

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
S12.000	IR14	IR15	10.780	0.600	101.150	100.887	0.263	41.0	450	5.77	150.0
S12.001	IR15	IR16	35.059	0.600	100.887	100.043	0.844	41.6	450	5.95	150.0
S12.002	IR16	IR17	31.850	0.600	100.043	99.721	0.322	98.8	450	6.21	150.0
S12.003	IR17	IR18	29.135	0.600	99.421	98.821	0.600	48.6	750	7.59	146.6
S12.004	IR19	IR18	57.067	0.600	98.791	98.157	0.634	90.0	300	5.57	150.0
9.007	IR18	142	24.371	0.600	97.707	96.850	0.857	28.4	750	7.67	146.0
15.000	IR143	144	8.783	0.600	96.838	96.802	0.036	244.0	300	5.15	150.0
15.001	144	IR145	11.347	0.600	96.802	96.755	0.047	241.4	300	5.33	150.0
*1.000	*201	*202	76.684	0.600	104.425	103.786	0.639	120.0	375	5.77	150.0
*1.001	*202	*203	76.702	0.600	103.636	103.480	0.156	491.7	525	7.05	150.0
*1.002	*203	*204	9.451	0.600	103.480	103.460	0.020	472.5	525	7.20	149.8
*1.003	*204	*205	69.166	0.600	103.460	103.160	0.300	230.6	450	8.07	142.8
*1.004	*205	*206	78.439	0.600	103.160	100.248	2.912	26.9	450	8.40	140.4
*1.005	*206	*IR31	11.468	0.600	100.098	99.700	0.398	28.8	600	8.44	140.0
*S8.000	*IR31	*IR37	10.144	0.600	99.700	99.361	0.339	29.9	600	8.48	139.8
*S6.000	*IR32	*IR33	9.737	0.600	101.336	100.884	0.452	21.5	450	5.04	150.0
*S6.001	*IR33	*IR34	41.698	0.600	100.884	100.411	0.473	88.2	450	5.36	150.0
*S6.002	*IR34	*IR36	39.256	0.600	100.261	99.545	0.716	54.8	600	5.56	150.0
*S7.000	*IR35	*IR36	8.474	0.600	99.880	99.845	0.035	242.1	300	5.14	150.0
*S6.003	*IR36	*IR37	16.314	0.600	99.545	99.361	0.184	88.7	600	5.66	150.0
*S6.004	*IR37	*IR39	35.999	0.600	99.286	98.922	0.364	98.9	675	8.71	138.1
*S9.000	*IR38	*IR39	8.564	0.600	99.282	99.247	0.035	244.7	300	5.14	150.0
*S6.005	*IR39	*IR46	22.086	0.600	98.847	98.624	0.223	98.9	750	8.84	137.2
*5.000	*207	*208	17.972	0.600	105.300	105.120	0.180	100.0	300	5.19	150.0
*5.001	*208	*209	29.783	0.600	105.120	104.822	0.298	100.0	300	5.51	150.0
*5.002	*209	*210	15.440	0.600	104.822	104.668	0.154	100.0	300	5.67	150.0
*5.003	*210	*211	60.328	0.600	104.668	104.421	0.247	244.2	300	6.67	150.0
*5.004	*211	*212	25.946	0.600	104.346	104.266	0.080	324.3	375	7.11	150.0
*5.005	*212	*213	20.054	0.600	104.041	104.006	0.035	573.0	600	7.44	147.8
*5.006	*213	*218	11.842	0.600	104.006	103.866	0.140	84.8	450	7.53	147.1
*6.000	*214	*215	32.573	0.600	106.575	106.383	0.192	169.7	225	5.54	150.0
*6.001	*215	*216	25.681	0.600	106.308	106.089	0.219	117.3	300	5.84	150.0
*6.002	*216	*217	23.303	0.600	106.089	105.152	0.937	24.9	300	5.96	150.0
*6.003	*217	*218	16.908	0.600	105.152	104.016	1.136	14.9	300	6.03	150.0
*5.007	*218	*222	29.461	0.600	103.866	103.445	0.421	70.0	450	7.73	145.5
*7.000	*219	*220	29.583	0.600	104.454	103.702	0.752	39.3	225	5.24	150.0
*7.001	*220	*221	34.709	0.600	103.627	103.485	0.142	244.4	300	5.81	150.0
*7.002	*221	*222	10.526	0.600	103.410	103.377	0.033	319.0	375	5.99	150.0
*5.008	*222	*223	10.390	0.600	103.227	102.906	0.321	32.4	525	7.77	145.1
*5.009	*223	*224	30.270	0.600	102.906	101.398	1.508	20.1	525	7.87	144.3
*5.010	*224	*231	9.634	0.600	101.398	99.170	2.228	4.3	525	7.89	144.2
*8.000	*225	*226	17.191	0.600	104.943	104.569	0.374	45.9	225	5.15	150.0
*8.001	*226	*227	8.423	0.600	104.569	103.948	0.621	13.6	225	5.19	150.0
*8.002	*227	*228	54.870	0.600	103.873	102.490	1.383	39.7	300	5.55	150.0
*8.003	*228	*229	7.502	0.600	102.490	102.366	0.124	60.5	300	5.61	150.0
*8.004	*229	*230	72.639	0.600	102.141	101.838	0.303	239.7	525	6.45	150.0
*8.005	*230	*231	72.700	0.600	101.838	99.170	2.668	27.2	525	6.74	150.0
*5.011	*231	*IR40	43.479	0.600	98.945	98.655	0.290	149.9	750	8.21	141.8
*S11.000	*IR40	*IR45	10.070	0.600	98.655	98.487	0.168	59.9	750	8.25	141.4
*S10.000	*IR42	*IR41	61.233	0.600	97.528	97.406	0.122	500.0	1050	10.47	126.7
*S10.001	*IR43	*IR42	22.076	0.600	97.572	97.528	0.044	501.7	1050	9.80	130.8
*S10.002	*IR44	*IR43	38.859	0.600	97.650	97.572	0.078	498.2	1050	9.56	132.3
*S10.003	*IR45	*IR44	31.158	0.600	98.039	97.650	0.389	80.1	1050	9.14	135.1
*S10.004	*IR46	*IR45	28.213	0.600	98.624	98.339	0.285	99.0	750	9.00	135.9
*1.014	*IR41	*IR48	49.580	0.600	97.406	96.368	1.038	47.8	1050	10.63	125.8
*1.018	*IR51	*IR52	6.304	0.600	91.988	91.975	0.013	484.9	1050	10.95	122.0
*12.000	*232	*233	43.429	0.600	98.682	97.156	1.526	28.5	225	5.29	150.0
*12.001	*233	*234	70.676	0.600	96.931	95.993	0.938	75.3	450	5.80	150.0

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Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
*12.002	*234	*235	29.623	0.600	95.993	95.158	0.835	35.5	450	5.94	150.0
*12.003	*235	*241	35.867	0.600	95.158	94.179	0.979	36.6	450	6.12	150.0
*1.015	*IR48	*IR49	18.399	0.600	96.368	95.086	1.282	14.4	1050	10.66	125.6
*1.016	*IR49	*IR50	17.141	0.600	95.086	94.272	0.814	21.1	1050	10.70	125.4
*1.017	*IR50	*IR51	68.394	0.600	94.272	91.988	2.284	29.9	1050	10.88	124.3
*1.019	*IR52	*IR53	58.105	0.600	91.975	91.859	0.116	500.9	1200	11.53	120.8
*11.000	*240b	*240	46.753	0.600	93.574	93.282	0.292	160.1	225	5.76	150.0
*9.000	*236	*238	39.020	0.600	96.190	95.680	0.510	76.5	300	5.36	150.0
*10.000	*237	*238	35.379	0.600	95.825	95.680	0.145	244.0	300	5.59	150.0
*9.001	*238	*239	38.076	0.600	95.605	94.450	1.155	33.0	375	5.79	150.0
*9.002	*239	*240	38.434	0.600	94.450	93.132	1.318	29.2	375	5.98	150.0
*9.003	*240	*241	63.612	0.600	92.832	92.737	0.095	669.6	675	7.03	150.0
*9.004	*241	*IR54	9.289	0.600	92.737	92.251	0.486	19.1	675	7.06	150.0
*13.000	*IR243	*IR244	8.343	0.600	91.600	91.565	0.035	238.4	300	5.14	150.0
*13.002	*IR245	*IR246	5.038	0.600	91.171	91.150	0.021	239.9	300	6.57	150.0
*14.000	*247	*248	38.563	0.600	96.075	95.225	0.850	45.4	225	5.33	150.0
*14.001	*248	*249	19.800	0.600	95.225	92.875	2.350	8.4	225	5.40	150.0
*13.001	*IR244	*IR245	85.965	0.600	91.565	91.171	0.394	218.2	300	6.49	150.0
*1.020	*IR53	*IR54	66.376	0.600	91.859	91.726	0.133	499.1	1200	12.20	117.4
*1.021	*IR54	*IR242	13.105	0.600	91.726	91.700	0.026	504.0	1200	12.33	116.8
**\$4.000	**IR51b	**IR53b	27.079	0.600	101.124	100.332	0.792	34.2	225	5.20	150.0
**\$5.000	**IR52b	**IR53b	10.031	0.600	100.760	100.693	0.067	149.7	225	5.16	150.0
**\$4.001	**IR53b	**IR55	5.969	0.600	100.332	100.139	0.193	30.9	225	5.24	150.0
**\$3.000	**IR54b	**IR55	13.694	0.600	100.230	100.139	0.091	150.5	225	5.21	150.0
**\$3.001	**IR55	**IR301	16.986	0.600	100.064	99.730	0.334	50.9	300	5.37	150.0
**\$4.000	**IR302	**IR303	4.683	0.600	99.600	99.175	0.425	11.0	225	5.02	150.0
**1.005	**IR303	**IR304	9.620	0.600	98.469	98.300	0.169	56.9	300	5.10	150.0
***\$278_1.000	***\$278 01	***\$278 04	37.865	0.600	122.755	121.778	0.977	38.8	225	5.30	150.0
***\$278_2.000	***\$279 02	***\$278 04	20.984	0.600	122.384	121.778	0.606	34.6	225	5.16	150.0
***\$278_3.000	***\$278 03	***\$278 04	14.851	0.600	122.578	121.778	0.800	18.6	225	5.08	150.0
***\$278_1.001	***\$278 04	***\$278 05	20.646	0.600	121.703	121.581	0.122	169.2	225	5.64	150.0
***\$278_1.002	***\$278 05	***IR61	34.175	0.600	121.581	120.494	1.087	31.5	225	5.89	150.0
***\$1.000	***IR61	***IR62	49.789	0.600	120.494	119.241	1.253	39.7	225	6.28	150.0
***\$1.001	***IR62	***IR63	29.575	0.600	119.241	117.938	1.303	22.7	225	6.46	150.0
***\$1.002	***IR63	***IR64	22.976	0.600	117.938	116.814	1.124	20.4	225	6.60	150.0
***\$1.003	***IR64	***IR65	17.184	0.600	116.814	116.029	0.786	21.9	225	6.70	150.0
***\$1.004	***IR65	***IR66	21.705	0.600	115.954	115.296	0.658	33.0	300	6.83	150.0
***\$1.005	***IR66	***IR68	20.152	0.600	115.296	114.330	0.966	20.9	300	6.93	150.0
***\$4.000	***IR67	***IR68	9.743	0.600	114.470	114.405	0.065	150.0	225	5.15	150.0
***\$1.006	***IR68	***IR69	74.821	0.600	114.330	112.666	1.664	45.0	300	7.46	147.7
***\$1.007	***IR69	***IR70	24.071	0.600	112.666	112.073	0.593	40.6	300	7.62	146.4
***\$1.008	***IR70	***IR71	20.561	0.600	112.073	111.276	0.797	25.8	300	7.73	145.5
***\$1.009	***IR71	***IR72	38.911	0.600	111.201	109.716	1.485	26.2	375	7.91	144.0
***\$1.010	***IR72	***IR73	83.713	0.600	109.641	106.491	3.150	26.6	450	8.26	141.3
***\$1.011	***IR73	***IR74	32.719	0.600	106.416	105.167	1.249	26.2	525	8.39	140.4
***\$1.012	***IR74	***IR75	22.785	0.600	105.167	104.111	1.056	21.6	525	8.47	139.9
***\$1.013	***IR75	***IR76	27.820	0.600	104.111	103.429	0.682	40.8	525	8.60	138.9
***\$1.014	***IR76	***IR77	19.270	0.600	103.429	102.724	0.705	27.3	525	8.67	138.3
***\$1.015	***IR77	***IR79	21.563	0.600	102.724	101.961	0.763	28.3	525	8.76	137.7
***\$5.000	***IR401	***IR403	49.192	0.600	110.393	108.889	1.504	32.7	225	5.36	150.0
***\$6.000	***IR402	***IR403	36.536	0.600	107.150	107.000	0.150	243.6	300	5.61	150.0
***\$5.001	***IR403	***IR404	25.185	0.600	106.925	106.847	0.078	322.9	375	6.03	150.0
***\$5.002	***IR404	***IR405	23.792	0.600	106.847	106.773	0.074	321.5	375	6.42	150.0
***\$5.003	***IR405	***IR408	10.720	0.600	106.773	106.739	0.034	315.3	375	6.60	150.0
***\$7.000	***406	***407	37.039	0.600	108.808	107.568	1.240	29.9	225	5.26	150.0
***\$7.001	***407	***IR408	9.924	0.600	107.493	106.814	0.679	14.6	300	5.30	150.0
***\$5.004	***IR408	***IR409	9.642	0.600	106.739	105.873	0.866	11.1	375	6.63	150.0
***\$5.005	***IR409	***IR410	56.954	0.600	105.798	105.019	0.779	73.1	450	7.03	150.0

Links (Input)

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***5.006	***IR410	***IR412	8.270	0.600	105.019	104.309	0.710	11.6	450	7.05	150.0
***8.000	***411	***IR412	39.656	0.600	105.500	104.534	0.966	41.1	225	5.32	150.0
***5.007	***IR412	***IR418	19.627	0.600	104.234	104.072	0.162	120.9	525	7.21	149.7
***9.000	***413	***415	46.616	0.600	104.488	103.237	1.251	37.3	225	5.36	150.0
***10.000	***414	***415	35.064	0.600	104.856	101.870	2.986	11.7	225	5.15	150.0
***9.001	***415	***416	54.276	0.600	101.720	101.552	0.168	323.1	375	6.26	150.0
***9.002	***416	***417	9.516	0.600	101.477	101.318	0.159	59.8	450	6.32	150.0
***9.003	***417	***IR418	52.696	0.600	101.168	101.063	0.105	501.9	600	7.14	150.0
***5.008	***IR418	***IR419	4.609	0.600	100.838	100.829	0.009	512.1	825	7.27	149.2
***5.009	***IR419	***IR78	53.639	0.600	100.829	100.722	0.107	501.3	825	7.95	143.7
***S2.000	***IR78	***IR79	10.311	0.600	100.722	100.701	0.021	491.0	825	8.07	142.7
***S1.016	***IR79	***IR80	16.322	0.600	100.701	100.385	0.316	51.6	825	8.82	137.2
***S1.017	***IR80	***IR81	47.961	0.600	100.385	99.500	0.885	54.2	825	9.02	135.8
***S1.018	***IR81	***IR420	25.851	0.600	99.500	98.725	0.775	33.4	825	9.11	135.3
***11.000	***421	***422	16.369	0.600	103.604	103.034	0.570	28.7	225	5.11	150.0
***11.001	***422	***423	8.508	0.600	103.034	102.719	0.315	27.0	225	5.17	150.0
***11.002	***423	***424	44.719	0.600	102.644	100.700	1.944	23.0	300	5.39	150.0
***11.003	***424	***425	14.105	0.600	100.700	100.250	0.450	31.3	300	5.48	150.0
***11.004	***425	***426	14.065	0.600	100.250	100.192	0.058	242.5	300	5.71	150.0
***11.005	***426	***IR82	43.422	0.600	100.042	99.935	0.107	405.8	450	6.43	150.0
***11.006	***IR82	***IR85	11.010	0.600	99.935	99.587	0.348	31.6	450	6.48	150.0
***12.000	***IR83	***IR85	27.991	0.600	100.572	99.812	0.760	36.8	225	5.22	150.0
***13.000	***IR84	***IR85	11.110	0.600	100.186	99.812	0.374	29.7	225	5.08	150.0
***11.007	***IR85	***IR86	13.428	0.600	99.587	99.100	0.487	27.6	450	6.54	150.0
***45.000	***IR427	***IR428	8.500	0.600	97.813	97.776	0.037	229.7	300	5.14	150.0
***45.001	***IR428	***IR429	12.960	0.600	97.763	97.700	0.063	205.7	300	5.33	150.0

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	23.259	54.7	225	Circular	109.000	107.500	1.275	108.500	107.075	1.200
1.001	50.936	244.9	300	Circular	108.500	107.000	1.200	109.170	106.792	2.078
1.002	8.959	242.1	300	Circular	109.170	106.792	2.078	109.112	106.755	2.057
2.000	20.778	168.9	225	Circular	109.100	107.600	1.275	109.100	107.477	1.398
2.001	17.004	26.3	225	Circular	109.100	107.477	1.398	109.112	106.830	2.057
1.003	5.494	21.2	300	Circular	109.112	106.755	2.057	108.851	106.496	2.055
1.004	46.249	33.5	300	Circular	108.851	106.496	2.055	106.874	105.116	1.458
1.005	26.088	120.6	375	Circular	106.874	105.041	1.458	106.557	104.825	1.357
3.000	34.814	322.4	375	Circular	106.729	104.955	1.399	106.487	104.847	1.265
3.001	6.954	316.1	375	Circular	106.487	104.847	1.265	106.557	104.825	1.357
1.006	56.037	29.3	450	Circular	106.557	104.750	1.357	104.490	102.840	1.200
1.007	56.038	21.1	450	Circular	104.490	102.840	1.200	101.953	100.179	1.324
S18.00	10.743	16.3	450	Circular	101.953	100.179	1.324	101.582	99.518	1.614

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	101	1200	Manhole	Adoptable	102	1200	Manhole	Adoptable
1.001	102	1200	Manhole	Adoptable	103	1200	Manhole	Adoptable
1.002	103	1200	Manhole	Adoptable	106	1200	Manhole	Adoptable
2.000	104	1200	Manhole	Adoptable	105	1200	Manhole	Adoptable
2.001	105	1200	Manhole	Adoptable	106	1200	Manhole	Adoptable
1.003	106	1200	Manhole	Adoptable	107	1200	Manhole	Adoptable
1.004	107	1200	Manhole	Adoptable	108	1350	Manhole	Adoptable
1.005	108	1350	Manhole	Adoptable	111	1350	Manhole	Adoptable
3.000	109	1350	Manhole	Adoptable	110	1350	Manhole	Adoptable
3.001	110	1350	Manhole	Adoptable	111	1350	Manhole	Adoptable
1.006	111	1350	Manhole	Adoptable	112	1350	Manhole	Adoptable
1.007	112	1350	Manhole	Adoptable	IR01		Junction	
S18.00	IR01		Junction		IR07	1500	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
4.000	15.722	169.1	225	Circular	107.100	105.600	1.275	107.100	105.507	1.368
4.001	15.814	47.6	225	Circular	107.100	105.507	1.368	107.100	105.175	1.700
4.002	5.856	30.2	225	Circular	107.100	105.175	1.700	106.422	104.981	1.216
4.003	35.860	23.9	300	Circular	106.422	104.906	1.216	104.905	103.405	1.200
4.004	18.531	23.8	450	Circular	104.905	103.255	1.200	104.125	102.475	1.200
4.005	67.131	95.9	450	Circular	104.125	100.320	3.355	101.519	99.620	1.449
5.000	48.272	80.1	375	Circular	103.148	100.810	1.963	101.612	100.207	1.030
S16.001	15.150	29.6	375	Circular	101.612	100.207	1.030	101.519	99.695	1.449
S16.002	59.524	583.6	600	Circular	101.519	99.470	1.449	101.582	99.368	1.614
S16.003	14.424	225.4	600	Circular	101.582	99.368	1.614	101.716	99.304	1.812
6.000	49.649	34.8	225	Circular	108.832	107.154	1.453	107.253	105.726	1.302
6.001	21.706	119.7	375	Circular	107.253	105.576	1.302	106.970	105.395	1.200
6.002	50.582	25.0	375	Circular	106.970	105.395	1.200	104.949	103.374	1.200
6.003	50.582	19.9	375	Circular	104.949	103.374	1.200	102.488	100.834	1.279
S15.000	10.423	16.0	375	Circular	102.488	100.834	1.279	102.225	100.184	1.666
S14.000	29.742	169.0	225	Circular	102.512	100.510	1.777	102.225	100.334	1.666
S14.001	43.005	65.7	450	Circular	102.225	100.109	1.666	101.716	99.454	1.812
S14.002	8.165	544.4	1050	Circular	101.716	98.854	1.812	101.663	98.839	1.774
1.011	52.169	31.7	1050	Circular	101.663	98.839	1.774	99.831	97.193	1.588
8.000	29.494	243.7	300	Circular	99.200	98.064	0.836	99.831	97.943	1.588
1.012	68.434	1006.4	1200	Circular	99.831	97.043	1.588	99.500	96.975	1.325
1.013	51.729	689.7	1200	Circular	99.500	96.975	1.325	99.250	96.900	1.150
9.000	81.911	323.8	375	Circular	109.000	107.350	1.275	108.915	107.097	1.443
10.000	25.442	244.6	300	Circular	107.500	105.925	1.275	107.700	105.821	1.579
10.001	26.300	243.5	300	Circular	107.700	105.821	1.579	108.915	105.713	2.902
9.001	61.731	87.4	375	Circular	108.915	105.638	2.902	106.507	104.932	1.200
11.000	24.913	68.8	225	Circular	106.869	105.444	1.200	106.507	105.082	1.200
9.002	66.337	25.8	375	Circular	106.507	104.932	1.200	103.933	102.358	1.200

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
4.000	113	1200	Manhole	Adoptable	114	1200	Manhole	Adoptable
4.001	114	1200	Manhole	Adoptable	115	1200	Manhole	Adoptable
4.002	115	1200	Manhole	Adoptable	116	1200	Manhole	Adoptable
4.003	116	1200	Manhole	Adoptable	IR02		Junction	
4.004	IR02		Junction		IR03	1350	Manhole	Adoptable
4.005	IR03	1350	Manhole	Adoptable	IR06	1500	Manhole	Adoptable
5.000	IR04	1350	Manhole	Adoptable	IR05	1350	Manhole	Adoptable
S16.001	IR05	1350	Manhole	Adoptable	IR06	1500	Manhole	Adoptable
S16.002	IR06	1500	Manhole	Adoptable	IR07	1500	Manhole	Adoptable
S16.003	IR07	1500	Manhole	Adoptable	IR11	1950	Manhole	Adoptable
6.000	117	1200	Manhole	Adoptable	118	1350	Manhole	Adoptable
6.001	118	1350	Manhole	Adoptable	119	1350	Manhole	Adoptable
6.002	119	1350	Manhole	Adoptable	120	1350	Manhole	Adoptable
6.003	120	1350	Manhole	Adoptable	IR08		Junction	
S15.000	IR08		Junction		IR10	1350	Manhole	Adoptable
S14.000	IR09	1200	Manhole	Adoptable	IR10	1350	Manhole	Adoptable
S14.001	IR10	1350	Manhole	Adoptable	IR11	1950	Manhole	Adoptable
S14.002	IR11	1950	Manhole	Adoptable	IR12		Junction	
1.011	IR12		Junction		IR122	2100	Manhole	Adoptable
8.000	121	1200	Manhole	Adoptable	IR122	2100	Manhole	Adoptable
1.012	IR122	2100	Manhole	Adoptable	IR123	2100	Manhole	Adoptable
1.013	IR123	2100	Manhole	Adoptable	IR124		Junction	
9.000	125	1350	Manhole	Adoptable	128	1350	Manhole	Adoptable
10.000	126	1200	Manhole	Adoptable	127	1200	Manhole	Adoptable
10.001	127	1200	Manhole	Adoptable	128	1350	Manhole	Adoptable
9.001	128	1350	Manhole	Adoptable	130	1350	Manhole	Adoptable
11.000	129	1200	Manhole	Adoptable	130	1350	Manhole	Adoptable
9.002	130	1350	Manhole	Adoptable	136	1500	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
12.000	30.288	85.6	225	Circular	106.051	104.551	1.275	105.674	104.197	1.252
12.001	6.878	24.1	225	Circular	105.674	104.197	1.252	105.492	103.912	1.355
12.002	53.472	32.5	300	Circular	105.492	103.837	1.355	103.715	102.191	1.224
12.003	10.904	31.1	300	Circular	103.715	102.191	1.224	103.388	101.840	1.248
12.004	47.669	491.4	525	Circular	103.388	101.615	1.248	103.933	101.518	1.890
9.003	35.391	31.8	525	Circular	103.933	101.518	1.890	102.283	100.403	1.355
9.004	16.628	32.3	525	Circular	102.283	100.403	1.355	101.700	99.888	1.287
S13.000	10.562	43.7	600	Circular	101.700	99.813	1.287	101.371	99.571	1.200
13.000	14.076	246.9	375	Circular	106.689	105.114	1.200	106.882	105.057	1.450
13.001	79.170	26.1	375	Circular	106.882	105.057	1.450	103.949	102.023	1.551
13.002	25.907	32.4	375	Circular	103.949	102.023	1.551	102.873	101.225	1.273
S12.000	10.780	41.0	450	Circular	102.873	101.150	1.273	102.553	100.887	1.216
S12.001	35.059	41.6	450	Circular	102.553	100.887	1.216	101.945	100.043	1.452
S12.002	31.850	98.8	450	Circular	101.945	100.043	1.452	101.371	99.721	1.200
S12.003	29.135	48.6	750	Circular	101.371	99.421	1.200	100.821	98.821	1.250
S12.004	57.067	90.0	300	Circular	100.356	98.791	1.265	100.821	98.157	2.364
9.007	24.371	28.4	750	Circular	100.821	97.707	2.364	99.250	96.850	1.650
15.000	8.783	244.0	300	Circular	99.250	96.838	2.112	99.250	96.802	2.148
15.001	11.347	241.4	300	Circular	99.250	96.802	2.148	97.855	96.755	0.800
*1.000	76.684	120.0	375	Circular	106.000	104.425	1.200	108.195	103.786	4.034
*1.001	76.702	491.7	525	Circular	108.195	103.636	4.034	108.310	103.480	4.305
*1.002	9.451	472.5	525	Circular	108.310	103.480	4.305	108.168	103.460	4.183
*1.003	69.166	230.6	450	Circular	108.168	103.460	4.258	105.410	103.160	1.800
*1.004	78.439	26.9	450	Circular	105.410	103.160	1.800	102.055	100.248	1.357
*1.005	11.468	28.8	600	Circular	102.055	100.098	1.357	101.690	99.700	1.390
*S8.000	10.144	29.9	600	Circular	101.690	99.700	1.390	101.430	99.361	1.469

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
12.000	131	1200	Manhole	Adoptable	132	1200	Manhole	Adoptable
12.001	132	1200	Manhole	Adoptable	133	1200	Manhole	Adoptable
12.002	133	1200	Manhole	Adoptable	134	1200	Manhole	Adoptable
12.003	134	1200	Manhole	Adoptable	135	1500	Manhole	Adoptable
12.004	135	1500	Manhole	Adoptable	136	1500	Manhole	Adoptable
9.003	136	1500	Manhole	Adoptable	137	1500	Manhole	Adoptable
9.004	137	1500	Manhole	Adoptable	IR13		Junction	
S13.000	IR13		Junction		IR17	1800	Manhole	Adoptable
13.000	138	1350	Manhole	Adoptable	139	1350	Manhole	Adoptable
13.001	139	1350	Manhole	Adoptable	140	1350	Manhole	Adoptable
13.002	140	1350	Manhole	Adoptable	IR14		Junction	
S12.000	IR14		Junction		IR15	1350	Manhole	Adoptable
S12.001	IR15	1350	Manhole	Adoptable	IR16	1350	Manhole	Adoptable
S12.002	IR16	1350	Manhole	Adoptable	IR17	1800	Manhole	Adoptable
S12.003	IR17	1800	Manhole	Adoptable	IR18	1800	Manhole	Adoptable
S12.004	IR19	1200	Manhole	Adoptable	IR18	1800	Manhole	Adoptable
9.007	IR18	1800	Manhole	Adoptable	142		Junction	
15.000	IR143		Junction		144	2100	Manhole	Adoptable
15.001	144	2100	Manhole	Adoptable	IR145	1200	Manhole	Adoptable
*1.000	*201	1350	Manhole	Adoptable	*202	1500	Manhole	Adoptable
*1.001	*202	1500	Manhole	Adoptable	*203	1500	Manhole	Adoptable
*1.002	*203	1500	Manhole	Adoptable	*204	1500	Manhole	Adoptable
*1.003	*204	1500	Manhole	Adoptable	*205	1350	Manhole	Adoptable
*1.004	*205	1350	Manhole	Adoptable	*206	1350	Manhole	Adoptable
*1.005	*206	1350	Manhole	Adoptable	*IR31		Junction	
*S8.000	*IR31		Junction		*IR37	1500	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
*S6.000	9.737	21.5	450	Circular	103.059	101.336	1.273	102.809	100.884	1.475
*S6.001	41.698	88.2	450	Circular	102.809	100.884	1.475	102.125	100.411	1.264
*S6.002	39.256	54.8	600	Circular	102.125	100.261	1.264	101.624	99.545	1.479
*S7.000	8.474	242.1	300	Circular	101.380	99.880	1.200	101.624	99.845	1.479
*S6.003	16.314	88.7	600	Circular	101.624	99.545	1.479	101.430	99.361	1.469
*S6.004	35.999	98.9	675	Circular	101.430	99.286	1.469	100.973	98.922	1.376
*S9.000	8.564	244.7	300	Circular	100.720	99.282	1.138	100.973	99.247	1.426
*S6.005	22.086	98.9	750	Circular	100.973	98.847	1.376	100.705	98.624	1.331
*5.000	17.972	100.0	300	Circular	106.800	105.300	1.200	108.000	105.120	2.580
*5.001	29.783	100.0	300	Circular	108.000	105.120	2.580	109.168	104.822	4.046
*5.002	15.440	100.0	300	Circular	109.168	104.822	4.046	108.972	104.668	4.004
*5.003	60.328	244.2	300	Circular	108.972	104.668	4.004	106.730	104.421	2.009
*5.004	25.946	324.3	375	Circular	106.730	104.346	2.009	106.469	104.266	1.828
*5.005	20.054	573.0	600	Circular	106.469	104.041	1.828	106.251	104.006	1.645
*5.006	11.842	84.8	450	Circular	106.251	104.006	1.795	105.966	103.866	1.650
*6.000	32.573	169.7	225	Circular	108.000	106.575	1.200	108.616	106.383	2.008
*6.001	25.681	117.3	300	Circular	108.616	106.308	2.008	107.589	106.089	1.200
*6.002	23.303	24.9	300	Circular	107.589	106.089	1.200	106.652	105.152	1.200
*6.003	16.908	14.9	300	Circular	106.652	105.152	1.200	105.966	104.016	1.650
*5.007	29.461	70.0	450	Circular	105.966	103.866	1.650	105.052	103.445	1.157
*7.000	29.583	39.3	225	Circular	106.600	104.454	1.921	105.127	103.702	1.200
*7.001	34.709	244.4	300	Circular	105.127	103.627	1.200	105.272	103.485	1.487
*7.002	10.526	319.0	375	Circular	105.272	103.410	1.487	105.052	103.377	1.300
*5.008	10.390	32.4	525	Circular	105.052	103.227	1.300	104.631	102.906	1.200
*5.009	30.270	20.1	525	Circular	104.631	102.906	1.200	103.132	101.398	1.209
*5.010	9.634	4.3	525	Circular	103.132	101.398	1.209	102.646	99.170	2.951
*8.000	17.191	45.9	225	Circular	106.380	104.943	1.212	106.031	104.569	1.237
*8.001	8.423	13.6	225	Circular	106.031	104.569	1.237	105.809	103.948	1.636

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
*S6.000	*IR32		Junction		*IR33	1350	Manhole	Adoptable
*S6.001	*IR33	1350	Manhole	Adoptable	*IR34	1350	Manhole	Adoptable
*S6.002	*IR34	1350	Manhole	Adoptable	*IR36	1500	Manhole	Adoptable
*S7.000	*IR35		Junction		*IR36	1500	Manhole	Adoptable
*S6.003	*IR36	1500	Manhole	Adoptable	*IR37	1500	Manhole	Adoptable
*S6.004	*IR37	1500	Manhole	Adoptable	*IR39	1800	Manhole	Adoptable
*S9.000	*IR38		Junction		*IR39	1800	Manhole	Adoptable
*S6.005	*IR39	1800	Manhole	Adoptable	*IR46	1800	Manhole	Adoptable
*5.000	*207	1200	Manhole	Adoptable	*208	1200	Manhole	Adoptable
*5.001	*208	1200	Manhole	Adoptable	*209	1200	Manhole	Adoptable
*5.002	*209	1200	Manhole	Adoptable	*210	1200	Manhole	Adoptable
*5.003	*210	1200	Manhole	Adoptable	*211	1350	Manhole	Adoptable
*5.004	*211	1350	Manhole	Adoptable	*212	1500	Manhole	Adoptable
*5.005	*212	1500	Manhole	Adoptable	*213	1500	Manhole	Adoptable
*5.006	*213	1500	Manhole	Adoptable	*218	1350	Manhole	Adoptable
*6.000	*214	1200	Manhole	Adoptable	*215	1200	Manhole	Adoptable
*6.001	*215	1200	Manhole	Adoptable	*216	1200	Manhole	Adoptable
*6.002	*216	1200	Manhole	Adoptable	*217	1200	Manhole	Adoptable
*6.003	*217	1200	Manhole	Adoptable	*218	1350	Manhole	Adoptable
*5.007	*218	1350	Manhole	Adoptable	*222	1500	Manhole	Adoptable
*7.000	*219	1200	Manhole	Adoptable	*220	1200	Manhole	Adoptable
*7.001	*220	1200	Manhole	Adoptable	*221	1350	Manhole	Adoptable
*7.002	*221	1350	Manhole	Adoptable	*222	1500	Manhole	Adoptable
*5.008	*222	1500	Manhole	Adoptable	*223	1500	Manhole	Adoptable
*5.009	*223	1500	Manhole	Adoptable	*224	1500	Manhole	Adoptable
*5.010	*224	1500	Manhole	Adoptable	*231	1800	Manhole	Adoptable
*8.000	*225	1200	Manhole	Adoptable	*226	1200	Manhole	Adoptable
*8.001	*226	1200	Manhole	Adoptable	*227	1200	Manhole	Adoptable

**Pipeline Schedule**

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
*8.002	54.870	39.7	300	Circular	105.809	103.873	1.636	103.990	102.490	1.200
*8.003	7.502	60.5	300	Circular	103.990	102.490	1.200	103.866	102.366	1.200
*8.004	72.639	239.7	525	Circular	103.866	102.141	1.200	103.563	101.838	1.200
*8.005	72.700	27.2	525	Circular	103.563	101.838	1.200	102.646	99.170	2.951
*5.011	43.479	149.9	750	Circular	102.646	98.945	2.951	100.571	98.655	1.166
*S11.000	10.070	59.9	750	Circular	100.571	98.655	1.166	100.354	98.487	1.117
*S10.000	61.233	500.0	1050	Circular	100.162	97.528	1.584	100.487	97.406	2.031
*S10.001	22.076	501.7	1050	Circular	99.885	97.572	1.263	100.162	97.528	1.584
*S10.002	38.859	498.2	1050	Circular	99.900	97.650	1.200	99.885	97.572	1.263
*S10.003	31.158	80.1	1050	Circular	100.354	98.039	1.265	99.900	97.650	1.200
*S10.004	28.213	99.0	750	Circular	100.705	98.624	1.331	100.354	98.339	1.265
*1.014	49.580	47.8	1050	Circular	100.487	97.406	2.031	98.714	96.368	1.296
*1.018	6.304	484.9	1050	Circular	94.365	91.988	1.327	94.164	91.975	1.139
*12.000	43.429	28.5	225	Circular	100.156	98.682	1.249	98.591	97.156	1.210
*12.001	70.676	75.3	450	Circular	98.591	96.931	1.210	97.643	95.993	1.200
*12.002	29.623	35.5	450	Circular	97.643	95.993	1.200	96.810	95.158	1.202
*12.003	35.867	36.6	450	Circular	96.810	95.158	1.202	95.829	94.179	1.200
*1.015	18.399	14.4	1050	Circular	98.714	96.368	1.296	97.504	95.086	1.368
*1.016	17.141	21.1	1050	Circular	97.504	95.086	1.368	96.613	94.272	1.291
*1.017	68.394	29.9	1050	Circular	96.613	94.272	1.291	94.365	91.988	1.327
*1.019	58.105	500.9	1200	Circular	94.164	91.975	0.989	94.200	91.859	1.141
*11.000	46.753	160.1	225	Circular	94.400	93.574	0.601	94.807	93.282	1.300
*9.000	39.020	76.5	300	Circular	97.690	96.190	1.200	97.240	95.680	1.260
*10.000	35.379	244.0	300	Circular	97.350	95.825	1.225	97.240	95.680	1.260
*9.001	38.076	33.0	375	Circular	97.240	95.605	1.260	96.025	94.450	1.200
*9.002	38.434	29.2	375	Circular	96.025	94.450	1.200	94.807	93.132	1.300
*9.003	63.612	669.6	675	Circular	94.807	92.832	1.300	95.829	92.737	2.417
*9.004	9.289	19.1	675	Circular	95.829	92.737	2.417	95.850	92.251	2.924

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
*8.002	*227	1200	Manhole	Adoptable	*228	1200	Manhole	Adoptable
*8.003	*228	1200	Manhole	Adoptable	*229	1500	Manhole	Adoptable
*8.004	*229	1500	Manhole	Adoptable	*230	1500	Manhole	Adoptable
*8.005	*230	1500	Manhole	Adoptable	*231	1800	Manhole	Adoptable
*5.011	*231	1800	Manhole	Adoptable	*IR40		Junction	
*S11.000	*IR40		Junction		*IR45	1950	Manhole	Adoptable
*S10.000	*IR42	1950	Manhole	Adoptable	*IR41	1950	Manhole	Adoptable
*S10.001	*IR43	1200	Manhole	Adoptable	*IR42	1950	Manhole	Adoptable
*S10.002	*IR44	1950	Manhole	Adoptable	*IR43	1200	Manhole	Adoptable
*S10.003	*IR45	1950	Manhole	Adoptable	*IR44	1950	Manhole	Adoptable
*S10.004	*IR46	1800	Manhole	Adoptable	*IR45	1950	Manhole	Adoptable
*1.014	*IR41	1950	Manhole	Adoptable	*IR48	1950	Manhole	Adoptable
*1.018	*IR51	1950	Manhole	Adoptable	*IR52	2100	Manhole	Adoptable
*12.000	*232	1200	Manhole	Adoptable	*233	1350	Manhole	Adoptable
*12.001	*233	1350	Manhole	Adoptable	*234	1350	Manhole	Adoptable
*12.002	*234	1350	Manhole	Adoptable	*235	1350	Manhole	Adoptable
*12.003	*235	1350	Manhole	Adoptable	*241	1800	Manhole	Adoptable
*1.015	*IR48	1950	Manhole	Adoptable	*IR49	1950	Manhole	Adoptable
*1.016	*IR49	1950	Manhole	Adoptable	*IR50	1950	Manhole	Adoptable
*1.017	*IR50	1950	Manhole	Adoptable	*IR51	1950	Manhole	Adoptable
*1.019	*IR52	2100	Manhole	Adoptable	*IR53	2100	Manhole	Adoptable
*11.000	*240b	1200	Manhole	Adoptable	*240	1500	Manhole	Adoptable
*9.000	*236	1200	Manhole	Adoptable	*238	1350	Manhole	Adoptable
*10.000	*237	1200	Manhole	Adoptable	*238	1350	Manhole	Adoptable
*9.001	*238	1350	Manhole	Adoptable	*239	1350	Manhole	Adoptable
*9.002	*239	1350	Manhole	Adoptable	*240	1500	Manhole	Adoptable
*9.003	*240	1500	Manhole	Adoptable	*241	1800	Manhole	Adoptable
*9.004	*241	1800	Manhole	Adoptable	*IR54	2100	Manhole	Adoptable

**Pipeline Schedule**

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
*13.000	8.343	238.4	300	Circular	94.300	91.600	2.400	94.300	91.565	2.435
*13.002	5.038	239.9	300	Circular	92.200	91.171	0.729	92.050	91.150	0.600
*14.000	38.563	45.4	225	Circular	97.500	96.075	1.200	96.650	95.225	1.200
*14.001	19.800	8.4	225	Circular	96.650	95.225	1.200	94.300	92.875	1.200
*13.001	85.965	218.2	300	Circular	94.300	91.565	2.435	92.200	91.171	0.729
*1.020	66.376	499.1	1200	Circular	94.200	91.859	1.141	95.850	91.726	2.924
*1.021	13.105	504.0	1200	Circular	95.850	91.726	2.924	94.300	91.700	1.400
**S4.000	27.079	34.2	225	Circular	102.588	101.124	1.239	101.757	100.332	1.200
**S5.000	10.031	149.7	225	Circular	101.790	100.760	0.805	101.757	100.693	0.839
**S4.001	5.969	30.9	225	Circular	101.757	100.332	1.200	101.588	100.139	1.224
**S3.000	13.694	150.5	225	Circular	101.365	100.230	0.910	101.588	100.139	1.224
**S3.001	16.986	50.9	300	Circular	101.588	100.064	1.224	100.600	99.730	0.570
**4.000	4.683	11.0	225	Circular	100.600	99.600	0.775	100.600	99.175	1.200
**1.005	9.620	56.9	300	Circular	100.600	98.469	1.831	99.300	98.300	0.700
***S278_1.000	37.865	38.8	225	Circular	124.433	122.755	1.453	123.910	121.778	1.907
***S278_2.000	20.984	34.6	225	Circular	123.809	122.384	1.200	123.910	121.778	1.907
***S278_3.000	14.851	18.6	225	Circular	124.256	122.578	1.453	123.910	121.778	1.907
***S278_1.001	20.646	169.2	225	Circular	123.910	121.703	1.982	123.644	121.581	1.838
***S278_1.002	34.175	31.5	225	Circular	123.644	121.581	1.838	122.230	120.494	1.511
***S1.000	49.789	39.7	225	Circular	122.230	120.494	1.511	120.666	119.241	1.200
***S1.001	29.575	22.7	225	Circular	120.666	119.241	1.200	119.386	117.938	1.223
***S1.002	22.976	20.4	225	Circular	119.386	117.938	1.223	118.268	116.814	1.229
***S1.003	17.184	21.9	225	Circular	118.268	116.814	1.229	117.487	116.029	1.233
***S1.004	21.705	33.0	300	Circular	117.487	115.954	1.233	116.896	115.296	1.300
***S1.005	20.152	20.9	300	Circular	116.896	115.296	1.300	116.545	114.330	1.915
***4.000	9.743	150.0	225	Circular	116.620	114.470	1.925	116.545	114.405	1.915

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
*13.000	*IR243		Junction		*IR244	2100	Manhole	Adoptable
*13.002	*IR245	1200	Manhole	Adoptable	*IR246	1200	Manhole	Adoptable
*14.000	*247	1200	Manhole	Adoptable	*248	1200	Manhole	Adoptable
*14.001	*248	1200	Manhole	Adoptable	*249		Junction	
*13.001	*IR244	2100	Manhole	Adoptable	*IR245	1200	Manhole	Adoptable
*1.020	*IR53	2100	Manhole	Adoptable	*IR54	2100	Manhole	Adoptable
*1.021	*IR54	2100	Manhole	Adoptable	*IR242		Junction	
**S4.000	**IR51b	1200	Manhole	Adoptable	**IR53b	1200	Manhole	Adoptable
**S5.000	**IR52b		Junction		**IR53b	1200	Manhole	Adoptable
**S4.001	**IR53b	1200	Manhole	Adoptable	**IR55	1200	Manhole	Adoptable
**S3.000	**IR54b	1200	Manhole	Adoptable	**IR55	1200	Manhole	Adoptable
**S3.001	**IR55	1200	Manhole	Adoptable	**IR301		Junction	
**4.000	**IR302		Junction		**IR303	1200	Manhole	Adoptable
**1.005	**IR303	1200	Manhole	Adoptable	**IR304		Junction	
***S278_1.000	***S278 01	1200	Manhole	Adoptable	***S278 04	1200	Manhole	Adoptable
***S278_2.000	***S279 02	1200	Manhole	Adoptable	***S278 04	1200	Manhole	Adoptable
***S278_3.000	***S278 03	1200	Manhole	Adoptable	***S278 04	1200	Manhole	Adoptable
***S278_1.001	***S278 04	1200	Manhole	Adoptable	***S278 05	1200	Manhole	Adoptable
***S278_1.002	***S278 05	1200	Manhole	Adoptable	***IR61	1200	Manhole	Adoptable
***S1.000	***IR61	1200	Manhole	Adoptable	***IR62	1200	Manhole	Adoptable
***S1.001	***IR62	1200	Manhole	Adoptable	***IR63	1200	Manhole	Adoptable
***S1.002	***IR63	1200	Manhole	Adoptable	***IR64	1200	Manhole	Adoptable
***S1.003	***IR64	1200	Manhole	Adoptable	***IR65	1200	Manhole	Adoptable
***S1.004	***IR65	1200	Manhole	Adoptable	***IR66	1200	Manhole	Adoptable
***S1.005	***IR66	1200	Manhole	Adoptable	***IR68	1200	Manhole	Adoptable
***4.000	***IR67	1200	Manhole	Adoptable	***IR68	1200	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
***S1.006	74.821	45.0	300	Circular	116.545	114.330	1.915	114.272	112.666	1.306
***S1.007	24.071	40.6	300	Circular	114.272	112.666	1.306	113.598	112.073	1.225
***S1.008	20.561	25.8	300	Circular	113.598	112.073	1.225	112.801	111.276	1.225
***S1.009	38.911	26.2	375	Circular	112.801	111.201	1.225	111.306	109.716	1.215
***S1.010	83.713	26.6	450	Circular	111.306	109.641	1.215	108.156	106.491	1.215
***S1.011	32.719	26.2	525	Circular	108.156	106.416	1.215	106.944	105.167	1.252
***S1.012	22.785	21.6	525	Circular	106.944	105.167	1.252	106.127	104.111	1.491
***S1.013	27.820	40.8	525	Circular	106.127	104.111	1.491	105.240	103.429	1.286
***S1.014	19.270	27.3	525	Circular	105.240	103.429	1.286	104.449	102.724	1.200
***S1.015	21.563	28.3	525	Circular	104.449	102.724	1.200	103.686	101.961	1.200
***5.000	49.192	32.7	225	Circular	112.743	110.393	2.125	110.314	108.889	1.200
***6.000	36.536	243.6	300	Circular	109.420	107.150	1.970	110.314	107.000	3.014
***5.001	25.185	322.9	375	Circular	110.314	106.925	3.014	109.691	106.847	2.469
***5.002	23.792	321.5	375	Circular	109.691	106.847	2.469	108.997	106.773	1.849
***5.003	10.720	315.3	375	Circular	108.997	106.773	1.849	108.651	106.739	1.537
***7.000	37.039	29.9	225	Circular	110.526	108.808	1.493	109.019	107.568	1.226
***7.001	9.924	14.6	300	Circular	109.019	107.493	1.226	108.651	106.814	1.537
***5.004	9.642	11.1	375	Circular	108.651	106.739	1.537	108.348	105.873	2.100
***5.005	56.954	73.1	450	Circular	108.348	105.798	2.100	106.669	105.019	1.200
***5.006	8.270	11.6	450	Circular	106.669	105.019	1.200	106.669	104.309	1.910
***8.000	39.656	41.1	225	Circular	107.851	105.500	2.126	106.669	104.534	1.910
***5.007	19.627	120.9	525	Circular	106.669	104.234	1.910	105.797	104.072	1.200
***9.000	46.616	37.3	225	Circular	107.211	104.488	2.498	104.662	103.237	1.200
***10.000	35.064	11.7	225	Circular	106.700	104.856	1.619	104.662	101.870	2.567
***9.001	54.276	323.1	375	Circular	104.662	101.720	2.567	103.161	101.552	1.234
***9.002	9.516	59.8	450	Circular	103.161	101.477	1.234	103.369	101.318	1.601
***9.003	52.696	501.9	600	Circular	103.369	101.168	1.601	105.797	101.063	4.134
***5.008	4.609	512.1	825	Circular	105.797	100.838	4.134	105.819	100.829	4.165

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
***S1.006	***IR68	1200	Manhole	Adoptable	***IR69	1200	Manhole	Adoptable
***S1.007	***IR69	1200	Manhole	Adoptable	***IR70	1200	Manhole	Adoptable
***S1.008	***IR70	1200	Manhole	Adoptable	***IR71	1350	Manhole	Adoptable
***S1.009	***IR71	1350	Manhole	Adoptable	***IR72	1350	Manhole	Adoptable
***S1.010	***IR72	1350	Manhole	Adoptable	***IR73	1500	Manhole	Adoptable
***S1.011	***IR73	1500	Manhole	Adoptable	***IR74	1500	Manhole	Adoptable
***S1.012	***IR74	1500	Manhole	Adoptable	***IR75	1500	Manhole	Adoptable
***S1.013	***IR75	1500	Manhole	Adoptable	***IR76	1500	Manhole	Adoptable
***S1.014	***IR76	1500	Manhole	Adoptable	***IR77	1500	Manhole	Adoptable
***S1.015	***IR77	1500	Manhole	Adoptable	***IR79	1800	Manhole	Adoptable
***5.000	***IR401	1200	Manhole	Adoptable	***IR403	1350	Manhole	Adoptable
***6.000	***IR402	1200	Manhole	Adoptable	***IR403	1350	Manhole	Adoptable
***5.001	***IR403	1350	Manhole	Adoptable	***IR404	1350	Manhole	Adoptable
***5.002	***IR404	1350	Manhole	Adoptable	***IR405	1350	Manhole	Adoptable
***5.003	***IR405	1350	Manhole	Adoptable	***IR408	1350	Manhole	Adoptable
***7.000	***406	1200	Manhole	Adoptable	***407	1200	Manhole	Adoptable
***7.001	***407	1200	Manhole	Adoptable	***IR408	1350	Manhole	Adoptable
***5.004	***IR408	1350	Manhole	Adoptable	***IR409	1350	Manhole	Adoptable
***5.005	***IR409	1350	Manhole	Adoptable	***IR410	1350	Manhole	Adoptable
***5.006	***IR410	1350	Manhole	Adoptable	***IR412	1500	Manhole	Adoptable
***8.000	***411	1200	Manhole	Adoptable	***IR412	1500	Manhole	Adoptable
***5.007	***IR412	1500	Manhole	Adoptable	***IR418	1800	Manhole	Adoptable
***9.000	***413	1200	Manhole	Adoptable	***415	1350	Manhole	Adoptable
***10.000	***414	1200	Manhole	Adoptable	***415	1350	Manhole	Adoptable
***9.001	***415	1350	Manhole	Adoptable	***416	1350	Manhole	Adoptable
***9.002	***416	1350	Manhole	Adoptable	***417	1500	Manhole	Adoptable
***9.003	***417	1500	Manhole	Adoptable	***IR418	1800	Manhole	Adoptable
***5.008	***IR418	1800	Manhole	Adoptable	***IR419	1800	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
***5.009	53.639	501.3	825	Circular	105.819	100.829	4.165	104.065	100.722	2.518
***S2.000	10.311	491.0	825	Circular	104.065	100.722	2.518	103.686	100.701	2.160
***S1.016	16.322	51.6	825	Circular	103.686	100.701	2.160	103.076	100.385	1.866
***S1.017	47.961	54.2	825	Circular	103.076	100.385	1.866	101.634	99.500	1.309
***S1.018	25.851	33.4	825	Circular	101.634	99.500	1.309	100.750	98.725	1.200
***11.000	16.369	28.7	225	Circular	105.029	103.604	1.200	104.459	103.034	1.200
***11.001	8.508	27.0	225	Circular	104.459	103.034	1.200	104.144	102.719	1.200
***11.002	44.719	23.0	300	Circular	104.144	102.644	1.200	102.200	100.700	1.200
***11.003	14.105	31.3	300	Circular	102.200	100.700	1.200	101.750	100.250	1.200
***11.004	14.065	242.5	300	Circular	101.750	100.250	1.200	102.200	100.192	1.708
***11.005	43.422	405.8	450	Circular	102.200	100.042	1.708	102.066	99.935	1.681
***11.006	11.010	31.6	450	Circular	102.066	99.935	1.681	101.916	99.587	1.879
***12.000	27.991	36.8	225	Circular	102.626	100.572	1.829	101.916	99.812	1.879
***13.000	11.110	29.7	225	Circular	101.611	100.186	1.200	101.916	99.812	1.879
***11.007	13.428	27.6	450	Circular	101.916	99.587	1.879	100.750	99.100	1.200
***45.000	8.500	229.7	300	Circular	100.650	97.813	2.537	100.650	97.776	2.574
***45.001	12.960	205.7	300	Circular	100.650	97.763	2.587	98.800	97.700	0.800

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
***5.009	***IR419	1800	Manhole	Adoptable	***IR78	1800	Manhole	Adoptable
***S2.000	***IR78	1800	Manhole	Adoptable	***IR79	1800	Manhole	Adoptable
***S1.016	***IR79	1800	Manhole	Adoptable	***IR80	1800	Manhole	Adoptable
***S1.017	***IR80	1800	Manhole	Adoptable	***IR81	1800	Manhole	Adoptable
***S1.018	***IR81	1800	Manhole	Adoptable	***IR420		Junction	
***11.000	***421	1200	Manhole	Adoptable	***422	1200	Manhole	Adoptable
***11.001	***422	1200	Manhole	Adoptable	***423	1200	Manhole	Adoptable
***11.002	***423	1200	Manhole	Adoptable	***424	1200	Manhole	Adoptable
***11.003	***424	1200	Manhole	Adoptable	***425	1200	Manhole	Adoptable
***11.004	***425	1200	Manhole	Adoptable	***426	1350	Manhole	Adoptable
***11.005	***426	1350	Manhole	Adoptable	***IR82	1350	Manhole	Adoptable
***11.006	***IR82	1350	Manhole	Adoptable	***IR85	1350	Manhole	Adoptable
***12.000	***IR83	1200	Manhole	Adoptable	***IR85	1350	Manhole	Adoptable
***13.000	***IR84	1200	Manhole	Adoptable	***IR85	1350	Manhole	Adoptable
***11.007	***IR85	1350	Manhole	Adoptable	***IR86		Junction	
***45.000	***IR427		Junction		***IR428	2100	Manhole	Adoptable
***45.001	***IR428	2100	Manhole	Adoptable	***IR429		Junction	

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	20.0		

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	45	0	0
30	0	0	0				

Node 144 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	15.001	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0202-2600-2400-2600
Invert Level (m)	96.802	Min Outlet Diameter (m)	0.225
Design Depth (m)	2.400	Min Node Diameter (mm)	2100
Design Flow (l/s)	26.0		

Node *IR244 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	*13.001	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0207-2730-2400-2730
Invert Level (m)	91.565	Min Outlet Diameter (m)	0.225
Design Depth (m)	2.400	Min Node Diameter (mm)	2100
Design Flow (l/s)	27.3		

Node **IR303 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	**1.005	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0041-1000-1771-1000
Invert Level (m)	98.469	Min Outlet Diameter (m)	0.075
Design Depth (m)	1.771	Min Node Diameter (mm)	1200
Design Flow (l/s)	1.0		

Node **IR52b Online Orifice Control

Flap Valve	x	Invert Level (m)	100.760	Diameter (m)	0.015
Downstream Link	**S5.000	Design Depth (m)	1.030	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.5		

Node ***IR428 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	***45.001	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0151-1520-2700-1520
Invert Level (m)	97.763	Min Outlet Diameter (m)	0.225
Design Depth (m)	2.700	Min Node Diameter (mm)	1800
Design Flow (l/s)	15.2		

Node IR143 Pond Storage Structure

Invert Level (m)	96.850	Time to half empty (mins)	Analyse flow through structure	x
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Inlets

IR124 | 142

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	1677.0	2.400	3439.0

Node *IR243 Pond Storage Structure

Invert Level (m)	91.600	Time to half empty (mins)	Analyse flow through structure	x
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Inlets

*249 | *IR242

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	1394.0	2.700	3790.0

Node **IR52b Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	100.760
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

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)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	254.4	254.4	0.800	254.4	299.6	0.801	0.0	299.6	1.030	0.0	299.6

Node **IR302 Pond Storage Structure

Invert Level (m)	99.600	Time to half empty (mins)	0	Analyse flow through structure	x
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Inlets****IR301**

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	258.8	1.000	485.1

Node *IR427 Pond Storage Structure**

Invert Level (m)	97.813	Time to half empty (mins)		Analyse flow through structure	x
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Inlets*****IR86 ***IR420**

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	755.2	2.950	1924.7

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	101	10	107.568	0.068	13.4	0.1792	0.0000	OK
15 minute summer	102	11	107.088	0.088	13.2	0.1000	0.0000	OK
15 minute summer	103	11	106.881	0.089	13.2	0.1009	0.0000	OK
15 minute summer	104	10	107.670	0.070	7.5	0.1370	0.0000	OK
15 minute summer	105	11	107.519	0.042	7.4	0.0473	0.0000	OK
15 minute summer	106	11	106.827	0.072	24.9	0.1058	0.0000	OK
15 minute summer	107	11	106.569	0.073	24.9	0.0830	0.0000	OK
15 minute summer	108	11	105.156	0.115	34.5	0.2740	0.0000	OK
15 minute summer	109	10	105.053	0.098	16.2	0.2899	0.0000	OK
15 minute summer	110	11	104.948	0.101	15.9	0.1441	0.0000	OK
15 minute summer	111	11	104.863	0.113	78.0	0.4697	0.0000	OK
15 minute summer	112	11	102.941	0.101	77.8	0.1442	0.0000	OK
15 minute summer	IR01	11	100.276	0.097	77.0	0.0000	0.0000	OK
15 minute summer	113	10	105.662	0.062	6.1	0.1118	0.0000	OK
15 minute summer	114	10	105.551	0.044	6.0	0.0500	0.0000	OK
15 minute summer	115	11	105.216	0.041	6.0	0.0461	0.0000	OK
15 minute summer	116	10	104.971	0.065	23.6	0.2021	0.0000	OK
15 minute summer	IR02	11	103.313	0.058	23.2	0.0000	0.0000	OK
15 minute summer	IR03	11	100.430	0.110	42.7	0.2526	0.0000	OK
15 minute summer	IR04	10	100.870	0.060	11.9	0.1378	0.0000	OK
15 minute summer	IR05	11	100.257	0.050	13.1	0.0795	0.0000	OK
15 minute summer	IR06	12	99.663	0.193	61.7	0.4473	0.0000	OK
15 minute summer	IR07	12	99.624	0.256	148.8	0.7038	0.0000	OK
15 minute summer	117	10	107.214	0.060	13.7	0.1491	0.0000	OK
15 minute summer	118	10	105.672	0.096	23.8	0.2374	0.0000	OK
15 minute summer	119	11	105.470	0.075	36.0	0.2067	0.0000	OK
15 minute summer	120	11	103.460	0.086	52.3	0.2804	0.0000	OK
15 minute summer	IR08	11	100.919	0.085	52.3	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	101	1.000	102	13.2	1.339	0.187	0.2289	
15 minute summer	102	1.001	103	13.2	0.763	0.187	0.8873	
15 minute summer	103	1.002	106	13.1	0.880	0.184	0.1366	
15 minute summer	104	2.000	105	7.4	0.969	0.185	0.1604	
15 minute summer	105	2.001	106	7.3	1.474	0.072	0.0846	
15 minute summer	106	1.003	107	24.9	1.894	0.103	0.0722	
15 minute summer	107	1.004	108	24.5	1.870	0.127	0.6069	
15 minute summer	108	1.005	111	34.0	1.245	0.187	0.7149	
15 minute summer	109	3.000	110	15.9	0.695	0.143	0.8028	
15 minute summer	110	3.001	111	15.9	0.726	0.142	0.1524	
15 minute summer	111	1.006	112	77.8	2.710	0.130	1.6107	
15 minute summer	112	1.007	IR01	77.0	3.001	0.109	1.4394	
15 minute summer	IR01	S18.00	IR07	77.1	3.009	0.096	0.2822	
15 minute summer	113	4.000	114	6.0	0.846	0.151	0.1125	
15 minute summer	114	4.001	115	6.0	1.154	0.079	0.0819	
15 minute summer	115	4.002	116	6.0	1.287	0.063	0.0274	
15 minute summer	116	4.003	IR02	23.2	2.093	0.102	0.3984	
15 minute summer	IR02	4.004	IR03	23.3	1.982	0.035	0.2181	
15 minute summer	IR03	4.005	IR06	42.3	1.443	0.128	1.9696	
15 minute summer	IR04	5.000	IR05	11.7	1.180	0.052	0.4791	
15 minute summer	IR05	S16.001	IR06	13.1	1.562	0.035	0.1268	
15 minute summer	IR06	S16.002	IR07	59.3	0.626	0.210	5.7394	
15 minute summer	IR07	S16.003	IR11	147.8	1.388	0.323	1.5369	
15 minute summer	117	6.000	118	13.3	1.602	0.150	0.4122	
15 minute summer	118	6.001	119	23.5	1.257	0.129	0.4080	
15 minute summer	119	6.002	120	35.7	2.060	0.089	0.8777	
15 minute summer	120	6.003	IR08	52.3	2.758	0.116	0.9598	
15 minute summer	IR08	S15.000	IR10	52.5	2.895	0.105	0.1891	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR09	11	100.570	0.060	6.2	0.0988	0.0000	OK
15 minute summer	IR10	11	100.245	0.136	74.6	0.3766	0.0000	OK
15 minute summer	IR11	12	99.130	0.276	226.9	0.9986	0.0000	OK
15 minute summer	IR12	12	98.986	0.147	228.3	0.1167	0.0000	OK
15 minute summer	121	11	98.152	0.088	13.1	0.2697	0.0000	OK
15 minute summer	IR122	12	97.402	0.359	272.7	1.7832	0.0000	OK
15 minute summer	IR123	13	97.288	0.313	271.3	1.0858	0.0000	OK
960 minute summer	IR124	630	97.246	0.396	47.1	0.0000	0.0000	OK
15 minute summer	125	11	107.446	0.096	17.3	0.3057	0.0000	OK
15 minute summer	126	10	106.006	0.081	10.8	0.1842	0.0000	OK
15 minute summer	127	11	105.901	0.080	10.6	0.0901	0.0000	OK
15 minute summer	128	11	105.750	0.112	39.9	0.2457	0.0000	OK
15 minute summer	129	10	105.495	0.051	6.9	0.0988	0.0000	OK
15 minute summer	130	11	105.032	0.100	61.4	0.3130	0.0000	OK
15 minute summer	131	10	104.621	0.070	10.8	0.1649	0.0000	OK
15 minute summer	132	11	104.248	0.051	10.6	0.0581	0.0000	OK
15 minute summer	133	10	103.912	0.076	27.4	0.2150	0.0000	OK
15 minute summer	134	11	102.271	0.080	27.1	0.0908	0.0000	OK
15 minute summer	135	11	101.765	0.150	36.8	0.4085	0.0000	OK
15 minute summer	136	11	101.650	0.132	113.6	0.3911	0.0000	OK
15 minute summer	137	11	100.536	0.133	112.8	0.2350	0.0000	OK
15 minute summer	IR13	11	99.954	0.142	111.8	0.0000	0.0000	OK
15 minute summer	138	10	105.205	0.091	15.4	0.2801	0.0000	OK
15 minute summer	139	10	105.139	0.082	42.2	0.3206	0.0000	OK
15 minute summer	140	11	102.111	0.088	41.7	0.1258	0.0000	OK
15 minute summer	IR14	11	101.239	0.089	41.6	0.0000	0.0000	OK
15 minute summer	IR15	11	100.982	0.096	51.0	0.2307	0.0000	OK
15 minute summer	IR16	11	100.174	0.131	56.1	0.2479	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR09	S14.000	IR10	6.0	0.723	0.151	0.2478	
15 minute summer	IR10	S14.001	IR11	74.9	1.917	0.187	1.6794	
15 minute summer	IR11	S14.002	IR12	217.3	1.753	0.171	1.0378	
15 minute summer	IR12	1.011	IR122	239.5	2.749	0.045	5.0924	
15 minute summer	121	8.000	IR122	12.8	0.760	0.180	0.4958	
15 minute summer	IR122	1.012	IR123	271.3	1.075	0.205	17.5115	
15 minute summer	IR123	1.013	IR124	265.7	1.248	0.166	11.0337	
15 minute summer	125	9.000	128	15.4	0.742	0.139	1.6991	
15 minute summer	126	10.000	127	10.6	0.730	0.150	0.3803	
15 minute summer	127	10.001	128	10.5	0.716	0.148	0.3842	
15 minute summer	128	9.001	130	39.5	1.548	0.185	1.5766	
15 minute summer	129	11.000	130	6.7	1.027	0.107	0.1639	
15 minute summer	130	9.002	136	60.0	2.596	0.152	1.5345	
15 minute summer	131	12.000	132	10.6	1.232	0.189	0.2632	
15 minute summer	132	12.001	133	10.6	1.636	0.099	0.0445	
15 minute summer	133	12.002	134	27.1	1.884	0.138	0.7712	
15 minute summer	134	12.003	135	27.2	1.898	0.136	0.1563	
15 minute summer	135	12.004	136	37.2	0.799	0.171	2.2186	
15 minute summer	136	9.003	137	112.8	2.646	0.131	1.5091	
15 minute summer	137	9.004	IR13	111.8	2.716	0.131	0.6872	
15 minute summer	IR13	S13.000	IR17	112.2	2.351	0.108	0.5041	
15 minute summer	138	13.000	139	15.2	0.795	0.120	0.2693	
15 minute summer	139	13.001	140	41.7	2.255	0.106	1.4690	
15 minute summer	140	13.002	IR14	41.6	2.153	0.118	0.5010	
15 minute summer	IR14	S12.000	IR15	41.7	1.784	0.082	0.2518	
15 minute summer	IR15	S12.001	IR16	51.1	1.648	0.102	1.1001	
15 minute summer	IR16	S12.002	IR17	55.6	1.510	0.171	1.1738	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR17	11	99.588	0.167	173.3	0.5206	0.0000	OK
15 minute summer	IR18	11	97.883	0.176	211.1	0.6137	0.0000	OK
15 minute summer	IR19	11	98.882	0.091	23.8	0.3367	0.0000	OK
960 minute summer	142	630	97.245	0.395	37.0	0.0000	0.0000	OK
960 minute summer	IR143	630	97.239	0.401	40.9	717.2657	0.0000	SURCHARGED
960 minute summer	144	630	97.234	0.432	23.2	1.4965	0.0000	SURCHARGED
960 minute summer	IR145	630	96.871	0.116	23.2	0.0000	0.0000	OK
15 minute summer	*201	11	104.505	0.080	19.3	0.2806	0.0000	OK
15 minute summer	*202	11	103.777	0.140	33.9	0.3327	0.0000	OK
15 minute summer	*203	12	103.631	0.151	34.1	0.2667	0.0000	OK
15 minute summer	*204	12	103.605	0.145	44.0	0.3287	0.0000	OK
15 minute summer	*205	12	103.255	0.095	60.7	0.2874	0.0000	OK
15 minute summer	*206	12	100.189	0.091	59.9	0.1296	0.0000	OK
15 minute summer	*IR31	12	99.790	0.090	59.9	0.0000	0.0000	OK
15 minute summer	*IR32	10	101.414	0.078	47.5	0.3637	0.0000	OK
15 minute summer	*IR33	10	100.999	0.115	48.0	0.1720	0.0000	OK
15 minute summer	*IR34	11	100.355	0.094	51.2	0.1698	0.0000	OK
15 minute summer	*IR35	10	99.987	0.107	18.4	0.2217	0.0000	OK
15 minute summer	*IR36	11	99.685	0.140	74.3	0.3069	0.0000	OK
15 minute summer	*IR37	12	99.465	0.179	131.5	0.3539	0.0000	OK
15 minute summer	*IR38	10	99.389	0.107	18.4	0.2317	0.0000	OK
15 minute summer	*IR39	12	99.039	0.192	153.1	0.5801	0.0000	OK
15 minute summer	*207	10	105.362	0.062	9.9	0.1384	0.0000	OK
15 minute summer	*208	10	105.181	0.061	9.8	0.0688	0.0000	OK
15 minute summer	*209	11	104.882	0.060	9.7	0.0674	0.0000	OK
15 minute summer	*210	11	104.783	0.114	22.3	0.1879	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR17	S12.003	IR18	173.4	2.517	0.098	2.0084	
15 minute summer	IR18	9.007	142	210.7	5.559	0.091	1.0792	
15 minute summer	IR19	S12.004	IR18	23.1	1.295	0.197	1.0197	
960 minute summer	IR143	15.000	144	23.2	0.330	0.328	0.6185	
960 minute summer	144	15.001	IR145	23.2	0.871	0.326	0.3025	990.7
15 minute summer	*201	*1.000	*202	18.3	1.072	0.100	1.3118	
15 minute summer	*202	*1.001	*203	34.1	0.724	0.157	3.6475	
15 minute summer	*203	*1.002	*204	32.9	0.665	0.148	0.4703	
15 minute summer	*204	*1.003	*205	43.8	1.301	0.206	2.3550	
15 minute summer	*205	*1.004	*206	59.9	2.513	0.096	1.8711	
15 minute summer	*206	*1.005	*IR31	59.9	2.262	0.047	0.3036	
15 minute summer	*IR31	*S8.000	*IR37	59.7	2.161	0.047	0.2976	
15 minute summer	*IR32	*S6.000	*IR33	47.3	1.901	0.068	0.2452	
15 minute summer	*IR33	*S6.001	*IR34	47.1	1.521	0.137	1.2951	
15 minute summer	*IR34	*S6.002	*IR36	51.4	1.338	0.055	1.5252	
15 minute summer	*IR35	*S7.000	*IR36	18.2	0.832	0.256	0.1855	
15 minute summer	*IR36	*S6.003	*IR37	74.9	1.612	0.102	0.7588	
15 minute summer	*IR37	*S6.004	*IR39	133.1	1.848	0.141	2.5946	
15 minute summer	*IR38	*S9.000	*IR39	18.2	0.830	0.257	0.1878	
15 minute summer	*IR39	*S6.005	*IR46	154.0	1.720	0.124	1.9770	
15 minute summer	*207	*5.000	*208	9.8	0.947	0.088	0.1856	
15 minute summer	*208	*5.001	*209	9.7	0.974	0.087	0.2989	
15 minute summer	*209	*5.002	*210	9.7	0.585	0.088	0.2670	
15 minute summer	*210	*5.003	*211	21.2	0.886	0.300	1.4545	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	*211	11	104.495	0.149	34.9	0.3656	0.0000	OK
15 minute summer	*212	11	104.194	0.153	45.2	0.3925	0.0000	OK
15 minute summer	*213	11	104.125	0.119	44.7	0.2099	0.0000	OK
15 minute summer	*214	11	106.644	0.069	8.2	0.1453	0.0000	OK
15 minute summer	*215	11	106.388	0.080	14.2	0.1280	0.0000	OK
15 minute summer	*216	11	106.147	0.058	17.4	0.0865	0.0000	OK
15 minute summer	*217	11	105.208	0.056	20.5	0.0833	0.0000	OK
15 minute summer	*218	11	104.002	0.135	70.5	0.2608	0.0000	OK
15 minute summer	*219	10	104.495	0.041	6.1	0.0664	0.0000	OK
15 minute summer	*220	11	103.721	0.094	14.8	0.1988	0.0000	OK
15 minute summer	*221	11	103.527	0.117	21.4	0.2443	0.0000	OK
15 minute summer	*222	11	103.357	0.130	90.8	0.2301	0.0000	OK
15 minute summer	*223	11	103.021	0.115	96.1	0.2681	0.0000	OK
15 minute summer	*224	12	101.476	0.079	95.7	0.1389	0.0000	OK
15 minute summer	*225	10	105.011	0.068	13.2	0.1816	0.0000	OK
15 minute summer	*226	10	104.617	0.049	13.1	0.0551	0.0000	OK
15 minute summer	*227	10	103.955	0.083	30.2	0.2173	0.0000	OK
15 minute summer	*228	11	102.594	0.104	29.8	0.1179	0.0000	OK
15 minute summer	*229	11	102.290	0.149	50.5	0.5771	0.0000	OK
15 minute summer	*230	11	101.934	0.096	68.8	0.3441	0.0000	OK
15 minute summer	*231	11	99.160	0.215	178.1	0.7100	0.0000	OK
15 minute summer	*IR40	12	98.838	0.184	177.6	0.0000	0.0000	OK
15 minute summer	*IR41	13	97.631	0.225	379.3	0.8276	0.0000	OK
15 minute summer	*IR42	13	97.885	0.357	366.2	1.3358	0.0000	OK
15 minute summer	*IR43	12	97.971	0.399	363.6	0.8927	0.0000	OK
15 minute summer	*IR44	12	98.056	0.406	355.9	1.5644	0.0000	OK
15 minute summer	*IR45	12	98.291	0.252	345.0	0.8671	0.0000	OK
15 minute summer	*IR46	12	98.818	0.194	159.9	0.6101	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	*211	*5.004	*212	34.1	0.911	0.309	0.9811	
15 minute summer	*212	*5.005	*213	44.7	0.936	0.157	0.9620	
15 minute summer	*213	*5.006	*218	44.7	1.221	0.127	0.4350	
15 minute summer	*214	*6.000	*215	8.0	0.781	0.200	0.3321	
15 minute summer	*215	*6.001	*216	14.3	1.174	0.139	0.3142	
15 minute summer	*216	*6.002	*217	17.4	1.879	0.078	0.2164	
15 minute summer	*217	*6.003	*218	20.6	2.338	0.071	0.1488	
15 minute summer	*218	*5.007	*222	69.9	1.822	0.181	1.1308	
15 minute summer	*219	*7.000	*220	6.0	1.210	0.072	0.1458	
15 minute summer	*220	*7.001	*221	14.5	0.788	0.205	0.6399	
15 minute summer	*221	*7.002	*222	21.5	0.791	0.193	0.2860	
15 minute summer	*222	*5.008	*223	90.5	2.381	0.106	0.3972	
15 minute summer	*223	*5.009	*224	95.7	3.524	0.088	0.8301	
15 minute summer	*224	*5.010	*231	96.1	5.113	0.041	0.1811	
15 minute summer	*225	*8.000	*226	13.1	1.607	0.170	0.1407	
15 minute summer	*226	*8.001	*227	13.0	2.149	0.091	0.0509	
15 minute summer	*227	*8.002	*228	29.8	1.611	0.168	1.0257	
15 minute summer	*228	*8.003	*229	29.8	1.490	0.208	0.1503	
15 minute summer	*229	*8.004	*230	51.0	1.336	0.163	2.8032	
15 minute summer	*230	*8.005	*231	67.3	2.536	0.072	1.9292	
15 minute summer	*231	*5.011	*IR40	177.6	1.912	0.176	4.0503	
15 minute summer	*IR40	*S11.000	*IR45	179.2	2.311	0.112	0.7812	
15 minute summer	*IR41	*1.014	*IR48	380.5	3.411	0.088	5.5621	
15 minute summer	*IR42	*S10.000	*IR41	373.1	1.918	0.281	12.0486	
15 minute summer	*IR43	*S10.001	*IR42	359.8	1.294	0.271	6.1512	
15 minute summer	*IR44	*S10.002	*IR43	351.6	1.155	0.264	11.8306	
15 minute summer	*IR45	*S10.003	*IR44	346.9	1.500	0.104	7.2830	
15 minute summer	*IR46	*S10.004	*IR45	160.9	1.900	0.130	2.3913	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	*IR52	14	92.367	0.392	390.7	1.3596	0.0000	OK
15 minute summer	*232	10	98.736	0.054	12.2	0.1358	0.0000	OK
15 minute summer	*233	10	97.027	0.096	38.3	0.3940	0.0000	OK
15 minute summer	*234	11	96.096	0.103	59.5	0.3755	0.0000	OK
15 minute summer	*235	11	95.262	0.104	59.3	0.1485	0.0000	OK
15 minute summer	*IR48	13	96.536	0.168	391.4	0.7703	0.0000	OK
15 minute summer	*IR49	13	95.280	0.194	392.6	0.6034	0.0000	OK
15 minute summer	*IR50	13	94.459	0.186	400.3	0.7681	0.0000	OK
15 minute summer	*IR51	14	92.426	0.438	401.0	1.4256	0.0000	OK
15 minute summer	*240b	11	93.639	0.065	7.7	0.1765	0.0000	OK
15 minute summer	*236	10	96.267	0.077	18.3	0.2458	0.0000	OK
15 minute summer	*237	11	95.917	0.092	14.4	0.2499	0.0000	OK
15 minute summer	*238	11	95.692	0.087	41.3	0.2118	0.0000	OK
15 minute summer	*239	11	94.548	0.098	53.4	0.2723	0.0000	OK
15 minute summer	*240	11	93.024	0.192	69.4	0.4804	0.0000	OK
15 minute summer	*241	11	92.865	0.128	128.9	0.3248	0.0000	OK
720 minute summer	*IR242	495	92.121	0.521	117.3	0.0000	0.0000	OK
720 minute summer	*IR243	495	92.111	0.511	84.6	833.9811	0.0000	SURCHARGED
720 minute summer	*IR245	495	91.310	0.139	26.1	0.1574	0.0000	OK
720 minute summer	*IR246	495	91.273	0.123	26.1	0.0000	0.0000	OK
15 minute summer	*247	10	96.140	0.065	12.1	0.1670	0.0000	OK
15 minute summer	*248	11	95.264	0.039	11.9	0.0447	0.0000	OK
720 minute summer	*249	510	92.111	0.511	31.4	0.0000	0.0000	OK
720 minute summer	*IR244	495	92.105	0.540	26.1	1.8692	0.0000	SURCHARGED
15 minute summer	*IR53	14	92.249	0.390	391.4	1.3510	0.0000	OK
720 minute summer	*IR54	495	92.122	0.396	119.3	1.3702	0.0000	OK

15 minute summer **IR51b 10 101.145 0.021 1.7 0.0282 0.0000 OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	*IR52	*1.019	*IR53	391.4	1.251	0.208	18.5187	
15 minute summer	*232	*12.000	*233	11.9	1.665	0.122	0.3113	
15 minute summer	*233	*12.001	*234	37.7	1.461	0.101	1.8266	
15 minute summer	*234	*12.002	*235	59.3	2.168	0.109	0.8104	
15 minute summer	*235	*12.003	*241	59.5	2.215	0.111	0.9630	
15 minute summer	*IR48	*1.015	*IR49	391.7	3.959	0.050	1.8242	
15 minute summer	*IR49	*1.016	*IR50	392.6	3.697	0.060	1.8207	
15 minute summer	*IR50	*1.017	*IR51	399.2	1.965	0.073	15.0849	
15 minute summer	*IR51	*1.018	*IR52	390.7	1.254	0.290	2.0003	
15 minute summer	*240b	*11.000	*240	7.4	0.783	0.180	0.4406	
15 minute summer	*236	*9.000	*238	17.8	1.271	0.140	0.5482	
15 minute summer	*237	*10.000	*238	14.0	0.781	0.198	0.6344	
15 minute summer	*238	*9.001	*239	41.5	1.967	0.119	0.8038	
15 minute summer	*239	*9.002	*240	53.7	2.386	0.144	0.8648	
15 minute summer	*240	*9.003	*241	69.4	1.081	0.193	4.1357	
15 minute summer	*241	*9.004	*IR54	128.0	3.050	0.059	0.3908	
720 minute summer	*IR243	*13.000	*IR244	26.1	0.371	0.364	0.5875	
720 minute summer	*IR245	*13.002	*IR246	26.1	0.881	0.366	0.1493	995.4
15 minute summer	*247	*14.000	*248	11.9	1.712	0.154	0.2732	
15 minute summer	*248	*14.001	*249	11.9	2.565	0.066	0.0916	
720 minute summer	*IR244	*13.001	*IR245	26.1	0.894	0.348	2.5125	
15 minute summer	*IR53	*1.020	*IR54	390.0	1.233	0.207	20.9993	
720 minute summer	*IR54	*1.021	*IR242	117.3	0.930	0.063	4.4327	
15 minute summer	**IR51b	**S4.000	**IR53b	1.7	0.550	0.019	0.0838	

**Results for 1 year Critical Storm Duration. Lowest mass balance: 99.95%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute summer	**IR52b	6480	100.933	0.173	0.6	42.1155	0.0000	OK
15 minute summer	**IR53b	10	100.369	0.037	5.1	0.0573	0.0000	OK
15 minute summer	**IR54b	10	100.279	0.049	4.3	0.0871	0.0000	OK
15 minute summer	**IR55	11	100.122	0.058	12.6	0.0880	0.0000	OK
600 minute summer	**IR301	405	99.650	0.050	3.0	0.0000	0.0000	OK
600 minute summer	**IR302	405	99.648	0.048	8.3	12.9697	0.0000	OK
600 minute summer	**IR303	360	99.681	1.212	8.2	1.3706	0.0000	SURCHARGED
600 minute summer	**IR304	405	98.316	0.016	0.8	0.0000	0.0000	OK
15 minute summer	***S278 01	10	122.808	0.053	10.3	0.1158	0.0000	OK
15 minute summer	***S279 02	10	122.394	0.010	0.4	0.0121	0.0000	OK
15 minute summer	***S278 03	1	122.578	0.000	0.0	0.0000	0.0000	OK
15 minute summer	***S278 04	11	121.786	0.083	10.4	0.0938	0.0000	OK
15 minute summer	***S278 05	11	121.632	0.051	10.5	0.0575	0.0000	OK
15 minute summer	***IR61	11	120.562	0.067	15.3	0.1087	0.0000	OK
15 minute summer	***IR62	11	119.301	0.060	17.1	0.0813	0.0000	OK
15 minute summer	***IR63	11	118.003	0.065	20.5	0.1016	0.0000	OK
15 minute summer	***IR64	11	116.885	0.071	22.2	0.0957	0.0000	OK
15 minute summer	***IR65	11	116.025	0.071	22.0	0.0806	0.0000	OK
15 minute summer	***IR66	12	115.359	0.063	23.9	0.0850	0.0000	OK
15 minute summer	***IR67	7	114.500	0.030	1.5	0.0335	0.0000	OK
15 minute summer	***IR68	12	114.412	0.082	27.4	0.1072	0.0000	OK
15 minute summer	***IR69	12	112.760	0.094	34.3	0.1888	0.0000	OK
15 minute summer	***IR70	12	112.159	0.086	36.2	0.1201	0.0000	OK
15 minute summer	***IR71	12	111.286	0.085	42.2	0.1868	0.0000	OK
15 minute summer	***IR72	11	109.747	0.106	78.1	0.5804	0.0000	OK
15 minute summer	***IR73	11	106.527	0.111	87.9	0.3303	0.0000	OK
15 minute summer	***IR74	11	105.273	0.106	93.9	0.2549	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
10080 minute summer	**IR52b	**S5.000	**IR53b	0.2	0.273	0.004	0.0070	
15 minute summer	**IR53b	**S4.001	**IR55	5.0	1.213	0.053	0.0246	
15 minute summer	**IR54b	**S3.000	**IR55	4.2	0.672	0.099	0.0857	
15 minute summer	**IR55	**S3.001	**IR301	12.6	1.329	0.080	0.1605	
600 minute summer	**IR302	**4.000	**IR303	8.2	1.082	0.052	0.1077	
600 minute summer	**IR303	**1.005	**IR304	0.8	0.566	0.006	0.0142	31.1
15 minute summer	***S278 01	***S278_1.000	***S278 04	10.1	1.420	0.120	0.2691	
15 minute summer	***S279 02	***S278_2.000	***S278 04	0.3	0.539	0.004	0.0133	
15 minute summer	***S278 03	***S278_3.000	***S278 04	0.0	0.000	0.000	0.0031	
15 minute summer	***S278 04	***S278_1.001	***S278 05	10.5	1.063	0.263	0.2061	
15 minute summer	***S278 05	***S278_1.002	***IR61	10.5	1.266	0.113	0.2847	
15 minute summer	***IR61	***S1.000	***IR62	15.3	1.657	0.184	0.4588	
15 minute summer	***IR62	***S1.001	***IR63	16.9	1.892	0.154	0.2643	
15 minute summer	***IR63	***S1.002	***IR64	20.4	2.033	0.177	0.2306	
15 minute summer	***IR64	***S1.003	***IR65	22.0	2.130	0.197	0.1775	
15 minute summer	***IR65	***S1.004	***IR66	21.9	1.873	0.113	0.2542	
15 minute summer	***IR66	***S1.005	***IR68	23.7	1.842	0.097	0.2637	
15 minute summer	***IR67	***4.000	***IR68	1.5	0.498	0.035	0.0293	
15 minute summer	***IR68	***S1.006	***IR69	27.4	1.592	0.165	1.2885	
15 minute summer	***IR69	***S1.007	***IR70	34.3	1.927	0.196	0.4291	
15 minute summer	***IR70	***S1.008	***IR71	36.4	2.253	0.166	0.3321	
15 minute summer	***IR71	***S1.009	***IR72	42.4	2.324	0.108	0.7095	
15 minute summer	***IR72	***S1.010	***IR73	76.0	2.709	0.121	2.3567	
15 minute summer	***IR73	***S1.011	***IR74	87.4	2.727	0.092	1.0504	
15 minute summer	***IR74	***S1.012	***IR75	93.2	2.507	0.089	0.8525	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	***IR75	11	104.246	0.135	100.2	0.3216	0.0000	OK
15 minute summer	***IR76	12	103.554	0.125	104.4	0.2807	0.0000	OK
15 minute summer	***IR77	12	102.855	0.131	109.7	0.3136	0.0000	OK
15 minute summer	***IR401	10	110.453	0.060	14.3	0.1294	0.0000	OK
15 minute summer	***IR402	11	107.234	0.084	12.1	0.1704	0.0000	OK
15 minute summer	***IR403	11	107.053	0.128	25.7	0.1836	0.0000	OK
15 minute summer	***IR404	11	106.983	0.136	28.5	0.2177	0.0000	OK
15 minute summer	***IR405	11	106.912	0.139	36.2	0.2844	0.0000	OK
15 minute summer	***406	10	108.869	0.061	15.0	0.1577	0.0000	OK
15 minute summer	***407	10	107.541	0.048	14.7	0.0541	0.0000	OK
15 minute summer	***IR408	11	106.821	0.082	53.4	0.1400	0.0000	OK
15 minute summer	***IR409	11	105.940	0.142	70.5	0.3715	0.0000	OK
15 minute summer	***IR410	11	105.109	0.090	70.4	0.1290	0.0000	OK
15 minute summer	***411	10	105.567	0.067	15.4	0.1492	0.0000	OK
15 minute summer	***IR412	11	104.402	0.168	85.1	0.2968	0.0000	OK
15 minute summer	***413	10	104.539	0.051	9.9	0.0895	0.0000	OK
15 minute summer	***414	10	104.891	0.035	8.1	0.0660	0.0000	OK
15 minute summer	***415	11	101.854	0.134	30.0	0.2867	0.0000	OK
15 minute summer	***416	11	101.564	0.087	29.2	0.1245	0.0000	OK
15 minute summer	***417	12	101.321	0.153	43.6	0.4476	0.0000	OK
15 minute summer	***IR418	12	101.113	0.275	125.3	0.7001	0.0000	OK
15 minute summer	***IR419	12	101.084	0.255	135.8	0.7588	0.0000	OK
15 minute summer	***IR78	12	100.970	0.248	138.0	0.6302	0.0000	OK
15 minute summer	***IR79	12	100.912	0.211	249.5	0.5574	0.0000	OK
15 minute summer	***IR80	12	100.588	0.203	260.8	0.7033	0.0000	OK
15 minute summer	***IR81	12	99.675	0.175	260.1	0.4451	0.0000	OK
720 minute summer	***IR420	510	98.367	0.554	58.3	0.0000	0.0000	OK
15 minute summer	***421	10	103.673	0.069	19.0	0.2341	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	***IR75	***S1.013	***IR76	99.6	2.411	0.131	1.1536	
15 minute summer	***IR76	***S1.014	***IR77	104.6	2.580	0.112	0.7816	
15 minute summer	***IR77	***S1.015	***IR79	110.5	2.779	0.121	0.8583	
15 minute summer	***IR401	***5.000	***IR403	13.9	1.658	0.152	0.4134	
15 minute summer	***IR402	***6.000	***IR403	11.8	0.746	0.167	0.5783	
15 minute summer	***IR403	***5.001	***IR404	25.8	0.746	0.233	0.8733	
15 minute summer	***IR404	***5.002	***IR405	28.4	0.781	0.256	0.8689	
15 minute summer	***IR405	***5.003	***IR408	35.9	1.336	0.320	0.2937	
15 minute summer	***406	***7.000	***407	14.7	1.732	0.154	0.3146	
15 minute summer	***407	***7.001	***IR408	14.6	2.108	0.050	0.0690	
15 minute summer	***IR408	***5.004	***IR409	53.3	3.199	0.088	0.1607	
15 minute summer	***IR409	***5.005	***IR410	70.4	2.183	0.186	1.8577	
15 minute summer	***IR410	***5.006	***IR412	70.1	3.106	0.074	0.1908	
15 minute summer	***411	***8.000	***IR412	15.1	1.557	0.185	0.3840	
15 minute summer	***IR412	***5.007	***IR418	84.5	1.519	0.192	1.0954	
15 minute summer	***413	***9.000	***415	9.6	1.424	0.112	0.3145	
15 minute summer	***414	***10.000	***415	8.0	2.029	0.052	0.1379	
15 minute summer	***415	***9.001	***416	29.2	0.878	0.263	1.8050	
15 minute summer	***416	***9.002	***417	29.1	1.446	0.069	0.1912	
15 minute summer	***417	***9.003	***IR418	42.2	0.838	0.138	2.6627	
15 minute summer	***IR418	***5.008	***IR419	125.8	0.853	0.180	0.6809	
15 minute summer	***IR419	***5.009	***IR78	138.0	1.006	0.196	7.3596	
15 minute summer	***IR78	***S2.000	***IR79	137.6	1.180	0.193	1.2454	
15 minute summer	***IR79	***S1.016	***IR80	249.3	2.386	0.113	1.7063	
15 minute summer	***IR80	***S1.017	***IR81	260.1	2.830	0.121	4.4159	
15 minute summer	***IR81	***S1.018	***IR420	257.5	3.259	0.094	2.0496	
15 minute summer	***421	***11.000	***422	18.8	1.778	0.193	0.1734	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	***422	10	103.105	0.071	18.8	0.0808	0.0000	OK
15 minute summer	***423	10	102.701	0.057	18.7	0.0646	0.0000	OK
15 minute summer	***424	11	100.762	0.062	18.6	0.0698	0.0000	OK
15 minute summer	***425	11	100.361	0.111	18.7	0.1257	0.0000	OK
15 minute summer	***426	11	100.162	0.120	24.7	0.2312	0.0000	OK
15 minute summer	***IR82	11	100.008	0.073	31.1	0.1441	0.0000	OK
15 minute summer	***IR83	10	100.624	0.052	9.9	0.1009	0.0000	OK
15 minute summer	***IR84	10	100.221	0.035	4.8	0.0593	0.0000	OK
15 minute summer	***IR85	11	99.671	0.084	45.0	0.1206	0.0000	OK
720 minute summer	***IR86	510	98.361	0.548	17.9	0.0000	0.0000	OK
720 minute summer	***IR427	510	98.359	0.546	40.0	474.5064	0.0000	SURCHARGED
720 minute summer	***IR428	510	98.357	0.594	13.7	2.0566	0.0000	SURCHARGED
720 minute summer	***IR429	510	97.785	0.085	13.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	***422	***11.001	***423	18.7	1.834	0.186	0.0867	
15 minute summer	***423	***11.002	***424	18.6	1.900	0.080	0.4403	
15 minute summer	***424	***11.003	***425	18.7	1.128	0.094	0.2407	
15 minute summer	***425	***11.004	***426	18.7	0.827	0.264	0.3190	
15 minute summer	***426	***11.005	***IR82	24.6	0.988	0.154	1.1010	
15 minute summer	***IR82	***11.006	***IR85	30.8	1.666	0.054	0.2049	
15 minute summer	***IR83	***12.000	***IR85	9.7	1.424	0.113	0.1910	
15 minute summer	***IR84	***13.000	***IR85	4.7	1.234	0.049	0.0426	
15 minute summer	***IR85	***11.007	***IR86	44.9	2.253	0.073	0.2676	
720 minute summer	***IR427	***45.000	***IR428	13.7	0.273	0.187	0.5986	
720 minute summer	***IR428	***45.001	***IR429	13.7	0.824	0.177	0.2153	579.7

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	101	10	107.659	0.159	54.2	0.4187	0.0000	OK
15 minute summer	102	11	107.201	0.201	53.4	0.2269	0.0000	OK
15 minute summer	103	11	106.998	0.206	53.4	0.2334	0.0000	OK
15 minute summer	104	10	107.751	0.151	30.2	0.2968	0.0000	OK
15 minute summer	105	10	107.563	0.086	29.9	0.0974	0.0000	OK
15 minute summer	106	11	106.928	0.173	101.5	0.2545	0.0000	OK
15 minute summer	107	11	106.650	0.154	101.7	0.1738	0.0000	OK
15 minute summer	108	11	105.315	0.273	142.2	0.6539	0.0000	OK
15 minute summer	109	10	105.172	0.217	65.2	0.6443	0.0000	OK
15 minute summer	110	11	105.062	0.215	64.1	0.3083	0.0000	OK
15 minute summer	111	11	105.000	0.250	319.5	1.0417	0.0000	OK
15 minute summer	112	11	103.052	0.212	320.0	0.3039	0.0000	OK
15 minute summer	IR01	11	100.411	0.232	322.7	0.0000	0.0000	OK
15 minute summer	113	10	105.732	0.131	24.5	0.2381	0.0000	OK
15 minute summer	114	10	105.600	0.093	24.2	0.1048	0.0000	OK
15 minute summer	115	10	105.263	0.088	24.1	0.0994	0.0000	OK
15 minute summer	116	10	105.044	0.138	95.7	0.4280	0.0000	OK
15 minute summer	IR02	10	103.373	0.118	94.9	0.0000	0.0000	OK
15 minute summer	IR03	10	100.548	0.228	174.0	0.5249	0.0000	OK
15 minute summer	IR04	10	100.934	0.124	48.0	0.2826	0.0000	OK
15 minute summer	IR05	10	100.302	0.095	53.2	0.1518	0.0000	OK
15 minute summer	IR06	11	100.190	0.720	254.0	1.6656	0.0000	SURCHARGED
15 minute summer	IR07	11	100.091	0.722	625.2	1.9883	0.0000	SURCHARGED
15 minute summer	117	10	107.285	0.131	55.2	0.3289	0.0000	OK
15 minute summer	118	10	105.784	0.208	96.3	0.5160	0.0000	OK
15 minute summer	119	10	105.551	0.156	146.0	0.4305	0.0000	OK
15 minute summer	120	10	103.558	0.184	213.4	0.5980	0.0000	OK
15 minute summer	IR08	10	101.011	0.176	211.4	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	101	1.000	102	53.4	1.875	0.759	0.6633	
15 minute summer	102	1.001	103	53.4	1.050	0.755	2.5909	
15 minute summer	103	1.002	106	53.8	1.201	0.757	0.4201	
15 minute summer	104	2.000	105	29.9	1.414	0.749	0.4385	
15 minute summer	105	2.001	106	29.8	2.082	0.293	0.2570	
15 minute summer	106	1.003	107	101.7	2.592	0.419	0.2155	
15 minute summer	107	1.004	108	101.8	2.404	0.529	1.9829	
15 minute summer	108	1.005	111	142.3	1.754	0.782	2.1152	
15 minute summer	109	3.000	110	64.1	0.979	0.579	2.2811	
15 minute summer	110	3.001	111	64.1	1.073	0.572	0.4150	
15 minute summer	111	1.006	112	320.0	3.901	0.535	4.5964	
15 minute summer	112	1.007	IR01	322.7	4.320	0.456	4.3646	
15 minute summer	IR01	S18.00	IR07	320.8	3.007	0.399	1.2926	
15 minute summer	113	4.000	114	24.2	1.228	0.608	0.3104	
15 minute summer	114	4.001	115	24.1	1.618	0.318	0.2352	
15 minute summer	115	4.002	116	24.0	1.827	0.252	0.0769	
15 minute summer	116	4.003	IR02	94.9	3.069	0.416	1.1086	
15 minute summer	IR02	4.004	IR03	94.5	2.940	0.142	0.5960	
15 minute summer	IR03	4.005	IR06	174.3	1.751	0.528	7.9835	
15 minute summer	IR04	5.000	IR05	47.4	1.783	0.212	1.2896	
15 minute summer	IR05	S16.001	IR06	52.8	1.889	0.143	0.9997	
15 minute summer	IR06	S16.002	IR07	254.5	0.904	0.900	16.7666	
15 minute summer	IR07	S16.003	IR11	624.7	2.232	1.366	3.8774	
15 minute summer	117	6.000	118	54.2	2.307	0.612	1.1671	
15 minute summer	118	6.001	119	95.7	1.814	0.523	1.1498	
15 minute summer	119	6.002	120	144.9	2.992	0.361	2.4546	
15 minute summer	120	6.003	IR08	211.4	4.046	0.470	2.6497	
15 minute summer	IR08	S15.000	IR10	211.9	3.351	0.422	0.6618	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR09	10	100.642	0.132	24.9	0.2183	0.0000	OK
15 minute summer	IR10	11	100.429	0.320	302.7	0.8867	0.0000	OK
15 minute summer	IR11	11	99.471	0.617	970.4	2.2303	0.0000	OK
15 minute summer	IR12	11	99.140	0.301	1009.1	0.2385	0.0000	OK
15 minute summer	121	10	98.264	0.200	52.8	0.6136	0.0000	OK
600 minute winter	IR122	585	97.848	0.805	110.8	3.9944	0.0000	OK
600 minute winter	IR123	585	97.848	0.873	106.3	3.0237	0.0000	OK
600 minute winter	IR124	585	97.848	0.998	100.8	0.0000	0.0000	OK
15 minute summer	125	11	107.565	0.215	69.9	0.6894	0.0000	OK
15 minute summer	126	10	106.106	0.181	43.6	0.4138	0.0000	OK
15 minute summer	127	11	106.001	0.180	43.0	0.2031	0.0000	OK
15 minute summer	128	11	105.900	0.262	166.5	0.5750	0.0000	OK
15 minute summer	129	10	105.553	0.109	27.8	0.2120	0.0000	OK
15 minute summer	130	11	105.160	0.228	254.9	0.7136	0.0000	OK
15 minute summer	131	10	104.710	0.159	43.6	0.3735	0.0000	OK
15 minute summer	132	10	104.313	0.116	43.1	0.1314	0.0000	OK
15 minute summer	133	10	103.999	0.162	110.8	0.4618	0.0000	OK
15 minute summer	134	11	102.378	0.187	110.1	0.2116	0.0000	OK
15 minute summer	135	11	101.947	0.332	149.4	0.9048	0.0000	OK
15 minute summer	136	11	101.820	0.302	470.5	0.8970	0.0000	OK
15 minute summer	137	11	100.708	0.305	470.6	0.5382	0.0000	OK
15 minute summer	IR13	11	100.139	0.327	469.9	0.0000	0.0000	OK
15 minute summer	138	10	105.310	0.196	62.3	0.6051	0.0000	OK
15 minute summer	139	10	105.229	0.172	170.6	0.6736	0.0000	OK
15 minute summer	140	10	102.212	0.189	169.2	0.2706	0.0000	OK
15 minute summer	IR14	11	101.344	0.194	168.3	0.0000	0.0000	OK
15 minute summer	IR15	10	101.092	0.205	206.0	0.4947	0.0000	OK
15 minute summer	IR16	11	100.349	0.305	227.5	0.5782	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR09	S14.000	IR10	24.3	1.039	0.610	0.6989	
15 minute summer	IR10	S14.001	IR11	304.4	2.676	0.762	4.8883	
15 minute summer	IR11	S14.002	IR12	957.8	2.646	0.753	2.9822	
15 minute summer	IR12	1.011	IR122	1018.2	2.828	0.192	19.3476	
15 minute summer	121	8.000	IR122	51.5	1.115	0.728	1.3686	
600 minute winter	IR122	1.012	IR123	106.3	0.627	0.080	57.5589	
600 minute winter	IR123	1.013	IR124	100.8	0.627	0.063	47.4253	
15 minute summer	125	9.000	128	66.4	1.105	0.601	4.9408	
15 minute summer	126	10.000	127	43.0	0.978	0.608	1.1180	
15 minute summer	127	10.001	128	42.8	0.984	0.604	1.1862	
15 minute summer	128	9.001	130	166.7	2.187	0.778	4.7007	
15 minute summer	129	11.000	130	27.4	1.489	0.437	0.4584	
15 minute summer	130	9.002	136	254.2	3.754	0.643	4.4919	
15 minute summer	131	12.000	132	43.1	1.692	0.766	0.7681	
15 minute summer	132	12.001	133	42.8	2.289	0.402	0.1286	
15 minute summer	133	12.002	134	110.1	2.590	0.563	2.2708	
15 minute summer	134	12.003	135	109.6	2.625	0.548	0.4549	
15 minute summer	135	12.004	136	149.9	1.100	0.690	6.4947	
15 minute summer	136	9.003	137	470.6	3.641	0.546	4.5746	
15 minute summer	137	9.004	IR13	469.9	3.875	0.549	2.0159	
15 minute summer	IR13	S13.000	IR17	469.6	3.320	0.450	1.4939	
15 minute summer	138	13.000	139	61.7	1.150	0.487	0.7574	
15 minute summer	139	13.001	140	169.2	3.226	0.430	4.1523	
15 minute summer	140	13.002	IR14	168.3	3.121	0.478	1.3969	
15 minute summer	IR14	S12.000	IR15	168.5	2.486	0.333	0.7314	
15 minute summer	IR15	S12.001	IR16	207.4	2.246	0.413	3.2340	
15 minute summer	IR16	S12.002	IR17	228.8	2.129	0.704	3.4206	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR17	11	99.805	0.384	724.0	1.1982	0.0000	OK
15 minute summer	IR18	11	98.061	0.354	883.5	1.2318	0.0000	OK
15 minute summer	IR19	10	99.002	0.211	95.8	0.7794	0.0000	OK
600 minute winter	142	585	97.847	0.997	84.7	0.0000	0.0000	OK
600 minute winter	IR143	585	97.839	1.001	77.8	2031.4500	0.0000	SURCHARGED
600 minute winter	144	585	97.833	1.031	26.1	3.5703	0.0000	SURCHARGED
120 minute winter	IR145	184	96.878	0.123	26.0	0.0000	0.0000	OK
15 minute summer	*201	11	104.596	0.171	77.6	0.5962	0.0000	OK
15 minute summer	*202	11	103.951	0.315	139.4	0.7470	0.0000	OK
15 minute summer	*203	11	103.829	0.349	138.7	0.6164	0.0000	OK
15 minute summer	*204	11	103.791	0.331	188.3	0.7530	0.0000	OK
15 minute summer	*205	11	103.369	0.209	267.4	0.6346	0.0000	OK
15 minute summer	*206	11	100.297	0.199	261.5	0.2853	0.0000	OK
15 minute summer	*IR31	11	99.908	0.208	262.0	0.0000	0.0000	OK
15 minute summer	*IR32	10	101.504	0.168	191.7	0.7780	0.0000	OK
15 minute summer	*IR33	10	101.141	0.257	194.0	0.3833	0.0000	OK
15 minute summer	*IR34	10	100.454	0.193	208.3	0.3480	0.0000	OK
15 minute summer	*IR35	10	100.125	0.245	74.2	0.5063	0.0000	OK
15 minute summer	*IR36	11	99.877	0.332	302.9	0.7308	0.0000	OK
15 minute summer	*IR37	11	99.713	0.427	570.2	0.8472	0.0000	OK
15 minute summer	*IR38	10	99.527	0.245	74.2	0.5290	0.0000	OK
15 minute summer	*IR39	11	99.323	0.476	663.1	1.4366	0.0000	OK
15 minute summer	*207	10	105.433	0.132	39.8	0.2964	0.0000	OK
15 minute summer	*208	10	105.247	0.127	39.5	0.1433	0.0000	OK
15 minute summer	*209	12	105.103	0.281	39.4	0.3177	0.0000	OK
15 minute summer	*210	11	105.077	0.409	83.0	0.6712	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR17	S12.003	IR18	723.0	3.541	0.407	5.9520	
15 minute summer	IR18	9.007	142	884.5	7.004	0.381	3.9838	
15 minute summer	IR19	S12.004	IR18	93.7	1.824	0.799	2.9298	
600 minute winter	IR143	15.000	144	26.1	0.371	0.369	0.6185	
600 minute winter	144	15.001	IR145	26.0	0.898	0.365	0.3280	1018.0

15 minute summer	*201	*1.000	*202	75.8	1.583	0.416	3.6745	
15 minute summer	*202	*1.001	*203	138.7	0.982	0.639	11.0374	
15 minute summer	*203	*1.002	*204	136.6	0.945	0.616	1.3982	
15 minute summer	*204	*1.003	*205	186.3	1.896	0.878	6.8142	
15 minute summer	*205	*1.004	*206	261.5	3.754	0.419	5.4726	
15 minute summer	*206	*1.005	*IR31	262.0	3.139	0.204	0.9652	
15 minute summer	*IR31	*S8.000	*IR37	263.2	2.421	0.209	1.3118	
15 minute summer	*IR32	*S6.000	*IR33	191.1	2.603	0.273	0.7160	
15 minute summer	*IR33	*S6.001	*IR34	191.5	2.172	0.556	3.6917	
15 minute summer	*IR34	*S6.002	*IR36	207.6	1.784	0.223	4.6475	
15 minute summer	*IR35	*S7.000	*IR36	73.7	1.280	1.036	0.4864	
15 minute summer	*IR36	*S6.003	*IR37	301.2	1.947	0.412	2.7092	
15 minute summer	*IR37	*S6.004	*IR39	568.6	2.537	0.603	8.2692	
15 minute summer	*IR38	*S9.000	*IR39	73.7	1.279	1.042	0.4919	
15 minute summer	*IR39	*S6.005	*IR46	659.2	2.286	0.530	6.3694	
15 minute summer	*207	*5.000	*208	39.5	1.377	0.355	0.5235	
15 minute summer	*208	*5.001	*209	39.4	1.380	0.355	1.4158	
15 minute summer	*209	*5.002	*210	42.7	0.722	0.384	1.0729	
15 minute summer	*210	*5.003	*211	83.1	1.206	1.174	4.2444	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	*211	11	104.718	0.372	136.9	0.9123	0.0000	OK
15 minute summer	*212	11	104.387	0.346	179.3	0.8869	0.0000	OK
15 minute summer	*213	11	104.302	0.296	178.9	0.5238	0.0000	OK
15 minute summer	*214	10	106.736	0.161	33.1	0.3380	0.0000	OK
15 minute summer	*215	10	106.481	0.173	58.4	0.2780	0.0000	OK
15 minute summer	*216	11	106.213	0.124	70.7	0.1847	0.0000	OK
15 minute summer	*217	10	105.262	0.110	83.1	0.1638	0.0000	OK
15 minute summer	*218	11	104.190	0.323	285.7	0.6230	0.0000	OK
15 minute summer	*219	10	104.537	0.083	24.5	0.1331	0.0000	OK
15 minute summer	*220	11	103.845	0.217	59.8	0.4606	0.0000	OK
15 minute summer	*221	11	103.668	0.258	86.5	0.5383	0.0000	OK
15 minute summer	*222	11	103.538	0.311	373.5	0.5489	0.0000	OK
15 minute summer	*223	11	103.163	0.257	396.2	0.5994	0.0000	OK
15 minute summer	*224	11	101.554	0.157	396.6	0.2768	0.0000	OK
15 minute summer	*225	10	105.098	0.155	53.2	0.4145	0.0000	OK
15 minute summer	*226	10	104.675	0.106	52.8	0.1201	0.0000	OK
15 minute summer	*227	10	104.053	0.180	122.0	0.4736	0.0000	OK
15 minute summer	*228	11	102.754	0.264	121.0	0.2981	0.0000	OK
15 minute summer	*229	10	102.458	0.317	206.1	1.2291	0.0000	OK
15 minute summer	*230	11	102.031	0.193	278.3	0.6933	0.0000	OK
15 minute summer	*231	11	99.428	0.483	740.2	1.5932	0.0000	OK
15 minute summer	*IR40	11	99.074	0.420	742.5	0.0000	0.0000	OK
15 minute summer	*IR41	12	97.912	0.506	1624.2	1.8582	0.0000	OK
15 minute summer	*IR42	12	98.315	0.787	1575.4	2.9477	0.0000	OK
15 minute summer	*IR43	12	98.511	0.939	1531.3	2.1019	0.0000	OK
15 minute summer	*IR44	12	98.678	1.028	1472.0	3.9586	0.0000	OK
15 minute summer	*IR45	12	98.751	0.712	1447.4	2.4460	0.0000	OK
15 minute summer	*IR46	11	99.082	0.458	688.0	1.4431	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	*211	*5.004	*212	134.9	1.344	1.221	2.5354	
15 minute summer	*212	*5.005	*213	178.9	1.173	0.626	3.0757	
15 minute summer	*213	*5.006	*218	178.6	1.578	0.508	1.3775	
15 minute summer	*214	*6.000	*215	32.3	1.103	0.812	0.9538	
15 minute summer	*215	*6.001	*216	57.9	1.675	0.565	0.8905	
15 minute summer	*216	*6.002	*217	70.7	2.794	0.316	0.5902	
15 minute summer	*217	*6.003	*218	83.3	3.039	0.288	0.5523	
15 minute summer	*218	*5.007	*222	286.6	2.528	0.741	3.3357	
15 minute summer	*219	*7.000	*220	24.3	1.486	0.292	0.5832	
15 minute summer	*220	*7.001	*221	58.6	1.156	0.828	1.7578	
15 minute summer	*221	*7.002	*222	86.9	1.184	0.780	0.7716	
15 minute summer	*222	*5.008	*223	373.7	3.141	0.437	1.2358	
15 minute summer	*223	*5.009	*224	396.6	5.029	0.365	2.4041	
15 minute summer	*224	*5.010	*231	396.7	6.435	0.169	0.7675	
15 minute summer	*225	*8.000	*226	52.8	2.210	0.686	0.4089	
15 minute summer	*226	*8.001	*227	52.6	2.905	0.370	0.1542	
15 minute summer	*227	*8.002	*228	121.0	2.184	0.684	3.0018	
15 minute summer	*228	*8.003	*229	120.2	2.026	0.840	0.4411	
15 minute summer	*229	*8.004	*230	206.4	1.985	0.661	7.5632	
15 minute summer	*230	*8.005	*231	279.4	3.405	0.300	6.4499	
15 minute summer	*231	*5.011	*IR40	742.5	2.684	0.736	12.0176	
15 minute summer	*IR40	*S11.000	*IR45	741.7	3.271	0.464	2.2828	
15 minute summer	*IR41	*1.014	*IR48	1625.1	4.589	0.376	17.6707	
15 minute summer	*IR42	*S10.000	*IR41	1584.3	2.844	1.193	33.8288	
15 minute summer	*IR43	*S10.001	*IR42	1537.7	2.026	1.160	16.6481	
15 minute summer	*IR44	*S10.002	*IR43	1483.0	1.765	1.114	32.4992	
15 minute summer	*IR45	*S10.003	*IR44	1435.5	1.914	0.430	23.0751	
15 minute summer	*IR46	*S10.004	*IR45	681.9	2.655	0.549	7.4355	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	*IR52	13	93.012	1.037	1762.7	3.5920	0.0000	OK
15 minute summer	*232	10	98.798	0.116	49.4	0.2928	0.0000	OK
15 minute summer	*233	10	97.135	0.203	155.1	0.8356	0.0000	OK
15 minute summer	*234	10	96.219	0.226	241.6	0.8273	0.0000	OK
15 minute summer	*235	11	95.385	0.227	238.9	0.3254	0.0000	OK
15 minute summer	*IR48	12	96.768	0.400	1695.7	1.8324	0.0000	OK
15 minute summer	*IR49	12	95.561	0.474	1701.9	1.4761	0.0000	OK
15 minute summer	*IR50	12	94.669	0.396	1751.3	1.6340	0.0000	OK
15 minute summer	*IR51	13	93.129	1.141	1785.0	3.7164	0.0000	SURCHARGED
15 minute summer	*240b	11	93.722	0.148	31.2	0.3998	0.0000	OK
15 minute summer	*236	10	96.361	0.171	73.8	0.5440	0.0000	OK
15 minute summer	*237	10	96.038	0.213	58.0	0.5778	0.0000	OK
15 minute summer	*238	10	95.793	0.188	168.5	0.4610	0.0000	OK
15 minute summer	*239	11	94.671	0.221	218.0	0.6099	0.0000	OK
15 minute summer	*240	11	93.245	0.413	281.4	1.0359	0.0000	OK
15 minute summer	*241	11	93.038	0.301	525.6	0.7651	0.0000	OK
720 minute winter	*IR242	690	92.860	1.260	182.2	0.0000	0.0000	OK
720 minute winter	*IR243	705	92.848	1.248	128.1	2438.3200	0.0000	SURCHARGED
60 minute summer	*IR245	253	91.314	0.143	27.3	0.1612	0.0000	OK
60 minute summer	*IR246	252	91.276	0.126	27.3	0.0000	0.0000	OK
15 minute summer	*247	10	96.220	0.145	48.9	0.3722	0.0000	OK
15 minute summer	*248	10	95.306	0.081	48.4	0.0918	0.0000	OK
720 minute winter	*249	720	92.847	1.247	52.0	0.0000	0.0000	OK
720 minute winter	*IR244	705	92.841	1.276	27.5	4.4212	0.0000	SURCHARGED
720 minute winter	*IR53	675	92.862	1.003	149.0	3.4735	0.0000	OK
720 minute summer	*IR54	630	92.884	1.158	277.2	4.0120	0.0000	OK

15 minute summer	**IR51b	10	101.165	0.041	6.7	0.0547	0.0000	OK
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Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	*IR52	*1.019	*IR53	1720.3	1.721	0.914	59.0182	
15 minute summer	*232	*12.000	*233	48.7	2.423	0.497	0.8723	
15 minute summer	*233	*12.001	*234	153.5	2.063	0.412	5.2738	
15 minute summer	*234	*12.002	*235	238.9	3.002	0.439	2.3577	
15 minute summer	*235	*12.003	*241	240.9	3.173	0.450	2.7239	
15 minute summer	*IR48	*1.015	*IR49	1696.3	4.991	0.215	6.2585	
15 minute summer	*IR49	*1.016	*IR50	1701.1	5.035	0.261	5.7981	
15 minute summer	*IR50	*1.017	*IR51	1773.0	2.661	0.325	39.6890	
15 minute summer	*IR51	*1.018	*IR52	1762.7	2.044	1.307	5.4320	
15 minute summer	*240b	*11.000	*240	30.4	1.122	0.741	1.2653	
15 minute summer	*236	*9.000	*238	72.6	1.824	0.571	1.5568	
15 minute summer	*237	*10.000	*238	56.7	1.147	0.801	1.7479	
15 minute summer	*238	*9.001	*239	167.6	2.738	0.479	2.3316	
15 minute summer	*239	*9.002	*240	217.6	3.393	0.585	2.4649	
15 minute summer	*240	*9.003	*241	284.6	1.536	0.791	12.1701	
15 minute summer	*241	*9.004	*IR54	526.2	4.092	0.245	1.5528	
720 minute winter	*IR243	*13.000	*IR244	27.5	0.391	0.384	0.5875	
60 minute summer	*IR245	*13.002	*IR246	27.3	0.892	0.382	0.1539	442.0
15 minute summer	*247	*14.000	*248	48.4	2.419	0.625	0.7708	
15 minute summer	*248	*14.001	*249	48.1	3.802	0.267	0.2503	
720 minute winter	*IR244	*13.001	*IR245	27.3	0.904	0.364	2.5926	
720 minute winter	*IR53	*1.020	*IR54	143.2	0.684	0.076	70.1342	
720 minute summer	*IR54	*1.021	*IR242	270.8	0.801	0.144	14.5818	
15 minute summer	**IR51b	**S4.000	**IR53b	6.6	0.766	0.074	0.2400	

**Results for 30 year Critical Storm Duration. Lowest mass balance: 99.90%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute summer	**IR52b	5700	101.110	0.350	1.2	85.4065	0.0000	SURCHARGED
15 minute summer	**IR53b	10	100.412	0.080	20.6	0.1237	0.0000	OK
15 minute summer	**IR54b	10	100.336	0.106	17.3	0.1867	0.0000	OK
15 minute summer	**IR55	10	100.186	0.122	51.4	0.1850	0.0000	OK
480 minute winter	**IR301	464	99.775	0.175	5.8	0.0000	0.0000	OK
480 minute winter	**IR302	472	99.773	0.173	5.8	48.4779	0.0000	OK
480 minute winter	**IR303	472	99.773	1.304	6.7	1.4747	0.0000	SURCHARGED
480 minute winter	**IR304	472	98.317	0.017	0.9	0.0000	0.0000	OK
15 minute summer	***S278 01	10	122.870	0.115	41.7	0.2500	0.0000	OK
15 minute summer	***S279 02	11	122.404	0.020	1.4	0.0232	0.0000	OK
15 minute summer	***S278 03	1	122.578	0.000	0.0	0.0000	0.0000	OK
15 minute summer	***S278 04	11	121.896	0.193	42.9	0.2185	0.0000	OK
15 minute summer	***S278 05	11	121.687	0.106	42.2	0.1195	0.0000	OK
15 minute summer	***IR61	11	120.646	0.152	61.4	0.2453	0.0000	OK
15 minute summer	***IR62	11	119.374	0.133	68.8	0.1799	0.0000	OK
15 minute summer	***IR63	11	118.086	0.147	83.2	0.2320	0.0000	OK
15 minute summer	***IR64	11	116.989	0.174	90.5	0.2355	0.0000	OK
15 minute summer	***IR65	11	116.111	0.157	90.3	0.1775	0.0000	OK
15 minute summer	***IR66	11	115.433	0.137	98.4	0.1855	0.0000	OK
15 minute summer	***IR67	12	114.503	0.033	1.5	0.0369	0.0000	OK
15 minute summer	***IR68	11	114.504	0.174	108.4	0.2277	0.0000	OK
15 minute summer	***IR69	11	112.891	0.225	139.3	0.4497	0.0000	OK
15 minute summer	***IR70	11	112.274	0.201	146.4	0.2793	0.0000	OK
15 minute summer	***IR71	11	111.385	0.184	173.4	0.4057	0.0000	OK
15 minute summer	***IR72	11	109.877	0.236	325.1	1.2855	0.0000	OK
15 minute summer	***IR73	11	106.662	0.246	370.9	0.7319	0.0000	OK
15 minute summer	***IR74	11	105.409	0.242	396.5	0.5835	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
8640 minute summer	**IR52b	**S5.000	**IR53b	0.3	0.306	0.006	0.0089	
15 minute summer	**IR53b	**S4.001	**IR55	20.4	1.742	0.217	0.0700	
15 minute summer	**IR54b	**S3.000	**IR55	17.1	0.974	0.403	0.2399	
15 minute summer	**IR55	**S3.001	**IR301	51.0	1.949	0.327	0.4448	
480 minute winter	**IR302	**4.000	**IR303	6.7	1.107	0.042	0.1698	
480 minute winter	**IR303	**1.005	**IR304	0.9	0.572	0.006	0.0146	32.6
15 minute summer	***S278 01	***S278_1.000	***S278 04	41.5	2.037	0.495	0.7711	
15 minute summer	***S279 02	***S278_2.000	***S278 04	1.4	0.528	0.016	0.2393	
15 minute summer	***S278 03	***S278_3.000	***S278 04	0.0	0.000	0.000	0.1568	
15 minute summer	***S278 04	***S278_1.001	***S278 05	42.2	1.509	1.060	0.5636	
15 minute summer	***S278 05	***S278_1.002	***IR61	42.2	1.798	0.454	0.8000	
15 minute summer	***IR61	***S1.000	***IR62	61.4	2.323	0.742	1.3159	
15 minute summer	***IR62	***S1.001	***IR63	68.6	2.643	0.626	0.7678	
15 minute summer	***IR63	***S1.002	***IR64	83.2	2.738	0.720	0.6961	
15 minute summer	***IR64	***S1.003	***IR65	90.3	2.926	0.808	0.5291	
15 minute summer	***IR65	***S1.004	***IR66	90.2	2.633	0.465	0.7441	
15 minute summer	***IR66	***S1.005	***IR68	98.2	2.672	0.402	0.7405	
15 minute summer	***IR67	***4.000	***IR68	1.9	0.498	0.046	0.0983	
15 minute summer	***IR68	***S1.006	***IR69	107.3	2.175	0.646	3.6956	
15 minute summer	***IR69	***S1.007	***IR70	137.3	2.580	0.785	1.2830	
15 minute summer	***IR70	***S1.008	***IR71	144.9	3.127	0.660	0.9561	
15 minute summer	***IR71	***S1.009	***IR72	171.7	3.353	0.438	1.9976	
15 minute summer	***IR72	***S1.010	***IR73	322.8	3.962	0.513	6.8220	
15 minute summer	***IR73	***S1.011	***IR74	370.4	3.768	0.390	3.2163	
15 minute summer	***IR74	***S1.012	***IR75	395.7	3.388	0.378	2.6594	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	***IR75	11	104.427	0.317	424.1	0.7546	0.0000	OK
15 minute summer	***IR76	11	103.726	0.297	443.2	0.6693	0.0000	OK
15 minute summer	***IR77	11	103.036	0.312	467.0	0.7477	0.0000	OK
15 minute summer	***IR401	10	110.526	0.133	57.5	0.2852	0.0000	OK
15 minute summer	***IR402	11	107.338	0.188	48.9	0.3822	0.0000	OK
15 minute summer	***IR403	11	107.266	0.341	104.6	0.4882	0.0000	OK
15 minute summer	***IR404	11	107.186	0.339	114.2	0.5430	0.0000	OK
15 minute summer	***IR405	11	107.074	0.301	145.9	0.6174	0.0000	OK
15 minute summer	***406	10	108.943	0.135	60.4	0.3499	0.0000	OK
15 minute summer	***407	10	107.594	0.101	59.6	0.1144	0.0000	OK
15 minute summer	***IR408	11	106.916	0.177	216.3	0.3009	0.0000	OK
15 minute summer	***IR409	11	106.121	0.324	286.0	0.8487	0.0000	OK
15 minute summer	***IR410	11	105.223	0.204	287.1	0.2914	0.0000	OK
15 minute summer	***411	10	105.653	0.153	62.3	0.3427	0.0000	OK
15 minute summer	***IR412	11	104.637	0.403	347.8	0.7123	0.0000	OK
15 minute summer	***413	10	104.598	0.110	39.8	0.1912	0.0000	OK
15 minute summer	***414	10	104.926	0.070	32.6	0.1311	0.0000	OK
15 minute summer	***415	11	102.053	0.333	121.4	0.7120	0.0000	OK
15 minute summer	***416	11	101.676	0.199	117.8	0.2849	0.0000	OK
15 minute summer	***417	12	101.539	0.370	176.1	1.0855	0.0000	OK
15 minute summer	***IR418	12	101.482	0.644	516.4	1.6377	0.0000	OK
15 minute summer	***IR419	12	101.433	0.604	558.5	1.7965	0.0000	OK
15 minute summer	***IR78	12	101.306	0.584	554.0	1.4867	0.0000	OK
15 minute summer	***IR79	12	101.211	0.510	1021.4	1.3485	0.0000	OK
15 minute summer	***IR80	12	100.845	0.460	1071.4	1.5902	0.0000	OK
15 minute summer	***IR81	12	99.887	0.387	1077.6	0.9847	0.0000	OK
960 minute winter	***IR420	930	99.261	1.448	76.9	0.0000	0.0000	OK
15 minute summer	***421	10	103.770	0.166	76.6	0.5600	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	***IR75	***S1.013	***IR76	423.1	3.235	0.556	3.6461	
15 minute summer	***IR76	***S1.014	***IR77	442.3	3.406	0.476	2.5041	
15 minute summer	***IR77	***S1.015	***IR79	465.2	3.877	0.509	2.5900	
15 minute summer	***IR401	***5.000	***IR403	56.6	2.383	0.620	1.1676	
15 minute summer	***IR402	***6.000	***IR403	48.0	0.923	0.678	2.0572	
15 minute summer	***IR403	***5.001	***IR404	103.2	0.982	0.932	2.6478	
15 minute summer	***IR404	***5.002	***IR405	114.3	1.143	1.030	2.3760	
15 minute summer	***IR405	***5.003	***IR408	145.9	1.976	1.302	0.7815	
15 minute summer	***406	***7.000	***407	59.6	2.479	0.624	0.8902	
15 minute summer	***407	***7.001	***IR408	59.6	2.952	0.204	0.2048	
15 minute summer	***IR408	***5.004	***IR409	216.4	3.482	0.359	0.6197	
15 minute summer	***IR409	***5.005	***IR410	287.1	2.976	0.759	5.4583	
15 minute summer	***IR410	***5.006	***IR412	287.4	3.077	0.302	0.8002	
15 minute summer	***411	***8.000	***IR412	61.3	2.202	0.753	1.1055	
15 minute summer	***IR412	***5.007	***IR418	348.4	2.125	0.791	3.2092	
15 minute summer	***413	***9.000	***415	39.1	2.078	0.458	0.8778	
15 minute summer	***414	***10.000	***415	32.4	2.572	0.212	0.7866	
15 minute summer	***415	***9.001	***416	117.8	1.275	1.064	4.9563	
15 minute summer	***416	***9.002	***417	117.5	1.870	0.281	0.6815	
15 minute summer	***417	***9.003	***IR418	168.0	1.010	0.550	10.3424	
15 minute summer	***IR418	***5.008	***IR419	509.6	1.181	0.731	1.9921	
15 minute summer	***IR419	***5.009	***IR78	554.0	1.348	0.786	22.0427	
15 minute summer	***IR78	***S2.000	***IR79	559.6	1.542	0.785	3.8635	
15 minute summer	***IR79	***S1.016	***IR80	1025.0	3.148	0.464	5.3128	
15 minute summer	***IR80	***S1.017	***IR81	1077.6	3.914	0.499	13.2021	
15 minute summer	***IR81	***S1.018	***IR420	1081.1	4.714	0.393	5.9306	
15 minute summer	***421	***11.000	***422	76.1	2.331	0.781	0.5339	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	***422	10	103.213	0.179	76.1	0.2023	0.0000	OK
15 minute summer	***423	10	102.761	0.117	75.6	0.1324	0.0000	OK
15 minute summer	***424	11	100.837	0.137	75.2	0.1551	0.0000	OK
15 minute summer	***425	11	100.522	0.272	75.6	0.3075	0.0000	OK
15 minute summer	***426	11	100.289	0.247	100.2	0.4745	0.0000	OK
15 minute summer	***IR82	11	100.098	0.163	126.6	0.3204	0.0000	OK
15 minute summer	***IR83	10	100.684	0.112	39.8	0.2170	0.0000	OK
15 minute summer	***IR84	10	100.259	0.073	19.2	0.1232	0.0000	OK
15 minute summer	***IR85	11	99.767	0.180	183.6	0.2574	0.0000	OK
960 minute winter	***IR86	945	99.255	1.442	24.9	0.0000	0.0000	OK
960 minute winter	***IR427	945	99.252	1.439	51.6	1502.3850	0.0000	SURCHARGED
960 minute winter	***IR428	945	99.251	1.488	14.1	5.1539	0.0000	SURCHARGED
60 minute summer	***IR429	38	97.785	0.085	13.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	***422	***11.001	***423	75.6	2.475	0.752	0.2586	
15 minute summer	***423	***11.002	***424	75.2	2.662	0.323	1.2644	
15 minute summer	***424	***11.003	***425	75.6	1.496	0.380	0.6946	
15 minute summer	***425	***11.004	***426	76.0	1.241	1.070	0.8524	
15 minute summer	***426	***11.005	***IR82	100.5	1.433	0.630	3.0559	
15 minute summer	***IR82	***11.006	***IR85	126.7	2.290	0.220	0.6104	
15 minute summer	***IR83	***12.000	***IR85	39.3	2.065	0.458	0.5335	
15 minute summer	***IR84	***13.000	***IR85	19.1	1.803	0.199	0.1175	
15 minute summer	***IR85	***11.007	***IR86	183.8	3.283	0.298	0.7520	
960 minute winter	***IR427	***45.000	***IR428	14.1	0.272	0.193	0.5986	
960 minute winter	***IR428	***45.001	***IR429	13.8	0.827	0.179	0.2172	740.7

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.85%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	101	11	108.454	0.954	99.5	2.5172	0.0000	SURCHARGED
15 minute summer	102	12	107.617	0.617	91.6	0.6981	0.0000	SURCHARGED
15 minute summer	103	12	107.252	0.460	89.9	0.5199	0.0000	SURCHARGED
15 minute summer	104	11	107.932	0.332	55.5	0.6539	0.0000	SURCHARGED
15 minute summer	105	11	107.594	0.117	54.0	0.1319	0.0000	OK
15 minute summer	106	12	107.152	0.397	173.2	0.5839	0.0000	SURCHARGED
15 minute summer	107	12	106.877	0.381	169.8	0.4314	0.0000	SURCHARGED
15 minute summer	108	11	105.658	0.616	242.6	1.4744	0.0000	SURCHARGED
15 minute summer	109	11	105.352	0.397	119.8	1.1781	0.0000	SURCHARGED
15 minute summer	110	11	105.213	0.366	115.9	0.5232	0.0000	OK
15 minute summer	111	11	105.153	0.403	565.1	1.6795	0.0000	OK
15 minute summer	112	11	103.165	0.325	572.5	0.4653	0.0000	OK
15 minute summer	IR01	11	101.144	0.965	570.6	0.0000	0.0000	SURCHARGED
15 minute summer	113	10	105.803	0.203	45.0	0.3677	0.0000	OK
15 minute summer	114	10	105.642	0.135	44.5	0.1525	0.0000	OK
15 minute summer	115	10	105.304	0.129	44.2	0.1457	0.0000	OK
15 minute summer	116	10	105.110	0.204	176.1	0.6334	0.0000	OK
15 minute summer	IR02	10	103.420	0.165	174.6	0.0000	0.0000	OK
15 minute summer	IR03	11	101.680	1.360	320.3	3.1334	0.0000	SURCHARGED
15 minute summer	IR04	11	101.030	0.220	88.1	0.5037	0.0000	OK
15 minute summer	IR05	11	100.983	0.776	96.2	1.2429	0.0000	SURCHARGED
15 minute summer	IR06	11	100.942	1.472	441.0	3.4066	0.0000	SURCHARGED
15 minute summer	IR07	11	100.641	1.273	1100.6	3.5024	0.0000	SURCHARGED
15 minute summer	117	11	107.691	0.537	101.3	1.3432	0.0000	SURCHARGED
15 minute summer	118	11	105.880	0.303	167.1	0.7521	0.0000	OK
15 minute winter	119	10	105.614	0.219	250.4	0.6050	0.0000	OK
15 minute summer	120	11	103.665	0.291	380.5	0.9454	0.0000	OK
15 minute summer	IR08	11	101.847	1.013	376.3	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	101	1.000	102	91.6	2.303	1.300	0.9250	
15 minute summer	102	1.001	103	89.9	1.276	1.271	3.5869	
15 minute summer	103	1.002	106	88.3	1.431	1.241	0.6309	
15 minute summer	104	2.000	105	54.0	1.567	1.354	0.6288	
15 minute summer	105	2.001	106	54.1	2.110	0.531	0.5146	
15 minute summer	106	1.003	107	169.8	2.762	0.700	0.3869	
15 minute summer	107	1.004	108	176.6	2.561	0.917	3.2568	
15 minute summer	108	1.005	111	240.5	2.181	1.321	2.8233	
15 minute summer	109	3.000	110	115.9	1.073	1.045	3.8263	
15 minute summer	110	3.001	111	116.7	1.144	1.043	0.7365	
15 minute summer	111	1.006	112	572.5	4.233	0.956	7.6336	
15 minute summer	112	1.007	IR01	570.6	4.345	0.807	7.8762	
15 minute summer	IR01	S18.00	IR07	567.8	3.584	0.705	1.7022	
15 minute summer	113	4.000	114	44.5	1.392	1.115	0.4918	
15 minute summer	114	4.001	115	44.2	1.828	0.584	0.3820	
15 minute summer	115	4.002	116	44.1	1.994	0.464	0.1375	
15 minute summer	116	4.003	IR02	174.6	3.522	0.765	1.7784	
15 minute summer	IR02	4.004	IR03	174.0	3.451	0.261	0.9354	
15 minute summer	IR03	4.005	IR06	314.3	1.984	0.952	10.6365	
15 minute summer	IR04	5.000	IR05	85.6	1.905	0.383	4.2856	
15 minute summer	IR05	S16.001	IR06	108.5	1.858	0.294	1.6710	
15 minute summer	IR06	S16.002	IR07	441.0	1.566	1.559	16.7666	
15 minute summer	IR07	S16.003	IR11	1100.2	3.906	2.405	4.0218	
15 minute summer	117	6.000	118	93.0	2.567	1.051	1.9742	
15 minute summer	118	6.001	119	167.1	2.054	0.914	1.7521	
15 minute winter	119	6.002	120	249.0	3.422	0.620	3.6874	
15 minute summer	120	6.003	IR08	376.3	4.150	0.836	5.1118	
15 minute summer	IR08	S15.000	IR10	374.6	3.397	0.747	1.1496	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.85%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR09	11	101.564	1.054	45.8	1.7392	0.0000	SURCHARGED
15 minute summer	IR10	11	101.325	1.216	536.5	3.3734	0.0000	SURCHARGED
15 minute summer	IR11	11	99.688	0.834	1711.0	3.0144	0.0000	OK
15 minute summer	IR12	11	99.252	0.413	1888.1	0.3273	0.0000	OK
1440 minute winter	121	1410	98.796	0.732	4.7	2.2462	0.0000	SURCHARGED
1440 minute winter	IR122	1410	98.796	1.753	107.3	8.7007	0.0000	SURCHARGED
1440 minute winter	IR123	1410	98.796	1.821	103.2	6.3084	0.0000	SURCHARGED
1440 minute winter	IR124	1410	98.796	1.946	100.2	0.0000	0.0000	OK
15 minute summer	125	11	107.700	0.350	128.6	1.1198	0.0000	OK
15 minute summer	126	12	107.243	1.318	80.1	3.0134	0.0000	FLOOD RISK
15 minute summer	127	12	107.136	1.315	71.4	1.4871	0.0000	SURCHARGED
15 minute summer	128	12	107.020	1.382	281.7	3.0318	0.0000	SURCHARGED
15 minute summer	129	12	105.907	0.463	51.1	0.9009	0.0000	SURCHARGED
15 minute summer	130	12	105.727	0.795	428.4	2.4913	0.0000	SURCHARGED
15 minute summer	131	11	105.205	0.654	80.1	1.5318	0.0000	SURCHARGED
15 minute summer	132	11	104.514	0.317	73.0	0.3587	0.0000	SURCHARGED
15 minute summer	133	11	104.307	0.471	196.8	1.3398	0.0000	SURCHARGED
15 minute summer	134	10	102.627	0.437	189.3	0.4939	0.0000	SURCHARGED
15 minute summer	135	10	102.131	0.516	261.6	1.4062	0.0000	OK
15 minute summer	136	10	101.983	0.465	783.9	1.3808	0.0000	OK
15 minute winter	137	11	100.852	0.449	766.1	0.7935	0.0000	OK
15 minute winter	IR13	11	100.276	0.464	766.7	0.0000	0.0000	OK
15 minute summer	138	10	105.415	0.301	114.5	0.9268	0.0000	OK
15 minute summer	139	10	105.311	0.254	313.6	0.9953	0.0000	OK
15 minute summer	140	10	102.314	0.290	311.2	0.4156	0.0000	OK
15 minute summer	IR14	11	101.532	0.382	309.6	0.0000	0.0000	OK
15 minute summer	IR15	11	101.436	0.549	377.4	1.3263	0.0000	SURCHARGED
15 minute summer	IR16	11	100.816	0.773	409.4	1.4639	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR09	S14.000	IR10	42.8	1.102	1.075	1.1829	
15 minute summer	IR10	S14.001	IR11	535.1	3.378	1.340	6.7449	
15 minute summer	IR11	S14.002	IR12	1810.5	3.471	1.423	4.2851	
15 minute summer	IR12	1.011	IR122	1808.5	3.005	0.341	30.3706	
1440 minute winter	121	8.000	IR122	4.7	0.577	0.066	2.0769	
1440 minute winter	IR122	1.012	IR123	103.2	0.461	0.078	77.1052	
1440 minute winter	IR123	1.013	IR124	100.2	0.593	0.063	58.2835	
15 minute summer	125	9.000	128	120.2	1.269	1.087	7.6640	
15 minute summer	126	10.000	127	71.4	1.061	1.009	1.7916	
15 minute summer	127	10.001	128	77.8	1.105	1.097	1.8520	
15 minute summer	128	9.001	130	269.9	2.447	1.261	6.8087	
15 minute summer	129	11.000	130	50.5	1.629	0.804	0.9908	
15 minute summer	130	9.002	136	405.3	4.131	1.025	7.3168	
15 minute summer	131	12.000	132	73.0	1.897	1.298	1.2046	
15 minute summer	132	12.001	133	74.4	2.478	0.699	0.2735	
15 minute summer	133	12.002	134	189.3	2.765	0.967	3.7655	
15 minute summer	134	12.003	135	186.8	2.654	0.934	0.7646	
15 minute summer	135	12.004	136	255.1	1.231	1.175	9.9507	
15 minute summer	136	9.003	137	765.4	3.879	0.887	7.0372	
15 minute winter	137	9.004	IR13	766.7	4.172	0.896	3.0608	
15 minute winter	IR13	S13.000	IR17	766.5	3.610	0.735	2.2831	
15 minute summer	138	13.000	139	113.6	1.305	0.896	1.2259	
15 minute summer	139	13.001	140	311.2	3.632	0.792	6.7702	
15 minute summer	140	13.002	IR14	309.6	3.504	0.879	2.4326	
15 minute summer	IR14	S12.000	IR15	305.2	2.635	0.603	1.6267	
15 minute summer	IR15	S12.001	IR16	372.4	2.350	0.741	5.5549	
15 minute summer	IR16	S12.002	IR17	408.4	2.578	1.256	4.9761	

**Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.85%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR17	11	99.972	0.551	1211.6	1.7180	0.0000	OK
1440 minute winter	IR18	1410	98.795	1.088	81.6	3.7880	0.0000	SURCHARGED
15 minute summer	IR19	11	99.874	1.083	176.2	3.9938	0.0000	SURCHARGED
1440 minute winter	142	1410	98.795	1.945	80.8	0.0000	0.0000	OK
1440 minute winter	IR143	1410	98.787	1.949	76.5	4643.4020	0.0000	SURCHARGED
1440 minute winter	144	1410	98.782	1.980	26.1	6.8574	0.0000	SURCHARGED
2160 minute summer	IR145	1020	96.878	0.123	26.0	0.0000	0.0000	OK
15 minute summer	*201	12	104.771	0.346	142.7	1.2060	0.0000	OK
15 minute summer	*202	11	104.506	0.870	265.3	2.0598	0.0000	SURCHARGED
15 minute summer	*203	11	104.330	0.850	224.3	1.5026	0.0000	SURCHARGED
15 minute summer	*204	11	104.284	0.824	320.8	1.8735	0.0000	SURCHARGED
15 minute summer	*205	12	103.452	0.292	461.3	0.8866	0.0000	OK
15 minute summer	*206	12	101.323	1.225	452.2	1.7527	0.0000	SURCHARGED
15 minute summer	*IR31	12	101.246	1.545	455.6	0.0000	0.0000	SURCHARGED
15 minute summer	*IR32	12	101.922	0.586	352.4	2.7195	0.0000	SURCHARGED
15 minute summer	*IR33	12	101.812	0.928	355.5	1.3860	0.0000	SURCHARGED
15 minute summer	*IR34	12	101.408	1.147	375.4	2.0720	0.0000	SURCHARGED
15 minute summer	*IR35	12	101.380	1.500	136.6	3.1661	0.0000	FLOOD RISK
15 minute summer	*IR36	12	101.302	1.757	502.4	3.8652	0.0000	SURCHARGED
15 minute summer	*IR37	12	101.173	1.887	890.7	3.7398	0.0000	FLOOD RISK
15 minute summer	*IR38	12	100.720	1.438	136.6	3.2784	0.0000	FLOOD RISK
15 minute summer	*IR39	12	100.692	1.845	1031.2	5.5621	0.0000	FLOOD RISK
15 minute summer	*207	12	106.772	1.471	73.1	3.2932	0.0000	FLOOD RISK
15 minute summer	*208	12	106.703	1.583	57.9	1.7900	0.0000	SURCHARGED
15 minute summer	*209	12	106.595	1.773	65.5	2.0055	0.0000	SURCHARGED
15 minute summer	*210	12	106.527	1.859	135.6	3.0531	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR17	S12.003	IR18	1213.9	3.936	0.683	8.9556	
1440 minute winter	IR18	9.007	142	80.8	2.069	0.035	10.7262	
15 minute summer	IR19	S12.004	IR18	167.7	2.381	1.431	3.9780	
1440 minute winter	IR143	15.000	144	26.1	0.371	0.369	0.6185	
1440 minute winter	144	15.001	IR145	25.9	0.898	0.364	0.3279	1970.8

15 minute summer	*201	*1.000	*202	144.6	1.597	0.792	8.3033	
15 minute summer	*202	*1.001	*203	224.3	1.069	1.033	16.5701	
15 minute summer	*203	*1.002	*204	220.6	1.021	0.996	2.0417	
15 minute summer	*204	*1.003	*205	312.6	2.128	1.473	9.2385	
15 minute summer	*205	*1.004	*206	452.2	4.106	0.724	10.4771	
15 minute summer	*206	*1.005	*IR31	455.6	3.107	0.354	3.2303	
15 minute summer	*IR31	*S8.000	*IR37	463.3	2.595	0.367	2.8573	
15 minute summer	*IR32	*S6.000	*IR33	350.2	2.784	0.501	1.5428	
15 minute summer	*IR33	*S6.001	*IR34	344.5	2.337	1.000	6.6068	
15 minute summer	*IR34	*S6.002	*IR36	337.1	1.805	0.362	11.0575	
15 minute summer	*IR35	*S7.000	*IR36	127.5	1.813	1.794	0.5967	
15 minute summer	*IR36	*S6.003	*IR37	472.7	1.969	0.646	4.5953	
15 minute summer	*IR37	*S6.004	*IR39	899.3	2.519	0.954	12.8509	
15 minute summer	*IR38	*S9.000	*IR39	127.4	1.811	1.802	0.6031	
15 minute summer	*IR39	*S6.005	*IR46	1029.5	2.339	0.828	9.7205	
15 minute summer	*207	*5.000	*208	57.9	1.439	0.521	1.2656	
15 minute summer	*208	*5.001	*209	65.5	1.320	0.589	2.0973	
15 minute summer	*209	*5.002	*210	75.7	1.076	0.682	1.0873	
15 minute summer	*210	*5.003	*211	138.6	1.968	1.958	4.2483	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.85%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	*211	11	105.493	1.147	228.8	2.8168	0.0000	SURCHARGED
15 minute summer	*212	11	105.054	1.013	304.6	2.5988	0.0000	SURCHARGED
15 minute summer	*213	11	104.985	0.979	300.8	1.7300	0.0000	SURCHARGED
15 minute summer	*214	11	107.025	0.450	60.8	0.9446	0.0000	SURCHARGED
15 minute summer	*215	11	106.578	0.270	105.3	0.4344	0.0000	OK
15 minute summer	*216	10	106.264	0.175	128.4	0.2610	0.0000	OK
15 minute summer	*217	11	105.353	0.201	151.7	0.2994	0.0000	OK
15 minute summer	*218	11	104.790	0.924	493.0	1.7798	0.0000	SURCHARGED
15 minute summer	*219	11	104.577	0.123	45.0	0.1970	0.0000	OK
15 minute summer	*220	11	104.224	0.597	109.0	1.2650	0.0000	SURCHARGED
15 minute summer	*221	11	103.837	0.427	158.2	0.8911	0.0000	SURCHARGED
15 minute summer	*222	11	103.715	0.488	647.5	0.8617	0.0000	OK
15 minute summer	*223	11	103.263	0.357	687.9	0.8338	0.0000	OK
15 minute summer	*224	12	101.686	0.288	688.3	0.5093	0.0000	OK
15 minute summer	*225	12	105.999	1.056	97.8	2.8267	0.0000	SURCHARGED
15 minute summer	*226	12	105.414	0.845	84.1	0.9557	0.0000	SURCHARGED
15 minute summer	*227	11	105.080	1.207	202.0	3.1742	0.0000	SURCHARGED
15 minute summer	*228	11	103.093	0.603	196.0	0.6819	0.0000	SURCHARGED
15 minute summer	*229	11	102.605	0.464	348.7	1.7982	0.0000	OK
15 minute summer	*230	12	102.125	0.287	480.9	1.0301	0.0000	OK
15 minute summer	*231	12	100.757	1.812	1263.0	5.9804	0.0000	SURCHARGED
15 minute summer	*IR40	12	100.236	1.581	1234.3	0.0000	0.0000	SURCHARGED
15 minute summer	*IR41	12	98.105	0.699	2641.7	2.5688	0.0000	OK
15 minute summer	*IR42	12	98.865	1.337	2568.5	5.0103	0.0000	SURCHARGED
15 minute summer	*IR43	12	99.227	1.655	2499.2	3.7028	0.0000	SURCHARGED
15 minute summer	*IR44	12	99.668	2.018	2410.3	7.7654	0.0000	FLOOD RISK
15 minute summer	*IR45	12	100.039	2.000	2342.9	6.8709	0.0000	SURCHARGED
15 minute summer	*IR46	12	100.401	1.776	1073.1	5.5960	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	*211	*5.004	*212	227.3	2.061	2.057	2.8618	
15 minute summer	*212	*5.005	*213	300.8	1.205	1.053	5.6488	
15 minute summer	*213	*5.006	*218	304.1	1.919	0.865	1.8763	
15 minute summer	*214	*6.000	*215	58.7	1.479	1.476	1.2525	
15 minute summer	*215	*6.001	*216	105.7	1.904	1.031	1.4000	
15 minute summer	*216	*6.002	*217	129.0	3.071	0.577	1.0734	
15 minute summer	*217	*6.003	*218	150.9	3.067	0.521	1.0190	
15 minute summer	*218	*5.007	*222	490.2	3.094	1.267	4.6207	
15 minute summer	*219	*7.000	*220	43.9	1.464	0.528	0.9154	
15 minute summer	*220	*7.001	*221	106.2	1.508	1.500	2.4442	
15 minute summer	*221	*7.002	*222	157.3	1.454	1.412	1.1308	
15 minute summer	*222	*5.008	*223	646.6	3.521	0.757	1.8993	
15 minute summer	*223	*5.009	*224	688.3	5.334	0.634	4.0994	
15 minute summer	*224	*5.010	*231	681.1	6.376	0.291	1.6252	
15 minute summer	*225	*8.000	*226	84.1	2.250	1.094	0.6837	
15 minute summer	*226	*8.001	*227	90.6	2.853	0.638	0.3350	
15 minute summer	*227	*8.002	*228	196.0	2.784	1.108	3.8639	
15 minute summer	*228	*8.003	*229	195.7	2.779	1.367	0.5229	
15 minute summer	*229	*8.004	*230	348.8	2.174	1.117	11.6339	
15 minute summer	*230	*8.005	*231	468.2	3.276	0.503	12.2445	
15 minute summer	*231	*5.011	*IR40	1234.3	2.805	1.224	19.1360	
15 minute summer	*IR40	*S11.000	*IR45	1234.4	3.050	0.772	4.4320	
15 minute summer	*IR41	*1.014	*IR48	2642.8	4.914	0.611	26.8861	
15 minute summer	*IR42	*S10.000	*IR41	2568.3	3.185	1.934	45.0920	
15 minute summer	*IR43	*S10.001	*IR42	2499.2	2.897	1.885	19.0436	
15 minute summer	*IR44	*S10.002	*IR43	2410.5	2.795	1.811	33.5212	
15 minute summer	*IR45	*S10.003	*IR44	2343.1	2.717	0.703	26.8780	
15 minute summer	*IR46	*S10.004	*IR45	1072.5	2.616	0.863	12.4171	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.85%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	*IR52	1380	93.910	1.935	165.7	6.7016	0.0000	FLOOD RISK
15 minute summer	*232	10	98.862	0.180	90.7	0.4547	0.0000	OK
15 minute summer	*233	10	97.234	0.303	284.8	1.2437	0.0000	OK
15 minute summer	*234	10	96.347	0.354	444.0	1.2954	0.0000	OK
15 minute summer	*235	11	95.513	0.355	439.4	0.5075	0.0000	OK
15 minute summer	*IR48	12	96.934	0.566	2772.4	2.5934	0.0000	OK
15 minute summer	*IR49	12	95.776	0.689	2781.7	2.1450	0.0000	OK
15 minute summer	*IR50	12	95.064	0.792	2868.7	3.2650	0.0000	OK
15 minute summer	*IR51	12	94.235	2.247	2858.9	7.3156	0.0000	FLOOD RISK
15 minute summer	*240b	11	93.969	0.395	57.3	1.0692	0.0000	SURCHARGED
15 minute summer	*236	11	96.625	0.434	135.7	1.3834	0.0000	SURCHARGED
15 minute summer	*237	11	96.375	0.550	106.6	1.4962	0.0000	SURCHARGED
15 minute summer	*238	11	96.050	0.445	302.8	1.0880	0.0000	SURCHARGED
15 minute summer	*239	11	95.100	0.650	386.0	1.7964	0.0000	SURCHARGED
1440 minute winter	*240	1380	93.910	1.078	25.8	2.7005	0.0000	SURCHARGED
1440 minute winter	*241	1380	93.910	1.173	88.7	2.9843	0.0000	SURCHARGED
1440 minute winter	*IR242	1380	93.910	2.310	221.6	0.0000	0.0000	OK
1440 minute winter	*IR243	1410	93.896	2.296	144.2	5552.1530	0.0000	SURCHARGED
10080 minute summer	*IR245	9960	91.314	0.143	27.3	0.1612	0.0000	OK
10080 minute summer	*IR246	9960	91.276	0.126	27.3	0.0000	0.0000	OK
15 minute summer	*247	11	96.668	0.593	89.8	1.5202	0.0000	SURCHARGED
15 minute summer	*248	11	95.334	0.109	81.4	0.1236	0.0000	OK
1440 minute winter	*249	1410	93.894	2.294	63.5	0.0000	0.0000	OK
1440 minute winter	*IR244	1410	93.889	2.324	27.4	8.0504	0.0000	SURCHARGED
1440 minute winter	*IR53	1380	93.910	2.051	165.8	7.1034	0.0000	FLOOD RISK
1440 minute winter	*IR54	1380	93.910	2.184	219.1	7.5640	0.0000	SURCHARGED
15 minute summer	**IR51b	10	101.180	0.056	12.3	0.0741	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	*IR52	*1.019	*IR53	165.8	0.720	0.088	65.4674	
15 minute summer	*232	*12.000	*233	89.2	2.724	0.912	1.4250	
15 minute summer	*233	*12.001	*234	282.0	2.283	0.756	8.7340	
15 minute summer	*234	*12.002	*235	439.4	3.298	0.807	3.9516	
15 minute summer	*235	*12.003	*241	442.8	3.557	0.827	4.4535	
15 minute summer	*IR48	*1.015	*IR49	2771.2	5.204	0.351	9.8907	
15 minute summer	*IR49	*1.016	*IR50	2776.6	5.044	0.426	11.1338	
15 minute summer	*IR50	*1.017	*IR51	2836.7	3.398	0.519	53.3808	
15 minute summer	*IR51	*1.018	*IR52	2866.7	3.324	2.125	5.4381	
15 minute summer	*240b	*11.000	*240	53.1	1.345	1.296	1.7693	
15 minute summer	*236	*9.000	*238	126.8	1.964	0.997	2.7478	
15 minute summer	*237	*10.000	*238	102.9	1.478	1.454	2.4914	
15 minute summer	*238	*9.001	*239	293.5	2.922	0.840	4.1997	
15 minute summer	*239	*9.002	*240	370.5	3.616	0.997	4.2390	
1440 minute winter	*240	*9.003	*241	32.2	0.830	0.090	22.7081	
1440 minute winter	*241	*9.004	*IR54	45.9	2.054	0.021	3.3160	
1440 minute winter	*IR243	*13.000	*IR244	27.4	0.390	0.383	0.5875	
10080 minute summer	*IR245	*13.002	*IR246	27.3	0.892	0.382	0.1539	11478.0
15 minute summer	*247	*14.000	*248	81.4	2.475	1.051	1.1353	
15 minute summer	*248	*14.001	*249	81.1	4.351	0.450	0.3691	
1440 minute winter	*IR244	*13.001	*IR245	27.2	0.904	0.363	2.5915	
1440 minute winter	*IR53	*1.020	*IR54	219.1	0.601	0.116	74.7864	
1440 minute winter	*IR54	*1.021	*IR242	221.6	0.766	0.118	14.7655	
15 minute summer	**IR51b	**S4.000	**IR53b	12.2	0.870	0.137	0.3864	

**Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.85%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
7200 minute summer	**IR52b	5220	101.450	0.690	2.4	168.4383	0.0000	SURCHARGED
15 minute summer	**IR53b	10	100.449	0.117	37.9	0.1799	0.0000	OK
15 minute summer	**IR54b	10	100.387	0.157	31.7	0.2764	0.0000	OK
15 minute summer	**IR55	10	100.241	0.177	94.5	0.2677	0.0000	OK
2160 minute winter	**IR301	2040	99.967	0.367	3.6	0.0000	0.0000	OK
2160 minute winter	**IR302	2040	99.964	0.364	6.0	109.6079	0.0000	SURCHARGED
2160 minute winter	**IR303	2040	99.964	1.495	4.6	1.6906	0.0000	SURCHARGED
2160 minute winter	**IR304	2040	98.317	0.017	0.9	0.0000	0.0000	OK
15 minute summer	***S278 01	11	123.063	0.308	76.6	0.6685	0.0000	SURCHARGED
15 minute summer	***S279 02	13	122.415	0.031	2.6	0.0368	0.0000	OK
15 minute summer	***S278 03	1	122.578	0.000	0.0	0.0000	0.0000	OK
15 minute summer	***S278 04	13	122.388	0.685	76.5	0.7746	0.0000	SURCHARGED
15 minute summer	***S278 05	13	122.051	0.470	72.0	0.5313	0.0000	SURCHARGED
15 minute summer	***IR61	12	121.523	1.029	101.4	1.6617	0.0000	SURCHARGED
15 minute summer	***IR62	12	120.030	0.789	97.0	1.0705	0.0000	SURCHARGED
15 minute summer	***IR63	12	118.885	0.947	117.7	1.4896	0.0000	SURCHARGED
15 minute summer	***IR64	12	117.504	0.690	125.7	0.9316	0.0000	SURCHARGED
15 minute summer	***IR65	12	116.149	0.195	125.4	0.2211	0.0000	OK
15 minute summer	***IR66	13	115.471	0.175	138.1	0.2374	0.0000	OK
15 minute summer	***IR67	13	114.827	0.357	5.6	0.4038	0.0000	SURCHARGED
15 minute summer	***IR68	13	114.821	0.491	154.1	0.6438	0.0000	SURCHARGED
15 minute summer	***IR69	11	113.427	0.761	205.0	1.5236	0.0000	SURCHARGED
15 minute summer	***IR70	12	112.499	0.426	208.9	0.5931	0.0000	SURCHARGED
30 minute summer	***IR71	18	111.430	0.229	252.1	0.5060	0.0000	OK
15 minute summer	***IR72	11	109.978	0.337	543.5	1.8393	0.0000	OK
15 minute summer	***IR73	10	106.762	0.346	626.9	1.0291	0.0000	OK
15 minute summer	***IR74	11	105.573	0.405	677.1	0.9767	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
7200 minute summer	**IR52b	**S5.000	**IR53b	0.4	0.339	0.009	0.0114	
15 minute summer	**IR53b	**S4.001	**IR55	37.6	1.972	0.401	0.1144	
15 minute summer	**IR54b	**S3.000	**IR55	31.3	1.119	0.740	0.3831	
15 minute summer	**IR55	**S3.001	**IR301	93.9	2.257	0.601	0.7065	
2160 minute winter	**IR302	**4.000	**IR303	4.6	1.004	0.029	0.1862	
2160 minute winter	**IR303	**1.005	**IR304	0.9	0.583	0.006	0.0152	113.5
15 minute summer	***S278 01	***S278_1.000	***S278 04	74.0	2.137	0.883	1.5059	
15 minute summer	***S279 02	***S278_2.000	***S278 04	2.6	0.544	0.029	0.4523	
15 minute summer	***S278 03	***S278_3.000	***S278 04	0.0	0.000	0.000	0.2953	
15 minute summer	***S278 04	***S278_1.001	***S278 05	72.0	1.853	1.808	0.8211	
15 minute summer	***S278 05	***S278_1.002	***IR61	65.0	1.763	0.698	1.3592	
15 minute summer	***IR61	***S1.000	***IR62	84.4	2.360	1.020	1.9802	
15 minute summer	***IR62	***S1.001	***IR63	95.0	2.589	0.867	1.1762	
15 minute summer	***IR63	***S1.002	***IR64	114.5	2.880	0.991	0.9138	
15 minute summer	***IR64	***S1.003	***IR65	125.4	3.154	1.123	0.6834	
15 minute summer	***IR65	***S1.004	***IR66	125.7	2.867	0.648	0.9850	
15 minute summer	***IR66	***S1.005	***IR68	137.3	2.774	0.562	1.1396	
15 minute summer	***IR67	***4.000	***IR68	8.5	0.498	0.200	0.3875	
15 minute summer	***IR68	***S1.006	***IR69	151.3	2.323	0.911	5.2688	
15 minute summer	***IR69	***S1.007	***IR70	192.1	2.728	1.098	1.6951	
15 minute summer	***IR70	***S1.008	***IR71	205.3	3.270	0.935	1.3109	
30 minute summer	***IR71	***S1.009	***IR72	251.8	3.564	0.642	2.9116	
15 minute summer	***IR72	***S1.010	***IR73	538.6	4.392	0.856	10.2591	
15 minute summer	***IR73	***S1.011	***IR74	629.2	4.002	0.662	5.3840	
15 minute summer	***IR74	***S1.012	***IR75	675.8	3.555	0.645	4.5002	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.85%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	***IR75	12	104.871	0.760	727.9	1.8105	0.0000	SURCHARGED
15 minute summer	***IR76	12	104.031	0.602	745.5	1.3555	0.0000	SURCHARGED
15 minute summer	***IR77	12	103.298	0.574	782.2	1.3727	0.0000	SURCHARGED
15 minute summer	***IR401	11	111.024	0.630	105.7	1.3567	0.0000	SURCHARGED
15 minute summer	***IR402	12	108.540	1.390	89.8	2.8214	0.0000	SURCHARGED
15 minute summer	***IR403	12	108.334	1.409	175.8	2.0158	0.0000	SURCHARGED
15 minute summer	***IR404	12	108.077	1.230	190.6	1.9678	0.0000	SURCHARGED
15 minute summer	***IR405	12	107.769	0.996	242.8	2.0436	0.0000	SURCHARGED
15 minute summer	***406	11	109.442	0.634	111.0	1.6469	0.0000	SURCHARGED
15 minute summer	***407	11	107.675	0.182	104.2	0.2054	0.0000	OK
15 minute summer	***IR408	12	107.476	0.737	365.1	1.2559	0.0000	SURCHARGED
15 minute summer	***IR409	11	106.893	1.095	483.9	2.8717	0.0000	SURCHARGED
15 minute summer	***IR410	12	105.413	0.394	481.2	0.5639	0.0000	OK
15 minute summer	***411	11	106.871	1.371	114.5	3.0668	0.0000	SURCHARGED
15 minute summer	***IR412	12	105.040	0.806	585.9	1.4247	0.0000	SURCHARGED
15 minute summer	***413	10	104.654	0.166	73.1	0.2891	0.0000	OK
15 minute summer	***414	10	104.953	0.097	60.0	0.1818	0.0000	OK
15 minute summer	***415	11	102.974	1.254	223.3	2.6816	0.0000	SURCHARGED
15 minute summer	***416	11	102.285	0.807	208.3	1.1554	0.0000	SURCHARGED
15 minute summer	***417	11	102.203	1.034	311.9	3.0309	0.0000	SURCHARGED
15 minute summer	***IR418	12	102.083	1.244	884.2	3.1671	0.0000	SURCHARGED
15 minute summer	***IR419	12	101.998	1.169	967.8	3.4774	0.0000	SURCHARGED
15 minute summer	***IR78	12	101.728	1.006	966.4	2.5609	0.0000	SURCHARGED
15 minute summer	***IR79	12	101.608	0.907	1757.7	2.3989	0.0000	SURCHARGED
15 minute summer	***IR80	12	101.085	0.700	1846.2	2.4203	0.0000	OK
2160 minute winter	***IR81	2040	100.353	0.853	77.8	2.1708	0.0000	SURCHARGED
2160 minute winter	***IR420	2040	100.353	2.540	208.8	0.0000	0.0000	OK
15 minute summer	***421	11	105.005	1.401	141.0	4.7298	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	***IR75	***S1.013	***IR76	708.4	3.416	0.932	6.0100	
15 minute summer	***IR76	***S1.014	***IR77	736.8	3.574	0.792	4.1630	
15 minute summer	***IR77	***S1.015	***IR79	778.2	4.237	0.851	4.0383	
15 minute summer	***IR401	***5.000	***IR403	98.2	2.647	1.076	1.9563	
15 minute summer	***IR402	***6.000	***IR403	80.6	1.145	1.137	2.5728	
15 minute summer	***IR403	***5.001	***IR404	173.9	1.577	1.571	2.7778	
15 minute summer	***IR404	***5.002	***IR405	193.9	1.758	1.748	2.6242	
15 minute summer	***IR405	***5.003	***IR408	246.0	2.231	2.195	1.1824	
15 minute summer	***406	***7.000	***407	104.2	2.761	1.091	1.4728	
15 minute summer	***407	***7.001	***IR408	102.8	3.083	0.352	0.5708	
15 minute summer	***IR408	***5.004	***IR409	369.6	3.499	0.613	1.0635	
15 minute summer	***IR409	***5.005	***IR410	481.2	3.057	1.272	8.7026	
15 minute summer	***IR410	***5.006	***IR412	484.5	3.194	0.509	1.2637	
15 minute summer	***411	***8.000	***IR412	103.9	2.613	1.276	1.5772	
15 minute summer	***IR412	***5.007	***IR418	587.2	2.718	1.333	4.1755	
15 minute summer	***413	***9.000	***415	71.9	2.365	0.841	1.4200	
15 minute summer	***414	***10.000	***415	59.7	2.512	0.391	0.9851	
15 minute summer	***415	***9.001	***416	208.3	1.889	1.882	5.9865	
15 minute summer	***416	***9.002	***417	204.2	1.783	0.488	1.5077	
15 minute summer	***417	***9.003	***IR418	304.4	1.081	0.997	14.8433	
15 minute summer	***IR418	***5.008	***IR419	888.1	1.666	1.273	2.4572	
15 minute summer	***IR419	***5.009	***IR78	966.4	1.813	1.371	28.5967	
15 minute summer	***IR78	***S2.000	***IR79	969.1	1.818	1.360	5.4971	
15 minute summer	***IR79	***S1.016	***IR80	1761.0	3.434	0.796	8.2849	
15 minute summer	***IR80	***S1.017	***IR81	1854.4	4.279	0.859	20.6722	
2160 minute winter	***IR81	***S1.018	***IR420	208.8	2.124	0.076	13.7820	
15 minute summer	***421	***11.000	***422	127.4	3.204	1.308	0.6510	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.85%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	***422	11	103.709	0.675	127.4	0.7637	0.0000	SURCHARGED
15 minute summer	***423	12	102.800	0.156	126.3	0.1766	0.0000	OK
15 minute summer	***424	12	100.950	0.250	126.5	0.2827	0.0000	OK
15 minute summer	***425	12	100.728	0.478	126.0	0.5406	0.0000	SURCHARGED
15 minute summer	***426	11	100.377	0.335	165.2	0.6438	0.0000	OK
2160 minute winter	***IR82	2040	100.345	0.410	8.5	0.8061	0.0000	OK
15 minute summer	***IR83	10	100.743	0.171	73.1	0.3323	0.0000	OK
2160 minute winter	***IR84	2040	100.345	0.159	1.3	0.2690	0.0000	OK
2160 minute winter	***IR85	2040	100.345	0.758	12.4	1.0847	0.0000	SURCHARGED
2160 minute winter	***IR86	2040	100.345	2.532	25.8	0.0000	0.0000	OK
2160 minute winter	***IR427	2040	100.341	2.528	52.3	3185.3990	0.0000	SURCHARGED
2160 minute winter	***IR428	2040	100.339	2.576	14.6	8.9237	0.0000	SURCHARGED
2160 minute winter	***IR429	2040	97.788	0.088	14.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	***422	***11.001	***423	126.3	3.176	1.258	0.3384	
15 minute summer	***423	***11.002	***424	126.5	2.811	0.544	2.2311	
15 minute summer	***424	***11.003	***425	126.0	1.808	0.633	0.9391	
15 minute summer	***425	***11.004	***426	125.9	1.790	1.772	0.9627	
15 minute summer	***426	***11.005	***IR82	164.4	1.626	1.031	4.4896	
2160 minute winter	***IR82	***11.006	***IR85	8.5	1.192	0.015	1.7066	
15 minute summer	***IR83	***12.000	***IR85	72.3	2.334	0.841	0.8668	
2160 minute winter	***IR84	***13.000	***IR85	1.3	0.845	0.014	0.3876	
2160 minute winter	***IR85	***11.007	***IR86	13.0	1.527	0.021	2.1276	
2160 minute winter	***IR427	***45.000	***IR428	14.6	0.216	0.200	0.5986	
2160 minute winter	***IR428	***45.001	***IR429	14.6	0.839	0.189	0.2260	1760.5

Appendix D - SuDS Management Plan

SUDS Element	Tanks	
Maintenance Period	Maintenance Task	Frequency
Regular Maintenance	Inspect for sediment and debris in pre-treatment components and flood of inspection tube or chamber and inside of concrete manhole rings	Annually
	Cleaning of gutters and any filters on downpipes	Annually (or as required based on inspections)
	Trimming any roots that may be causing blockages	Annually (or as required)
Occasional Maintenance	Remove sediment and debris from pre-treatment components and flood of inspection tube or chamber and inside concrete manhole rings	As required, based on inspections
Remedial Actions	Reconstruct soakaway and/or replace or clean void fill if performance deteriorates or failure occurs	As required
	Replacement of clogged geotextile (will require reconstruction of soakaway)	As required
Monitoring	Inspect silt traps and note rate of sediment accumulation	Monthly in the first year and then annually
	Check soakaway to ensure emptying is occurring	Annually

SUDS Element	Detention Basin	
Maintenance Period	Maintenance Task	Frequency
Regular Maintenance	Remove litter and debris	Monthly (or as required)
	Cut the grass – for spillways and access routes	Monthly (during growing season), or as required
	Cut grass - meadow grass in and around basin	Half yearly (spring, before nesting season, and autumn)
	Manage other vegetation and remove nuisance plants	Monthly (at start, then as required)
	Inspect inlets, outlets, and overflows for blockages, and clear is required	Monthly
	Inspect banksides, structures, pipework etc. for evidence of physical damage	Monthly
	Inspect inlets and facility surface for silt accumulation. Establish appropriate silt removal frequencies	Monthly (for first year), then annually or as required
	Check any penstocks and other mechanical devices	Annually
	Tidy all dead growth before start of growing season	Annually
	Remove sediment from inlets, outlets and forebays	Annually (or as required)
	Manage wetland plants in outlet pool- where provided	Annually
Occasional Maintenance	Reseed areas of poor vegetation growth	As required

	Prune and trim any trees and remove cuttings	Every 2 years, or as required
	Remove sediment from inlets, outlets, forebay and main basin when required	Every 5 years, or as required (likely to be minimal requirements where effective upstream source control is provided)
Remedial Actions	Repair erosion or other damage by reseeding or returfing	As required
	Realignment of rip-rap	As required
	Repair/rehabilitation of inlets, outlets and overflows	As required
	Relevel uneven levels and reinstate design levels	As required

SuDS Element	Swales	
Maintenance Period	Maintenance Task	Frequency
Regular Maintenance	Remove litter and debris	Monthly, or as required
	Cut the grass – to retain grass height within specified design range	Monthly (during growing season) or as required
	Manage other vegetation and remove nuisance plants	Monthly at start, then as required
	Inspect inlets, outlets and overflows for blockages, and clear if required	Monthly
	Inspect infiltration surfaces for ponding, compaction, silt accumulation, record areas where water is ponding for > 48 hours	Monthly, or when required
	Inspect vegetation coverage	Monthly for 6 months, quarterly for 2 years, then half yearly
	Inspect inlets and facility surface for silt accumulation, establish appropriate silt removal frequencies	Half yearly
Occasional Maintenance	Reseed areas of poor vegetation growth; alter plant types to better suit conditions, if required	As required or if bare soil is exposed over > 10% of the filter strip area
Remedial Actions	Repair erosion or other damage by re-turfing or reseed	As required
	Relevel uneven surfaces and reinstate design levels	As required
	Scarify and spike topsoil layer to improve infiltration performance, break up silt deposits and prevent compaction of the soil surface	As required

	Remove build-up of sediment on upstream gravel trench, flow spreader or at top of filter strip	As required
	Remove and dispose of oils or petrol residues using safe standard practices	As required

Element	Main River / Ordinary Watercourse	
Maintenance schedule	Required action	Frequency
Regular maintenance	Litter and debris removal.	6 Months
	Grass cutting along byelaw strips.	4-6 Months
	Manage other vegetation and remove nuisance plants.	1 Year
Occasional maintenance	Repair erosion or channel and bank damage.	1-2 years
	Re-level uneven surfaces and reinstate design levels.	1-2 years
	Remove build-up of sediment.	2-5 Years
Monitoring	Inspect inlets, outlets, erosion control, structures, channel base and channel banks and overflows for blockages, and clear if required.	1 Year or after a major flood event
	Remove and dispose of oils or petrol residues using safe standard practices.	ASAP