2021 Stormwater Facility Credit Program (SFCP) Credit Calculator: For Facilities Built According to 2021 Seattle Code Requirements

Version: 07-23-21

Drainage Rate Tier:					Performance Factors					Facility Credit	
% Hard Surface Area Managed (see note 1)	WQ/FC Classification	Stormwater Facility Type			TSS Reduction	Runoff Volume Reduction	2-yr Peak Flow & Duration Reduction	25-yr Peak Flow Reduction	Weighted Performance Factor (see note 2)	Facility Credit (see note 3)	Adjusted Facility Credit (see note 4)
								Facility Credit Scaling Factor=		50%	
Water Quality (WQ) (see note 12) **Design Standard: Treatment of the water quality design storm volume or flow rate** **Basin types: Basins requiring basic, enhanced, or phosphorus treatment**				Weighting Factor=	60%	40%	0%	0%			
0%	WQ- Level 1	• Non-infiltrating bioretention • Biofiltration swale (basic, wet, continuous inflow, or compost amended) • Filter strip (basic or compost amended) • Media filter drain	• Basic or large sand filter basin • Sand filter vault • Linear sand filter • Wet pond • Wet vault	• Stormwater treatment wetland • Detention/wet pond • Detention/wet vault • Detention/stormwater wetland • Proprietary BMPs	81%	20%	NA	NA	57%	29%	0%
0%	WQ- Level 2	• Infiltration trench • Infiltrating bioretention • Permeable pavement facility	• Permeable pavement surface • Infiltration basin • Infiltration chamber	• Splashblock, trench, sheet flow, or concentrated flow dispersion meeting basic filter strip requirements	94%	94%	NA	NA	94%	47%	0%
Flow Control #1 (FC#1) - On-site Stormwater Management **Design Standard: On-site Performance Standard or On-site List Approach** **Basin types: All**				Weighting Factor=	15%	35%	40%	10%			
0%	FC#1- Level 1	• Single-family residential cistern • Perforated stub-out connection			13%	10%	11%	27%	13%	7%	0%
0%	FC#1- Level 2	• Vegetated roof • Non-infiltrating bioretention	• Rainwater harvesting (Runoff Volume Reduction of 25% or more, On-site List Category 4)		36%	15%	27%	41%	26%	13%	0%
0%	FC#1- Level 3	• Trench downspout dispersion • Sheet flow dispersion	• Concentrated flow dispersion • Splashblock downspout dispersion		91%	55%	86%	77%	75%	38%	0%
0%	FC#1- Level 4 (see note 13)	• Rain garden • Infiltrating bioretention	• Permeable pavement facility • Permeable pavement surface	• Rainwater harvesting (On-site Performance Standard, On-site List Category 2)	95%	90%	83%	27%	82%	41%	0%
0%	FC#1- Level 5	• Full dispersion • Infiltration trench	• Drywell		98%	93%	89%	51%	88%	44%	0%
Flow Control #2A (FC#2A) - Wetland Protection Method 1: Monitoring and Wetland Stage Modeling **Design Standard: Comply with I-C.4, Wetland Hydroperiod Protection, presented in Appendix I-C of Ecology's Stormwater Management Manual for Western Washington (Ecology 2019)** **Basin types: Wetlands**				Weighting Factor=	15%	30%	30%	25%			
0%	FC#2A- Level 1	• Vegetated roofs • Detention cistern • Detention vault	• Detention pipe • Detention pond (with impermeable liner)	• Detention/ wet pond • Detention/ wet vault • Detention/ stormwater wetland	55%	3%	46%	93%	46%	23%	0%
0%	FC#2A- Level 2	• Sheet flow dispersion • Concentrated flow dispersion	• Splashblock downspout dispersion • Trench downspout dispersion	• Permeable pavement facility • Permeable pavement surface	93%	81%	87%	37%	74%	37%	0%
0%	FC#2A- Level 3	• Infiltrating bioretention • Full dispersion • Infiltration trench	• Drywell • Infiltration chamber	• Infiltration basin • Rainwater harvesting	100%	100%	97%	75%	93%	47%	0%
Flow Control #2B (FC#2B) - Wetland Protection Method 2: Site Discharge Modeling **Design Standard: Total runoff volume within 20 percent of the pre-project volume during a single event and within 15 percent on a monthly basis** **Basin types: Wetlands**				Weighting Factor=	15%	30%	30%	25%			
0%	FC#2B- Level 1	• Vegetated roofs • Detention cistern • Detention vault	• Detention pipe • Detention pond (with impermeable liner)	• Detention/ wet pond • Detention/ wet vault • Detention/ stormwater wetland	55%	0%	57%	82%	46%	23%	0%
0%	FC#2B- Level 2	• Sheet flow dispersion • Concentrated flow dispersion	• Splashblock downspout dispersion • Trench downspout dispersion	• Permeable pavement facility • Permeable pavement surface	96%	84%	89%	38%	76%	38%	0%
0%	FC#2B- Level 3	• Infiltrating bioretention • Full dispersion • Infiltration trench	• Drywell • Infiltration chamber	• Infiltration basin • Rainwater harvesting	99%	99%	96%	61%	89%	45%	0%
Flow Control #3 (FC#3) - Pre-developed Forested **Design Standard: Match half 2-year to 50-year flow duration to forested condition** **Basin types: Creek basins**				Weighting Factor=	15%	30%	30%	25%			
0%	FC#3- Level 1	• Vegetated roofs • Detention cistern • Detention vault	• Detention pipe • Detention pond (with impermeable liner)	• Detention/ wet pond • Detention/ wet vault • Detention/ stormwater wetland	55%	3%	46%	93%	46%	23%	0%
0%	FC#3- Level 2	• Sheet flow dispersion • Concentrated flow dispersion	• Splashblock downspout dispersion • Trench downspout dispersion	• Permeable pavement facility • Permeable pavement surface	93%	81%	87%	37%	74%	37%	0%
0%	FC#3- Level 3	• Infiltrating bioretention • Full dispersion • Infiltration trench	• Drywell • Infiltration chamber	• Infiltration basin • Rainwater harvesting	100%	100%	97%	75%	93%	47%	0%
Flow Control #4 (FC#4) - Pre-developed Pasture **Design Standard: Match half 2-year to 2-year flow duration to pasture condition** **Basin types: Creek basins**				Weighting Factor=	15%	30%	30%	25%			
0%	FC#4- Level 1	• Vegetated roofs • Detention cistern • Detention vault	• Detention pipe • Detention pond (with impermeable liner)	• Detention/ wet pond • Detention/ wet vault • Detention/ stormwater wetland	55%	0%	57%	82%	46%	23%	0%
0%	FC#4- Level 2	• Sheet flow dispersion • Concentrated flow dispersion	• Splashblock downspout dispersion • Trench downspout dispersion	• Permeable pavement facility • Permeable pavement surface	96%	84%	89%	38%	76%	38%	0%
0%	FC#4- Level 3	• Infiltrating bioretention • Full dispersion • Infiltration trench	• Drywell • Infiltration chamber	• Infiltration basin • Rainwater harvesting	99%	99%	96%	61%	89%	45%	0%

Drainage Rate Tier:					Performance Factors					Facility Credit	
% Hard Surface Area Managed (see note 1)	WQ/FC Classification	Stormwater Facility Type			TSS Reduction	Runoff Volume Reduction	2-yr Peak Flow & Duration Reduction	25-yr Peak Flow Reduction	Weighted Performance Factor (see note 2)	Facility Credit (see note 3)	Adjusted Facility Credit (see note 4)
									Facility Credit Scaling Factor=	50%	
Flow Control #5 (FC#5) - Peak Control											
Design Standard: 2- and 25-year peak control											
Basin types: Public combined sewer, capacity-constrained, small lakes				Weighting=	0%	25%	40%	35%			
0%	FC#5- Level 1	• Detention cistern • Detention vault • Detention pipe	• Detention pond (with impermeable liner) • Detention/ wet pond • Detention/ wet vault	• Detention/ stormwater wetland • Vegetated roofs	NA	3%	94%	92%	71%	36%	0%
0%	FC#5- Level 2	• Sheet flow dispersion • Concentrated flow dispersion	• Splashblock downspout dispersion • Trench downspout dispersion	• Permeable pavement facility • Permeable pavement surface	NA	85%	85%	59%	76%	38%	0%
0%	FC#5- Level 3	• Infiltrating bioretention • Full dispersion • Infiltration trench	• Drywell • Infiltration chamber	• Infiltration basin • Rainwater harvesting	NA	99%	100%	89%	96%	48%	0%
										Total Adjusted Facility Credit	0.0%

Final Parcel Credit Calculation	
Total Facility Credit	0%
Drainage Rate Tier Multiplier (see note 5)	0%
Final Parcel Credit (see note 6)	**0%**

Notes:

1) For the water quality standard, enter PGHS treated as a percent of the total hard surface area. For the flow control standard(s), enter hard surface area managed as a percent of the total hard surface area.
2) The "Weighted Performance Factor" is the weighted average of the performance factors for a given facility and performance standard. "Weighting Factors" assign greater or lesser weight to each performance factor relative to the environmental priorities for the type of basin in which the project is located.
3) The "Facility Credit" is the "Weighted Performance Factor" multiplied by the Facility Credit Scaling Factor of 50%.
4) The "Adjusted Facility Credit" is the "Facility Credit" multiplied by the "% Hard Surface Managed" by the facility.
5) The "Drainage Rate Tier Multiplier" is the percentage of the customer's bill attributable to hard surface area runoff. Credit is only offered for runoff managed which originates on hard surface.
6) The "Final Parcel Credit" is the "Drainage Rate Tier Multiplier" multiplied by the sum of a property's "Adjusted Facility Credits" (i.e., the "Total Adjusted Facility Credit"). The final parcel credit is capped at 50%. The "Final Parcel Credit" is the credit percentage applied to the customer bill.
7) Fractional credits are not offered - no credit will be offered for credits that are calculated to round to less than 1%.
8) Applicable standards will depend on project type, size, and drainage basin (see Volume 1, Chapters 4 and 5).
9) TSS is used as an indicator of water quality treatment; Volume is used as an indicator of volume reduction via infiltration or reuse.
10) If multiple flow control standards apply to a project, the largest applicable credit is applied (e.g., if an area is mitigated for FC#1, FC#4 and FC#5, enter the % hard surface managed under the flow control standard that provides the highest credit for the facility used).
11) If both flow control and water quality standards apply to a project, credit will be given for both (e.g., if an area meets both treatment and flow control standards, enter the % hard surface managed under both the water quality and flow control standards - the resulting "% Hard Surface Managed" may exceed 100%).
12) Landscape Management Plan areas do not receive Water Quality treatment credit because no stormwater facility is installed.
13) Sidewalk/Trail Compost-Amended Strip does not receive On-site Stormwater Management credit because it is not a facility and is equivalent to soil amendment required for all projects.

Drainage Rate Category		% Impervious or Parcel Area	Drainage Rate Tier	Drainage Rate Tier Multiplier (see note 5)
General Service/Large Residential	Undeveloped-Regular	0-15%	G1	30%
	Undeveloped-Low Impact	0-15%	G1L	23%
	Light-Regular	16-35%	G2	63%
	Light-Low Impact	16-35%	G2L	62%
	Moderate-Regular	36-65%	G3	83%
	Moderate-Low Impact	36-65%	G3L	79%
	Heavy	66-85%	G4	93%
	Very Heavy	86-100%	G5	99%
Small Residential		<2,000 sq ft	R1a	85%
		2,000-2,999 sq ft	R1b	84%
		3,000-4,999 sq ft	R2	79%
		5,000-6,999 sq ft	R3	78%
		7,000-9,999 sq ft	R4	74%

Color Key:

20%	**Customer/applicant data entry (Drainage Rate Tier and % impervious or PGHS area managed).**
10%	**Stormwater Facility Credit**
Tier/%	**Lookup Table to convert impervious area impacts of facility to composite Rate Credit Percentage.**
15%	**Rate Credit that will appear on and modify bills, reflecting stormwater facilities and Rate Tier.**