

| Summary of Results for 1 year Return Period |                             |                             |                                  |                         |                           |        |   |
|---------------------------------------------|-----------------------------|-----------------------------|----------------------------------|-------------------------|---------------------------|--------|---|
| Storm<br>Duration<br>(mins)                 | Maximum<br>Control<br>(1/s) | Maximum<br>Outflow<br>(1/s) | Maximum<br>Water Level<br>(m OD) | Maximum<br>Depth<br>(m) | Maximum<br>Volume<br>(m³) | Status |   |
| 15 Summer                                   | 4.0                         | 4.0                         | 128.9663                         | 0.0063                  | 0.1                       | O      | K |
| 30 Summer                                   | 3.9                         | 3.9                         | 128.9622                         | 0.0023                  | 0.0                       | O      | K |
| 60 Summer                                   | 3.3                         | 3.3                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 120 Summer                                  | 2.3                         | 2.3                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 180 Summer                                  | 1.9                         | 1.9                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 240 Summer                                  | 1.6                         | 1.6                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 360 Summer                                  | 1.2                         | 1.2                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 480 Summer                                  | 1.0                         | 1.0                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 600 Summer                                  | 0.9                         | 0.9                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 720 Summer                                  | 0.8                         | 0.8                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 960 Summer                                  | 0.6                         | 0.6                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 1440 Summer                                 | 0.5                         | 0.5                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 2160 Summer                                 | 0.4                         | 0.4                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 2880 Summer                                 | 0.3                         | 0.3                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 4320 Summer                                 | 0.2                         | 0.2                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 5760 Summer                                 | 0.2                         | 0.2                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 7200 Summer                                 | 0.2                         | 0.2                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 8640 Summer                                 | 0.2                         | 0.2                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 10080 Summer                                | 0.1                         | 0.1                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 15 Winter                                   | 4.0                         | 4.0                         | 128.9668                         | 0.0068                  | 0.1                       | O      | K |
| 30 Winter                                   | 3.7                         | 3.7                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 60 Winter                                   | 2.6                         | 2.6                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 120 Winter                                  | 1.7                         | 1.7                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 180 Winter                                  | 1.4                         | 1.4                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| 240 Winter                                  | 1.1                         | 1.1                         | 128.9600                         | 0.0000                  | 0.0                       | O      | K |
| Storm<br>Duration<br>(mins)                 |                             |                             | Rain<br>(mm/hr)                  | Time-Peak<br>(mins)     |                           |        |   |
| 15 Summer                                   |                             |                             | 28.17                            | 11                      |                           |        |   |
| 30 Summer                                   |                             |                             | 19.18                            | 18                      |                           |        |   |
| 60 Summer                                   |                             |                             | 12.80                            | 0                       |                           |        |   |
| 120 Summer                                  |                             |                             | 8.41                             | 0                       |                           |        |   |
| 180 Summer                                  |                             |                             | 6.56                             | 0                       |                           |        |   |
| 240 Summer                                  |                             |                             | 5.47                             | 0                       |                           |        |   |
| 360 Summer                                  |                             |                             | 4.21                             | 0                       |                           |        |   |
| 480 Summer                                  |                             |                             | 3.50                             | 0                       |                           |        |   |
| 600 Summer                                  |                             |                             | 3.03                             | 0                       |                           |        |   |
| 720 Summer                                  |                             |                             | 2.70                             | 0                       |                           |        |   |
| 960 Summer                                  |                             |                             | 2.25                             | 0                       |                           |        |   |
| 1440 Summer                                 |                             |                             | 1.73                             | 0                       |                           |        |   |
| 2160 Summer                                 |                             |                             | 1.33                             | 0                       |                           |        |   |
| 2880 Summer                                 |                             |                             | 1.11                             | 0                       |                           |        |   |
| 4320 Summer                                 |                             |                             | 0.85                             | 0                       |                           |        |   |
| 5760 Summer                                 |                             |                             | 0.71                             | 0                       |                           |        |   |
| 7200 Summer                                 |                             |                             | 0.61                             | 0                       |                           |        |   |
| 8640 Summer                                 |                             |                             | 0.54                             | 0                       |                           |        |   |
| 10080 Summer                                |                             |                             | 0.49                             | 0                       |                           |        |   |
| 15 Winter                                   |                             |                             | 28.17                            | 11                      |                           |        |   |
| 30 Winter                                   |                             |                             | 19.18                            | 0                       |                           |        |   |
| 60 Winter                                   |                             |                             | 12.80                            | 0                       |                           |        |   |
| 120 Winter                                  |                             |                             | 8.41                             | 0                       |                           |        |   |
| 180 Winter                                  |                             |                             | 6.56                             | 0                       |                           |        |   |
| 240 Winter                                  |                             |                             | 5.47                             | 0                       |                           |        |   |

Summary of Results for 1 year Return Period

| Storm<br>Duration<br>(mins) | Maximum<br>Control<br>(l/s) | Maximum<br>Outflow<br>(l/s) | Maximum<br>Water Level<br>(m OD) | Maximum<br>Depth<br>(m) | Maximum<br>Volume<br>(m³) | Status |
|-----------------------------|-----------------------------|-----------------------------|----------------------------------|-------------------------|---------------------------|--------|
| 360 Winter                  | 0.9                         | 0.9                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |
| 480 Winter                  | 0.7                         | 0.7                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |
| 600 Winter                  | 0.6                         | 0.6                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |
| 720 Winter                  | 0.6                         | 0.6                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |
| 960 Winter                  | 0.5                         | 0.5                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |
| 1440 Winter                 | 0.4                         | 0.4                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |
| 2160 Winter                 | 0.3                         | 0.3                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |
| 2880 Winter                 | 0.2                         | 0.2                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |
| 4320 Winter                 | 0.2                         | 0.2                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |
| 5760 Winter                 | 0.1                         | 0.1                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |
| 7200 Winter                 | 0.1                         | 0.1                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |
| 8640 Winter                 | 0.1                         | 0.1                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |
| 10080 Winter                | 0.1                         | 0.1                         | 128.9600                         | 0.0000                  | 0.0                       | O K    |

| Storm<br>Duration<br>(mins) | Rain<br>(mm/hr) | Time-Peak<br>(mins) |
|-----------------------------|-----------------|---------------------|
| 360 Winter                  | 4.21            | 0                   |
| 480 Winter                  | 3.50            | 0                   |
| 600 Winter                  | 3.03            | 0                   |
| 720 Winter                  | 2.70            | 0                   |
| 960 Winter                  | 2.25            | 0                   |
| 1440 Winter                 | 1.73            | 0                   |
| 2160 Winter                 | 1.33            | 0                   |
| 2880 Winter                 | 1.11            | 0                   |
| 4320 Winter                 | 0.85            | 0                   |
| 5760 Winter                 | 0.71            | 0                   |
| 7200 Winter                 | 0.61            | 0                   |
| 8640 Winter                 | 0.54            | 0                   |
| 10080 Winter                | 0.49            | 0                   |

Rainfall Details

|                       |         |                       |       |
|-----------------------|---------|-----------------------|-------|
| Region                | ENG+WAL | Shortest Storm (mins) | 15    |
| Return Period (years) | 1       | Longest Storm (mins)  | 10080 |
| M5-60 (mm)            | 20.000  | Summer Storms         | Yes   |
| Ratio-R               | 0.300   | Winter Storms         | Yes   |
| Cv (Summer)           | 0.750   | Climate Change %      | +0    |
| Cv (Winter)           | 0.840   |                       |       |

Time / Area Diagram

Total Area (ha) = 0.035

| Time  | (mins) | Area  |
|-------|--------|-------|
| from: | to:    | (ha)  |
| 0     | 4      | 0.035 |

Tank/Pond Details

Invert Level (m) 128.960 Ground Level (m) 130.400

| Depth<br>(m) | Area<br>(m <sup>2</sup> ) | Depth<br>(m) | Area<br>(m <sup>2</sup> ) | Depth<br>(m) | Area<br>(m <sup>2</sup> ) | Depth<br>(m) | Area<br>(m <sup>2</sup> ) | Depth<br>(m) | Area<br>(m <sup>2</sup> ) | Depth<br>(m) | Area<br>(m <sup>2</sup> ) |
|--------------|---------------------------|--------------|---------------------------|--------------|---------------------------|--------------|---------------------------|--------------|---------------------------|--------------|---------------------------|
| 0.00         | 15.5                      | 0.50         | 15.5                      | 1.00         | 15.5                      | 1.50         | 15.5                      | 2.00         | 15.5                      | 2.50         | 15.5                      |
| 0.10         | 15.5                      | 0.60         | 15.5                      | 1.10         | 15.5                      | 1.60         | 15.5                      | 2.10         | 15.5                      |              |                           |
| 0.20         | 15.5                      | 0.70         | 15.5                      | 1.20         | 15.5                      | 1.70         | 15.5                      | 2.20         | 15.5                      |              |                           |
| 0.30         | 15.5                      | 0.80         | 15.5                      | 1.30         | 15.5                      | 1.80         | 15.5                      | 2.30         | 15.5                      |              |                           |
| 0.40         | 15.5                      | 0.90         | 15.5                      | 1.40         | 15.5                      | 1.90         | 15.5                      | 2.40         | 15.5                      |              |                           |

Depth / Flow Outflow Control

Invert Level of Control 128.860

| Depth<br>(m) | Flow<br>(l/s) | Depth<br>(m) | Flow<br>(l/s) | Depth<br>(m) | Flow<br>(l/s) | Depth<br>(m) | Flow<br>(l/s) | Depth<br>(m) | Flow<br>(l/s) |
|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|
| 0.10         | 3.9           | 0.80         | 5.7           | 2.00         | 8.9           | 4.00         | 12.6          | 7.00         | 16.6          |
| 0.20         | 5.0           | 1.00         | 6.3           | 2.20         | 9.3           | 4.50         | 13.3          | 7.50         | 17.2          |
| 0.30         | 4.8           | 1.20         | 6.9           | 2.40         | 9.7           | 5.00         | 14.0          | 8.00         | 17.8          |
| 0.40         | 4.5           | 1.40         | 7.4           | 2.60         | 10.1          | 5.50         | 14.7          | 8.50         | 18.3          |
| 0.50         | 5.0           | 1.60         | 7.9           | 3.00         | 10.9          | 6.00         | 15.4          | 9.00         | 18.8          |
| 0.60         | 5.4           | 1.80         | 8.4           | 3.50         | 11.7          | 6.50         | 16.0          | 9.50         | 19.4          |