

I-405 Ripley Lane Stream connection- King County Sewer Discharge Calculation for TESC

Daily maximum 2-year, 24-hour sewer discharge volume calculations were performed using Stormshed 3G (SBUH)

Hydrograph volume X 43,560 square ft / acres X 7.48 gallons / cubic ft

Activity Boundary	Basin Area (acres)	Hydrograph Volume (Stormshed 3g)	Volume (gallons)
Activity-1	2.059	0.0922	30040
Activity-2	2.018	0.0941	30660

The following are the Stormshed 3g inputs and outputs

Appended on: Wednesday, June 30, 2021 11:28:53 AM

ACTIVITY 1 BOUNDARY Event Summary

Event	Peak Q (cfs)	Peak T (hrs)	Hyd Vol (acft)	Area (ac)	Method
6-month	0.938	12.0648	0.0634	2.059	SCS
2 yr 24 hr	1.4024	12.0648	0.0922	2.059	SCS
10 year	3.407	12.053	0.2209	2.059	SCS
25 year	3.7667	12.053	0.2445	2.059	SCS
100 year	5.6303	12.053	0.3687	2.059	SCS

All results based on storm duration of **24.0** hours. This is ok if all precipitations are appropriate for the storm duration. If some design event precipitations are for different duration storms, those results are incorrect

Record Id: ACTIVITY 1 BOUNDARY

Design Method	SCS	Rainfall type	TYPE2.RAC
Hyd Intv	10.00 min	Peaking Factor	484.00
Storm Duration	24.00 hrs	Abstraction Coeff	0.20
Pervious Area	1.402 ac	DCIA	0.657 ac
Pervious CN	78.00	DC CN	0.98
Pervious TC	12.0989 min	DC TC	5.00 min

Pervious CN Calc

Description				SubArea		Sub cn
Meadow or Pasture				1.402 ac		78.00
Pervious Compositd CN (AMC 2)						78.00
Pervious TC Calc						
Type	Description	Length	Slope	Coeff	Misc	TT
Sheet	something	50.00 ft	3.0%	0.05	2.50 in	2.2479 min
Shallow	shallow	500.00 ft	2.5%	0.06		9.851 min
Pervious TC						12.0989 min
DCI - CN Calc						
Description					SubArea	Sub cn
Impervious surfaces (pavements, roofs, etc)					0.657 ac	0.98
DC Compositd CN (AMC 2)						0.98
DCI - TC Calc						
Type	Description	Length	Slope	Coeff	Misc	TT
Sheet	sheet flow	15.00 ft	2.0%	0.011	0.00 in	0.3005 min
Shallow	Shallow flow	475.00 ft	3.05%	0.011		1.5533 min
Pervious TC						1.8538 min

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ACTIVITY 2 BOUNDARY Event Summary

Event	Peak Q (cfs)	Peak T (hrs)	Hyd Vol (acft)	Area (ac)	Method
6-month	0.0867	8.1667	0.0647	1.433	SBUH
2 yr 24 hr	0.156	8.1667	0.0941	1.433	SBUH
10 year	0.4884	8.00	0.2253	1.433	SBUH
25 year	0.5526	8.00	0.2493	1.433	SBUH
100 year	0.8956	8.00	0.3761	1.433	SBUH

All results based on storm duration of **24.0** hours. This is ok if all precipitations are appropriate for the storm duration. If some design event precipitations are for different duration storms, those results are incorrect

Record Id: ACTIVITY 2 BOUNDARY

Design Method	SBUH	Rainfall type	TYPE1A.RAC			
Hyd Intv	10.00 min	Peaking Factor	484.00			
Storm Duration	24.00 hrs	Abstraction Coeff	0.20			
Pervious Area	1.433 ac	DCIA	0.952 ac			
Pervious CN	78.00	DC CN	0.90			
Pervious TC	15.3057 min	DC TC	5.00 min			
Pervious CN Calc						
Description			SubArea			Sub cn
Pervious area			1.433 ac			78.00
Pervious Compositied CN (AMC 2)					78.00	
Pervious TC Calc						
Type	Description	Length	Slope	Coeff	Misc	TT
Sheet	something	50.00 ft	1.25%	0.05	2.50 in	3.1906 min
Shallow	shallow	550.00 ft	2.0%	0.06		12.1151 min
Pervious TC					15.3057 min	
DCI - CN Calc						
Description				SubArea		Sub cn
Impervious surfaces (pavements, roofs, etc)				0.952 ac		0.90
DC Compositied CN (AMC 2)					0.90	
DCI - TC Calc						
Type	Description	Length	Slope	Coeff	Misc	TT
Sheet	Smooth Surfaces.	10.00 ft	2.0%	0.011	2.50 in	0.2173 min
Shallow	Paved	575.00 ft	2.0%	0.01		3.3335 min
Pervious TC					3.5508 min	