## Summary of Results for 100 year Return Period (+45%)

Half Drain Time : 25 minutes.

| Storm Event | Max Level (m) | Max Depth (m) | Max Infiltration (l/s) | Max Volume (m³) | Status |
|---|---|---|---|---|---|
| 15 min Summer | 63.127 | 0.627 | 8.0 | 16.1 | Flood Risk |
| 30 min Summer | 63.218 | 0.718 | 8.5 | 18.4 | Flood Risk |
| 60 min Summer | 63.234 | 0.734 | 8.5 | 18.8 | Flood Risk |
| 120 min Summer | 63.164 | 0.664 | 8.2 | 17.0 | Flood Risk |
| 180 min Summer | 63.073 | 0.573 | 7.8 | 14.7 | Flood Risk |
| 240 min Summer | 62.984 | 0.484 | 7.4 | 12.4 | O K |
| 360 min Summer | 62.838 | 0.338 | 6.7 | 8.7 | O K |
| 480 min Summer | 62.730 | 0.230 | 6.2 | 5.9 | O K |
| 600 min Summer | 62.650 | 0.150 | 5.9 | 3.9 | O K |
| 720 min Summer | 62.595 | 0.095 | 5.6 | 2.4 | O K |
| 960 min Summer | 62.548 | 0.048 | 5.2 | 1.2 | O K |
| 1440 min Summer | 62.535 | 0.035 | 3.8 | 0.9 | O K |
| 2160 min Summer | 62.526 | 0.026 | 2.8 | 0.7 | O K |
| 2880 min Summer | 62.520 | 0.020 | 2.2 | 0.5 | O K |
| 4320 min Summer | 62.515 | 0.015 | 1.6 | 0.4 | O K |
| 5760 min Summer | 62.512 | 0.012 | 1.3 | 0.3 | O K |
| 7200 min Summer | 62.510 | 0.010 | 1.1 | 0.3 | O K |
| 8640 min Summer | 62.509 | 0.009 | 0.9 | 0.2 | O K |
| 10080 min Summer | 62.508 | 0.008 | 0.8 | 0.2 | O K |
| 15 min Winter | 63.129 | 0.629 | 8.1 | 16.1 | Flood Risk |

| Storm Event | Rain (mm/hr) | Flooded Volume (m³) | Time-Peak (mins) |
|---|---|---|---|
| 15 min Summer | 130.110 | 0.0 | 16 |
| 30 min Summer | 87.135 | 0.0 | 25 |
| 60 min Summer | 55.699 | 0.0 | 42 |
| 120 min Summer | 34.397 | 0.0 | 76 |
| 180 min Summer | 25.575 | 0.0 | 110 |
| 240 min Summer | 20.584 | 0.0 | 142 |
| 360 min Summer | 15.097 | 0.0 | 204 |
| 480 min Summer | 12.116 | 0.0 | 264 |
| 600 min Summer | 10.207 | 0.0 | 320 |
| 720 min Summer | 8.868 | 0.0 | 376 |
| 960 min Summer | 7.097 | 0.0 | 490 |
| 1440 min Summer | 5.175 | 0.0 | 734 |
| 2160 min Summer | 3.766 | 0.0 | 1080 |
| 2880 min Summer | 3.001 | 0.0 | 1468 |
| 4320 min Summer | 2.176 | 0.0 | 2132 |
| 5760 min Summer | 1.731 | 0.0 | 2912 |
| 7200 min Summer | 1.448 | 0.0 | 3576 |
| 8640 min Summer | 1.251 | 0.0 | 4344 |
| 10080 min Summer | 1.107 | 0.0 | 5136 |
| 15 min Winter | 130.110 | 0.0 | 16 |

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## Summary of Results for 100 year Return Period (+45%)

| Storm Event | Max Level (m) | Max Depth (m) | Max Infiltration (l/s) | Max Volume (m³) | Status |
|---|---|---|---|---|---|
| 30 min Winter | 63.218 | 0.718 | 8.5 | 18.4 | Flood Risk |
| 60 min Winter | 63.213 | 0.713 | 8.4 | 18.3 | Flood Risk |
| 120 min Winter | 63.091 | 0.591 | 7.9 | 15.2 | Flood Risk |
| 180 min Winter | 62.959 | 0.459 | 7.3 | 11.8 | O K |
| 240 min Winter | 62.841 | 0.341 | 6.7 | 8.8 | O K |
| 360 min Winter | 62.665 | 0.165 | 5.9 | 4.2 | O K |
| 480 min Winter | 62.562 | 0.062 | 5.5 | 1.6 | O K |
| 600 min Winter | 62.544 | 0.044 | 4.8 | 1.1 | O K |
| 720 min Winter | 62.539 | 0.039 | 4.2 | 1.0 | O K |
| 960 min Winter | 62.531 | 0.031 | 3.4 | 0.8 | O K |
| 1440 min Winter | 62.523 | 0.023 | 2.5 | 0.6 | O K |
| 2160 min Winter | 62.517 | 0.017 | 1.8 | 0.4 | O K |
| 2880 min Winter | 62.513 | 0.013 | 1.4 | 0.3 | O K |
| 4320 min Winter | 62.510 | 0.010 | 1.1 | 0.2 | O K |
| 5760 min Winter | 62.508 | 0.008 | 0.8 | 0.2 | O K |
| 7200 min Winter | 62.507 | 0.007 | 0.7 | 0.2 | O K |
| 8640 min Winter | 62.506 | 0.006 | 0.6 | 0.1 | O K |
| 10080 min Winter | 62.505 | 0.005 | 0.6 | 0.1 | O K |

| Storm Event | Rain (mm/hr) | Flooded Volume (m³) | Time-Peak (mins) |
|---|---|---|---|
| 30 min Winter | 87.135 | 0.0 | 26 |
| 60 min Winter | 55.699 | 0.0 | 46 |
| 120 min Winter | 34.397 | 0.0 | 82 |
| 180 min Winter | 25.575 | 0.0 | 116 |
| 240 min Winter | 20.584 | 0.0 | 148 |
| 360 min Winter | 15.097 | 0.0 | 208 |
| 480 min Winter | 12.116 | 0.0 | 256 |
| 600 min Winter | 10.207 | 0.0 | 308 |
| 720 min Winter | 8.868 | 0.0 | 368 |
| 960 min Winter | 7.097 | 0.0 | 490 |
| 1440 min Winter | 5.175 | 0.0 | 716 |
| 2160 min Winter | 3.766 | 0.0 | 1100 |
| 2880 min Winter | 3.001 | 0.0 | 1472 |
| 4320 min Winter | 2.176 | 0.0 | 2184 |
| 5760 min Winter | 1.731 | 0.0 | 2840 |
| 7200 min Winter | 1.448 | 0.0 | 3472 |
| 8640 min Winter | 1.251 | 0.0 | 4328 |
| 10080 min Winter | 1.107 | 0.0 | 4904 |

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## Rainfall Details

| | | | |
|---|---|---|---|
| Rainfall Model | FSR | Winter Storms | Yes |
| Return Period (years) | 100 | Cv (Summer) | 1.000 |
| Region | England and Wales | Cv (Winter) | 1.000 |
| M5-60 (mm) | 19.000 | Shortest Storm (mins) | 15 |
| Ratio R | 0.358 | Longest Storm (mins) | 10080 |
| Summer Storms | Yes | Climate Change % | +45 |

## Time Area Diagram

Total Area (ha) 0.067

| Time (mins) From: | To: | Area (ha) |
|---|---|---|
| 0 | 4 | 0.067 |

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## Model Details

Storage is Online Cover Level (m) 63.300

## Cellular Storage Structure

Invert Level (m) 62.500 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 1.37800 Porosity 0.95
Infiltration Coefficient Side (m/hr) 1.37800

| Depth (m) | Area (m²) | Inf. Area (m²) | Depth (m) | Area (m²) | Inf. Area (m²) |
|---|---|---|---|---|---|
| 0.000 | 27.0 | 27.0 | 0.900 | 0.0 | 46.2 |
| 0.800 | 27.0 | 46.2 | | | |

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