Attachment A - Table 2. Stormwater Facility Credit Calculator: For facilities built according to 2009 Code requirements.
Single and multiple BMP technologies, with credits for specific rate tiers.

Rate Tier:				Performance Factors					Maximum Facility Credit		50%	
% Impervious Surface Managed	BMP Type	WQ/FC Classification	Stormwater Facility Type	TSS	Volume	2-yr Peak & Duration	25-yr Peak	Flow Credit Basis	Calculated Credit	Facility Credit (1)	Adjusted Facility Credit (2)	Notes
Water Quality (WQ) Treatment PGIS Area/Total Impervious (5) **Design Standard: Treatment of the water quality design storm volume or flow rate** **Basin types: Basins requiring basic, enhanced, phosphorus, or oil treatment**			**Weighting=**	**60%**	**40%**	**0%**	**0%**					
0%	Traditional stormwater infrastructure (non-infiltrating facilities)	**WQ- Level 1**	Media filter Oil/water separator Wet vault	80%	0%	NA	NA	Media filter (evaluated)	**48%**	**24%**	**0%**	Flow modeling not needed. Water quality performance based on Ecology's General Use Level Designation (GULD) basic treatment (TSS removal) goal.
0%	Traditional stormwater infrastructure (minimal evaporation)	**WQ- Level 2**	Detention/wet pond Detention/stormwater wetland Bioswales (basic, wet, and continuous inflow) Filter strips	80%	0%	NA	NA	Wetpond (modeled)	**48%**	**24%**	**0%**	Flow modeling not needed. Water quality performance based on basic treatment goal in the Stormwater Management Manual for Western Washington (Ecology 2005).
0%	Infiltration and reuse facilities	**WQ- Level 3**	Bioretention cell (without underdrain) Permeable pavement facility (without underdrain)	95%	91%	NA	NA	Bioret w/o underdrain (modeled)	**93%**	**47%**	**0%**	Flow modeling not needed. Water quality performance estimated based on professional judgment.
Flow Control #1 (FC#1) - Green Stormwater Infrastructure to the Maximum Extent Feasible Only **Design Standard: 91 percent infiltration or 91 percent reduction for 1-year peak flow** **Basin types: All**			**Weighting=**	**0%**	**50%**	**50%**	**0%**					
0%	Non-infiltrating facilities	**FC#1- Level 1**	Bioretention (cell or planter with underdrains) Permeable pavement facility (with underdrain)	NA	0%	20%	NA	Bioret w/ underdrain (modeled)	**10%**	**5%**	**0%**	Flow modeled using WWHM3 Pro.
0%	Impervious surface reduction methods	**FC#1- Level 2**	Green roof	NA	22%	44%	NA	Green Roof (modeled)	**33%**	**17%**	**0%**	Flow modeled using WWHM3 Pro.
0%	Runoff reduction methods	**FC#1- Level 3**	Dispersion	NA	54%	85%	NA	Dispersion (modeled)	**70%**	**35%**	**0%**	Flow modeled using WWHM3 Pro.
0%	Infiltration and reuse facilities	**FC#1- Level 4**	Bioretention (cell or planter without underdrains) Permeable pavement facility (without underdrain)	NA	91%	58%	NA	Bioret w/o underdrain (modeled)	**75%**	**37%**	**0%**	Flow modeled using WWHM3 Pro.
0%	Infiltration and reuse facilities	**FC#1- Level 5**	Rainwater harvesting	NA	NA	NA	NA	Professional Judgment	**100%**	**50%**	**0%**	Credit based on professional judgment.
Flow Control #3 (FC#3) - Pre-developed Forest **Design Standard: Match half 2-year to 50-year flow duration to forest condition** **Basin types: Some creek basins**			**Weighting=**	**15%**	**30%**	**30%**	**25%**					
0%	Impervious surface reduction methods	**FC#3- Level 1**	Green roof	0%	25%	47%	68%	Professional Judgment	**38%**	**19%**	**0%**	Flow and water quality performance evaluated based on results for pre-developed pasture and professional judgment.
0%	Traditional stormwater infrastructure (non-infiltrating facilities)	**FC#3- Level 2**	Detention cistern Detention vault Detention pipe Detention pond (with impermeable liner)	0%	0%	83%	98%	Professional Judgment	**49%**	**25%**	**0%**	Flow and water quality performance evaluated based on results for pre-developed pasture and professional judgment.
0%	Traditional stormwater infrastructure (small-scale/distributed infiltrating facilities)	**FC#3- Level 3**	Infiltration trench Dry well	100%	100%	100%	33%	Professional Judgment	**83%**	**42%**	**0%**	Flow and water quality performance evaluated based on results for pre-developed pasture and professional judgment.
0%	Infiltration and reuse facilities	**FC#3- Level 4**	Bioretention (cell or planter without underdrains) Permeable pavement facility (without underdrain)	100%	100%	100%	33%	Professional Judgment	**83%**	**42%**	**0%**	Flow and water quality performance evaluated based on results for pre-developed pasture and professional judgment.
0%	Infiltration and reuse facilities	**FC#3- Level 5**	Rainwater harvesting	NA	NA	NA	NA	Professional Judgment	**100%**	**50%**	**0%**	Credit based on professional judgment.
Flow Control #4 (FC#4) - Pre-developed Pasture **Design Standard: Match half 2-year to 2-year flow duration to pasture condition** **Basin types: Some creek basins**			**Weighting=**	**15%**	**30%**	**45%**	**10%**					
0%	Impervious surface reduction methods	**FC#4- Level 1**	Green roof	0%	22%	44%	65%	Green Roof (modeled)	**33%**	**17%**	**0%**	Flow modeled using WWHM3 Pro. Water quality performance estimated based on professional judgment.
0%	Traditional stormwater infrastructure (non-infiltrating facilities)	**FC#4- Level 2**	Detention cistern Detention vault Detention pipe Detention pond (with impermeable liner)	0%	0%	80%	95%	Vault (modeled)	**46%**	**23%**	**0%**	Sized using SPU Vault spreadsheet. Flow control modeled using WWHM3 Pro. Water quality performance based on professional judgment.
0%	Traditional stormwater infrastructure (small-scale/distributed infiltrating facilities)	**FC#4- Level 3**	Infiltration trench Dry well	98%	98%	99%	30%	Infiltration Trench (modeled)	**92%**	**46%**	**0%**	Flow modeled using WWHM3 Pro. Water quality performance based on volume reduction (% infiltration).
0%	Infiltration and reuse facilities	**FC#4- Level 4**	Bioretention (cell or planter without underdrains) Permeable pavement facility (without underdrain)	98%	98%	99%	30%	Infiltration Trench (modeled)	**92%**	**46%**	**0%**	Flow modeled using WWHM3 Pro. Water quality performance based on volume reduction (% infiltration).
0%	Infiltration and reuse facilities	**FC#4- Level 5**	Rainwater harvesting	NA	NA	NA	NA	Professional Judgment	**100%**	**50%**	**0%**	Credit based on professional judgment.
Flow Control #5 (FC#5) - Peak Flow Control **Design Standard: 2- and 25-year peak control** **Basin types: Public combined sewer, capacity-constrained, small lakes**			**Weighting=**	**0%**	**25%**	**40%**	**35%**					
0%	Traditional stormwater infrastructure (non-infiltrating facilities)	**FC#5- Level 1**	Detention cistern Detention vault Detention pipe Detention pond (with impermeable liner)	NA	0%	48%	63%	Vault (modeled)	**41%**	**21%**	**0%**	Sized using SPU Vault spreadsheet. Flow modeled using WWHM3 Pro.
0%	Impervious surface reduction methods	**FC#5- Level 2**	Green roof	NA	22%	44%	65%	Green Roof (modeled)	**46%**	**23%**	**0%**	Flow modeled using WWHM3 Pro.
0%	Non-infiltrating facilities	**FC#5- Level 3**	Bioretention (cell or planter with underdrains) Permeable pavement facility (with underdrain)	NA	0%	75%	80%	Bioret w/ underdrain (modeled)	**58%**	**29%**	**0%**	Flow modeled using WWHM3 Pro.
0%	Traditional stormwater infrastructure (small-scale/distributed infiltrating facilities)	**FC#5- Level 4**	Infiltration trench Dry well	NA	98%	100%	64%	Infiltration Trench (modeled)	**87%**	**44%**	**0%**	Flow modeled using WWHM3 Pro.
0%	Infiltration and reuse facilities	**FC#5- Level 5**	Bioretention (cell or planter without underdrains) Permeable pavement facility (without underdrain)	NA	98%	100%	64%	Infiltration Trench (modeled)	**87%**	**44%**	**0%**	Flow modeled using WWHM3 Pro.
0%	Infiltration and reuse facilities	**FC#5- Level 6**	Rainwater harvesting	NA	NA	NA	NA	Professional Judgment	**100%**	**50%**	**0%**	Credit based on professional judgment.
Rainwater Harvesting Credit for Commercial Properties -% of Roof Area												
0%	Infiltration and reuse facilities	**NA**	Rainwater harvesting (commercial)	NA	NA	NA	NA	--	--	10%	0%	Commercial properties only
									Total Adjusted Facility Credit		0.0%	

Final Parcel Credit Calculation	
Total Adjusted Facility Credit	0%
Rate Tier Multiplier (3)	0.00%
Final Parcel Credit (4)	**0%**

Rate Tier Multipliers				Tier	Multiplier (3)
General Service/Large Residential					
(% impervious)	Undeveloped	0-15%		**G1**	**19.57%**
	Light	16-35%		**G2**	**48.93%**
	Moderate	36-65%		**G3**	**74.27%**
	Heavy	66-85%		**G4**	**89.99%**
	Very Heavy	86-100%		**G5**	**97.41%**
Small Residential (square feet)		<3,000 sq ft		**R1**	**87.78%**
		3,000-4,999 sq ft		**R2**	**72.55%**
		5,000-6,999 sq ft		**R3**	**70.19%**
		7,000-9,999 sq ft		**R4**	**64.48%**

Notes:
1) The facility credit is the scaled weighted average of the percent reductions by performance target.
2) The adjusted facility credit is the facility credit multiplied by the percentage of total impervious area managed by the applicable facility.
3) The rate tier multiplier is the percentage of the customer's bill attributable to impervious area runoff. Credit is only offered for runoff managed which originates on impervious surface.
4) The final parcel credit is the 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.
5) For the water quality treatment PGIS/impervious area, enter PGIS as a percent of the total impervious area.
6) Where flow control is provided, it is estimated that 75% of the total impervious surface is managed. This is based upon past business inspections.
7) Fractional credits are not offered - note that no credit will be offered for credits that are calculated to round to less than 1%.
8) FC1 applies to all parcels. Possible basin combinations include:

WQ only	WQ and FC3	FC3 and FC5
FC1 only	WQ and FC4	FC4 and FC5
FC3 only	WQ and FC5	
FC4 only	WQ and FC3 and FC5	
FC5 only	WQ and FC4 and FC5	

9) Flow Control 2 (FC2) - Wetland Protection requirements may also apply. A separate credit will be calculated outside of this calculator if necessary.
10) A separate credit will be calculated for infiltration basins (or other traditional stormwater infrastructure) outside of this calculator if necessary.
11) Applicable standards will depend on project type, size, and drainage basin (see Vol III, Section 2.5.3)
12) TSS is used as an indicator of water quality treatment; Volume is used as an indicator of volume reducation via infiltration or reuse.

Color Key:

20%	**Ranges for customer/applicant data entry regarding Rate Tier and % impervious or PGIS area managed.**
65%	**Maximum goal-based credit percentage for impervious area served by each BMP Classification.**
10%	**Credit contributions by BMP Classification, for applying facility's BMPs of impervious area.**
Mult	**Lookup Table to convert impervious area impacts of facility to composite Rate Credit Percentage.**
15.0%	**Rate Credit percentage that will appear on and modify bills, reflecting applicant facilities, their sizes and the Rate Tier of the applying parcel.**