

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	650.0	0.0	1.000	949.4	0.0	1.850	1248.4	0.0

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	53.717	15.200
1 year 15 minute winter	37.696	15.200
1 year 30 minute summer	36.047	10.200
1 year 30 minute winter	25.296	10.200
1 year 60 minute summer	25.731	6.800
1 year 60 minute winter	17.095	6.800
1 year 120 minute summer	19.866	5.250
1 year 120 minute winter	13.199	5.250
1 year 180 minute summer	16.995	4.373
1 year 180 minute winter	11.047	4.373
1 year 240 minute summer	14.413	3.809
1 year 240 minute winter	9.576	3.809
1 year 360 minute summer	12.082	3.109
1 year 360 minute winter	7.854	3.109
1 year 480 minute summer	10.116	2.673
1 year 480 minute winter	6.721	2.673
1 year 600 minute summer	8.656	2.368
1 year 600 minute winter	5.914	2.368
1 year 720 minute summer	7.977	2.138
1 year 720 minute winter	5.361	2.138
1 year 960 minute summer	6.872	1.810
1 year 960 minute winter	4.552	1.810
1 year 1440 minute summer	5.267	1.412
1 year 1440 minute winter	3.540	1.412
1 year 2160 minute summer	3.937	1.088
1 year 2160 minute winter	2.713	1.088
1 year 2880 minute summer	3.362	0.901
1 year 2880 minute winter	2.260	0.901
1 year 4320 minute summer	2.631	0.688
1 year 4320 minute winter	1.732	0.688
1 year 5760 minute summer	2.225	0.569
1 year 5760 minute winter	1.440	0.569
1 year 7200 minute summer	1.940	0.495
1 year 7200 minute winter	1.252	0.495
1 year 8640 minute summer	1.737	0.443
1 year 8640 minute winter	1.121	0.443
1 year 10080 minute summer	1.586	0.405
1 year 10080 minute winter	1.024	0.405
2 year 15 minute summer	79.162	22.400
2 year 15 minute winter	55.552	22.400
2 year 30 minute summer	54.424	15.400
2 year 30 minute winter	38.192	15.400
2 year 60 minute summer	38.597	10.200
2 year 60 minute winter	25.643	10.200
2 year 120 minute summer	27.313	7.218
2 year 120 minute winter	18.146	7.218
2 year 180 minute summer	22.538	5.800
2 year 180 minute winter	14.650	5.800

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
2 year 240 minute summer	18.698	4.941
2 year 240 minute winter	12.423	4.941
2 year 360 minute summer	15.243	3.923
2 year 360 minute winter	9.909	3.923
2 year 480 minute summer	12.568	3.321
2 year 480 minute winter	8.350	3.321
2 year 600 minute summer	10.647	2.912
2 year 600 minute winter	7.275	2.912
2 year 720 minute summer	9.743	2.611
2 year 720 minute winter	6.548	2.611
2 year 960 minute summer	8.316	2.190
2 year 960 minute winter	5.509	2.190
2 year 1440 minute summer	6.319	1.693
2 year 1440 minute winter	4.247	1.693
2 year 2160 minute summer	4.681	1.294
2 year 2160 minute winter	3.225	1.294
2 year 2880 minute summer	3.974	1.065
2 year 2880 minute winter	2.671	1.065
2 year 4320 minute summer	3.090	0.808
2 year 4320 minute winter	2.035	0.808
2 year 5760 minute summer	2.603	0.666
2 year 5760 minute winter	1.685	0.666
2 year 7200 minute summer	2.262	0.577
2 year 7200 minute winter	1.460	0.577
2 year 8640 minute summer	2.019	0.515
2 year 8640 minute winter	1.303	0.515
2 year 10080 minute summer	1.839	0.469
2 year 10080 minute winter	1.187	0.469
10 year 15 minute summer	154.082	43.600
10 year 15 minute winter	108.128	43.600
10 year 30 minute summer	106.727	30.200
10 year 30 minute winter	74.896	30.200
10 year 60 minute summer	76.679	20.264
10 year 60 minute winter	50.944	20.264
10 year 120 minute summer	48.302	12.765
10 year 120 minute winter	32.091	12.765
10 year 180 minute summer	37.832	9.735
10 year 180 minute winter	24.592	9.735
10 year 240 minute summer	30.427	8.041
10 year 240 minute winter	20.215	8.041
10 year 360 minute summer	23.940	6.161
10 year 360 minute winter	15.562	6.161
10 year 480 minute summer	19.347	5.113
10 year 480 minute winter	12.853	5.113
10 year 600 minute summer	16.184	4.427
10 year 600 minute winter	11.058	4.427
10 year 720 minute summer	14.685	3.936
10 year 720 minute winter	9.869	3.936
10 year 960 minute summer	12.405	3.267
10 year 960 minute winter	8.217	3.267
10 year 1440 minute summer	9.349	2.506
10 year 1440 minute winter	6.283	2.506

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
10 year 2160 minute summer	6.887	1.903
10 year 2160 minute winter	4.746	1.903
10 year 2880 minute summer	5.817	1.559
10 year 2880 minute winter	3.909	1.559
10 year 4320 minute summer	4.474	1.170
10 year 4320 minute winter	2.946	1.170
10 year 5760 minute summer	3.727	0.954
10 year 5760 minute winter	2.413	0.954
10 year 7200 minute summer	3.202	0.817
10 year 7200 minute winter	2.066	0.817
10 year 8640 minute summer	2.826	0.721
10 year 8640 minute winter	1.824	0.721
10 year 10080 minute summer	2.547	0.650
10 year 10080 minute winter	1.644	0.650
10 year +39% CC 15 minute summer	214.175	60.604
10 year +39% CC 15 minute winter	150.298	60.604
10 year +39% CC 30 minute summer	148.350	41.978
10 year +39% CC 30 minute winter	104.105	41.978
10 year +39% CC 60 minute summer	106.584	28.167
10 year +39% CC 60 minute winter	70.812	28.167
10 year +39% CC 120 minute summer	67.140	17.743
10 year +39% CC 120 minute winter	44.606	17.743
10 year +39% CC 180 minute summer	52.587	13.532
10 year +39% CC 180 minute winter	34.183	13.532
10 year +39% CC 240 minute summer	42.294	11.177
10 year +39% CC 240 minute winter	28.099	11.177
10 year +39% CC 360 minute summer	33.277	8.563
10 year +39% CC 360 minute winter	21.631	8.563
10 year +39% CC 480 minute summer	26.892	7.107
10 year +39% CC 480 minute winter	17.866	7.107
10 year +39% CC 600 minute summer	22.496	6.153
10 year +39% CC 600 minute winter	15.371	6.153
10 year +39% CC 720 minute summer	20.413	5.471
10 year +39% CC 720 minute winter	13.719	5.471
10 year +39% CC 960 minute summer	17.243	4.541
10 year +39% CC 960 minute winter	11.422	4.541
10 year +39% CC 1440 minute summer	12.995	3.483
10 year +39% CC 1440 minute winter	8.734	3.483
10 year +39% CC 2160 minute summer	9.574	2.646
10 year +39% CC 2160 minute winter	6.596	2.646
10 year +39% CC 2880 minute summer	8.086	2.167
10 year +39% CC 2880 minute winter	5.434	2.167
10 year +39% CC 4320 minute summer	6.218	1.626
10 year +39% CC 4320 minute winter	4.095	1.626
10 year +39% CC 5760 minute summer	5.181	1.326
10 year +39% CC 5760 minute winter	3.353	1.326
10 year +39% CC 7200 minute summer	4.450	1.135
10 year +39% CC 7200 minute winter	2.872	1.135
10 year +39% CC 8640 minute summer	3.927	1.002
10 year +39% CC 8640 minute winter	2.535	1.002
10 year +39% CC 10080 minute summer	3.541	0.903
10 year +39% CC 10080 minute winter	2.285	0.903

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 15 minute summer	202.990	57.439
30 year 15 minute winter	142.449	57.439
30 year 30 minute summer	141.891	40.150
30 year 30 minute winter	99.572	40.150
30 year 60 minute summer	102.240	27.019
30 year 60 minute winter	67.926	27.019
30 year 120 minute summer	62.251	16.451
30 year 120 minute winter	41.358	16.451
30 year 180 minute summer	48.080	12.373
30 year 180 minute winter	31.253	12.373
30 year 240 minute summer	38.374	10.141
30 year 240 minute winter	25.495	10.141
30 year 360 minute summer	29.951	7.707
30 year 360 minute winter	19.469	7.707
30 year 480 minute summer	24.114	6.373
30 year 480 minute winter	16.021	6.373
30 year 600 minute summer	20.148	5.511
30 year 600 minute winter	13.766	5.511
30 year 720 minute summer	18.286	4.901
30 year 720 minute winter	12.289	4.901
30 year 960 minute summer	15.502	4.082
30 year 960 minute winter	10.269	4.082
30 year 1440 minute summer	11.746	3.148
30 year 1440 minute winter	7.894	3.148
30 year 2160 minute summer	8.682	2.399
30 year 2160 minute winter	5.982	2.399
30 year 2880 minute summer	7.326	1.963
30 year 2880 minute winter	4.923	1.963
30 year 4320 minute summer	5.589	1.461
30 year 4320 minute winter	3.680	1.461
30 year 5760 minute summer	4.614	1.181
30 year 5760 minute winter	2.987	1.181
30 year 7200 minute summer	3.924	1.001
30 year 7200 minute winter	2.533	1.001
30 year 8640 minute summer	3.431	0.875
30 year 8640 minute winter	2.214	0.875
30 year 10080 minute summer	3.066	0.782
30 year 10080 minute winter	1.979	0.782
30 year +39% CC 15 minute summer	282.156	79.840
30 year +39% CC 15 minute winter	198.004	79.840
30 year +39% CC 30 minute summer	197.228	55.809
30 year +39% CC 30 minute winter	138.406	55.809
30 year +39% CC 60 minute summer	142.113	37.556
30 year +39% CC 60 minute winter	94.417	37.556
30 year +39% CC 120 minute summer	86.529	22.867
30 year +39% CC 120 minute winter	57.488	22.867
30 year +39% CC 180 minute summer	66.832	17.198
30 year +39% CC 180 minute winter	43.442	17.198
30 year +39% CC 240 minute summer	53.341	14.096
30 year +39% CC 240 minute winter	35.438	14.096
30 year +39% CC 360 minute summer	41.632	10.713
30 year +39% CC 360 minute winter	27.062	10.713

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year +39% CC 480 minute summer	33.519	8.858
30 year +39% CC 480 minute winter	22.269	8.858
30 year +39% CC 600 minute summer	28.005	7.660
30 year +39% CC 600 minute winter	19.135	7.660
30 year +39% CC 720 minute summer	25.417	6.812
30 year +39% CC 720 minute winter	17.082	6.812
30 year +39% CC 960 minute summer	21.548	5.674
30 year +39% CC 960 minute winter	14.274	5.674
30 year +39% CC 1440 minute summer	16.327	4.376
30 year +39% CC 1440 minute winter	10.973	4.376
30 year +39% CC 2160 minute summer	12.068	3.335
30 year +39% CC 2160 minute winter	8.315	3.335
30 year +39% CC 2880 minute summer	10.183	2.729
30 year +39% CC 2880 minute winter	6.843	2.729
30 year +39% CC 4320 minute summer	7.768	2.031
30 year +39% CC 4320 minute winter	5.116	2.031
30 year +39% CC 5760 minute summer	6.414	1.642
30 year +39% CC 5760 minute winter	4.151	1.642
30 year +39% CC 7200 minute summer	5.455	1.391
30 year +39% CC 7200 minute winter	3.520	1.391
30 year +39% CC 8640 minute summer	4.769	1.217
30 year +39% CC 8640 minute winter	3.078	1.217
30 year +39% CC 10080 minute summer	4.261	1.087
30 year +39% CC 10080 minute winter	2.750	1.087
200 year 15 minute summer	295.357	83.576
200 year 15 minute winter	207.268	83.576
200 year 30 minute summer	210.333	59.517
200 year 30 minute winter	147.602	59.517
200 year 60 minute summer	151.560	40.053
200 year 60 minute winter	100.693	40.053
200 year 120 minute summer	89.559	23.668
200 year 120 minute winter	59.501	23.668
200 year 180 minute summer	68.554	17.641
200 year 180 minute winter	44.562	17.641
200 year 240 minute summer	54.568	14.421
200 year 240 minute winter	36.254	14.421
200 year 360 minute summer	42.613	10.966
200 year 360 minute winter	27.699	10.966
200 year 480 minute summer	34.402	9.091
200 year 480 minute winter	22.856	9.091
200 year 600 minute summer	28.806	7.879
200 year 600 minute winter	19.682	7.879
200 year 720 minute summer	26.182	7.017
200 year 720 minute winter	17.596	7.017
200 year 960 minute summer	22.190	5.843
200 year 960 minute winter	14.699	5.843
200 year 1440 minute summer	16.745	4.488
200 year 1440 minute winter	11.254	4.488
200 year 2160 minute summer	12.249	3.385
200 year 2160 minute winter	8.440	3.385
200 year 2880 minute summer	10.240	2.744
200 year 2880 minute winter	6.882	2.744

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
200 year 4320 minute summer	7.710	2.016
200 year 4320 minute winter	5.078	2.016
200 year 5760 minute summer	6.293	1.611
200 year 5760 minute winter	4.073	1.611
200 year 7200 minute summer	5.293	1.350
200 year 7200 minute winter	3.416	1.350
200 year 8640 minute summer	4.579	1.168
200 year 8640 minute winter	2.955	1.168
200 year 10080 minute summer	4.051	1.034
200 year 10080 minute winter	2.615	1.034
200 year +39% CC 15 minute summer	410.547	116.171
200 year +39% CC 15 minute winter	288.103	116.171
200 year +39% CC 30 minute summer	292.362	82.728
200 year +39% CC 30 minute winter	205.167	82.728
200 year +39% CC 60 minute summer	210.668	55.673
200 year +39% CC 60 minute winter	139.963	55.673
200 year +39% CC 120 minute summer	124.486	32.898
200 year +39% CC 120 minute winter	82.706	32.898
200 year +39% CC 180 minute summer	95.290	24.521
200 year +39% CC 180 minute winter	61.941	24.521
200 year +39% CC 240 minute summer	75.849	20.045
200 year +39% CC 240 minute winter	50.392	20.045
200 year +39% CC 360 minute summer	59.231	15.242
200 year +39% CC 360 minute winter	38.502	15.242
200 year +39% CC 480 minute summer	47.818	12.637
200 year +39% CC 480 minute winter	31.769	12.637
200 year +39% CC 600 minute summer	40.041	10.952
200 year +39% CC 600 minute winter	27.358	10.952
200 year +39% CC 720 minute summer	36.393	9.754
200 year +39% CC 720 minute winter	24.458	9.754
200 year +39% CC 960 minute summer	30.844	8.122
200 year +39% CC 960 minute winter	20.432	8.122
200 year +39% CC 1440 minute summer	23.275	6.238
200 year +39% CC 1440 minute winter	15.643	6.238
200 year +39% CC 2160 minute summer	17.026	4.706
200 year +39% CC 2160 minute winter	11.732	4.706
200 year +39% CC 2880 minute summer	14.233	3.815
200 year +39% CC 2880 minute winter	9.565	3.815
200 year +39% CC 4320 minute summer	10.717	2.802
200 year +39% CC 4320 minute winter	7.058	2.802
200 year +39% CC 5760 minute summer	8.748	2.239
200 year +39% CC 5760 minute winter	5.662	2.239
200 year +39% CC 7200 minute summer	7.357	1.877
200 year +39% CC 7200 minute winter	4.748	1.877
200 year +39% CC 8640 minute summer	6.365	1.624
200 year +39% CC 8640 minute winter	4.108	1.624
200 year +39% CC 10080 minute summer	5.632	1.437
200 year +39% CC 10080 minute winter	3.635	1.437
1000 year 15 minute summer	385.825	109.175
1000 year 15 minute winter	270.755	109.175
1000 year 30 minute summer	278.758	78.879
1000 year 30 minute winter	195.619	78.879

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1000 year 60 minute summer	201.571	53.269
1000 year 60 minute winter	133.919	53.269
1000 year 120 minute summer	118.814	31.399
1000 year 120 minute winter	78.937	31.399
1000 year 180 minute summer	90.885	23.388
1000 year 180 minute winter	59.078	23.388
1000 year 240 minute summer	72.268	19.098
1000 year 240 minute winter	48.013	19.098
1000 year 360 minute summer	56.191	14.460
1000 year 360 minute winter	36.526	14.460
1000 year 480 minute summer	45.118	11.923
1000 year 480 minute winter	29.975	11.923
1000 year 600 minute summer	37.561	10.274
1000 year 600 minute winter	25.664	10.274
1000 year 720 minute summer	33.941	9.096
1000 year 720 minute winter	22.810	9.096
1000 year 960 minute summer	28.437	7.488
1000 year 960 minute winter	18.837	7.488
1000 year 1440 minute summer	21.100	5.655
1000 year 1440 minute winter	14.181	5.655
1000 year 2160 minute summer	15.241	4.212
1000 year 2160 minute winter	10.501	4.212
1000 year 2880 minute summer	12.647	3.390
1000 year 2880 minute winter	8.500	3.390
1000 year 4320 minute summer	9.439	2.468
1000 year 4320 minute winter	6.216	2.468
1000 year 5760 minute summer	7.661	1.961
1000 year 5760 minute winter	4.959	1.961
1000 year 7200 minute summer	6.421	1.638
1000 year 7200 minute winter	4.144	1.638
1000 year 8640 minute summer	5.539	1.413
1000 year 8640 minute winter	3.575	1.413
1000 year 10080 minute summer	4.887	1.247
1000 year 10080 minute winter	3.154	1.247
1000 year +25% CC 15 minute summer	482.282	136.469
1000 year +25% CC 15 minute winter	338.443	136.469
1000 year +25% CC 30 minute summer	348.447	98.598
1000 year +25% CC 30 minute winter	244.524	98.598
1000 year +25% CC 60 minute summer	251.963	66.587
1000 year +25% CC 60 minute winter	167.398	66.587
1000 year +25% CC 120 minute summer	148.518	39.249
1000 year +25% CC 120 minute winter	98.672	39.249
1000 year +25% CC 180 minute summer	113.607	29.235
1000 year +25% CC 180 minute winter	73.847	29.235
1000 year +25% CC 240 minute summer	90.335	23.873
1000 year +25% CC 240 minute winter	60.016	23.873
1000 year +25% CC 360 minute summer	70.239	18.075
1000 year +25% CC 360 minute winter	45.657	18.075
1000 year +25% CC 480 minute summer	56.398	14.904
1000 year +25% CC 480 minute winter	37.469	14.904
1000 year +25% CC 600 minute summer	46.952	12.842
1000 year +25% CC 600 minute winter	32.080	12.842

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1000 year +25% CC 720 minute summer	42.426	11.371
1000 year +25% CC 720 minute winter	28.513	11.371
1000 year +25% CC 960 minute summer	35.546	9.360
1000 year +25% CC 960 minute winter	23.547	9.360
1000 year +25% CC 1440 minute summer	26.375	7.069
1000 year +25% CC 1440 minute winter	17.726	7.069
1000 year +25% CC 2160 minute summer	19.051	5.265
1000 year +25% CC 2160 minute winter	13.127	5.265
1000 year +25% CC 2880 minute summer	15.809	4.237
1000 year +25% CC 2880 minute winter	10.625	4.237
1000 year +25% CC 4320 minute summer	11.799	3.085
1000 year +25% CC 4320 minute winter	7.770	3.085
1000 year +25% CC 5760 minute summer	9.577	2.452
1000 year +25% CC 5760 minute winter	6.198	2.452
1000 year +25% CC 7200 minute summer	8.027	2.048
1000 year +25% CC 7200 minute winter	5.180	2.048
1000 year +25% CC 8640 minute summer	6.924	1.766
1000 year +25% CC 8640 minute winter	4.469	1.766
1000 year +25% CC 10080 minute summer	6.108	1.558
1000 year +25% CC 10080 minute winter	3.942	1.558
1000 year +39% CC 15 minute summer	536.297	151.754
1000 year +39% CC 15 minute winter	376.349	151.754
1000 year +39% CC 30 minute summer	387.473	109.641
1000 year +39% CC 30 minute winter	271.911	109.641
1000 year +39% CC 60 minute summer	280.183	74.044
1000 year +39% CC 60 minute winter	186.147	74.044
1000 year +39% CC 120 minute summer	165.152	43.645
1000 year +39% CC 120 minute winter	109.723	43.645
1000 year +39% CC 180 minute summer	126.331	32.509
1000 year +39% CC 180 minute winter	82.118	32.509
1000 year +39% CC 240 minute summer	100.452	26.547
1000 year +39% CC 240 minute winter	66.738	26.547
1000 year +39% CC 360 minute summer	78.105	20.099
1000 year +39% CC 360 minute winter	50.770	20.099
1000 year +39% CC 480 minute summer	62.714	16.574
1000 year +39% CC 480 minute winter	41.666	16.574
1000 year +39% CC 600 minute summer	52.210	14.281
1000 year +39% CC 600 minute winter	35.673	14.281
1000 year +39% CC 720 minute summer	47.178	12.644
1000 year +39% CC 720 minute winter	31.706	12.644
1000 year +39% CC 960 minute summer	39.528	10.409
1000 year +39% CC 960 minute winter	26.184	10.409
1000 year +39% CC 1440 minute summer	29.329	7.861
1000 year +39% CC 1440 minute winter	19.711	7.861
1000 year +39% CC 2160 minute summer	21.184	5.855
1000 year +39% CC 2160 minute winter	14.597	5.855
1000 year +39% CC 2880 minute summer	17.580	4.712
1000 year +39% CC 2880 minute winter	11.815	4.712
1000 year +39% CC 4320 minute summer	13.120	3.430
1000 year +39% CC 4320 minute winter	8.640	3.430
1000 year +39% CC 5760 minute summer	10.649	2.726
1000 year +39% CC 5760 minute winter	6.893	2.726

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1000 year +39% CC 7200 minute summer	8.925	2.277
1000 year +39% CC 7200 minute winter	5.761	2.277
1000 year +39% CC 8640 minute summer	7.699	1.964
1000 year +39% CC 8640 minute winter	4.969	1.964
1000 year +39% CC 10080 minute summer	6.793	1.733
1000 year +39% CC 10080 minute winter	4.384	1.733
1000 year +45% CC 15 minute summer	559.447	158.304
1000 year +45% CC 15 minute winter	392.594	158.304
1000 year +45% CC 30 minute summer	404.198	114.374
1000 year +45% CC 30 minute winter	283.648	114.374
1000 year +45% CC 60 minute summer	292.277	77.240
1000 year +45% CC 60 minute winter	194.182	77.240
1000 year +45% CC 120 minute summer	172.281	45.529
1000 year +45% CC 120 minute winter	114.459	45.529
1000 year +45% CC 180 minute summer	131.784	33.912
1000 year +45% CC 180 minute winter	85.663	33.912
1000 year +45% CC 240 minute summer	104.788	27.693
1000 year +45% CC 240 minute winter	69.619	27.693
1000 year +45% CC 360 minute summer	81.477	20.967
1000 year +45% CC 360 minute winter	52.962	20.967
1000 year +45% CC 480 minute summer	65.421	17.289
1000 year +45% CC 480 minute winter	43.464	17.289
1000 year +45% CC 600 minute summer	54.464	14.897
1000 year +45% CC 600 minute winter	37.213	14.897
1000 year +45% CC 720 minute summer	49.214	13.190
1000 year +45% CC 720 minute winter	33.075	13.190
1000 year +45% CC 960 minute summer	41.234	10.858
1000 year +45% CC 960 minute winter	27.314	10.858
1000 year +45% CC 1440 minute summer	30.595	8.200
1000 year +45% CC 1440 minute winter	20.562	8.200
1000 year +45% CC 2160 minute summer	22.099	6.107
1000 year +45% CC 2160 minute winter	15.227	6.107
1000 year +45% CC 2880 minute summer	18.339	4.915
1000 year +45% CC 2880 minute winter	12.325	4.915
1000 year +45% CC 4320 minute summer	13.687	3.578
1000 year +45% CC 4320 minute winter	9.013	3.578
1000 year +45% CC 5760 minute summer	11.109	2.844
1000 year +45% CC 5760 minute winter	7.190	2.844
1000 year +45% CC 7200 minute summer	9.311	2.375
1000 year +45% CC 7200 minute winter	6.009	2.375
1000 year +45% CC 8640 minute summer	8.031	2.049
1000 year +45% CC 8640 minute winter	5.184	2.049
1000 year +45% CC 10080 minute summer	7.086	1.808
1000 year +45% CC 10080 minute winter	4.573	1.808
1000 year +50% CC 15 minute summer	578.738	163.763
1000 year +50% CC 15 minute winter	406.132	163.763
1000 year +50% CC 30 minute summer	418.136	118.318
1000 year +50% CC 30 minute winter	293.429	118.318
1000 year +50% CC 60 minute summer	302.356	79.904
1000 year +50% CC 60 minute winter	200.878	79.904
1000 year +50% CC 120 minute summer	178.221	47.099
1000 year +50% CC 120 minute winter	118.406	47.099

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1000 year +50% CC 180 minute summer	136.328	35.082
1000 year +50% CC 180 minute winter	88.617	35.082
1000 year +50% CC 240 minute summer	108.402	28.647
1000 year +50% CC 240 minute winter	72.020	28.647
1000 year +50% CC 360 minute summer	84.286	21.690
1000 year +50% CC 360 minute winter	54.788	21.690
1000 year +50% CC 480 minute summer	67.677	17.885
1000 year +50% CC 480 minute winter	44.963	17.885
1000 year +50% CC 600 minute summer	56.342	15.411
1000 year +50% CC 600 minute winter	38.496	15.411
1000 year +50% CC 720 minute summer	50.911	13.645
1000 year +50% CC 720 minute winter	34.216	13.645
1000 year +50% CC 960 minute summer	42.656	11.232
1000 year +50% CC 960 minute winter	28.256	11.232
1000 year +50% CC 1440 minute summer	31.650	8.483
1000 year +50% CC 1440 minute winter	21.271	8.483
1000 year +50% CC 2160 minute summer	22.861	6.318
1000 year +50% CC 2160 minute winter	15.752	6.318
1000 year +50% CC 2880 minute summer	18.971	5.084
1000 year +50% CC 2880 minute winter	12.750	5.084
1000 year +50% CC 4320 minute summer	14.159	3.702
1000 year +50% CC 4320 minute winter	9.324	3.702
1000 year +50% CC 5760 minute summer	11.492	2.942
1000 year +50% CC 5760 minute winter	7.438	2.942
1000 year +50% CC 7200 minute summer	9.632	2.457
1000 year +50% CC 7200 minute winter	6.216	2.457
1000 year +50% CC 8640 minute summer	8.308	2.119
1000 year +50% CC 8640 minute winter	5.362	2.119
1000 year +50% CC 10080 minute summer	7.330	1.870
1000 year +50% CC 10080 minute winter	4.731	1.870
1000 year +100% CC +80% Q 15 minute summer	771.650	218.350
1000 year +100% CC +80% Q 15 minute winter	541.509	218.350
1000 year +100% CC +80% Q 30 minute summer	557.515	157.758
1000 year +100% CC +80% Q 30 minute winter	391.239	157.758
1000 year +100% CC +80% Q 60 minute summer	403.141	106.538
1000 year +100% CC +80% Q 60 minute winter	267.838	106.538
1000 year +100% CC +80% Q 120 minute summer	237.629	62.798
1000 year +100% CC +80% Q 120 minute winter	157.875	62.798
1000 year +100% CC +80% Q 180 minute summer	181.771	46.776
1000 year +100% CC +80% Q 180 minute winter	118.156	46.776
1000 year +100% CC +80% Q 240 minute summer	144.536	38.197
1000 year +100% CC +80% Q 240 minute winter	96.026	38.197
1000 year +100% CC +80% Q 360 minute summer	112.382	28.920
1000 year +100% CC +80% Q 360 minute winter	73.051	28.920
1000 year +100% CC +80% Q 480 minute summer	90.236	23.847
1000 year +100% CC +80% Q 480 minute winter	59.951	23.847
1000 year +100% CC +80% Q 600 minute summer	75.123	20.548
1000 year +100% CC +80% Q 600 minute winter	51.328	20.548
1000 year +100% CC +80% Q 720 minute summer	67.882	18.193
1000 year +100% CC +80% Q 720 minute winter	45.621	18.193
1000 year +100% CC +80% Q 960 minute summer	56.874	14.976
1000 year +100% CC +80% Q 960 minute winter	37.675	14.976

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1000 year +100% CC +80% Q 1440 minute summer	42.201	11.310
1000 year +100% CC +80% Q 1440 minute winter	28.361	11.310
1000 year +100% CC +80% Q 2160 minute summer	30.481	8.424
1000 year +100% CC +80% Q 2160 minute winter	21.002	8.424
1000 year +100% CC +80% Q 2880 minute summer	25.295	6.779
1000 year +100% CC +80% Q 2880 minute winter	17.000	6.779
1000 year +100% CC +80% Q 4320 minute summer	18.878	4.936
1000 year +100% CC +80% Q 4320 minute winter	12.432	4.936
1000 year +100% CC +80% Q 5760 minute summer	15.323	3.922
1000 year +100% CC +80% Q 5760 minute winter	9.917	3.922
1000 year +100% CC +80% Q 7200 minute summer	12.842	3.276
1000 year +100% CC +80% Q 7200 minute winter	8.289	3.276
1000 year +100% CC +80% Q 8640 minute summer	11.078	2.826
1000 year +100% CC +80% Q 8640 minute winter	7.150	2.826
1000 year +100% CC +80% Q 10080 minute summer	9.773	2.493
1000 year +100% CC +80% Q 10080 minute winter	6.308	2.493



Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2160 minute winter	Detention Basin	1620	215.322	0.172	3.9	117.5849	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
2160 minute winter	Detention Basin	Hydro-Brake®	1.2	120.3



Results for 2 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2160 minute winter	Detention Basin	1620	215.365	0.215	4.7	147.9263	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
2160 minute winter	Detention Basin	Hydro-Brake®	1.3	126.6



Results for 10 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2880 minute winter	Detention Basin	2280	215.493	0.343	5.7	242.6503	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
2880 minute winter	Detention Basin	Hydro-Brake®	1.3	176.5

Results for 10 year +39% CC Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute winter	Detention Basin	2760	215.675	0.525	7.9	386.2381	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m³)
2880 minute winter	Detention Basin	Hydro-Brake®	1.3	171.3



Results for 30 year Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2880 minute winter	Detention Basin	2700	215.611	0.461	7.1	334.7286	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
2880 minute winter	Detention Basin	Hydro-Brake®	1.3	175.4

Results for 30 year +39% CC Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2880 minute winter	Detention Basin	2820	215.830	0.679	9.9	515.3260	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
2880 minute winter	Detention Basin	Hydro-Brake®	1.3	184.2



Results for 200 year Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2880 minute winter	Detention Basin	2820	215.837	0.687	10.0	521.4366	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
2880 minute winter	Detention Basin	Hydro-Brake®	1.3	184.7

Results for 200 year +39% CC Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
4320 minute winter	Detention Basin	4140	216.115	0.965	10.2	772.7838	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
4320 minute winter	Detention Basin	Hydro-Brake®	1.4	305.1

Results for 1000 year Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2880 minute winter	Detention Basin	2820	216.001	0.851	12.3	667.6325	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
2880 minute winter	Detention Basin	Hydro-Brake®	1.3	198.8

Results for 1000 year +25% CC Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
4320 minute winter	Detention Basin	4140	216.211	1.061	11.2	865.5153	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
4320 minute winter	Detention Basin	Hydro-Brake®	1.4	315.8



Results for 1000 year +39% CC Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
4320 minute winter	Detention Basin	4140	216.328	1.178	12.5	982.1683	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
4320 minute winter	Detention Basin	Hydro-Brake®	1.5	328.4

Results for 1000 year +45% CC Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
4320 minute winter	Detention Basin	4200	216.378	1.228	13.0	1033.3530	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
4320 minute winter	Detention Basin	Hydro-Brake®	1.5	333.3

Results for 1000 year +50% CC Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
4320 minute winter	Detention Basin	4200	216.421	1.271	13.5	1078.0830	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
4320 minute winter	Detention Basin	Hydro-Brake®	1.6	337.4



Results for 1000 year +100% CC +80% Q Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
8640 minute winter	Detention Basin	4500	217.000	1.850	18.6	1746.1660	1321.4050	FLOOD

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
8640 minute winter	Detention Basin	Hydro-Brake®	1.9	807.3

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	30	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	0.750	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	3.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
Detention Basin	0.620	217.000	32.618	30.702	1.850

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	x
Rainfall Events	Consecutive	Drain Down Time (mins)	240
Summer CV	0.750	Additional Storage (m³/ha)	20.0
Additional Area (A %)	0	Starting Level (m)	
Additional Flow (Q %)	0	Check Discharge Rate(s)	x
Analysis Speed	Normal	Check Discharge Volume	x

Time Offset (mins)	Duration (mins)	Return Period (years)	Climate Change (CC %)	Time Offset (mins)	Duration (mins)	Return Period (years)	Climate Change (CC %)
0	1440	10	39	1440	10080	10	39

Node Detention Basin Offline Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Loop to Node		Sump Available	✓
Invert Level (m)	215.150	Product Number	CTL-SHE-0056-1400-1000-1400
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.075
Design Flow (l/s)	1.4	Min Node Diameter (mm)	1200

Node Detention Basin Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	215.150
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	0

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	650.0	0.0	1.000	949.4	0.0	1.850	1248.4	0.0

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
Consecutive Rainfall 1440-10080	11.900	1.090



Results for Consecutive Rainfall Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
1440-10080	Detention Basin	9420	215.590	0.440	15.4	318.2330	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
1440-10080	Detention Basin	Hydro-Brake®	1.3	926.8

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	30	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	0.750	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	3.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
Detention Basin	0.620	217.000	32.651	30.882	1.850

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	0.750	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	0.840	Additional Storage (m³/ha)	20.0		

Storm Durations

1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
10	39	0	0

Node Detention Basin Offline Head/Flow Control

Flap Valve	x	Invert Level (m)	215.150	Design Flow (l/s)	1.4
Loop to Node		Design Depth (m)	0.400		

Head (m)	Flow (l/s)
1.000	0.000

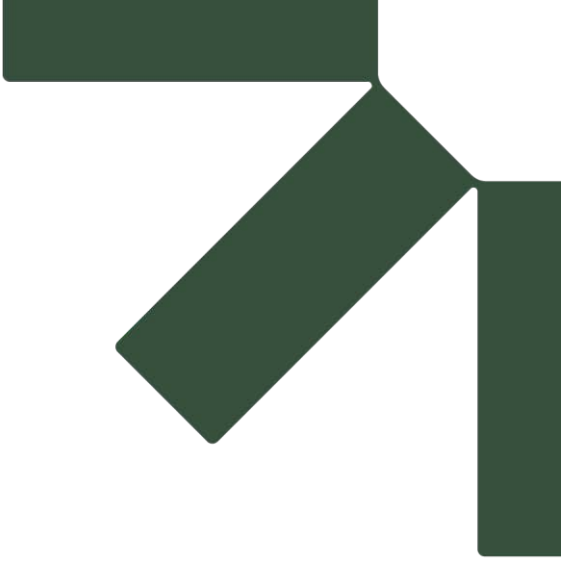
Node Detention Basin Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	215.150
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	650.0	0.0	1.000	949.4	0.0	1.850	1248.4	0.0

Results for 10 year +39% CC Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	Detention Basin	1470	215.734	0.584	12.6	434.1584	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m³)				
1440 minute winter	Detention Basin	Head/Flow	0.0	0.0				



Annex E SEPA Checklist

Technical Appendix 2.5: Flood Risk & Drainage Impact Assessment

Kirknewton Solar & BESS EIA Report

Trio Power Limited

SLR Project No.: 405.065786.00001

27 October 2025

Flood Risk Assessment (FRA) Checklist

Scotland's 4th National Planning Framework has recently been published. This document is therefore being reviewed and updated to reflect the new policies. You can still find useful and relevant information here but be aware that some parts may be out of date and our responses to planning applications may not match the information set out here.

(SS-NFR-F-001 - Version 16 - Last updated 27/08/2019)

This document must be attached within the front cover of any Flood Risk Assessments issued to Local Planning Authorities (LPA) in support of a development proposal which may be at risk of flooding. The document will take only a few minutes to complete and will assist SEPA in reviewing FRAs, when consulted by LPAs. This document should not be a substitute for a FRA.

Development Proposal Summary

Site Name:	Kirknewton Solar PV and BESS development		
Grid Reference:	Easting: 310783	Northing: 665217	
Local Authority:	West Lothian Council		
Planning Reference number (if known):			
Nature of the development:	Infrastructure		
Size of the development site:	76.1 Ha		
Identified Flood Risk:	Pluvial		
Source:	Surface water runoff		

Land Use Planning

Is any of the site within the functional floodplain? (refer to SPP para 255).

Is the site identified within the local development plan?	No	If yes, what is the net loss of storage?		m ³
If yes, what is the proposed use for the site as identified in the local plan?	No	Local Development Plan Name: Allocation Number / Reference:		Year of Publication:
Does the local development plan and/or any pre-application advice, identify any flood risk issues with or requirements for the site.	Select from List	If Other please specify:		
What is the proposed land use vulnerability?	No	If so, please specify:		
	Essential Infrastructure	Do the proposals represent an increase in land use vulnerability?	No	

Supporting Information

Have clear maps / plans been provided within the FRA (including topographic and flood inundation plans)?	Yes
Has sufficient supporting information, in line with our Technical Guidance, been provided? For example: site plans, photos, topographic information, structure information and other site specific information.	Yes
Has a historic flood search been undertaken?	Yes
Is a formal flood prevention scheme present?	No
Current / historical site use:	Agricultural land for planting & grazing
Is the site considered vacant or derelict?	No

Development Requirements

Freeboard on design water level:	600 mm
Is safe / dry access and egress available?	See report Section 5.0
Design levels:	Ground level: / m AOD
	Min access/egress level: / m AOD
	Min FFL: / m AOD

Mitigation

Can development be designed to avoid all areas at risk of flooding?	No
Is mitigation proposed?	Yes
If yes, is compensatory storage necessary?	No
Demonstration of compensatory storage on a "like for like" basis?	No
Should water resistant materials and forms of construction be used?	Yes

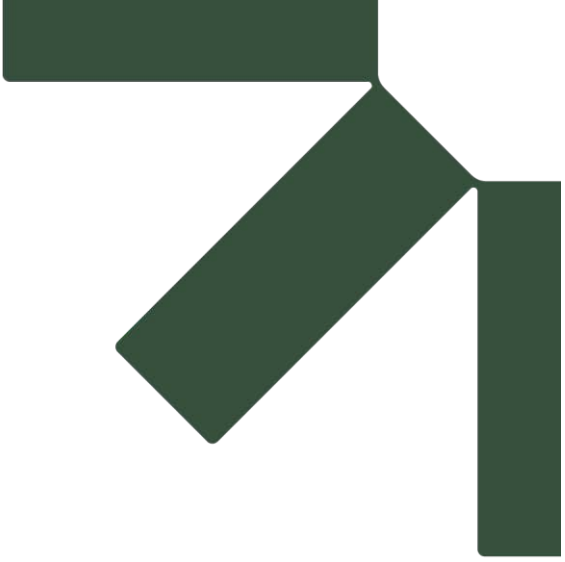
Raising of panels with adequate freeboard considered flood resilient construction

Panels to be raised 1m from ground level (min 700mm freeboard from SEPA surface water flood depths of up to 300mm)



Note: Further details and guidance is provided in 'Technical Flood Risk Guidance for Stakeholders' which can be accessed here: -

Hydrology					
Is there a requirement to consider fluvial flooding?	No	km ²	Is a map of catchment area included in FRA? Select from List		
Area of catchment:	Pooled Analysis		If Pooled analysis have group details been included? Select from List		
Estimation method(s) used (please select all that apply):	Single Site Analysis				
	Enhanced Single Site				
	RaFH2				
	FEH RRM				
	Other		If other (please specify methodology used):		
Estimate of 200 year design flood flow:	m ³ /s				
Omed estimate:	m ³ /s		Method: Select from List		
Statistical Distribution Selected:	Select from List		Reasons for selection:		
Hydraulics					
Hydraulic modelling method:	Select from List		Software used: Select from List		
Number of cross sections:			If other please specify:		
Source of data (i.e. topographic survey, LIDAR etc):			Date obtained / surveyed:		
Modelled reach length:	m		If yes please provide details:		
Any changes to default simulation parameters?			Specify, if combination:		
Model timestep:					
Model grid size:					
Any structures within the modelled length?	Select from List	m/s	Please specify climate change scenario considered:		
Maximum observed velocity:		%			
Brief summary of sensitivity tests, and range:		%			
variation on flow (%)		%			
variation on channel roughness (%)		%			
blockage of structure (range of % blocked)		%			
boundary conditions:					
(1) type	Upstream		Downstream		
	Flow		Specify if other:		
Specify if other	Select from List		Select from List		
	Select from List		Select from List		
200 year	Select from List	m AOD	200 year plus climate change m AOD		
	Select from List				
	Select from List				
	Select from List	%			
Mass balance error:					
Coastal					
Is there a requirement to consider coastal / tidal flooding?	No		m AOD		
Estimate of 200 year design flood level:	Select from List		If other please specify methodology used:		
Estimation method(s) used:		m			
Allowance for climate change (m):		m			
Allowance for wave action etc (m):		m			
Overall design flood level:		m AOD			
Comments					
Any additional comments:	Minor areas of surface water flood depths of up to 300mm for 0.5% AEP event + CC indicated on SEPA mapping for solar panels and parts of Leyden Road. There will be a minimum of 700mm from these areas of surface water flooding to the solar panels. There is no flood risk to the proposed BESS. Site to be generally unmanned and proposed to avoid access in times of flood.				
Approved by:	SLR Consulting Ltd				
Organisation:	Date: 27/10/2025				
Date:					
Note: Further details and guidance is provided in 'Technical Flood Risk Guidance for Stakeholders' which can be accessed here:- CLICK HERE					



Annex F Compliance Certificate

Technical Appendix 2.5: Flood Risk & Drainage Impact Assessment

Kirknewton Solar & BESS EIA Report

Trio Power Limited

SLR Project No.: 405.065786.00001

27 October 2025

APPENDIX A

FLOOD RISK ASSESSMENT – COMPLIANCE CERTIFICATE

This certificate must be completed and signed to accompany any Flood Risk Assessment that is submitted to the Council in support of a Planning Application.

I certify that all reasonable skill care and attention to be expected of a suitably qualified and competent professional in this field has been exercised in carrying out the Flood Risk Assessment(s) and preparing the Flood Risk Assessment Report for the development named below.

I also certify that the risk assessments and report have been carried out and prepared in accordance with current best practice and guidance and meet the requirements of CIRIA Manual C624: Development and Flood Risk – A Guidance for the Construction Industry and SEPAs Technical Flood Risk Guidance for Stakeholders Note Ref: SS-NFR-P-002.

Name and Location of Development:	Kirknewton Solar Farm
Name of Developer:	Trio Power Ltd
Planning Application Number:	TBC
Roads Construction Consent Number:	TBC
Name and Address of Organisation:	SLR Consulting Ltd The Tun, 4 Jackson's Entry, Edinburgh, United Kingdom EH8 8PJ
Signed:	 Digitally signed by robertwalker DN: cn=robertwalker, email=robertwalker@slrconsulting.com Date: 2025.11.10 16:47:20
Name:	Robert Walker
Position Held:	Principal Flood Risk Consultant
Qualifications:*	C.WEM CIWEM
Date:	27/10/2025

* Minimum qualification should be membership of an appropriate Chartered Engineering Institution.

APPENDIX C

DRAINAGE ASSESSMENT – COMPLIANCE CERTIFICATE

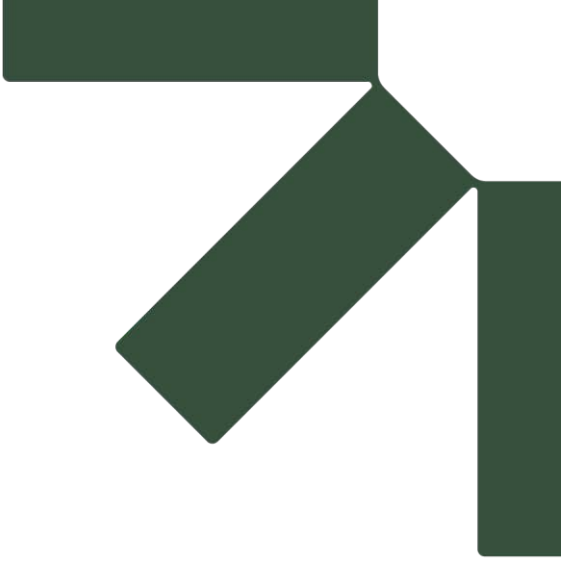
This certificate must be completed and signed to accompany any Drainage Assessment that is submitted to the Council in support of a Planning Application.

I certify that all reasonable skill care and attention to be expected of a suitably qualified and competent professional in this field has been exercised in preparing the Drainage Assessment and designing the foul and surface water drainage systems for the development named below.

I also certify that the assessment and designs have been carried out and prepared in accordance with current best practice and guidance and meet the requirements of CIRIA Manual C753: The SuDS Manual and the Water Assessment and Drainage Assessment Guide published by SUDSWP Ref: ISBN 978-1-901322-99-6.

Name and Location of Development:	Kirknewton Solar Farm
Name of Developer:	Trio Power Ltd
Planning Application Number:	TBC
Roads Construction Consent Number:	TBC
Name and Address of Organisation:	SLR Consulting Ltd The Tun, 4 Jackson's Entry, Edinburgh, United Kingdom EH8 8PJ
Signed:	 Digitally signed by robertwalker DN: cn=robertwalker, email=robertwalker@slrconsulting.com Date: 2025.11.11 11:57:04
Name:	Robert Walker
Position Held:	Principal Flood Risk Consultant
Qualifications:*	C.WEM CIWEM
Date:	27/10/2025

* Minimum qualification should be membership of an appropriate Chartered Engineering Institution.



Annex G Independent Check Certificate

Technical Appendix 2.5: Flood Risk & Drainage Impact Assessment

Kirknewton Solar & BESS EIA Report

Trio Power Limited

SLR Project No.: 405.065786.00001

27 October 2025

APPENDIX B: FLOOD RISK ASSESSMENT – INDEPENDENT CHECK CERTIFICATE

This certificate must be completed and signed to accompany any Flood Risk Assessment that is submitted to the council in support of a Planning Application for major developments.

I certify that all reasonable skill care and attention to be expected of a suitably qualified and competent professional in this field has been exercised in carrying out an independent check of the Flood Risk Assessment(s) and the Flood Risk Assessment Report for the development named below.

I also certify that I have checked that the risk assessments and report have been carried out and prepared in accordance with current best practice and guidance and meet the requirements of CIRIA Manual C624: Development and Flood Risk – A Guidance for the Construction Industry and SEPAs Technical Flood Risk Guidance for Stakeholders Note Ref: SS-NFR-P-002.

Name and Location of Development:	Kirknewton Solar PV and BESS
Name of Developer:	Trio Power Limited
Planning Application Number:	
Roads Construction Consent Number:	N/A
Name and Address of Organisation:**	Dougall Baillie Associates
Signed:	
Name:	Scott MacPhail
Position Held:	Director
Qualifications:*	BEng CEng MICE
Date:	10.11.25

* Minimum qualification should be membership of an appropriate Chartered Engineering Institution

** Organisation to be totally independent of original design organisation

APPENDIX D: DRAINAGE ASSESSMENT – INDEPENDENT CHECK CERTIFICATE

This certificate must be completed and signed to accompany any Drainage Assessment that is submitted to the council in support of a Planning Application for major developments.

I certify that all reasonable skill care and attention to be expected of a suitably qualified and competent professional in this field has been exercised in carrying out an independent check of the Drainage Assessment and design of the foul and surface water drainage systems for the development named below.

I also certify that I have checked that the drainage assessment and design have been carried out and prepared in accordance with current best practice and guidance and meet the requirements of CIRIA Manual C753: The SuDS Manual and the Water Assessment and Drainage Assessment Guide published by SUDSWP Ref: ISBN 978-1-901322-99-6.

Name and Location of Development:	Kirknewton Solar PV and BESS
Name of Developer:	Trio Power Limited
Planning Application Number:	
Roads Construction Consent Number:	N/A
Name and Address of Organisation:**	Dougall Baillie Associates
Signed:	
Name:	Scott MacPhail
Position Held:	Director
Qualifications:*	BEng CEng MICE
Date:	10.11.25

* Minimum qualification should be membership of an appropriate Chartered Engineering Institution

** Organisation to be totally independent of original design organisation



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