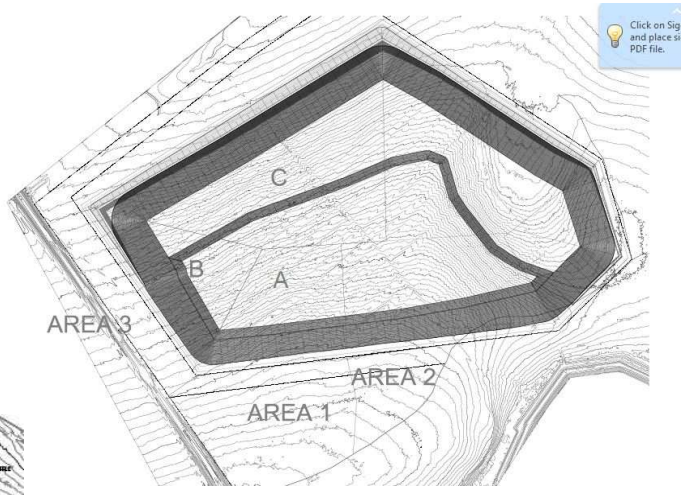
APPENDIX D, PART 1: SITE 1 RUNOFF CALCULATIONS AND HYDRAULIC SIZING

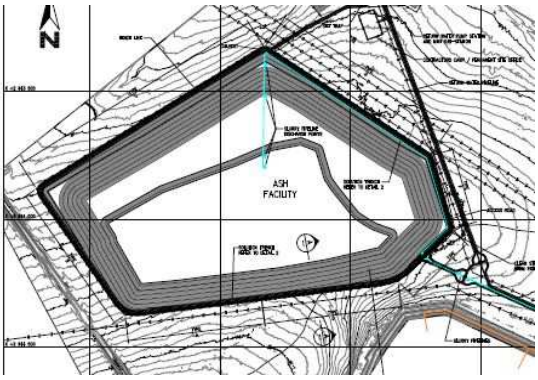
Clean water runoff:



Area 1= 158279 m2
Area 2= 55595 m2
Area 3= 75455 m2

Rational Method:
C= 0.45
I= 120 mm (1in 100 year, 1hrs duration)

Q1= 2.4
Q2= 0.8
Q3= 1.1



Q A=	2.4 m3/s	Slope A=	0.007813	0.78%
Q B=	3.5 m3/s	Slope B=	0.02	2.00%
Q D=	0.8 m3/s	Slope D=	0.011765	1.18%
Q E=	0.9 m3/s	Slope E=	0.007813	0.78%
Q F=	0.9 m3/s	Slope F=	0.007634	0.76%

Channel	Flow Normal Depth y (m)	Top Width b (m)	Q (m3/s)	A (m2)	v (m/s)	v^2/(2*9.81)	v^2	n	Wetted Perimeter P (m)	R	R^(4/3)	S (%)
A	0.500	2.501	2.374	0.876	2.71	0.374	7.347	0.015	2.80406	0.312	0.212	0.780%
B	0.480	2.440	3.506	0.826	4.25	0.919	18.037	0.015	2.730567	0.302	0.203	2.000%
D	0.257	1.770	0.834	0.355	2.35	0.281	5.510	0.015	1.924949	0.185	0.105	1.180%
E	0.306	1.917	0.934	0.446	2.09	0.224	4.386	0.015	2.102373	0.212	0.127	0.780%
F	0.308	1.924	0.934	0.450	2.07	0.219	4.305	0.015	2.110174	0.213	0.127	0.760%