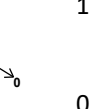
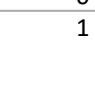
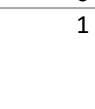
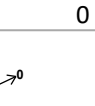
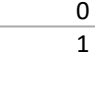
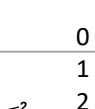
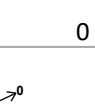
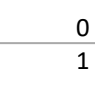
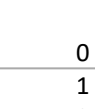
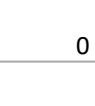
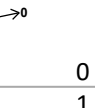
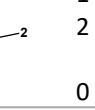
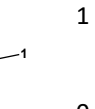
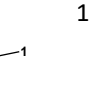
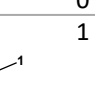
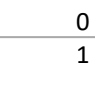
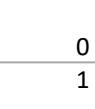
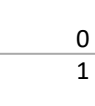




### Manhole Schedule

| Node  | Easting (m) | Northing (m) | CL (m) | Depth (m) | Dia (mm) | Connections                                                                           | Link | IL (m) | Dia (mm) |     |
|-------|-------------|--------------|--------|-----------|----------|---------------------------------------------------------------------------------------|------|--------|----------|-----|
| S2    | 388001.497  | 400680.321   | 86.230 | 2.187     | 600      |    | 1    | 1.000  | 84.043   | 225 |
|       |             |              |        |           |          |    | 0    | 1.001  | 84.043   | 225 |
| S3    | 388005.673  | 400677.735   | 86.440 | 2.427     | 1200     |    | 1    | 1.001  | 84.013   | 225 |
|       |             |              |        |           |          |    | 0    | 1.002  | 84.013   | 225 |
| S4    | 388008.831  | 400662.488   | 86.100 | 2.181     | 1200     |    | 1    | 1.002  | 83.919   | 225 |
|       |             |              |        |           |          |   | 0    | 1.003  | 83.919   | 225 |
| S5    | 387985.662  | 400637.302   | 86.100 | 1.050     | 600      |  | 0    | 2.000  | 85.050   | 150 |
| S6    | 388002.577  | 400645.281   | 86.210 | 1.422     | 600      |  | 1    | 2.000  | 84.863   | 150 |
|       |             |              |        |           |          |  | 0    | 2.001  | 84.788   | 225 |
| S7    | 387999.465  | 400660.369   | 86.190 | 2.329     | 1200     |  | 1    | 2.001  | 84.695   | 225 |
|       |             |              |        |           |          |  | 2    | 1.003  | 83.861   | 225 |
|       |             |              |        |           |          |  | 0    | 1.004  | 83.861   | 225 |
| S8    | 387968.423  | 400631.770   | 85.900 | 1.050     | 600      |  | 0    | 3.000  | 84.850   | 150 |
|       |             |              |        |           |          |  | 1    | 3.000  | 84.745   | 150 |
| S9    | 387977.964  | 400636.271   | 86.000 | 1.330     | 600      |  | 0    | 3.001  | 84.670   | 225 |
|       |             |              |        |           |          |  | 1    | 3.001  | 84.550   | 225 |
| S10   | 387969.488  | 400654.239   | 85.850 | 2.174     | 1350     |  | 2    | 1.004  | 83.676   | 225 |
|       |             |              |        |           |          |  | 1    | 1.005  | 83.676   | 225 |
|       |             |              |        |           |          |  | 0    | 4.000  | 84.440   | 150 |
| S11   | 387949.297  | 400656.151   | 85.490 | 1.050     | 600      |  | 0    | 4.000  | 84.440   | 150 |
| S12   | 387957.257  | 400657.799   | 85.500 | 1.141     | 600      |  | 1    | 4.000  | 84.359   | 150 |
|       |             |              |        |           |          |  | 0    | 4.001  | 84.359   | 150 |
| S13   | 387958.461  | 400651.984   | 85.580 | 1.972     | 1800     |  | 1    | 4.001  | 84.300   | 150 |
|       |             |              |        |           |          |  | 2    | 1.005  | 83.608   | 225 |
|       |             |              |        |           |          |  | 0    | 1.006  | 83.608   | 225 |
| C01   | 387955.295  | 400651.339   | 85.550 | 2.090     | 1200     |  | 1    | 1.006  | 83.535   | 225 |
|       |             |              |        |           |          |  | 0    | 1.007  | 83.460   | 300 |
| C02   | 387949.136  | 400650.077   | 85.500 | 4.610     | 1500     |  | 1    | 1.007  | 80.890   | 300 |
| S14   | 387997.610  | 400611.932   | 86.360 | 1.350     | 450      |  | 0    | 6.000  | 85.010   | 150 |
| S15   | 387988.475  | 400608.057   | 86.170 | 1.350     | 450      |  | 1    | 6.000  | 84.820   | 150 |
|       |             |              |        |           |          |  | 0    | 6.001  | 84.820   | 150 |
| S16   | 387985.038  | 400617.782   | 86.200 | 1.558     | 450      |  | 1    | 6.001  | 84.717   | 150 |
|       |             |              |        |           |          |  | 0    | 6.002  | 84.642   | 225 |
| EXS01 | 387985.081  | 400623.137   | 86.130 | 1.520     | 1500     |  | 1    | 6.002  | 84.610   | 225 |
| S17   | 388016.294  | 400621.458   | 86.510 | 1.350     | 450      |  | 0    | 7.000  | 85.160   | 150 |
| S18   | 388011.198  | 400630.740   | 86.530 | 1.551     | 450      |  | 1    | 7.000  | 85.054   | 150 |
|       |             |              |        |           |          |  | 0    | 7.001  | 84.979   | 225 |

Manhole Schedule

| Node   | Easting (m) | Northing (m) | CL (m) | Depth (m) | Dia (mm) | Connections                        | Link  | IL (m) | Dia (mm) |
|--------|-------------|--------------|--------|-----------|----------|------------------------------------|-------|--------|----------|
| EXS02A | 388008.276  | 400634.201   | 86.430 | 1.478     | 1200     | <div><div></div><div>1</div></div> | 7.001 | 84.952 | 225      |
| S19    | 388024.767  | 400637.353   | 86.680 | 1.350     | 600      | <div><div></div><div>0</div></div> | 5.000 | 85.330 | 150      |
| S20    | 388044.353  | 400641.430   | 86.820 | 1.690     | 600      | <div><div></div><div>1</div></div> | 5.000 | 85.130 | 150      |
| S21    | 388041.797  | 400654.717   | 86.830 | 1.910     | 600      | <div><div></div><div>1</div></div> | 5.001 | 85.130 | 150      |
| EXS02C | 388040.308  | 400657.912   | 86.610 | 1.711     | 1200     | <div><div></div><div>1</div></div> | 5.002 | 84.920 | 225      |

Simulation Settings

|                      |                   |                   |        |                            |      |
|----------------------|-------------------|-------------------|--------|----------------------------|------|
| Rainfall Methodology | FSR               | Summer CV         | 0.750  | Drain Down Time (mins)     | 240  |
| FSR Region           | England and Wales | Winter CV         | 0.840  | Additional Storage (m³/ha) | 20.0 |
| M5-60 (mm)           | 20.000            | Analysis Speed    | Normal | Check Discharge Rate(s)    | x    |
| Ratio-R              | 0.400             | Skip Steady State | x      | Check Discharge Volume     | x    |

Storm Durations

| 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 C02 Surcharged Outfall

|                                                                                                      |   |                               |   |                              |   |
|------------------------------------------------------------------------------------------------------|---|-------------------------------|---|------------------------------|---|
| Overrides Design Area                                                                                | x | Depression Storage Area (m²)  | 0 | Evapo-transpiration (mm/day) | 0 |
| Overrides Design Additional Inflow                                                                   | x | Depression Storage Depth (mm) | 0 |                              |   |
| Applies to 30yr, 100yr+45% CC 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440 minute storms |   |                               |   |                              |   |

| Time (mins) | Depth (m) | Time (mins) | Depth (m) | Time (mins) | Depth (m) | Time (mins) | Depth (m) | Time (mins) | Depth (m) | Time (mins) | Depth (m) | Time (mins) | Depth (m) | Time (mins) | Depth (m) |
|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|
| 0           | 1.225     | 180         | 1.225     | 360         | 1.225     | 540         | 1.225     | 720         | 1.225     | 900         | 1.225     | 1080        | 1.225     | 1260        | 1.225     |
| 60          | 1.225     | 240         | 1.225     | 420         | 1.225     | 600         | 1.225     | 780         | 1.225     | 960         | 1.225     | 1140        | 1.225     | 1320        | 1.225     |
| 120         | 1.225     | 300         | 1.225     | 480         | 1.225     | 660         | 1.225     | 840         | 1.225     | 1020        | 1.225     | 1200        | 1.225     | 1380        | 1.225     |

Node S13 Online Hydro-Brake® Control

|                          |        |                         |                                |
|--------------------------|--------|-------------------------|--------------------------------|
| Flap Valve               | x      | Objective               | (HE) Minimise upstream storage |
| Replaces Downstream Link | ✓      | Sump Available          | ✓                              |
| Invert Level (m)         | 83.608 | Product Number          | CTL-SHE-0118-5600-0500-5600    |
| Design Depth (m)         | 0.500  | Min Outlet Diameter (m) | 0.150                          |
| Design Flow (l/s)        | 5.6    | Min Node Diameter (mm)  | 1200                           |

Node S13 Online Orifice Control

|                          |   |                  |        |                   |       |                       |       |
|--------------------------|---|------------------|--------|-------------------|-------|-----------------------|-------|
| Flap Valve               | x | Invert Level (m) | 84.534 | Design Flow (l/s) | 14.9  | Discharge Coefficient | 0.600 |
| Replaces Downstream Link | ✓ | Design Depth (m) | 1.750  | Diameter (m)      | 0.073 |                       |       |

Node S4 Depth/Area Storage Structure

|                             |         |               |      |                           |        |
|-----------------------------|---------|---------------|------|---------------------------|--------|
| Base Inf Coefficient (m/hr) | 0.00000 | Safety Factor | 2.0  | Invert Level (m)          | 83.919 |
| Side Inf Coefficient (m/hr) | 0.00000 | Porosity      | 0.95 | Time to half empty (mins) | 98     |

| Depth (m) | Area (m²) | Inf Area (m²) | Depth (m) | Area (m²) | Inf Area (m²) | Depth (m) | Area (m²) | Inf Area (m²) |
|-----------|-----------|---------------|-----------|-----------|---------------|-----------|-----------|---------------|
| 0.000     | 63.0      | 0.0           | 0.800     | 63.0      | 0.0           | 0.801     | 0.0       | 0.0           |

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.70%

| Node Event        | US Node | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|-------------------|---------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 15 minute winter  | S1      | 10          | 84.419    | 0.054     | 5.4          | 0.0521        | 0.0000     | OK         |
| 15 minute winter  | S2      | 11          | 84.105    | 0.062     | 5.2          | 0.0175        | 0.0000     | OK         |
| 15 minute winter  | S3      | 10          | 84.092    | 0.079     | 9.1          | 0.1094        | 0.0000     | OK         |
| 30 minute winter  | S4      | 29          | 84.041    | 0.122     | 17.1         | 7.4227        | 0.0000     | OK         |
| 15 minute winter  | S5      | 10          | 85.096    | 0.046     | 3.5          | 0.0347        | 0.0000     | OK         |
| 15 minute winter  | S6      | 11          | 84.849    | 0.061     | 6.2          | 0.0345        | 0.0000     | OK         |
| 30 minute winter  | S7      | 28          | 84.040    | 0.179     | 11.8         | 0.2800        | 0.0000     | OK         |
| 15 minute winter  | S8      | 10          | 84.892    | 0.042     | 2.8          | 0.0276        | 0.0000     | OK         |
| 15 minute winter  | S9      | 11          | 84.713    | 0.043     | 3.2          | 0.0142        | 0.0000     | OK         |
| 15 minute winter  | S10     | 12          | 84.047    | 0.371     | 16.4         | 0.6096        | 0.0000     | SURCHARGED |
| 15 minute winter  | S11     | 10          | 84.458    | 0.018     | 0.6          | 0.0066        | 0.0000     | OK         |
| 15 minute winter  | S12     | 10          | 84.385    | 0.026     | 1.2          | 0.0092        | 0.0000     | OK         |
| 15 minute winter  | S13     | 12          | 84.050    | 0.442     | 12.5         | 1.1480        | 0.0000     | SURCHARGED |
| 120 minute winter | C01     | 120         | 83.480    | 0.020     | 5.6          | 0.0222        | 0.0000     | OK         |
| 60 minute winter  | C02     | 84          | 80.909    | 0.019     | 5.6          | 0.0000        | 0.0000     | OK         |
| 15 minute summer  | S14     | 1           | 85.010    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer  | S15     | 1           | 84.820    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer  | S16     | 1           | 84.642    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer  | EXS01   | 1           | 84.610    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer  | S17     | 1           | 85.160    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer  | S18     | 1           | 84.979    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer  | EXS02A  | 1           | 84.952    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer  | S19     | 1           | 85.330    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer  | S20     | 1           | 85.130    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer  | S21     | 1           | 84.920    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer  | EXS02C  | 1           | 84.899    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |

| Link Event (Outflow) | US Node | Link         | DS Node | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|----------------------|---------|--------------|---------|---------------|----------------|----------|---------------|--------------------|
| 15 minute winter     | S1      | 1.000        | S2      | 5.2           | 0.664          | 0.129    | 0.4288        |                    |
| 15 minute winter     | S2      | 1.001        | S3      | 5.1           | 0.510          | 0.127    | 0.0521        |                    |
| 15 minute winter     | S3      | 1.002        | S4      | 9.3           | 1.251          | 0.230    | 0.1807        |                    |
| 15 minute winter     | S4      | 1.003        | S7      | -11.3         | -0.543         | -0.280   | 0.2329        |                    |
| 15 minute winter     | S5      | 2.000        | S6      | 3.4           | 0.768          | 0.192    | 0.0831        |                    |
| 15 minute winter     | S6      | 2.001        | S7      | 6.2           | 0.724          | 0.153    | 0.1310        |                    |
| 30 minute summer     | S7      | 1.004        | S10     | 11.6          | 0.617          | 0.286    | 1.1018        |                    |
| 15 minute winter     | S8      | 3.000        | S9      | 2.8           | 0.716          | 0.156    | 0.0408        |                    |
| 15 minute winter     | S9      | 3.001        | S10     | 3.2           | 0.603          | 0.078    | 0.1041        |                    |
| 15 minute winter     | S10     | 1.005        | S13     | 10.7          | 0.533          | 0.266    | 0.4476        |                    |
| 15 minute winter     | S11     | 4.000        | S12     | 0.6           | 0.347          | 0.032    | 0.0133        |                    |
| 15 minute winter     | S12     | 4.001        | S13     | 1.1           | 0.547          | 0.062    | 0.0119        |                    |
| 120 minute winter    | S13     | Hydro-Brake® | C01     | 5.6           |                |          |               |                    |
| 15 minute summer     | S13     | Orifice      | C01     | 0.0           |                |          |               |                    |
| 60 minute winter     | C01     | 1.007        | C02     | 5.6           | 3.012          | 0.008    | 0.0117        | 24.0               |
| 15 minute summer     | S14     | 6.000        | S15     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S15     | 6.001        | S16     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S16     | 6.002        | EXS01   | 0.0           | 0.000          | 0.000    | 0.0000        | 0.0                |
| 15 minute summer     | S17     | 7.000        | S18     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S18     | 7.001        | EXS02A  | 0.0           | 0.000          | 0.000    | 0.0000        | 0.0                |
| 15 minute summer     | S19     | 5.000        | S20     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S20     | 5.001        | S21     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S21     | 5.002        | EXS02C  | 0.0           | 0.000          | 0.000    | 0.0000        | 0.0                |

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.70%

| Node Event       | US Node | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|------------------|---------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 15 minute winter | S1      | 10          | 84.451    | 0.086     | 13.1         | 0.0827        | 0.0000     | OK         |
| 60 minute winter | S2      | 57          | 84.397    | 0.354     | 6.7          | 0.1001        | 0.0000     | SURCHARGED |
| 60 minute winter | S3      | 57          | 84.397    | 0.384     | 11.1         | 0.5288        | 0.0000     | SURCHARGED |
| 60 minute winter | S4      | 57          | 84.396    | 0.477     | 28.6         | 29.1246       | 0.0000     | SURCHARGED |
| 15 minute winter | S5      | 10          | 85.126    | 0.076     | 8.6          | 0.0576        | 0.0000     | OK         |
| 15 minute winter | S6      | 10          | 84.889    | 0.101     | 15.3         | 0.0568        | 0.0000     | OK         |
| 60 minute winter | S7      | 57          | 84.396    | 0.535     | 19.5         | 0.8347        | 0.0000     | SURCHARGED |
| 15 minute winter | S8      | 10          | 84.918    | 0.068     | 6.9          | 0.0454        | 0.0000     | OK         |
| 15 minute winter | S9      | 11          | 84.739    | 0.069     | 7.8          | 0.0225        | 0.0000     | OK         |
| 60 minute winter | S10     | 57          | 84.393    | 0.717     | 12.3         | 1.1773        | 0.0000     | SURCHARGED |
| 15 minute winter | S11     | 10          | 84.468    | 0.028     | 1.4          | 0.0101        | 0.0000     | OK         |
| 15 minute winter | S12     | 10          | 84.401    | 0.042     | 2.8          | 0.0148        | 0.0000     | OK         |
| 60 minute winter | S13     | 57          | 84.390    | 0.782     | 8.6          | 2.0292        | 0.0000     | SURCHARGED |
| 60 minute winter | C01     | 57          | 83.481    | 0.021     | 6.9          | 0.0232        | 0.0000     | OK         |
| 15 minute summer | C02     | 1           | 82.115    | 1.225     | 6.2          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S14     | 1           | 85.010    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S15     | 1           | 84.820    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S16     | 1           | 84.642    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | EXS01   | 1           | 84.610    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S17     | 1           | 85.160    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S18     | 1           | 84.979    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | EXS02A  | 1           | 84.952    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S19     | 1           | 85.330    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S20     | 1           | 85.130    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S21     | 1           | 84.920    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | EXS02C  | 1           | 84.899    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |

| Link Event (Outflow) | US Node | Link         | DS Node | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|----------------------|---------|--------------|---------|---------------|----------------|----------|---------------|--------------------|
| 15 minute winter     | S1      | 1.000        | S2      | 12.8          | 0.788          | 0.317    | 1.2262        |                    |
| 15 minute winter     | S2      | 1.001        | S3      | 12.6          | 0.578          | 0.312    | 0.1954        |                    |
| 15 minute winter     | S3      | 1.002        | S4      | 22.2          | 1.404          | 0.549    | 0.6193        |                    |
| 15 minute summer     | S4      | 1.003        | S7      | -43.9         | -1.305         | -1.087   | 0.3819        |                    |
| 15 minute winter     | S5      | 2.000        | S6      | 8.4           | 0.971          | 0.475    | 0.1624        |                    |
| 15 minute winter     | S6      | 2.001        | S7      | 15.1          | 0.918          | 0.373    | 0.2539        |                    |
| 15 minute winter     | S7      | 1.004        | S10     | 14.2          | 0.661          | 0.352    | 1.2169        |                    |
| 15 minute winter     | S8      | 3.000        | S9      | 6.8           | 0.906          | 0.383    | 0.0792        |                    |
| 15 minute winter     | S9      | 3.001        | S10     | 7.7           | 0.776          | 0.192    | 0.1983        |                    |
| 15 minute summer     | S10     | 1.005        | S13     | 13.0          | 0.568          | 0.323    | 0.4476        |                    |
| 15 minute winter     | S11     | 4.000        | S12     | 1.4           | 0.439          | 0.077    | 0.0257        |                    |
| 15 minute winter     | S12     | 4.001        | S13     | 2.7           | 0.701          | 0.152    | 0.0230        |                    |
| 60 minute winter     | S13     | Hydro-Brake® | C01     | 6.9           |                |          |               |                    |
| 15 minute summer     | S13     | Orifice      | C01     | 0.0           |                |          |               |                    |
| 60 minute winter     | C01     | 1.007        | C02     | 6.9           | 0.161          | 0.010    | 0.2279        | 57.8               |
| 15 minute summer     | S14     | 6.000        | S15     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S15     | 6.001        | S16     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S16     | 6.002        | EXS01   | 0.0           | 0.000          | 0.000    | 0.0000        | 0.0                |
| 15 minute summer     | S17     | 7.000        | S18     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S18     | 7.001        | EXS02A  | 0.0           | 0.000          | 0.000    | 0.0000        | 0.0                |
| 15 minute summer     | S19     | 5.000        | S20     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S20     | 5.001        | S21     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S21     | 5.002        | EXS02C  | 0.0           | 0.000          | 0.000    | 0.0000        | 0.0                |

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.70%

| Node Event       | US Node | Peak (mins) | Level (m) | Depth (m) | Inflow (l/s) | Node Vol (m³) | Flood (m³) | Status     |
|------------------|---------|-------------|-----------|-----------|--------------|---------------|------------|------------|
| 60 minute winter | S1      | 47          | 85.455    | 1.090     | 12.8         | 1.0439        | 0.0000     | FLOOD RISK |
| 60 minute winter | S2      | 47          | 85.453    | 1.410     | 12.3         | 0.3991        | 0.0000     | SURCHARGED |
| 60 minute winter | S3      | 47          | 85.453    | 1.440     | 20.6         | 1.9841        | 0.0000     | SURCHARGED |
| 60 minute winter | S4      | 47          | 85.450    | 1.531     | 53.6         | 49.6828       | 0.0000     | SURCHARGED |
| 60 minute winter | S5      | 47          | 85.452    | 0.402     | 8.4          | 0.3051        | 0.0000     | SURCHARGED |
| 60 minute winter | S6      | 47          | 85.449    | 0.661     | 15.1         | 0.3726        | 0.0000     | SURCHARGED |
| 60 minute winter | S7      | 47          | 85.448    | 1.587     | 37.9         | 2.4752        | 0.0000     | SURCHARGED |
| 60 minute winter | S8      | 47          | 85.419    | 0.569     | 6.7          | 0.3776        | 0.0000     | SURCHARGED |
| 60 minute winter | S9      | 47          | 85.417    | 0.747     | 7.7          | 0.2451        | 0.0000     | SURCHARGED |
| 60 minute winter | S10     | 47          | 85.417    | 1.741     | 30.0         | 2.8600        | 0.0000     | SURCHARGED |
| 60 minute winter | S11     | 48          | 85.395    | 0.955     | 2.3          | 0.3429        | 0.0000     | FLOOD RISK |
| 60 minute winter | S12     | 48          | 85.395    | 1.036     | 3.9          | 0.3658        | 0.0000     | FLOOD RISK |
| 60 minute winter | S13     | 48          | 85.395    | 1.787     | 25.6         | 4.6378        | 0.0000     | FLOOD RISK |
| 60 minute winter | C01     | 48          | 83.494    | 0.034     | 20.3         | 0.0384        | 0.0000     | OK         |
| 15 minute summer | C02     | 1           | 82.115    | 1.225     | 10.7         | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S14     | 1           | 85.010    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S15     | 1           | 84.820    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S16     | 1           | 84.642    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | EXS01   | 1           | 84.610    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S17     | 1           | 85.160    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S18     | 1           | 84.979    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | EXS02A  | 1           | 84.952    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S19     | 1           | 85.330    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S20     | 1           | 85.130    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | S21     | 1           | 84.920    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |
| 15 minute summer | EXS02C  | 1           | 84.899    | 0.000     | 0.0          | 0.0000        | 0.0000     | OK         |

| Link Event (Outflow) | US Node | Link         | DS Node | Outflow (l/s) | Velocity (m/s) | Flow/Cap | Link Vol (m³) | Discharge Vol (m³) |
|----------------------|---------|--------------|---------|---------------|----------------|----------|---------------|--------------------|
| 15 minute winter     | S1      | 1.000        | S2      | 24.2          | 0.859          | 0.599    | 2.1120        |                    |
| 15 minute winter     | S2      | 1.001        | S3      | 17.9          | 0.555          | 0.443    | 0.1954        |                    |
| 15 minute winter     | S3      | 1.002        | S4      | 34.4          | 1.448          | 0.854    | 0.6193        |                    |
| 15 minute winter     | S4      | 1.003        | S7      | -72.7         | -1.829         | -1.802   | 0.3819        |                    |
| 15 minute winter     | S5      | 2.000        | S6      | 15.9          | 1.105          | 0.896    | 0.2700        |                    |
| 15 minute winter     | S6      | 2.001        | S7      | 28.4          | 1.063          | 0.704    | 0.4139        |                    |
| 60 minute winter     | S7      | 1.004        | S10     | 21.1          | 0.611          | 0.523    | 1.2169        |                    |
| 15 minute winter     | S8      | 3.000        | S9      | 12.8          | 1.046          | 0.723    | 0.1294        |                    |
| 15 minute winter     | S9      | 3.001        | S10     | 14.6          | 0.911          | 0.361    | 0.4096        |                    |
| 60 minute winter     | S10     | 1.005        | S13     | 24.4          | 0.614          | 0.605    | 0.4476        |                    |
| 15 minute summer     | S11     | 4.000        | S12     | 2.5           | 0.504          | 0.140    | 0.1431        |                    |
| 15 minute winter     | S12     | 4.001        | S13     | 4.9           | 0.750          | 0.276    | 0.1045        |                    |
| 60 minute winter     | S13     | Hydro-Brake® | C01     | 10.2          |                |          |               |                    |
| 60 minute winter     | S13     | Orifice      | C01     | 10.1          |                |          |               |                    |
| 60 minute winter     | C01     | 1.007        | C02     | 20.3          | 0.454          | 0.028    | 0.2351        | 110.6              |
| 15 minute summer     | S14     | 6.000        | S15     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S15     | 6.001        | S16     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S16     | 6.002        | EXS01   | 0.0           | 0.000          | 0.000    | 0.0000        | 0.0                |
| 15 minute summer     | S17     | 7.000        | S18     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S18     | 7.001        | EXS02A  | 0.0           | 0.000          | 0.000    | 0.0000        | 0.0                |
| 15 minute summer     | S19     | 5.000        | S20     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S20     | 5.001        | S21     | 0.0           | 0.000          | 0.000    | 0.0000        |                    |
| 15 minute summer     | S21     | 5.002        | EXS02C  | 0.0           | 0.000          | 0.000    | 0.0000        | 0.0                |