public sewer or other place of disposal.

Combined sewer shall mean a sewer conveying both stormwater and wastewater.

Discharge shall mean any spilling, leaking, pumping, pouring, emptying, dumping, disposing or other addition of pollutants

District shall mean the Portland Water District, a quasi-municipal corporation existing pursuant to Chapter 84 of the Private and Special Laws of Maine of 1975, as amended, with a business address of 225 Douglas Street, Portland, Maine.

Domestic wastewater shall mean the liquid wastes and liquid borne wastes discharged from the sanitary conveniences such as toilets, washrooms, urinals, sinks, showers, drinking fountains, home laundry rooms, kitchens, and floor drains essentially free of industrial wastes or toxic materials.

Industrial user shall mean a source of indirect discharge or any source which discharges industrial waste to the facility.

Industrial waste shall mean any liquid, gaseous, or solid waste substance, or a combination thereof, resulting from any process of industry, manufacturing, trade, or business or from the development or recovery of any natural resources.

Interceptor sewer shall mean a large sewer used to intercept a number of main or trunk sewers and convey wastewater and stormwater runoff to treatment or other disposal facilities.

National pollutant discharge elimination system or ***NPDES permit*** shall mean a permit issued pursuant to § 402 of the act, 33 USC § 1342, and M.R.S.A. Title 38, § 414-A.

Natural outlet shall mean any outlet into a watercourse, pond, ditch, lake or other body of surface or groundwater.

POTW (publicly owned treatment works) ("facility") shall mean the treatment works, as defined by § 212 of the act, operated by the Portland Water District. This definition includes any devices and systems used in the storage, treatment, recycling, disposal, and reclamation of wastewater consisting of domestic, commercial, municipal, and industrial wastes of a liquid nature. It also includes those sewers, pipes, pump stations and other conveyances which convey wastewater to the facility and may be owned by the city. For the purposes of this chapter, POTW shall also include any sewers that convey wastewater to the treatment works from persons who are, by permit, contract, or agreement with the city, users of the facility.

POTW treatment plant shall mean that portion of the facility designed to provide treatment (including recycling and reclamation) of wastewater, municipal wastewater, industrial waste, septage and holding water and other trucked-in wastes as allowed under the provisions of this article.

Private wastewater disposal system shall mean a treatment tank with the effluent discharging into a subsurface absorption area, or such other facilities as may be permitted under the procedures set forth in rules and regulations adopted by the state department of health and welfare pursuant to 22 M.R.S.A. § 42(3), and the city's plumbing code.

Private sewer system shall mean any sewer system within the city not owned by or constructed by a public authority.

Private wastewater treatment works shall mean all facilities other than private sewage disposal systems for treating and disposing of wastewater within the city not owned by a public authority. Private wastewater treatment works shall be distinct from private wastewater disposal systems as the effluent is discharged directly into surface water bodies. Private wastewater treatment works shall be licensed by the state department of environmental protection, in accordance with the provisions of 38 M.R.S.A. §§ 413, 414.

Public works authority shall mean the department of public services.

Public sewer shall mean a sewer directly owned, operated or controlled by the city or the Portland Water District.

Sanitary sewer shall mean a sewer, conveying either exclusively domestic wastewater and industrial waste or a sewer also conveying stormwater runoff together with ground and surface water that is not admitted intentionally.

Sewer shall mean a pipe or conduit for conveying liquid or liquid-carried waste.

Storm sewer shall mean a sewer for conveying stormwater runoff, groundwater, subsurface water, condensate, cooling water or other similar discharge but which excludes domestic wastewater and polluted industrial wastes.

Stormwater shall mean any stormwater runoff, snowmelt runoff, and surface runoff and drainage. "Storm water" shall have the same meaning as stormwater.

Stormwater drainage system shall mean any publicly owned or operated conveyance for stormwater, natural and human-made including, but not limited to, storm sewers, city and state roads including the Maine Turnpike and other physical works with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, culverts, human-made channels, swales, ditches, swamps, rivers, streams, creeks, brooks, reservoirs, ponds, drainage ways, inlets, pipes, head walls, lakes,

properties, and improvements which transfer, control, convey or otherwise influence the movement of stormwater runoff and its discharge to and impact upon receiving waters.

Stormwater services shall mean the program and maintenance activities as well as the pipe, conduits, or other conveyances or facilities provided by the city including but not limited to necessary programs, improvements, or maintenance required to meet national pollutant discharge elimination system (NPDES) permits the city may hold or other regulatory or court imposed obligations on the city, or general maintenance of pipes, conduits or other facilities improvements and other unforeseen improvements necessary to provide stormwater service to the city.

Wastewater shall mean a combination of the liquid and water-carried wastes from residences, commercial buildings, institutions and industrial establishments, together with such ground, surface, and stormwater as may be present.

Watercourse shall mean a channel in which a flow of water occurs, either continuously or intermittently on a natural basis.

Westbrook Inter-Municipal Sewer Service Area shall mean the Domestic and sanitary sewage and waste water from the Riverside Street/Warren Avenue/Forest Avenue vicinity of Portland as defined on the plan to the Rules and Regulations enacted by the Public Works Authority, and on file in the Department of Public ~~Works~~Services, intercepted by the District and delivered to the existing Westbrook Gorham Regional Treatment Plant for treatment.
(Ord. No. 263-96, 5-20-96; Ord. No. 97-03/04, 12-17-03)

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Cross reference(s)--Definitions and rules of construction generally, § 1-2.

Reference – Council Order 54-02/03 § An Order Authorizing Three-Party Sewer Service Agreement with Portland Water District and City of Westbrook).

Sec. 24-3. ~~Reserved~~Administration.

(a) The director of public services shall establish rules and regulations governing the availability and use of city

wastewater collection and treatment facilities and stormwater drainage system. The rules and regulations shall be consistent with federal law and ordinances. Said wastewater rules shall be enacted in conjunction with the Portland Water District prior to enactment.

(b) The rules shall be enacted in the same manner as the rules for solid waste disposal are promulgated, prescribed in section 12-105(b) and (b.1) of this Code, with the exception that the rules will go into effect twenty (20) days after enactment by the director unless stayed by action of the city council. Proposed rules shall be delivered to the council as a communication prior to enactment.
(Ord. No. 263-96, 5-20-96)

Sec. 24-4. Enforcement Agency.

The public works authority or the Portland Water District as agent for the city and at the request of the public works authority, shall administer and enforce the provisions of this chapter.
(Ord. No. 263-96, 5-20-96)

~~**Reserved.**~~

Sec. 24-5. Reserved.
Sec. 24-6. Reserved.
Sec. 24-7. Reserved.
Sec. 24-8. Reserved.
Sec. 24-9. Reserved.
Sec. 24-10. Reserved.
Sec. 24-11. Reserved.
Sec. 24-12. Reserved.
Sec. 24-13. Reserved.
Sec. 24-14. Reserved.
Sec. 24-15. Reserved.

ARTICLE II. SEWER CONSTRUCTION

Sec. 24-16. Accepted streets.

When any person owning property on an accepted street shall petition for the construction of a sewer in the street, such sewer may be constructed under one (1) of the following

arrangements at the option of the petitioner, subject to the approval of the public works authority:

(a) Upon authorization by the city council, ~~the~~a sewer shall be constructed by the city, the cost of a ~~sanitary, combined or interceptor~~ sewer to be recovered in part as hereinafter provided; or

(b) The petitioner may cause ~~the~~a sewer to be built to the specifications of the public works authority and under his or her supervision, with or without regard to competitive bids. Upon completion of ~~the~~a sewer, the city shall be reimbursed in full for its costs, including engineering and inspection, and ~~the~~a sewer shall be deeded to the city as a public sewer at no cost to the city.

(Code 1968, § 704.1; Ord. No. 101-81, §§ 1--3, 9-21-81)

Sec. 24-17. Dedicated streets.

When any person owning property on a street, which prior to July 7, 1948, has been dedicated, constructed and used for public travel but has not been accepted by the city, shall petition for the construction of a sewer in the street, such sewer may be constructed under one (1) of the following arrangements at the option of the petitioner, subject to the approval of the public works authority:

(a) Upon authorization by the city council, ~~the~~a sewer shall be constructed by the city, the cost ~~of~~ a ~~sanitary, combined or interceptor~~a sewer to be recovered in part as hereinafter provided; or

(b) The petitioner may cause ~~the~~a sewer to be built to the specifications of the public works authority and under his or her supervision, with or without regard to competitive bids. Upon completion of ~~the~~a sewer, the city shall be reimbursed in full for its costs, including engineering and inspection, and at such time as the street is accepted by the city, ~~the~~a sewer shall be deeded to the city as a public sewer at no cost to the city.

(Code 1968, § 704.2; Ord. No. 101-81, §§ 4, 5, 9-21-81)

Sec. 24-18. Initiative of city council.

The city council may, on its own initiative and without petition therefor, authorize construction by the city of ~~sewers~~a sewer in accepted and dedicated-but-unaccepted streets, the cost of a~~ sanitary, combined or interceptor~~ sewer to be recovered in part as hereinafter provided.
(Ord. No. 101-81, § 6, 9-21-81)

Sec. 24-19. Costs.

(a) A charge is hereby established for the connection heretofore or hereafter of any property to a ~~sanitary, combined or interceptor~~ sewer constructed by the city or the Portland Water District and completed on or after January 1, 1978. Such charge shall be due and payable upon application for a connection permit as provided in section 24-39, and except for connections made before November 15, 1981, shall be in lieu of all other charges related thereto, including the fee for the connection permit and street and sidewalk opening charges as provided in section 25-156, provided that connection is made in accordance with article III of this chapter. This section shall not apply to any property assessed for the cost of sewer construction according to law.

(b) For any such sewer completed heretofore, the charge shall be two hundred dollars ($200.00) per each sanitary sewer connection made heretofore or hereafter but before November 15, 1981, and one thousand dollars ($1,000.00) per each such connection made thereafter.

(c) For any such sewer completed hereafter, the charge shall be two thousand dollars ($2,000.00) per each such connection, provided that the city council may, from time to time, by order readjust the charge according to the then-prevailing cost of sewer construction and the anticipated number of such connections.
(Ord. No. 101-81, § 7, 9-21-81)

Cross reference(s)--Uniform procedure for collecting assessments, § 1-16.

Sec. 24-20. Reserved.
Sec. 24-21. Reserved.
Sec. 24-22. Reserved.

Sec. 24-23. Reserved.
Sec. 24-24. Reserved.
Sec. 24-25. Reserved.
Sec. 24-26. Reserved.
Sec. 24-27. Reserved.
Sec. 24-28. Reserved.
Sec. 24-29. Reserved.
Sec. 24-30. Reserved.

ARTICLE III. SEWER USE REGULATIONS*

***Editor's note--**Ord. No. 263-96, passed May 20, 1996, amended this article in its entirety, in effect repealing the former provisions and enacting similar new provisions as herein set out. Formerly, such provisions pertained to sewer use regulations, consisted of substantive §§ 24-31--24-60, and derived from §§ 309.1--309.29 of the 1968 Code, as amended by the following legislation:

Ord. No.	Sec.	Date	Ord. No.	Sec.	Date
13-76	--	10- 6-76	221-88	1	1- 4-88
154-79	--	3-19-79	228-88	1	2- 1-88
355-84	1--14, 16, 17	1- 4-84	77-91	--	8- 7-91
317-87	1	2- 2-87	37-93	--	7- 7-93

Sec. 24-31. Scope.

The provisions of this article shall apply to and govern all types of buildings requiring ~~sanitary~~wastewater facilities; the excavation, construction, installation, usage, maintenance, extension, alteration, repair or removal of any building sewer, building storm drain, sanitary sewer system, or storm drainage

or sewer system; the connection of building sewers and building storm ~~drains~~sewers to sanitary sewer systems~~,~~ and/or storm drainage systems or combined sewers; the types of wastes or wastewaters prohibited from public sewers and storm drainage systems; permitted and prohibited concentrations and strengths of wastewater; and situations in which use of a private sewage disposal system is permissible.
(Ord. No. 263-96, 5-20-96)

Sec. 24-32. Intent and purpose.

(a) It shall be the intent and purpose of this article to eliminate existing pollution, and to prevent further pollution caused by inadequate wastewater disposal, and to accomplish the necessary local legislation to meet the pollution abatement schedule for the Portland Regional Wastewater Plan established by the state and the federal government. All this is in furtherance of the health, welfare, comfort and convenience of the inhabitants of the city.

(b) Whereas the Portland Water District has been designated by state legislative action and local public referendum as the regional agency responsible for interception and wastewater treatment, and is the owner and operator of the POTW treatment plant, none of the provisions of this article shall be construed to repeal or otherwise interfere with the rights, duties or powers granted to the Portland Water District pursuant to Chapter 433 of the private and special laws of the State of Maine of 1907, as amended.
(Ord. No. 263-96, 5-20-96)

Sec. 24-33. Reserved.

Sec. 24-~~32.1. Administration~~34. Definitions.

~~(a) The director of the public works authority shall establish rules and regulations governing the availability and use of city wastewater collection and treatment facilities. The rules and regulations shall be consistent with federal law and ordinances. Said rules shall be enacted in conjunction with the Portland Water District prior to enactment.~~

~~(b) The rules shall be enacted in the same manner as the rules for solid waste disposal are promulgated, prescribed in~~

~~section 12-105(b) and (b.1) of this Code, with the exception that the rules will go into effect twenty (20) days after enactment by the director unless stayed by action of the city council. Proposed rules shall be delivered to the council as a communication prior to enactment.~~
~~(Ord. No. 263-96, 5-20-96)~~

~~Sec. **24-33. Enforcing officer.**~~

~~The public works authority or the Portland Water District as agent for the city and at the request of the public works authority, shall administer and enforce the provisions of this article.~~
~~(Ord. No. 263-96, 5-20-96)~~

~~Sec. 24-34. Definitions.~~

For the purposes of this article, all words not defined in section 24-2 shall have their normal meanings and such meanings as may be in common use in the field of sanitation and wastewater treatment. ~~Certain words are more particularly defined.~~ For the purposes of this article, the term:

~~***Act*** shall mean the Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, U.S.C. § 1251 et seq., 86 Stat. 816, PL 92-500 and the regulations promulgated thereunder, as amended from time to time.~~

B.O.D. (denoting biochemical oxygen demand) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at twenty (20) degrees Celsius, expressed in milligrams per liter.

~~***Building*** shall mean a structure built, erected and framed of component structural parts designed for the housing, shelter, enclosure or support of persons, animals or property of any kind.~~

~~***Building drain*** shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste and other drainage pipes inside the walls of the building and conveys it to the building sewer, which begins eight (8) feet outside the outer face of the~~

~~***Building sewer*** shall mean the extension from the building drain to the public sewer or other place of disposal.~~

Categorical industrial user shall mean an industrial user subject to national categorical pretreatment standards.

Caustic alkalinity (hydroxide alkalinity) shall mean a measure of the capacity of wastewater, which exhibits a pH of greater than or equal to 8.3, to neutralize acids.

~~***Combined sewer*** shall mean a sewer receiving both surface runoff and wastewater.~~

C.O.D. (chemical oxygen demand) shall mean the measure of the oxygen required for oxidation of the organic matter in a sample that can be oxidized by a strong chemical oxidizing agent under standard laboratory procedure.

~~***District*** shall mean the Portland Water District, a quasi-municipal corporation existing pursuant to Chapter 84 of the Private and Special Laws of Maine of 1975, as amended, with a business address of 225 Douglas Street, Portland, Maine.~~

~~***Domestic wastewater*** shall mean the liquid wastes and liquid borne wastes discharged from the sanitary conveniences such as toilets, washrooms, urinals, sinks, showers, drinking fountains, home laundry rooms, kitchens, and floor drains essentially free of industrial wastes or toxic materials.~~

F.O.G. shall mean the measure of fats, wax, grease and oils (other than petroleum based materials).

Garbage shall mean solid wastes from the domestic and commercial preparation, cooking, and dispensing of food and produce, and from the handling, storage and sale of food and produce.

Incompatible pollutant is defined as any pollutant other than biochemical oxygen demand, suspended solids, pH, and fecal coliform bacteria or additional pollutants identified in the POTW's NPDES permit to discharge, which the POTW was not designed to treat and does not remove to a substantial degree or

may be toxic to the POTW or receiving water.

~~***Industrial user*** shall mean a source of indirect discharge or any source which discharges industrial waste to the facility.~~

~~***Industrial waste*** shall mean any liquid, gaseous, or solid waste substance, or a combination thereof, resulting from any process of industry, manufacturing, trade, or business or from the development or recovery of any natural resources.~~

~~***Interceptor sewer*** shall mean a large sewer used to intercept a number of main or trunk sewers and convey wastewater to treatment or other disposal facilities.~~

Industrial user shall mean a source of indirect discharge or any source which discharges industrial waste to the facility.

Interference means a discharge which, alone or in conjunction with discharges from other sources, inhibits or disrupts the facility, its treatment processes or operations, or its sludge processes, use or disposal, and which is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or of the prevention of wastewater sludge use or disposal by the facility in accordance with applicable federal, state, or local statutes and regulations or permits issued thereunder, as set forth in 40 CFR § 403.3(i).

mg/l shall mean milligrams per liter.

National categorical pretreatment standard shall mean any regulations containing pollutant discharge limits promulgated by EPA in accordance with § 307(b) and (c) of the act, which apply to a specific category of industrial users and which are found in 40 CFR Chapter I, Subchapter N, Parts 405 through 471.

~~***National pollutant discharge elimination system*** or ***NPDES permit*** shall mean a permit issued pursuant to § 402 of the act, 33 USC § 1342, and M.R.S.A. Title 38, § 414-A.~~

~~***Natural outlet*** shall mean any outlet into a watercourse, pond, ditch, lake or other body of surface or groundwater.~~

pH shall mean the logarithm (base 10) of the reciprocal of the

concentration of hydrogen ions in a solution expressed as standards units.

~~***POTW (publicly owned treatment works) ("facility")*** shall mean the treatment works, as defined by § 212 of the act, operated by the Portland Water District. This definition includes any devices and systems used in the storage, treatment, recycling, disposal, and reclamation of wastewater consisting of domestic, commercial, municipal, and industrial wastes of a liquid nature. It also includes those sewers, pipes, pump stations and other conveyances which convey wastewater to the facility and may be owned by the city. For the purposes of this article, POTW shall also include any sewers that convey wastewater to the treatment works from persons who are, by permit, contract, or agreement with the city, users of the facility.~~

~~***POTW treatment plant*** shall mean that portion of the facility designed to provide treatment (including recycling and reclamation) of wastewater, municipal wastewater, industrial waste, septage and holding water and other trucked-in wastes as allowed under the provisions of this article.~~

~~***Private wastewater disposal system*** shall mean a treatment tank with the effluent discharging into a subsurface absorption area, or such other facilities as may be permitted under the procedures set forth in rules and regulations adopted by the state department of health and welfare pursuant to 22 M.R.S.A. § 42(3), and the city's plumbing code.~~

~~***Private sewer system*** shall mean any sewer system within the city not owned by or being constructed by a public authority.~~

~~***Private wastewater treatment works*** shall mean all facilities other than private sewage disposal systems for treating and disposing of wastewater within the city not owned by a public authority. Private wastewater treatment works shall be distinct from private wastewater disposal systems as the effluent is discharged directly into surface water bodies. Private wastewater treatment works shall be licensed by the state department of environmental protection, in accordance with the provisions of 38 M.R.S.A. §§ 413, 414.~~

Properly shredded garbage shall mean the wastes from the

preparation, cooking and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half inch (1.27 centimeters) in any dimension.

~~***Public sewer*** shall mean a common sewer directly owned, operated or controlled by the city or the Portland Water District.~~

~~***Sanitary sewer*** shall mean a sewer that carries liquid and water-carried wastes from residences, commercial buildings, industrial plants and institutions together with minor quantities of ground, storm, and surface waters that are not admitted intentionally.~~

~~***Sewer*** shall mean a pipe or conduit for carrying wastewater.~~

Significant industrial user shall mean any industrial user subject to categorical pretreatment standards, and any other industrial user that discharges an average of twenty-five thousand (25,000) gallons per day or more of process wastewater to the facility (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process waste stream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the city on the basis that the industrial user has a reasonable potential for adversely affecting the facility's operation or for violating any pretreatment standard or requirement; provided, however, that upon a finding that an industrial user meeting the foregoing criteria has no reasonable potential for violating any pretreatment standard or requirement or for adversely affecting the facility's operation, the city may, at any time, upon its own initiative or in response to a petition received from an industrial user, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

Slug shall mean any discharge of nonroutine, episodic nature, including, but not limited to, an accidental spill, noncustomary batch discharge, or any discharge of wastewater which in concentration of any given constituent or in quantity of flow exceeds for any period of duration longer than fifteen

(15) minutes more than five (5) times the average twenty-four-hour concentration or flow rate during normal operation or which may adversely affect the POTW.

~~***Storm drain*** or ***storm sewer*** shall mean a sewer for conveying rainwater, groundwater, subsurface water, condensate, cooling water or other similar discharge but which excludes wastewater and polluted industrial wastes.~~

Total suspended solids (TSS) shall mean the total suspended matter that floats on the surface of, or is suspended in water, wastewater, or other liquids, and which is removable by laboratory filtration.

~~***Wastewater*** shall mean a combination of the liquid and the water-carried wastes from residences, commercial buildings, institutions and industrial establishments, together with such ground, surface and stormwaters as may be present.~~

~~***Watercourse*** shall mean a channel in which a flow of water occurs, either continuously or intermittently on a natural basis.~~

~~***Westbrook Inter-Municipal Sewer Service Area*** shall mean the Domestic and sanitary sewage and waste water from the Riverside Street/Warren Avenue/Forest Avenue vicinity of Portland as defined on the plan to the Rules and Regulations enacted by the Public Works Authority, and on file in the Department of Public Works, intercepted by the District and delivered to the existing Westbrook Gorham Regional Treatment Plant for treatment.~~
~~(Ord. No. 263-96, 5-20-96; Ord. No. 97-03/04, 12-17-03)~~

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~~**Cross reference(s)** - Definitions and rules of construction generally, § 1-2.~~

~~**Reference** - Council Order 54-02/03 § An Order Authorizing Three-Party Sewer Service Agreement with Portland Water District and City of Westbrook).~~

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Sec. 24-35. Sanitary facilities required.

Every building intended for human habitation, occupancy, employment, recreation or other purposes, situated within the

city shall be provided with suitable and sufficient sanitary facilities for the use of the occupants thereof, which facilities in character, number and method of installation shall comply with all health laws of the state, ordinances of the city, and rules and regulations of the state bureau of health so far as the same are compatible and not inconsistent.
(Ord. No. 263-96, 5-20-96)

Sec. 24-36. Connection to public sewer required.

The owner of any building used for human habitation, occupancy, employment, recreation or other purposes, situated within the city and abutting on any street, alley or right-of-way in which there is located a public sanitary, combined or interceptor sewer, is hereby required at his expense to connect the building ~~drainage system~~sewer in the most direct manner possible with the proper public sewer in accordance with the provisions of this article, provided that the public sewer is within two hundred (200) feet of the building (the two hundred (200) feet to be measured in such manner so as not to pass over any property owned privately by anyone other than the owner of the premises from which such measurement is being made). Any required compliance with this section shall be completed within one (1) year after the date of official notice to do so.
(Ord. No. 263-96, 5-20-96)

Sec. 24-37. Exception for private wastewater system.

Where the public sewer does not extend to within two hundred (200) feet distant from the nearest point of the building (measured as described in section 24-36), the public sewer shall, at such time, be classified as inaccessible with regard to such premises. Where the public sewers are inaccessible to premises, any building required to be provided with sanitary facilities under section 24-35 shall comply with the following:

(a) The owner may at his own expense connect with the public sewer even though the building is over two hundred (200) feet distant from the public sewer; or

(b) Where liquid-carried wastes or wastewater result, they shall discharge into a private wastewater disposal

system; or

(c) Where liquid-carried wastes or wastewater result, they shall discharge into a private wastewater treatment works.

(Ord. No. 263-96, 5-20-96)

Sec. 24-38. Private wastewater systems discontinued.

(a) At such time as a public sewer becomes accessible, as defined in section 24-36, to a property served by a private wastewater disposal system, direct connection shall be made to the public sewer by the owner of such property in compliance with this article within twelve (12) months of receipt of official notice to do so. At the time that direct connection to the public sewer is completed, use of the private wastewater disposal facilities shall have been discontinued. Such abandoned private wastewater disposal system shall be cleaned of sludge and waste materials and filled with clean bankrun gravel or dirt within thirty (30) days ~~of abandonment~~.

(b) The closing and filling of the private wastewater disposal system and the connection to the public sewer system shall be inspected by the public works authority. The fee for such inspection shall be a minimum of ten dollars ($10.00) per septic tank plus ten dollars ($10.00) per hour for all inspection time exceeding one (1) hour. The permit for the connection to the public sewer is the same as those required under sections 24-39 and 24-42.

(c) No such work may be approved unless notice is given to the public works authority sufficient to permit the inspector to be present at the filling of the private wastewater disposal system and the connection to the public sewer. No new sewer construction or sewer repair or reconstruction may be approved if backfilled and/or covered prior to inspection. No statement contained in this article shall be construed to interfere with any additional requirements that may be imposed by the ~~health authority~~city.

(Ord. No. 263-96, 5-20-96)

Sec. 24-39. Public sewer connection; permit; fee.

No person shall uncover, make any connections with or

openings into, alter or disturb either any public sewer or appurtenance thereof or any private sewer or appurtenance thereof without first obtaining a written permit from the public works authority or the Portland Water District, if required. The fee for such permit shall be fifty dollars ($50.00).
(Ord. No. 263-96, 5-20-96; Ord. No. 261-01/02, 5-20-02)

Sec. 24-40. Costs.

All costs and expense incidental to the installation, connection and maintenance of the building sewer shall be borne by the owner.
(Ord. No. 263-96, 5-20-96)

Sec. 24-41. Separate connections required.

A separate and independent building sewer shall be provided for every new building, and a separate connection shall be made for each building sewer. Old building sewers may be used in connection with new buildings only when they are found, on examination and test by the public works authority, to meet all requirements of this article.
(Ord. No. 263-96, 5-20-96)

Sec. 24-42. Defective building sewers to be repaired or replaced.

(a) Whenever any building drain or building sewer connected to the public sewers, or to a private sewer system connected to the public sewers is found to be defective, deteriorating or substandard, the owner of the building served by such building drain or sewer shall be served by the public works authority with written notice stating the nature of the defect and providing a fifteen (15) day period for the satisfactory repair or replacement of such building sewer and requiring the owner to make a new connection to the public sewer at the owner's expense.

(b) All work done pursuant to this section shall be inspected by the public works authority. The fee for such inspection shall be twenty-five dollars ($25.00~~), represented by the permit fee required under section 24-39.~~).

(c) *Failure to comply.* When a person to whom an order is

directed fails to fully comply within the fifteen (15) day period, it shall be lawful for the city to repair a building drain or building sewer which is located within the public right-of-way, and all costs thereof shall be charged to the owner thereof.

(d) ***Lien procedure.*** The public works authority shall keep an accurate account of the expense of the work under this article, and as soon as practicable after completion of such work, the city shall assess to the person(s) upon whom notice has been served pursuant to subsection (a) of this section their just cost thereof, and all assessments so made shall constitute a lien on the property to be enforced in the manner provided for the collection of sewer assessments within the city.
(Ord. No. 263-96, 5-20-96)

Cross reference(s)--Uniform procedure for collecting assessments, § 1-16.

Sec. 24-43. Methods of construction.

On all work done within the scope of this article, the size, slope, alignment and materials of construction of a building sewer, and the methods to be used in placing of the pipe, jointing, testing and backfilling the trench shall conform to the requirements of the public works authority's building sewer construction specifications. Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, wastewater carried by such building drain shall be lifted by a means subject to the approval of the public works authority and discharged to the building sewer.
(Ord. No. 263-96, 5-20-96)

Sec. 24-44. Public sewer connection limitations.

(a) No person shall make connection of sanitary ~~conveniences~~facilities such as toilets, washrooms, urinals, sinks, showers, drinking fountains, kitchens or laundry rooms, nor discharge or cause to be discharged any waste or domestic wastewater to a building's stormwater system or building storm drain which in turn is connected directly or indirectly to ~~a public~~the storm ~~drain~~drainage system.

(b) No person shall make connection of roof downspouts, foundation drains, sump pump, areaway drains or other sources of surface runoff or groundwater, nor discharge or cause to be discharged any stormwater, surface water, groundwater, roof runoff, subsurface drainage, uncontaminated cooling water, or unpolluted industrial process waters to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer.

(c) Stormwater~~ and all other unpolluted drainage~~ shall be discharged to such sewers as are specifically designated as combined sewers or storm sewers, or to a natural outlet approved by the public works authority. Industrial cooling water or unpolluted process waters may be discharged, on approval of the public works authority, to a storm sewer, combined sewer or a natural outlet.
(Ord. No. 263-96, 5-20-96)

Sec. 24-45. Connections to public sewer.

The connection of the building sewer into the public sewer shall be constructed in the following manner:

(a) The public works authority shall be notified in advance of the time when the connection is to be made. Such notice must be sufficient to permit the public works authority to inspect the building sewer during construction and to be present when the connection is made to the public sewer.

(b) In the case of new construction, domestic wastewater systems and stormwater drainage systems shall be kept separated from their connections to the proper city sewers.

(c) The building sewer shall be connected to the public sewer at the point designated by the public works authority.

(d) No building sewer connection constructed pursuant to this section can be approved if such sewer is backfilled and/or covered prior to inspection. No connection to the public sewer constructed pursuant to this section can be approved if such connection is

made other than in the presence of an inspector from the public works authority or the Portland Water District, as required. No such unapproved or unapprovable building sewer in the city may be used, and if the building served by such building sewer is occupied, the owner of such building will be held to be in violation of this section, with each day in which the violation continues deemed to be a separate violation.

(Ord. No. 263-96, 5-20-96)

Sec. 24-46. Sewer excavations.

(a) All excavations under this article within the public way shall be in accordance with article VII of chapter 25 of this Code.

(b) All excavations for sewer installation shall be made and maintained in compliance with the provisions of the construction safety rules and regulations of the state, applicable to excavation work.

(Ord. No. 263-96, 5-20-96)

Sec. 24-47. Prohibited wastes.

(a) No person shall discharge or cause to be discharged any waters or wastes prohibited by public works authority rule; or:

(1) Any noxious or malodorous gas or substance capable of creating a public nuisance.

(b) The public works authority may, if deemed necessary in his judgment, impose the following limitations on discharges of the following described waters or wastes to any public sewer or any part thereof:

(1) Any aluminum exceeding a concentration of 500 milligrams per liter;

(2) Any iron exceeding a concentration of 10 milligrams per liter;

(3) Any tin exceeding a concentration of 2 milligrams per

liter;

(4) Any fluorides exceeding a concentration of 100 milligrams per liter;

(5) Any phenols exceeding a concentration of 100 milligrams per liter;

(6) Any chlorides exceeding a concentration of 3,000 milligrams per liter;

(7) Any sulphates exceeding a concentration of 600 milligrams per liter;

(8) a. Any waters or wastes containing animal or vegetable based fats, wax, grease or oils, whether emulsified or not, in excess of 500 milligrams per liter or containing substances which may solidify or become viscous at temperatures between thirty-two (32) degrees and one hundred fifty (150) degrees Fahrenheit (zero (0) and sixty-five (65) degrees centigrade).

b. In the Westbrook Intermunicipal Sewer Service Area, any waters or wastes containing animal or vegetable based fats, wax, grease or oils, whether emulsified or not, in excess of 100 milligrams per liter or containing substances which may solidify or become viscous at temperature between thirty-two (32) degrees and one hundred fifty (150) degrees Fahrenheit (zero (0) and sixty-five (65) degrees centigrade).

c. Any waters or wastes containing hydrocarbon (nonpolar) based fats, wax, grease or oils, whether emulsified or not, in excess of 100 milligrams per liter or containing substances which may solidify or become viscous at temperatures between thirty-two (32) degrees and one hundred fifty (150) degrees Fahrenheit (zero (0) and sixty-five (65) degrees centigrade).

(Ord. No. 263-96, 5-20-96; Ord. No. 250-97, 4-9-97; Ord. No. 97-03/04, 12-17-03)

Sec. 24-48. Prohibited wastes permitted how; cost.

(a) If any waters or wastes are discharged, or are proposed to be discharged to the public sewers, which waters or wastes contain any of the substances or possess the characteristics listed in section 24-47, and which in the judgment of the public works authority may have a deleterious effect upon the wastewater works, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, the public works authority may:

(1) Reject the wastes;

(2) Require pretreatment to an acceptable condition for discharge to the public sewer as required by rule;

(3) Require control over the quantities and rates of discharge (flow equalization); and/or

(4) Require payment to cover the added cost of handling and treating the wastes.

(b) If the public works authority permits or requires pretreatment or waste flow equalization, the design and installation of the plants and equipment shall be subject to its review and approval subject to the provisions of the state plumbing code, and the provisions of this article

(c) Where preliminary treatment or flow equalizing facilities are provided for any water or wastes, the owner shall bear the cost and responsibility for installing and maintaining them in continuously satisfactory and effective operating condition, as determined by the public works authority.
(Ord. No. 263-96, 5-20-96)

Sec. 24-49. Separate systems required.

Any person discharging or causing to be discharged into any public sewer both domestic wastewater and industrial wastes from any building or premises shall install separate drainage systems for the domestic wastewater and industrial waste. The control manhole required by rule shall be installed in the industrial waste system; or where two (2) separate systems are required, the two (2) systems may be joined in the control manhole

provided that samples of each system can be sampled separately.
(Ord. No. 263-96, 5-20-96)

Sec. 24-50. Discharge permit.

(a) All categorical users and other dischargers of industrial wastes shall obtain a discharge permit from the public works authority as required by rule. New users shall obtain permits prior to any discharge. Applications and permits shall be in a form prescribed by the public works authority and shall be subject to an application fee of three hundred dollars ($300.00) per permit. Additionally, each permit shall be subject to an issuance fee which shall equal the direct and indirect costs of any previous advertisement of noncompliance and any other outside services which in the discretion of the public works authority are required in order to review and evaluate the application or to implement a pretreatment program for such permitted user.
(Ord. No. 263-96, 5-20-96)

Sec. 24-51. Public wastewater works not to be damaged.

No person shall break, damage, destroy, uncover, deface or tamper with any structure, appurtenance or equipment which is a part of the public ~~wastewater works~~sewer or stormwater drainage system.
(Ord. No. 263-96, 5-20-96)

Sec. 24-52. Right of entry.

The public works authority, or the Portland Water District as its agent, bearing proper credentials and identification, shall be permitted to enter upon all properties with sewer or ~~storm~~stormwater drainage systems connected to the public sewer and producing industrial or process wastes, at reasonable times and upon reasonable notice for the purpose of inspection, observation, measurement, sampling and testing or otherwise enforce the rule, including copying of reports and records relating to the industrial pretreatment program in accordance with the provisions of this article.
(Ord. No. 263-96, 5-20-96)

Sec. 24-53. Exclusion of industrial waste.

(a) The public works authority or the Portland Water

District shall have authority to temporarily exclude any industrial waste, whether pretreated or not, from the ~~municipal~~public sewers whenever, in its or their opinion, such action is necessary for the purpose of determining the effects of such wastes upon the sewers, wastewater ~~works~~system or wastewater treatment facilities.

(b) The public works authority or the Portland Water District shall notify the affected user prior to taking such actions and shall afford the user a reasonable time for response. The public works authority or the Portland Water District shall have the authority to take actions necessary to halt the discharge of pollutants from any user to the treatment works which reasonably appears to present an imminent endangerment to the health or welfare of persons or the POTW. Such actions shall be preceded by a notification, oral or written, to the user.
(Ord. No. 263-96, 5-20-96)

Sec. 24-54. Demolition of buildings.

(a) No building served by a building ~~drainage system, sanitary~~drain or ~~storm~~ sewer~~, or both,~~ which is connected to the public sewers or to a private sewer system connected to the public sewers, may be demolished prior to the termination of the building ~~and/or facility~~ sewer or drain at the ~~city~~public sewer under the inspection of the public works authority. The building sewer shall be terminated at the main, at the point designated by the public works authority.

(b) Notice of intent to demolish a building shall be given to the public works authority, by means of a copy of the application for a demolition permit from the building authority or by direct notice to the public works authority, in advance of the time when the building drain or sewer is to be terminated. No such demolition permit shall be issued until a drain termination permit has been issued by the public works authority and a copy thereof has been given to the building authority.

(c) The fee to terminate the building and/or facility sewer and/or drain system will be paid to the city in advance of the termination. The fee of two hundred fifty dollars ($250.00) per termination represents inspection fees and materials to terminate sewer service. Upon payment of this fee and approval

by the public works authority, the applicant shall be issued a sewer termination permit.

(d) Failure to give notice of intent to demolish a building to the public works authority, or to terminate the building drain prior to demolition thereof, or to obtain a permit therefor, shall be deemed a violation of this section, with each day in which the violation continues deemed to be a separate violation.

(e) All excavation for sewer service termination shall be made and maintained in compliance with all provisions of the construction safety rules and regulations of chapter 25, article VII of this Code.

(f) ***Violations.*** The property owner who fails to obtain a sewer termination permit and terminate the sewer or drain from the building to be demolished to the ~~city~~public sewer shall be guilty of an offense.

(g) ***Failure to comply.*** When a person to whom an order is directed fails to terminate a building sewer or drain within a ten-day period, it shall be lawful for the city to terminate the building sewer or drain. All city costs thereof shall be charged to the property owner.
(Ord. No. 263-96, 5-20-96)

Sec. 24-55. Written notice required.

Forty-five (45) days' written notice shall be given to the public works authority by any person proposing to:

(a) Substantially change the volume or character of pollutants over that being discharged into the treatment system at time of enactment of this article;

(b) Create a new discharge into the treatment system of pollutants from any source which would be a new source as defined in section 306 of the act if such a source were discharging pollutants elsewhere;

(c) Create a new discharge into the treatment system of pollutants from any source which would be subject to section 301 of the act if it were discharging such

pollutants elsewhere.
(Ord. No. 263-96, 5-20-96)

Sec. 24-56. Violations.

Any person failing to comply with or violating any provision of this article shall be served by the public works authority with written notice stating the nature of the failure or violation and providing a reasonable time limit for the satisfactory correction thereof. Such person shall, within the period of time stated in such notice, permanently cease or correct all such failures or violations. Any person who shall continue any failure or violation beyond the time limit required for compliance in any notice given pursuant to this section shall be guilty of an offense. Any person violating any of the provisions of this article shall be liable to the city and shall be assessed a civil penalty of a minimum of one thousand dollars ($1,000.00) per day for each violation of industrial pretreatment standards and requirements, and in addition, shall be liable for any expense, loss or damage occasioned by the city by reason of such violation~~.~~, including reasonable attorney's fees. The city may seek injunctive relief for the purposes of enforcing this article.
(Ord. No. 263-96, 5-20-96)

Sec. 24-57. Appeals.

(a) Whenever the person receiving written notice shall deem himself aggrieved by an order made by the public works authority, the person may file an appeal to the city manager within ten (10) days of the date of the written notice, and the person shall be afforded a hearing on the matter before the city manager or his designee, and unless by their authority the aggrieved order is revoked, such order shall remain in force and be forthwith complied with by the person.

(b) In cases of applicability or interpretation of this article, the city manager may revoke such order made by the public works authority.

(c) In cases where compliance with such order made by the public works authority would cause undue hardship, the city manager may extend the time limit of such order or they may permit exceptions to, or waive requirements of, or grant a

variance from the specific provisions of this article, subject always to the rule that the city manager shall give due consideration to the purposes of this article in eliminating existing pollution, preventing further pollution and promoting the public health, safety and welfare.
(Ord. No. 263-96, 5-20-96)

Sec. 24-58. Reserved.
Sec. 24-59. Reserved.
Sec. 24-60. Reserved.
Sec. 24-61. Reserved.
Sec. 24-62. Reserved.
Sec. 24-63. Reserved.
Sec. 24-64. Reserved.
Sec. 24-65. Reserved.
Sec. 24-66. Reserved.
Sec. 24-67. Reserved.
Sec. 24-68. Reserved.
Sec. 24-69. Reserved.
Sec. 24-70. Reserved.

ARTICLE IV. SANITARY SEWER ~~USE~~USER AND INDUSTRIAL PRE-TREATMENT CHARGES*

***Editor's note--**Ord. No. 263-96, passed May 20, 1996, amended this article in its entirety, in effect repealing the former provisions and enacting similar new provisions as herein set out. Formerly, such provisions pertained to sewer use charges, consisted of substantive §§ 24-71--24-78, and derived from §§ 322.1--322.3, 322.5--322.8 of the 1968 Code, as amended by the following legislation:

Ord. No.	Sec.	Date	Ord. No.	Sec.	Date
326-77	--	5-16-77	123-89	--	10- 2-89

420-77	--	7-18-77	259-90	--	2-21-90
284-78	--	5-15-78	79-91	--	8- 7-91
102-81	1, 3	9-21-81	88-92	1, 2	9- 9-92
476-82	1--3	4- 6-82	187-95	--	3- 6-95
523-83	1--3	6- 8-83	157-96	--	2- 5-96
17-88	--	6-20-88			

Sec. 24-71. Definitions.

Unless the context specifically provides otherwise, the meanings of terms used in this article, not defined elsewhere in this chapter shall be as follows:

Commercial unit shall mean any structure or portion of a structure from which wastewater or industrial waste is discharged, excepting only dwelling units as defined hereinafter and shall include industrial users. Commercial units owned by different entities within the same structure and sharing the same water meter shall be treated as one (1) commercial unit.

Dwelling unit shall mean one (1) or more rooms occupied or designed to be occupied by one (1) or more natural persons as a single housekeeping unit with sanitary facilities, other than a place of public accommodation as defined hereinafter, discharging only domestic wastewater and shall include each unit of ownership in any condominium. If the occupant or occupants of rooms fit the definition of a dwelling unit except for the fact that the occupants share sanitary facilities with an occupant or occupants of other rooms located within the same structure, the number of units in the structure shall be deemed to be the total number of toilets or urinals located within such structure.

Parcel of land shall mean any area of land shown on the assessor's maps on the April first last preceding the operative

date, located within the city, which is either connected in fact to a sewer within the city, or developed-but-unconnected to a sewer within the city, which sewer is nevertheless accessible to the area within the meaning of section 24-36.

Place of public accommodation shall mean any establishment having sanitary facilities located therein which gives or offers shelter or lodging to members of the general public, whether transient or long term and shall include but is not limited to hotels, motels, guest houses, hospitals, rest homes, nursing homes, inns, fraternity houses and dormitories.

Treatment facilities shall mean all wastewater treatment plants owned and operated by the Portland Water District or by the city.

Total organic carbon or TOC shall mean the determination of organic matter present by the measurement of carbon dioxide produced by pyrolysis measured in accordance with 40 CFR Part 136.

Volume of water shall mean the amount of water, estimated or measured, whichever is less, provided to the property by the Portland Water District during the previous period of the calendar year. This term shall include any amounts of water obtained from other sources whether or not water is also provided by the district.
(Ord. No. 263-96, 5-20-96)

Cross reference(s)--Definitions and rules of construction generally, § 1-2.

Sec. 24-72. ~~Sewer~~Sanitary sewer user charges.

(a) ***Applicability.*** There are levied upon all parcels of land charges for cost of treatment of wastewater and stormwater and for the operation and maintenance of the wastewater system.

(b) ***Billing.*** Bills for all charges under this article may be sent to the record owner, or to the person requesting water service. Bills shall be sent to each such owner or person every month, except that persons billed quarterly or seasonally by the Portland Water District for water service may be billed quarterly or seasonally for all charges under this article. All payments shall be credited against the oldest outstanding bill

sent to such owner or person. Any payments made to the Portland Water District or its agents, which do not indicate to which account they are to be applied, shall be applied as provided by contract between the city and the Portland Water District.

Bills shall contain an amount for sanitary sewer user charges, and if delinquent as provided in section 1-16 of this Code, shall include charges for interest to be computed in the same manner as provided for real estate taxes.

(c) ***Computation.*** The user charges shall be computed in accordance with the following schedule, as from time to time amended, which shall be sufficient to meet costs of the eligible purposes for which such charges may be used. User charges under this section for both dwelling units and commercial units billed for water used after July 1, 2011 the foregoing rate shall be eight dollars and eleven cents ($8.81) per hundred cubic feet of volume for connected parcels of land. The user charge for developed but unconnected parcels of land shall be one dollar and seventy-one cents ($1.71) per hundred cubic feet of volume. Each metered billing unit shall have a minimum charge of at least one hundred (100) cubic feet per month.

(d) ***Purposes for which charges may be used.*** Charges and assessments made under this article shall be used consistently with 33 U.S.C.A. § 1281 et seq., and applicable federal regulations for the following purposes:

(1) To defray the current expenses of operating and maintaining the wastewater system, including any assessment made by the Portland Water District;

(2) To pay the interest and repay the principal on any outstanding or future indebtedness of the city for construction of sewers heretofore or hereafter constructed within the city;

(3) To reimburse the city for the cost of computation, billing and enforcement of such charges.

(e) ***Collection.*** Charges assessed pursuant to this section shall be enforceable pursuant to section 1-16 of this Code.

(f) ***Disconnection for nonpayment of charges.*** The Portland

Water District shall disconnect sewer users with unpaid sanitary sewer ~~use~~user charges according to the same terms and procedures used to disconnect water users with unpaid water ~~use~~user charges.

(Ord. No. 263-96, 5-20-96; Ord. No. 88-97, 9-15-97; Ord. No. 118-01/02, 12-3-01; Ord. No. 249-02/03, 5-19-03, Ord. No. 31-03/04, 7-21-03(enacted as emergency); Ord. No. 218-03/04, 5-17-04; Ord. No. 249-04/05, 5-16-05, enacted as emergency; Ord. No. 244-07/08, 5-19-08; Ord. No. 265-08/09, 5-18-09; Ord. No. 225-09/10, 5-17-10; Ord. No. 227-10/11, 5-16-11)

Sec. 24-73. Industrial surcharges.

(a) ***Applicability.*** Each industrial user except those included in the Westbrook Inter-Municipal Sewer Service Agreement Area, shall be subject to surcharges in addition to any other treatment charge if the wastewater discharged by such user is determined by the public works authority, in accordance with 40 CFR Part 136, to exceed any of the following concentrations:

(1) BOD of two hundred fifty (250) mg/l; or COD, where indicated for specific wastewater and a correlation between BOD and COD is established in such wastewater; or TOC, where indicated for specific wastewater and a correlation is established between TOC and BOD in such wastewater;

(2) TSS content of three hundred (300) mg/l.

(b) ***Computation of surcharge for BOD.*** The surcharge for BOD shall reflect the cost of removing the excess BOD and shall be computed in accordance with the following formula:

$$\text{Surcharge for BOD} = (C_1 - 250\ \text{mg.l}) \times Q \times 8.34 \times S_1$$

Where C_1 = The concentration of BOD in mg/l

Q = The total volume of wastewater contributed during the billing period, in millions of gallons

8.34 = Conversion factor of gallons to pounds

S_1 = $0.1633 for each pound of BOD in dollars

(c) ***Computation of surcharge for TSS.*** The surcharge for TSS shall reflect the cost of removing the excess TSS and shall be computed in accordance with the following formula:

Surcharge for TSS = $(C_2 - 300 \text{ mg/l}) \times Q \times 8.34 \times S_2$

Where C_2 = The concentration of TSS in mg/l

Q = Total volume of wastewater contributed during the billing period, in millions of gallons

8.34 = Conversion factor of gallons to ~~—~~pounds

S_2 = $0.0817 for each pound of TSS in dollars

(d) Westbrook Inter-Municipal Sewer Service Agreement area may be surcharged for BOD and TSS, based on the cost of treatment at the Westbrook Gorham Regional Treatment Plant.

(e) ***Industrial surcharge fee.*** An industrial surcharge fee is hereby established for all permitted discharges from all permitted users at a rate of $0.0857 per hundred cubic feet of volume, provided that the city council may, from time to time, by order, readjust the surcharge fee according to the then prevailing cost of administering the industrial pretreatment program and the anticipated number of permitted users and anticipated volume to be surcharged.

(f) ***Appeals.*** Any person aggrieved by a determination of the public works authority made pursuant to this section may appeal such determination to the city manager, within thirty (30) days of notification of such determination. Such person may submit additional evidence and shall be heard orally by the manager or his deputy. The manager may modify the public works authority's determination if satisfied that the determination was erroneous, inconsistent with this chapter, or with applicable rules, regulations or grant requirements made pursuant to 33 U.S.C.A. c. 26. All determinations of the manager shall be rendered within a reasonable period of time, not to exceed ninety (90) days from the date of such hearing and shall be final.

(Ord. No. 263-96, 5-20-96; Ord. No.97-03/04, 11-17-03)

Sec. 24-74. Reserved.

Sec. 24-75. Volume measurements.

(a) ***Water volume measurements.*** Whenever in this article there is reference to volume of water, and the charges of such person are computed in whole or in part upon such volume of water, the use of such standard shall give the public works authority the right to require any person obtaining water from sources other than the Portland Water District to install and maintain at such person's own expense water meters of a type approved by the public works authority for the purpose of determining the volume of water obtained from their other sources and to report the volume of such water recorded by such meter to the public works authority. Following installation, such meter shall not be removed without the written permission of the public works authority.

(b) ***Wastewater volume.*** Devices for measuring the volume of wastewater discharged by a commercial or industrial user may be required by the public works authority if these volumes cannot be determined from the water volume records. Any person who is a commercial or industrial user may, at his option, install devices approved by the public works authority for the metering of wastewater and may have the charges based upon the volume of wastewater rather than upon water volume. All metering devices for determining the volume of wastewater shall be installed, owned and maintained by the person to be charged. Following approval and installation, such meters may not be removed without the consent of the public works authority and may be read by the public works authority at all reasonable times.

(c) ***Submetering of water volume.*** Any person who feels that recorded water records are not a reliable index of his discharge volume may install an additional water meter of a type approved by the public works authority to measure the volume of water which can be shown not to enter the sewerage system. The person installing such a meter shall immediately notify the public works authority of such installation and shall be responsible to the public works authority for reporting meter readings once every month. Such person shall be credited with the volume charges for the volume shown by such meter, which meter shall be accessible for reading by the city or its agents at all

reasonable times.

(d) ***Review.*** Any person subject to charges under this article may make a written request for review of such charges by the city manager as provided in section 1-16 of this Code. The city manager may review and modify such charges, to the extent that justice requires, upon affirmative proof by such person that:

(1) The volume of metered water consumed exceeds the volume of wastewater generated by the unit;

(2) The difference between the volume of water and of wastewater exceeds ten (10) percent of the metered water measurement;

(3) The amount of the difference can be established to a substantial certainty by reliable tests or is documented by reliable sources prepared for purposes unconnected with wastewater disposal; and

(4) Measurement by the measuring devices provided for in the preceding subsections is impossible or impractical.

(Ord. No. 263-96, 5-20-96; Ord. No. 37-09/10, 8-17-09~~; Ord. No. 155-12/13, 3-4-13~~)

Sec. 24-76. Assessments.

(a) ***Lien.*** All assessments upon a parcel of land made under this article shall create a lien for the benefit of the city.

(b) ***Reserved.***

(Ord. No. 263-96, 5-20-96)

Cross reference(s)--Uniform procedure for collecting assessments, § 1-16.

Sec. 24-77. Violations.

Any person violating the provisions of this article, other than the requirement of payment of charges or assessments, shall be guilty of an offense.

(Ord. No. 263-96, 5-20-96)

ARTICLE V. STORMWATER SERVICE CHARGES

Sec. 24-80. Purpose; Stormwater Service.

Stormwater services assist the city in meeting the regulatory obligations imposed by national pollutant discharge elimination system (NPDES) permits or other court orders or regulations promulgated from the act by reducing pollution and improving water quality within the city.

Stormwater services assist the city in protecting the public health, safety and welfare and the environment and providing stormwater services and regulation of the use thereof renders and/or results in both service and benefit to individual properties, property owners, business, citizens, and residents of the city and to all properties, property owners, businesses, citizens, and residents of the city concurrently and for the environment.

The area of impervious surface on each property is the most important factor influencing the cost of providing stormwater services by the city or to be provided by the city in the future, and the area of impervious surfaces on each property is therefore the most appropriate parameter for calculating a periodic stormwater service charge.

The City of Portland presently owns and operates storm sewers, combined sewers, and the stormwater drainage system, which have been developed over many years. The future usefulness of those existing services owned and operated by the city, and of additions and improvements thereto, rests on the ability of the city to effectively manage, protect, control, regulate, use, and enhance stormwater services in the city with the management of other water resources in the city. In order to do so, the city must have adequate and stable funding for its stormwater service operating needs and capital program.

Stormwater services are needed throughout the city because many of those areas are developed. While specific service and facility demands may differ from area to area at any given point in time, a stormwater service area encompassing all lands and water bodies within the city is consistent with the present and future needs of the community.

The provision of stormwater services in the city promotes an essential regulatory purpose by influencing where stormwater runoff flows and how it is managed, thereby reducing flooding, erosion and water pollution caused by stormwater runoff.

By mitigating the impact of stormwater runoff from developed properties, stormwater services provided by the city help minimize damage that would subject a parcel owner to civil liability.

The city council is responsible for the protection and preservation of the public health, safety, and welfare of the community, and the environment and finds that it is in the best interest of the health, safety, and welfare of the citizens of the city and the community at large and the environment to provide stormwater services accounted for in the city budget as a separate enterprise fund dedicated solely to the provision of stormwater services and to institute funding methods associated therewith.

In order to fully recover the cost of providing stormwater services a stormwater service charge is the most fair and reasonable means of apportioning the cost among developed land throughout the city.

Sec. 24-81. Definitions.

Unless the context specifically provides otherwise, the meanings of terms used in this article shall be as follows:

Credit shall mean a conditional reduction in the amount of a stormwater service charge to developed land based on the provision and continuing presence of an effectively maintained and operational approved on-site stormwater system or facility or other service or activity that reduces the cost of providing service.

Developed land shall mean property altered from its natural state by construction or installation of more than 400 square feet of impervious surfaces as defined in this chapter.

Exemption shall mean not applying to, or removing the application of the stormwater service charge from, a property.

No permanent exemption shall be granted based on taxable or non-taxable status or economic status of the property owner.

Impervious surfaces are those areas that prevent or impede the infiltration of stormwater into the soil as it entered in natural conditions prior to development. Impervious surfaces include, but are not limited to, rooftops, sidewalks, walkways, patio areas, driveways, parking lots, storage areas, compacted gravel surfaces, awnings and other fabric or plastic coverings, and other surfaces that prevent or impede the natural infiltration of stormwater runoff which existed prior to development.

Undeveloped land shall mean land in its unaltered natural state or which has been modified to such minimal degree as to have a hydrologic response comparable to land in an unaltered natural state shall be deemed undeveloped. Undeveloped land shall have less than or equal to 400 square feet of impervious surfaces as defined in this chapter consisting of limited pavement, asphalt, or compacted dirt or gravel surfaces or structures which create an impervious surface that would prevent infiltration of stormwater or cause stormwater to collect, concentrate, or flow in a manner materially different than that which would occur naturally.

Sec. 24-82. Authority and Establishment of the Stormwater Fund.

(a) Under the authority of the Maine Constitution, Article VIII, and Title 30-A M.R.S.A. § 3001, the city hereby establishes the stormwater service charge to fund stormwater services within the city. Such stormwater charges shall be maintained and accounted for separately in accordance with generally accepted accounting principles as determined by the city's finance director.

(b) Charges made under this article shall be used for the following purposes:

To defray the current expenses of stormwater services and a portion of the current expenses of the combined sewer system attributable to providing stormwater service;

To pay the interest and repay the principal on any

outstanding or future indebtedness of the city for construction of the storm drainage system and a portion of the combined sewer systems heretofore or hereafter constructed within the city similarly attributable to providing stormwater service;

To reimburse the city for the cost of computation, billing, and enforcement of such charges.

(c) The city manager will designate appropriate public works authority management and other personnel, including support as needed of personnel from other city departments such as finance, to provide stormwater services and to collect and account for the stormwater service charge imposed hereunder.

Sec. 24-83. Exemptions.

Exemptions from stormwater charges established under this article are not allowed, except as provided in this section. Exemptions shall be allowed for:

(a) All roads owned or maintained by the State of Maine, including the Maine Turnpike; and all accepted City roads and all roads maintained by the City; all private roads and ways serving more than two dwelling or structures, but not driveways; all public pedestrian walkways. However, parking lots, buildings, or other developed land within the right-of-ways shall not be exempt from storm water service charges;

(b) Undeveloped land;

(c) Railroad rights-of-way (tracks). However, railroad stations, maintenance buildings, or other developed land used for railroad purposes shall not be exempt from storm water service charges;

(d) Airport runways, taxiways and aprons upon which public and private aircraft operate;

(e) With the exception of Peaks Island all islands are exempted from the fee due to the limited services provided to the islands.

Sec. 24-84. Stormwater Service Charge.

(a) There is levied upon all developed land stormwater service charges for the cost of providing stormwater services. All developed land shall be charged $6.00 per month per one thousand two hundred (1,200) square feet of impervious surface area, rounded to the nearest one thousand two hundred (1,200) square feet of impervious surface area.

(b) The basis for this charge is the measured amount of impervious surface area on the developed land as determined by the city. This measured area may be updated from time to time at the discretion of the public works authority upon evidence of impervious surface area change or the availability of updated or more accurate information.

(c) Fees collected hereunder to fund stormwater services can also be supplemented by other revenues available to the city, including but not limited to state, federal, general and special city funds, and private grants and loans.

Sec. 24-85. Credits

(a) Owners of developed land may apply for and receive a voluntary stormwater service charge credit for approved stormwater credit systems or facilities. The director of the public works authority or his/her designee shall determine such approved stormwater systems and facilities and stormwater service charge credit amounts based on the technical requirements, design and performance standards contained in the city's stormwater credits manual, to be adopted by the director of the public works authority pursuant to this ordinance, as it may be updated or amended from time to time.

(b) It is the responsibility of the record owner to initiate and apply in writing for stormwater service charge credits, and to provide all necessary information with a letter requesting the credit. The department of public services is not responsible for initiating a credit application, performing engineering calculations, or otherwise assisting in the preparation of a request for a credit. Credits will only be applied if the requirements outlined in the city's stormwater credit manual are met including but not limited to completion of on-going maintenance, guaranteed right-of-entry for inspection,

and submittal of annual self-certification reports or other required reports as required per ordinance and rule.

(c) Credits will be applied to the stormwater service charge while stormwater facilities or management practices are functioning as approved by the city. If the approved practice or facility is not functioning as approved, or is terminated, the credit will be cancelled. Once the credit has been cancelled, the customer must reapply for the credit.

(d) The department of public services will only review complete credit requests. If approved, the credit will be applied to the first bill issued 30 days after the approval. Credits may be made retroactive, one calendar year from the date of the first billing period of the charge.

(e) A credit of up to one hundred percent (100%) of the stormwater service charge may be approved.

Sec. 24-86. Billing.

(a) All charges under this article shall be sent to the record owner of a given property. The record owner may request, subject to the approval of the director of the public works authority, that the full charge be billed to the owner's designated tenant. The director may direct billing to the tenant of the property if the tenant is currently billed for water and sanitary sewer charges. The record owner shall be liable for payment even if the stormwater service charges are billed to the tenant of the property.

(b) Condominiums shall have the full charge for the developed land equally divided among all condominium owners of developed land. The condominium owners may appeal the director in writing to adjust the fraction of the charge applied to each condominium owner. The director will require signed confirmation from each condominium owner of developed land that they approve the adjustment to the fraction of the charge applied.

(c) Bills shall contain an amount for stormwater service user charges, and if delinquent, as provided in section 1-16 of this Code, shall include charges for interest to be computed in the same manner as provided for real estate taxes and such delinquency may be collected by a civil action against the owner

and/or may result in a lien being placed on the property as specified in section 24-88.

Sec. 24-87. Right of appeal and adjustments.

(a) A record owner may request review of the amount of the stormwater service charge imposed on such owner by written request to the director of the public works authority within 30 calendar days of the date the customer receives the service charge bill.

(b) The owner must demonstrate the impervious surface area is less than the amount used in calculating the developed land's stormwater service charge. Factors that will be considered include the impervious surface area of the property.

(c) An owner must comply with all rules and procedures adopted by the director when submitting a request for appeal or adjustment of the stormwater service charge and must provide all necessary information to make a determination.

(d) The director of the public works authority or his/her designee shall review the service fee and issue a determination, in writing, within 30 calendar days.

(e) With a finding that the impervious surface area is less than the amount used to calculate the developed land's stormwater service charge, the sole remedy to the owner shall be re-calculation of the stormwater service charge based on the corrected impervious surface area. A finding that the impervious surface area is not less than the amount used to calculate the developed land's stormwater service charge shall be conclusive with respect to that property and shall remain effective unless the owner changes the impervious surface area of the property.

(f) An owner may appeal the director of the public works authority decision to the city manager or his/her designee within 30 days of the date of the decision. An owner may appeal a decision of the manager to a court of competent jurisdiction pursuant to the applicable Rules of Civil Procedure.

Sec. 24-88. Right of enforcement and violations.

(a) The director of the public works authority or his/her designee is the enforcement authority who shall administer, implement, and enforce the provisions of this article.

(b) It shall be unlawful for any person to violate or to fail to comply with the requirements of this article or its fees. Whenever the enforcement authority believes that a person has violated this article, the enforcement authority may enforce this article in accordance with 30-A M.R.S.A. § 4452.

(c) Any person who violates this article may also be subject to fines, penalties and orders for injunctive relief and shall be responsible for the city's attorneys' fees and costs, all in accordance with 30-A M.R.S.A. § 4452. Each day such violation continues shall constitute a separate violation. Moreover, any person who violates this article also shall be responsible for any and all fines, penalties, damages and costs, including, but not limited to attorneys' fees and costs, incurred by the city for violation of federal and state environmental laws and regulations caused by or related to that person's violation of this section; this responsibility shall be in addition to any penalties, fines or injunctive relief imposed under this section.

(d) Without limiting the foregoing, failure to comply with this article may also be enforced as a nuisance and be subject to an abatement action, in addition to, or alternatively to, the enforcement actions described above.

(e) ***Consent agreement.*** The enforcement authority, with the approval of corporation counsel and the city manager, may enter into a written consent agreement with the violator to address timely abatement of the violation(s) of this article for the purposes of eliminating violations of this article and of recovering fines, costs and fees without court action.

(f) Delinquent fees. Any owner that fails to pay the stormwater service charge when due shall be responsible for the amount of the unpaid service charge, interest on the unpaid amount, and attorneys' fees and other costs of collection. To the extent permitted by law, the fee, when overdue, including interest and penalties, is a lien on real property and may be collected in the same manner as a sewer user lien pursuant to state law. Delinquent amounts may also be collected by a civil

action against the person.

Sec. 24-89. Limitation of liability.

This article shall not be interpreted to mean that property subject to the charges established herein will always (or at any time) be free from stormwater flooding or flood damage, or that stormwater drainage systems capable of handling all storm events can be cost-effectively constructed, operated or maintained. Therefore the following limitations on liability, in addition to any other limitations or immunities existing in law, are set forth:

(1) It is the express intent of the city that this article will protect the public health, safety and welfare of properties and persons in general. However, this ordinance does not create any special duty or relationship with any individual person or specific property either within or outside the service area.

(2) The city shall not be held liable for flood damage or assessing and removing pollution sources, and reserves the right to assert all available immunities and defenses in any action seeking monetary compensation from the city, or its officers, agents or employees for alleged damages arising from alleged failure or breach of duties or relationship as may now exist or hereafter be created.

(3) The issuance of any permit, plan approval or inspection shall not constitute a warranty, express or implied, nor shall it afford the basis for any action seeking the imposition of monetary damages against the city or its officers, employees or agents.

(4) Operation of stormwater drainage systems located on private property or public property not owned by the city and for which there has been no public dedication of such systems and facilities for operation, maintenance and/or improvements of the system, shall be the legal responsibility of the property owner, except as may be affected by the laws of the State of Maine and the United States of America.

Sec. 24-90. Severability.

Each section of this ordinance is severable from all other sections. If any part of this ordinance is deemed invalid by a court or competent jurisdiction, remaining portions of the ordinance shall not be affected and shall continue in full force. Whenever this ordinance conflicts with any other ordinance of the city, State of Maine, or federal government, the stricter standard shall apply, except as limited by state or federal law.

Sec. 24-91. Reserved.
Sec. 24-92. Reserved.
Sec. 24-93. Reserved.
Sec. 24-94. Reserved.