

**Land to the west of New Barn Lane,  
North Bersted  
West Sussex**

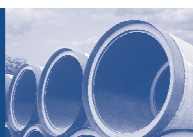
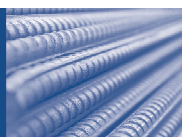
**Foul & Surface Water Statement**

KTG/18:0047B/5529  
Rev F 16<sup>th</sup> August 2019

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- 1.1 Linden Homes is seeking planning permission for the development of 37,200m<sup>2</sup> (3.72ha) of greenfield land located at New Barn Lane, North Bersted, Bognor Regis. The site is centred on National Grid Reference SU 91570 01054.
- 1.2 MJA Consulting has been appointed to prepare a suitable strategy for the disposal of surface and foul water from the proposed development incorporating the principles of Sustainable Drainage Systems (SuDS) and in accordance with Environment Agency guidance, The Building Regulations (Document H 2002) and The National Planning Policy Framework (NPPF).

**Surface Water**

- 2.1 The National Planning Policy Framework (NPPF) requires that developments do not exacerbate flood risks both to the development site and to offsite parties and land, which means there is a need to manage surface water to ensure there are no increases in peak rates and volumes of runoff as a result of the development.
- 2.2 Environment Agency guidance and government legislation such as the Flood and Water Management Act (Defra 2010) requires surface water drainage strategies for new developments to be in accordance with the ideals of 'sustainable development' via the provision of Sustainable Drainage Systems (SuDS).
- 2.3 The Building Regulations Document H (2015) and The SuDS Manual CIRIA 753 (2015) details the appropriate hierarchy of potential methods for disposing of surface water from a development:
1. A soakaway or some other adequate infiltration system, or where that is not practicable;
  2. A watercourse, or where that is not practicable;
  3. A sewer.
- 2.4 Information published by the British Geological Society (BGS) indicates that the site is anticipated to be directly underlain by the River Terrace Deposits (sand, silt and clays) overlying the Lewis Nodular Chalk Formation (chalk).



- 2.5 Onsite soakage tests using the BRE Digest 365 methodology showed the minimum infiltration rate to be  $1 \times 10^{-6}$  m/s. This is a very poor rate and therefore infiltration SuDs are deemed unsuitable to manage the storm water run-off from the proposed onsite development.
- 2.6 It is proposed that surface water runoff from roofs, driveways and roads will be collected by a conventional system of guttering, downpipes and drains where it will be discharged via a surface water pipe network to either an attenuation basin/swale or attenuation tank.
- 2.7 Surface water flows will be attenuated on site with a restricted discharge rate of circa 13 l/s to match the existing greenfield rate. There will be two discharge points taking surface water offsite: The attenuation tank to the north will discharge at 3 l/s to an existing watercourse; and the attenuation tank to the south will discharge to a Southern Water existing sewer in New Barn Lane at 10 l/s. The storm water attenuated in the tank to the south will first pass through an attenuation basin/swale which will discharge water to the attenuation tank at 2 l/s.
- 2.8 All SUDS are sized to manage the 1 in 100year (1% AEP) storm event, plus an extra allowance of 40% for the predicted potential increase in peak rainfall up to 2115.
- 2.9 The proposed surface water drainage strategy offers a sustainable, safe and robust system which will afford complete flood risk protection to the new property and to existing properties and land within adjacent to the site. This is achieved by attenuating all additional runoff from impermeable surfaces, incorporating the principles of a Sustainable Drainage System (SuDS). This strategy ensures that the peak rate and volume of surface water runoff will be no greater than the existing runoff rate for the site for all rainfall events up to the 100 year +40% rainfall event.
- 2.10 The procedure for surface water management in accordance within 'Rainfall runoff management for developments' (DEFRA/EA Report – SC030219 E, 2013) states;  
*For the range of annual flow rate probabilities up to and including the 1% (1 in 100 year) annual exceedance probability event including an appropriate allowance for climate change, the post-developed rate and volume of run-off into a watercourse, sewer, or other receiving water body, should be no greater than the existing pre-developed rate of run-off for the same event.*
- 2.11 The development's storm water network will remain private onsite. Section SW26 to existing manhole 8051 will be adopted by Southern Water under a Section 104 agreement of the Water Industry Act 1991, as confirmed by Southern Water.
- 2.12 The length of storm sewer from manhole 7954 to 7952 and its connection to the existing network will be diverted to manhole 8051 as agreed under a Section 185 of the Water Industry Act 1991 by Southern Water.

## **Foul Water**

- 3.1 The foul water discharge from the development will drain via gravity to an existing public sewer system located beyond the east of the site boundary, within New Barn Lane. Within the site boundary there is a pumping station which will serve a number of the properties in order to connect to the foul drainage network.
- 3.2 The development's foul water network will remain private onsite. Section F4-F1 will be adopted by Southern Water under a Section 104 agreement of the Water Industry Act 1991.
- 3.3 Southern Water have confirmed a suitable point of connection within their network under a Section 106 agreement. However, it's been highlighted that some network reinforcement will be required. This will ensure that the proposed development has a 'no detriment' impact on the foul sewer system within the village of North Bersted and does not create a flood risk.
- 3.4 Since the introduction of the updated Water Authority infrastructure charging requirements for new connections; the way in which foul network reinforcement is provided and paid for has changed. Any upgrades within the public foul water network will be undertaken directly by Southern Water, with the upgrading work will include re-assessing the existing network, undertaking designs and construction works.
- 3.5 Liaison with Southern Water has been undertaken to ensure the projected site build program is in line with the upgrading work to prevent negatively impacting the developments upstream and downstream of the intended foul water connection point.
- 3.6 The predicted peak foul sewer discharge from the proposed properties to the existing foul sewer based on the Sewers for Adoption 7th figure (4000 l/dwelling/day) will be 4.6 l/s.

Statement prepared by

**Karl T Gebhart**  
**FOR MJA CONSULTING**



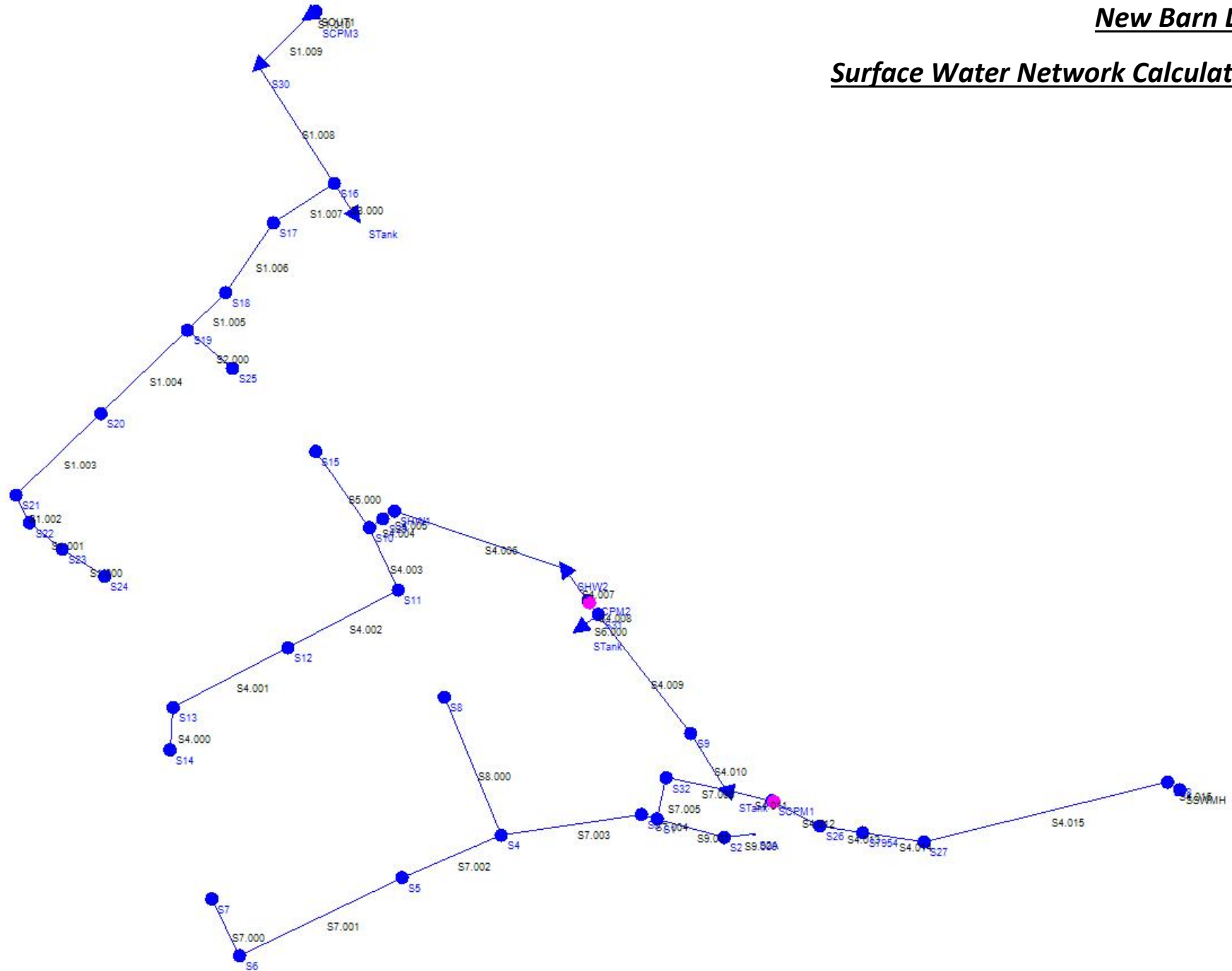
## **Appendix A**

### **Surface Water Attenuation Calculations**

KTG/18:0047B/5529

**New Barn Lane**

**Surface Water Network Calculations**





|                                                    |                                                                     |                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |                                                                     | Page 2                                                                              |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

Existing Network Details for Storm

| PN     | Length<br>(m) | Fall<br>(m) | Slope<br>(1:X) | I.Area<br>(ha) | T.E.<br>(mins) | Base<br>Flow (l/s) | k<br>(mm) | HYD<br>SECT | DIA<br>(mm) | Section Type |
|--------|---------------|-------------|----------------|----------------|----------------|--------------------|-----------|-------------|-------------|--------------|
| S1.000 | 14.272        | 0.098       | 145.6          | 0.056          | 5.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| S1.001 | 11.982        | 0.070       | 171.2          | 0.009          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| S1.002 | 8.715         | 0.051       | 170.9          | 0.034          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| S1.003 | 33.571        | 0.134       | 250.5          | 0.032          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| S1.004 | 34.121        | 0.136       | 250.9          | 0.116          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| S2.000 | 16.790        | 0.101       | 166.2          | 0.109          | 5.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| S1.005 | 15.204        | 0.051       | 298.1          | 0.080          | 0.00           | 0.0                | 0.600     | o           | 375         | Pipe/Conduit |
| S1.006 | 24.037        | 0.080       | 300.5          | 0.056          | 0.00           | 0.0                | 0.600     | o           | 375         | Pipe/Conduit |
| S1.007 | 20.564        | 0.069       | 298.0          | 0.071          | 0.00           | 0.0                | 0.600     | o           | 375         | Pipe/Conduit |
| S3.000 | 11.124        | 0.160       | 69.5           | 0.051          | 5.00           | 0.0                | 0.600     | [ ]         | 1           | Pipe/Conduit |
| S1.008 | 39.685        | 0.090       | 440.9          | 0.000          | 0.00           | 0.0                | 0.600     | o           | 375         | Pipe/Conduit |
| S1.009 | 20.096        | 0.055       | 365.4          | 0.000          | 0.00           | 0.0                | 0.600     | o           | 375         | Pipe/Conduit |
| S1.010 | 2.455         | 0.025       | 98.2           | 0.000          | 0.00           | 0.0                | 0.600     | o           | 150         | Pipe/Conduit |
| S4.000 | 12.033        | 0.070       | 171.9          | 0.052          | 5.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| S4.001 | 36.708        | 0.146       | 251.4          | 0.024          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| S4.002 | 35.335        | 0.142       | 248.8          | 0.111          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| S4.003 | 19.513        | 0.078       | 250.2          | 0.059          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |

Network Results Table

| PN     | US/IL<br>(m) | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Vel<br>(m/s) | Cap<br>(l/s) |
|--------|--------------|------------------|----------------------|--------------|--------------|
| S1.000 | 3.659        | 0.056            | 0.0                  | 1.08         | 43.0         |
| S1.001 | 3.561        | 0.065            | 0.0                  | 1.00         | 39.6         |
| S1.002 | 3.491        | 0.099            | 0.0                  | 1.00         | 39.7         |
| S1.003 | 3.365        | 0.131            | 0.0                  | 0.99         | 69.9         |
| S1.004 | 3.231        | 0.247            | 0.0                  | 0.99         | 69.8         |
| S2.000 | 3.271        | 0.109            | 0.0                  | 1.01         | 40.2         |
| S1.005 | 3.020        | 0.436            | 0.0                  | 1.04         | 115.3        |
| S1.006 | 2.969        | 0.492            | 0.0                  | 1.04         | 114.9        |
| S1.007 | 2.889        | 0.563            | 0.0                  | 1.04         | 115.3        |
| S3.000 | 2.980        | 0.051            | 0.0                  | 3.59         | 2470.8       |
| S1.008 | 2.820        | 0.614            | 0.0                  | 0.86         | 94.6         |
| S1.009 | 2.730        | 0.614            | 0.0                  | 0.94         | 104.0        |
| S1.010 | 2.625        | 0.614            | 0.0                  | 1.01         | 17.9         |
| S4.000 | 4.250        | 0.052            | 0.0                  | 0.99         | 39.5         |
| S4.001 | 4.105        | 0.076            | 0.0                  | 0.99         | 69.8         |
| S4.002 | 3.959        | 0.187            | 0.0                  | 0.99         | 70.1         |
| S4.003 | 3.817        | 0.246            | 0.0                  | 0.99         | 69.9         |

| MJA Consulting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| Monarch House<br>Barton Lane<br>OX14 3NB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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      |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| <p style="text-align: center;"><u>Existing Network Details for Storm</u></p> <table><tr><th>PN</th><th>Length<br/>(m)</th><th>Fall<br/>(m)</th><th>Slope<br/>(1:X)</th><th>I.Area<br/>(ha)</th><th>T.E.<br/>(mins)</th><th>Base<br/>Flow (l/s)</th><th>k<br/>(mm)</th><th>HYD<br/>SECT</th><th>DIA<br/>(mm)</th><th>Section Type</th></tr><tr><td>S5.000</td><td>26.630</td><td>0.156</td><td>170.7</td><td>0.024</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td></tr><tr><td>S4.004</td><td>4.522</td><td>0.016</td><td>282.6</td><td>0.059</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S4.005</td><td>3.972</td><td>0.016</td><td>248.3</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S4.006</td><td>50.847</td><td>0.160</td><td>317.8</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S4.007</td><td>11.458</td><td>0.060</td><td>191.0</td><td>0.116</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S4.008</td><td>4.843</td><td>0.063</td><td>76.9</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S6.000</td><td>6.651</td><td>0.036</td><td>184.8</td><td>0.000</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S4.009</td><td>42.716</td><td>0.590</td><td>72.4</td><td>0.046</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S4.010</td><td>18.888</td><td>0.180</td><td>104.9</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S7.000</td><td>17.925</td><td>0.105</td><td>170.7</td><td>0.063</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td></tr><tr><td>S7.001</td><td>51.183</td><td>0.204</td><td>250.9</td><td>0.096</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S7.002</td><td>30.537</td><td>0.118</td><td>258.8</td><td>0.089</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S8.000</td><td>42.349</td><td>0.250</td><td>169.4</td><td>0.088</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td></tr><tr><td>S7.003</td><td>40.263</td><td>0.161</td><td>250.1</td><td>0.154</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S7.004</td><td>4.642</td><td>0.027</td><td>171.9</td><td>0.134</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr></table> <p style="text-align: center;"><u>Network Results Table</u></p> <table><tr><th>PN</th><th>US/IL<br/>(m)</th><th>Σ I.Area<br/>(ha)</th><th>Σ Base<br/>Flow (l/s)</th><th>Vel<br/>(m/s)</th><th>Cap<br/>(l/s)</th></tr><tr><td>S5.000</td><td>3.970</td><td>0.024</td><td>0.0</td><td>1.00</td><td>39.7</td></tr><tr><td>S4.004</td><td>3.739</td><td>0.329</td><td>0.0</td><td>0.93</td><td>65.8</td></tr><tr><td>S4.005</td><td>3.723</td><td>0.329</td><td>0.0</td><td>0.99</td><td>70.2</td></tr><tr><td>S4.006</td><td>3.707</td><td>0.329</td><td>0.0</td><td>0.88</td><td>62.0</td></tr><tr><td>S4.007</td><td>3.547</td><td>0.445</td><td>0.0</td><td>1.13</td><td>80.2</td></tr><tr><td>S4.008</td><td>3.437</td><td>0.445</td><td>0.0</td><td>1.80</td><td>126.9</td></tr><tr><td>S6.000</td><td>3.410</td><td>0.000</td><td>0.0</td><td>1.15</td><td>81.5</td></tr><tr><td>S4.009</td><td>3.740</td><td>0.491</td><td>0.0</td><td>1.85</td><td>130.8</td></tr><tr><td>S4.010</td><td>3.150</td><td>0.491</td><td>0.0</td><td>1.53</td><td>108.5</td></tr><tr><td>S7.000</td><td>4.018</td><td>0.063</td><td>0.0</td><td>1.00</td><td>39.7</td></tr><tr><td>S7.001</td><td>3.838</td><td>0.159</td><td>0.0</td><td>0.99</td><td>69.8</td></tr><tr><td>S7.002</td><td>3.634</td><td>0.248</td><td>0.0</td><td>0.97</td><td>68.8</td></tr><tr><td>S8.000</td><td>3.841</td><td>0.088</td><td>0.0</td><td>1.00</td><td>39.8</td></tr><tr><td>S7.003</td><td>3.516</td><td>0.490</td><td>0.0</td><td>0.99</td><td>70.0</td></tr><tr><td>S7.004</td><td>3.355</td><td>0.624</td><td>0.0</td><td>1.20</td><td>84.5</td></tr></table> |               |                  |                      |                |                                                                     |                    |           |             |             |                                                                                     |  | PN | Length<br>(m) | Fall<br>(m) | Slope<br>(1:X) | I.Area<br>(ha) | T.E.<br>(mins) | Base<br>Flow (l/s) | k<br>(mm) | HYD<br>SECT | DIA<br>(mm) | Section Type | S5.000 | 26.630 | 0.156 | 170.7 | 0.024 | 5.00 | 0.0 | 0.600 | o | 225 | Pipe/Conduit | S4.004 | 4.522 | 0.016 | 282.6 | 0.059 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit | S4.005 | 3.972 | 0.016 | 248.3 | 0.000 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit | S4.006 | 50.847 | 0.160 | 317.8 | 0.000 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit | S4.007 | 11.458 | 0.060 | 191.0 | 0.116 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit | S4.008 | 4.843 | 0.063 | 76.9 | 0.000 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit | S6.000 | 6.651 | 0.036 | 184.8 | 0.000 | 5.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit | S4.009 | 42.716 | 0.590 | 72.4 | 0.046 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit | S4.010 | 18.888 | 0.180 | 104.9 | 0.000 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit | S7.000 | 17.925 | 0.105 | 170.7 | 0.063 | 5.00 | 0.0 | 0.600 | o | 225 | Pipe/Conduit | S7.001 | 51.183 | 0.204 | 250.9 | 0.096 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit | S7.002 | 30.537 | 0.118 | 258.8 | 0.089 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit | S8.000 | 42.349 | 0.250 | 169.4 | 0.088 | 5.00 | 0.0 | 0.600 | o | 225 | Pipe/Conduit | S7.003 | 40.263 | 0.161 | 250.1 | 0.154 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit | S7.004 | 4.642 | 0.027 | 171.9 | 0.134 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit | PN | US/IL<br>(m) | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Vel<br>(m/s) | Cap<br>(l/s) | S5.000 | 3.970 | 0.024 | 0.0 | 1.00 | 39.7 | S4.004 | 3.739 | 0.329 | 0.0 | 0.93 | 65.8 | S4.005 | 3.723 | 0.329 | 0.0 | 0.99 | 70.2 | S4.006 | 3.707 | 0.329 | 0.0 | 0.88 | 62.0 | S4.007 | 3.547 | 0.445 | 0.0 | 1.13 | 80.2 | S4.008 | 3.437 | 0.445 | 0.0 | 1.80 | 126.9 | S6.000 | 3.410 | 0.000 | 0.0 | 1.15 | 81.5 | S4.009 | 3.740 | 0.491 | 0.0 | 1.85 | 130.8 | S4.010 | 3.150 | 0.491 | 0.0 | 1.53 | 108.5 | S7.000 | 4.018 | 0.063 | 0.0 | 1.00 | 39.7 | S7.001 | 3.838 | 0.159 | 0.0 | 0.99 | 69.8 | S7.002 | 3.634 | 0.248 | 0.0 | 0.97 | 68.8 | S8.000 | 3.841 | 0.088 | 0.0 | 1.00 | 39.8 | S7.003 | 3.516 | 0.490 | 0.0 | 0.99 | 70.0 | S7.004 | 3.355 | 0.624 | 0.0 | 1.20 | 84.5 |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Length<br>(m) | Fall<br>(m)      | Slope<br>(1:X)       | I.Area<br>(ha) | T.E.<br>(mins)                                                      | Base<br>Flow (l/s) | k<br>(mm) | HYD<br>SECT | DIA<br>(mm) | Section Type                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S5.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 26.630        | 0.156            | 170.7                | 0.024          | 5.00                                                                | 0.0                | 0.600     | o           | 225         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.522         | 0.016            | 282.6                | 0.059          | 0.00                                                                | 0.0                | 0.600     | o           | 300         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.972         | 0.016            | 248.3                | 0.000          | 0.00                                                                | 0.0                | 0.600     | o           | 300         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.006                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.847        | 0.160            | 317.8                | 0.000          | 0.00                                                                | 0.0                | 0.600     | o           | 300         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 11.458        | 0.060            | 191.0                | 0.116          | 0.00                                                                | 0.0                | 0.600     | o           | 300         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.008                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.843         | 0.063            | 76.9                 | 0.000          | 0.00                                                                | 0.0                | 0.600     | o           | 300         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S6.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6.651         | 0.036            | 184.8                | 0.000          | 5.00                                                                | 0.0                | 0.600     | o           | 300         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 42.716        | 0.590            | 72.4                 | 0.046          | 0.00                                                                | 0.0                | 0.600     | o           | 300         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 18.888        | 0.180            | 104.9                | 0.000          | 0.00                                                                | 0.0                | 0.600     | o           | 300         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S7.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 17.925        | 0.105            | 170.7                | 0.063          | 5.00                                                                | 0.0                | 0.600     | o           | 225         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S7.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 51.183        | 0.204            | 250.9                | 0.096          | 0.00                                                                | 0.0                | 0.600     | o           | 300         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S7.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 30.537        | 0.118            | 258.8                | 0.089          | 0.00                                                                | 0.0                | 0.600     | o           | 300         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S8.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 42.349        | 0.250            | 169.4                | 0.088          | 5.00                                                                | 0.0                | 0.600     | o           | 225         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S7.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 40.263        | 0.161            | 250.1                | 0.154          | 0.00                                                                | 0.0                | 0.600     | o           | 300         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S7.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.642         | 0.027            | 171.9                | 0.134          | 0.00                                                                | 0.0                | 0.600     | o           | 300         | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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      |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S5.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.970         | 0.024            | 0.0                  | 1.00           | 39.7                                                                |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.739         | 0.329            | 0.0                  | 0.93           | 65.8                                                                |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.723         | 0.329            | 0.0                  | 0.99           | 70.2                                                                |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.006                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.707         | 0.329            | 0.0                  | 0.88           | 62.0                                                                |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.547         | 0.445            | 0.0                  | 1.13           | 80.2                                                                |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.008                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.437         | 0.445            | 0.0                  | 1.80           | 126.9                                                               |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S6.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.410         | 0.000            | 0.0                  | 1.15           | 81.5                                                                |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.740         | 0.491            | 0.0                  | 1.85           | 130.8                                                               |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S4.010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.150         | 0.491            | 0.0                  | 1.53           | 108.5                                                               |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S7.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.018         | 0.063            | 0.0                  | 1.00           | 39.7                                                                |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S7.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.838         | 0.159            | 0.0                  | 0.99           | 69.8                                                                |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S7.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.634         | 0.248            | 0.0                  | 0.97           | 68.8                                                                |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S8.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.841         | 0.088            | 0.0                  | 1.00           | 39.8                                                                |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S7.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.516         | 0.490            | 0.0                  | 0.99           | 70.0                                                                |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| S7.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.355         | 0.624            | 0.0                  | 1.20           | 84.5                                                                |                    |           |             |             |                                                                                     |  |    |               |             |                |                |                |                    |           |             |             |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |
| ©1982-2017 XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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      |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |      |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |        |        |       |      |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |        |       |       |       |      |     |       |   |     |              |        |       |       |       |       |      |     |       |   |     |              |    |              |                  |                      |              |              |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |       |        |       |       |     |      |       |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |        |       |       |     |      |      |

|                                                    |                                                                     |                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |                                                                     | Page 4                                                                              |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

Existing Network Details for Storm

| PN     | Length<br>(m) | Fall<br>(m) | Slope<br>(1:X) | I.Area<br>(ha) | T.E.<br>(mins) | Base<br>Flow (l/s) | k<br>(mm) | HYD<br>SECT | DIA<br>(mm) | Section Type |
|--------|---------------|-------------|----------------|----------------|----------------|--------------------|-----------|-------------|-------------|--------------|
| S9.000 | 8.367         | 0.052       | 160.9          | 0.014          | 5.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| S9.001 | 19.737        | 0.103       | 191.6          | 0.036          | 0.00           | 0.0                | 0.600     | o           | 225         | Pipe/Conduit |
| S7.005 | 11.934        | 0.222       | 53.8           | 0.000          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| S7.006 | 17.171        | 0.136       | 126.3          | 0.000          | 0.00           | 0.0                | 0.600     | [ ]         | 1           | Pipe/Conduit |
| S4.011 | 13.545        | 0.042       | 322.5          | 0.000          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| S4.012 | 15.360        | 0.082       | 187.3          | 0.000          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| S4.013 | 12.303        | 0.056       | 219.7          | 0.000          | 0.00           | 0.0                | 0.600     | o           | 300         | Pipe/Conduit |
| S4.014 | 17.628        | 0.050       | 352.6          | 0.000          | 0.00           | 0.0                | 0.600     | o           | 450         | Pipe/Conduit |
| S4.015 | 71.169        | 0.180       | 395.4          | 0.000          | 0.00           | 0.0                | 0.600     | o           | 450         | Pipe/Conduit |
| S4.016 | 4.107         | 0.010       | 410.7          | 0.000          | 0.00           | 0.0                | 0.600     | o           | 450         | Pipe/Conduit |

Network Results Table

| PN     | US/IL<br>(m) | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Vel<br>(m/s) | Cap<br>(l/s) |
|--------|--------------|------------------|----------------------|--------------|--------------|
| S9.000 | 3.558        | 0.014            | 0.0                  | 1.03         | 40.9         |
| S9.001 | 3.506        | 0.050            | 0.0                  | 0.94         | 37.4         |
| S7.005 | 3.328        | 0.674            | 0.0                  | 2.15         | 151.9        |
| S7.006 | 3.106        | 0.674            | 0.0                  | 2.66         | 1831.2       |
| S4.011 | 2.970        | 1.165            | 0.0                  | 0.87         | 61.5         |
| S4.012 | 2.878        | 1.165            | 0.0                  | 1.15         | 81.0         |
| S4.013 | 2.796        | 1.165            | 0.0                  | 1.06         | 74.7         |
| S4.014 | 2.590        | 1.165            | 0.0                  | 1.08         | 171.3        |
| S4.015 | 2.540        | 1.165            | 0.0                  | 1.02         | 161.6        |
| S4.016 | 2.360        | 1.165            | 0.0                  | 1.00         | 158.6        |

|                                                    |            |             |         |                                                                     |             |             |               |                                                                                     |
|----------------------------------------------------|------------|-------------|---------|---------------------------------------------------------------------|-------------|-------------|---------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |            |             |         |                                                                     |             |             | Page 5        |                                                                                     |
| Monarch House<br>Barton Lane<br>OX14 3NB           |            |             |         | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |             |             |               |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... |            |             |         | Designed by S.Smith<br>Checked by                                   |             |             |               |                                                                                     |
| Innovyze                                           |            |             |         | Network 2017.1.2                                                    |             |             |               |                                                                                     |
| <u>PIPELINE SCHEDULES for Storm</u>                |            |             |         |                                                                     |             |             |               |                                                                                     |
| <u>Upstream Manhole</u>                            |            |             |         |                                                                     |             |             |               |                                                                                     |
| PN                                                 | Hyd Sect   | Diam (mm)   | MH Name | C.Level (m)                                                         | I.Level (m) | D.Depth (m) | MH Connection | MH DIAM., L*W (mm)                                                                  |
| S1.000                                             | o          | 225         | S24     | 5.205                                                               | 3.659       | 1.321       | Open Manhole  | 1200                                                                                |
| S1.001                                             | o          | 225         | S23     | 5.056                                                               | 3.561       | 1.270       | Open Manhole  | 1200                                                                                |
| S1.002                                             | o          | 225         | S22     | 4.989                                                               | 3.491       | 1.273       | Open Manhole  | 1200                                                                                |
| S1.003                                             | o          | 300         | S21     | 4.864                                                               | 3.365       | 1.199       | Open Manhole  | 1200                                                                                |
| S1.004                                             | o          | 300         | S20     | 4.722                                                               | 3.231       | 1.191       | Open Manhole  | 1200                                                                                |
| S2.000                                             | o          | 225         | S25     | 4.641                                                               | 3.271       | 1.145       | Open Manhole  | 1200                                                                                |
| S1.005                                             | o          | 375         | S19     | 4.489                                                               | 3.020       | 1.094       | Open Manhole  | 1200                                                                                |
| S1.006                                             | o          | 375         | S18     | 4.389                                                               | 2.969       | 1.045       | Open Manhole  | 1200                                                                                |
| S1.007                                             | o          | 375         | S17     | 4.382                                                               | 2.889       | 1.118       | Open Manhole  | 1200                                                                                |
| S3.000                                             | [ ]        | 1           | STank   | 4.500                                                               | 2.980       | 0.920       | Open Manhole  | 1                                                                                   |
| S1.008                                             | o          | 375         | S16     | 4.600                                                               | 2.820       | 1.405       | Open Manhole  | 1200                                                                                |
| S1.009                                             | o          | 375         | S30     | 4.600                                                               | 2.730       | 1.495       | Open Manhole  | 1200                                                                                |
| S1.010                                             | o          | 150         | SCPM3   | 4.600                                                               | 2.625       | 1.825       | Open Manhole  | 1200                                                                                |
| S4.000                                             | o          | 225         | S14     | 5.393                                                               | 4.250       | 0.918       | Open Manhole  | 1200                                                                                |
| S4.001                                             | o          | 300         | S13     | 5.410                                                               | 4.105       | 1.005       | Open Manhole  | 1200                                                                                |
| S4.002                                             | o          | 300         | S12     | 5.160                                                               | 3.959       | 0.901       | Open Manhole  | 1200                                                                                |
| <u>Downstream Manhole</u>                          |            |             |         |                                                                     |             |             |               |                                                                                     |
| PN                                                 | Length (m) | Slope (1:X) | MH Name | C.Level (m)                                                         | I.Level (m) | D.Depth (m) | MH Connection | MH DIAM., L*W (mm)                                                                  |
| S1.000                                             | 14.272     | 145.6       | S23     | 5.056                                                               | 3.561       | 1.270       | Open Manhole  | 1200                                                                                |
| S1.001                                             | 11.982     | 171.2       | S22     | 4.989                                                               | 3.491       | 1.273       | Open Manhole  | 1200                                                                                |
| S1.002                                             | 8.715      | 170.9       | S21     | 4.864                                                               | 3.440       | 1.199       | Open Manhole  | 1200                                                                                |
| S1.003                                             | 33.571     | 250.5       | S20     | 4.722                                                               | 3.231       | 1.191       | Open Manhole  | 1200                                                                                |
| S1.004                                             | 34.121     | 250.9       | S19     | 4.489                                                               | 3.095       | 1.094       | Open Manhole  | 1200                                                                                |
| S2.000                                             | 16.790     | 166.2       | S19     | 4.489                                                               | 3.170       | 1.094       | Open Manhole  | 1200                                                                                |
| S1.005                                             | 15.204     | 298.1       | S18     | 4.389                                                               | 2.969       | 1.045       | Open Manhole  | 1200                                                                                |
| S1.006                                             | 24.037     | 300.5       | S17     | 4.382                                                               | 2.889       | 1.118       | Open Manhole  | 1200                                                                                |
| S1.007                                             | 20.564     | 298.0       | S16     | 4.600                                                               | 2.820       | 1.405       | Open Manhole  | 1200                                                                                |
| S3.000                                             | 11.124     | 69.5        | S16     | 4.600                                                               | 2.820       | 1.180       | Open Manhole  | 1200                                                                                |
| S1.008                                             | 39.685     | 440.9       | S30     | 4.600                                                               | 2.730       | 1.495       | Open Manhole  | 1200                                                                                |
| S1.009                                             | 20.096     | 365.4       | SCPM3   | 4.600                                                               | 2.675       | 1.550       | Open Manhole  | 1200                                                                                |
| S1.010                                             | 2.455      | 98.2        | SOUT1   | 4.000                                                               | 2.600       | 1.250       | Open Manhole  | 600                                                                                 |
| S4.000                                             | 12.033     | 171.9       | S13     | 5.410                                                               | 4.180       | 1.005       | Open Manhole  | 1200                                                                                |
| S4.001                                             | 36.708     | 251.4       | S12     | 5.160                                                               | 3.959       | 0.901       | Open Manhole  | 1200                                                                                |
| S4.002                                             | 35.335     | 248.8       | S11     | 5.323                                                               | 3.817       | 1.206       | Open Manhole  | 1200                                                                                |
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|                                                    |            |             |         |                                                                     |             |             |               |                                                                                     |
|----------------------------------------------------|------------|-------------|---------|---------------------------------------------------------------------|-------------|-------------|---------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |            |             |         |                                                                     |             |             | Page 6        |                                                                                     |
| Monarch House<br>Barton Lane<br>OX14 3NB           |            |             |         | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |             |             |               |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... |            |             |         | Designed by S.Smith<br>Checked by                                   |             |             |               |                                                                                     |
| Innovyze                                           |            |             |         | Network 2017.1.2                                                    |             |             |               |                                                                                     |
| PIPELINE SCHEDULES for Storm                       |            |             |         |                                                                     |             |             |               |                                                                                     |
| Upstream Manhole                                   |            |             |         |                                                                     |             |             |               |                                                                                     |
| PN                                                 | Hyd Sect   | Diam (mm)   | MH Name | C.Level (m)                                                         | I.Level (m) | D.Depth (m) | MH Connection | MH DIAM., L*W (mm)                                                                  |
| S4.003                                             | o          | 300         | S11     | 5.323                                                               | 3.817       | 1.206       | Open Manhole  | 1200                                                                                |
| S5.000                                             | o          | 225         | S15     | 4.950                                                               | 3.970       | 0.755       | Open Manhole  | 1200                                                                                |
| S4.004                                             | o          | 300         | S10     | 5.216                                                               | 3.739       | 1.177       | Open Manhole  | 1200                                                                                |
| S4.005                                             | o          | 300         | S29     | 5.300                                                               | 3.723       | 1.277       | Open Manhole  | 1200                                                                                |
| S4.006                                             | o          | 300         | SHW1    | 5.000                                                               | 3.707       | 0.993       | Open Manhole  | 600                                                                                 |
| S4.007                                             | o          | 300         | SHW2    | 4.840                                                               | 3.547       | 0.993       | Open Manhole  | 600                                                                                 |
| S4.008                                             | o          | 300         | SCPM2   | 5.150                                                               | 3.437       | 1.413       | Open Manhole  | 1250                                                                                |
| S6.000                                             | o          | 300         | STank   | 5.150                                                               | 3.410       | 1.440       | Open Manhole  | 1                                                                                   |
| S4.009                                             | o          | 300         | S31     | 5.100                                                               | 3.740       | 1.060       | Open Manhole  | 1200                                                                                |
| S4.010                                             | o          | 300         | S9      | 5.050                                                               | 3.150       | 1.600       | Open Manhole  | 1200                                                                                |
| S7.000                                             | o          | 225         | S7      | 5.150                                                               | 4.018       | 0.907       | Open Manhole  | 1200                                                                                |
| S7.001                                             | o          | 300         | S6      | 5.039                                                               | 3.838       | 0.901       | Open Manhole  | 1200                                                                                |
| S7.002                                             | o          | 300         | S5      | 4.883                                                               | 3.634       | 0.949       | Open Manhole  | 1200                                                                                |
| S8.000                                             | o          | 225         | S8      | 5.150                                                               | 3.841       | 1.084       | Open Manhole  | 1200                                                                                |
| Downstream Manhole                                 |            |             |         |                                                                     |             |             |               |                                                                                     |
| PN                                                 | Length (m) | Slope (1:X) | MH Name | C.Level (m)                                                         | I.Level (m) | D.Depth (m) | MH Connection | MH DIAM., L*W (mm)                                                                  |
| S4.003                                             | 19.513     | 250.2       | S10     | 5.216                                                               | 3.739       | 1.177       | Open Manhole  | 1200                                                                                |
| S5.000                                             | 26.630     | 170.7       | S10     | 5.216                                                               | 3.814       | 1.177       | Open Manhole  | 1200                                                                                |
| S4.004                                             | 4.522      | 282.6       | S29     | 5.300                                                               | 3.723       | 1.277       | Open Manhole  | 1200                                                                                |
| S4.005                                             | 3.972      | 248.3       | SHW1    | 5.000                                                               | 3.707       | 0.993       | Open Manhole  | 600                                                                                 |
| S4.006                                             | 50.847     | 317.8       | SHW2    | 4.840                                                               | 3.547       | 0.993       | Open Manhole  | 600                                                                                 |
| S4.007                                             | 11.458     | 191.0       | SCPM2   | 5.150                                                               | 3.487       | 1.363       | Open Manhole  | 1250                                                                                |
| S4.008                                             | 4.843      | 76.9        | S31     | 5.100                                                               | 3.374       | 1.426       | Open Manhole  | 1200                                                                                |
| S6.000                                             | 6.651      | 184.8       | S31     | 5.100                                                               | 3.374       | 1.426       | Open Manhole  | 1200                                                                                |
| S4.009                                             | 42.716     | 72.4        | S9      | 5.050                                                               | 3.150       | 1.600       | Open Manhole  | 1200                                                                                |
| S4.010                                             | 18.888     | 104.9       | STank   | 4.900                                                               | 2.970       | 1.630       | Open Manhole  | 1200                                                                                |
| S7.000                                             | 17.925     | 170.7       | S6      | 5.039                                                               | 3.913       | 0.901       | Open Manhole  | 1200                                                                                |
| S7.001                                             | 51.183     | 250.9       | S5      | 4.883                                                               | 3.634       | 0.949       | Open Manhole  | 1200                                                                                |
| S7.002                                             | 30.537     | 258.8       | S4      | 4.781                                                               | 3.516       | 0.965       | Open Manhole  | 1200                                                                                |
| S8.000                                             | 42.349     | 169.4       | S4      | 4.781                                                               | 3.591       | 0.965       | Open Manhole  | 1200                                                                                |
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|                                                    |                                                                     |                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |                                                                     | Page 7                                                                              |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

PIPELINE SCHEDULES for Storm

Upstream Manhole

| PN     | Hyd<br>Sect | Diam<br>(mm) | MH<br>Name | C.Level<br>(m) | I.Level<br>(m) | D.Depth<br>(m) | MH<br>Connection | MH DIAM., L*W<br>(mm) |
|--------|-------------|--------------|------------|----------------|----------------|----------------|------------------|-----------------------|
| S7.003 | o           | 300          | S4         | 4.781          | 3.516          | 0.965          | Open Manhole     | 1200                  |
| S7.004 | o           | 300          | S3         | 4.848          | 3.355          | 1.193          | Open Manhole     | 1200                  |
| S9.000 | o           | 225          | S2A        | 4.546          | 3.558          | 0.763          | Open Manhole     | 975 x 675             |
| S9.001 | o           | 225          | S2         | 4.640          | 3.506          | 0.909          | Open Manhole     | 1200                  |
| S7.005 | o           | 300          | S1         | 4.934          | 3.328          | 1.306          | Open Manhole     | 1200                  |
| S7.006 | []          | 1            | S32        | 4.950          | 3.106          | 1.244          | Open Manhole     | 1200                  |
| S4.011 | o           | 300          | STank      | 4.900          | 2.970          | 1.630          | Open Manhole     | 1200                  |
| S4.012 | o           | 300          | SCPM1      | 4.700          | 2.878          | 1.522          | Open Manhole     | 1200                  |
| S4.013 | o           | 300          | S26        | 4.229          | 2.796          | 1.133          | Open Manhole     | 1500                  |
| S4.014 | o           | 450          | S7954      | 4.250          | 2.590          | 1.210          | Open Manhole     | 1200                  |
| S4.015 | o           | 450          | S27        | 4.210          | 2.540          | 1.220          | Open Manhole     | 1500                  |
| S4.016 | o           | 450          | S28        | 3.850          | 2.360          | 1.040          | Open Manhole     | 1500                  |

Downstream Manhole

| PN     | Length<br>(m) | Slope<br>(1:X) | MH<br>Name | C.Level<br>(m) | I.Level<br>(m) | D.Depth<br>(m) | MH<br>Connection | MH DIAM., L*W<br>(mm) |
|--------|---------------|----------------|------------|----------------|----------------|----------------|------------------|-----------------------|
| S7.003 | 40.263        | 250.1          | S3         | 4.848          | 3.355          | 1.193          | Open Manhole     | 1200                  |
| S7.004 | 4.642         | 171.9          | S1         | 4.934          | 3.328          | 1.306          | Open Manhole     | 1200                  |
| S9.000 | 8.367         | 160.9          | S2         | 4.640          | 3.506          | 0.909          | Open Manhole     | 1200                  |
| S9.001 | 19.737        | 191.6          | S1         | 4.934          | 3.403          | 1.306          | Open Manhole     | 1200                  |
| S7.005 | 11.934        | 53.8           | S32        | 4.950          | 3.106          | 1.544          | Open Manhole     | 1200                  |
| S7.006 | 17.171        | 126.3          | STank      | 4.900          | 2.970          | 1.330          | Open Manhole     | 1200                  |
| S4.011 | 13.545        | 322.5          | SCPM1      | 4.700          | 2.928          | 1.472          | Open Manhole     | 1200                  |
| S4.012 | 15.360        | 187.3          | S26        | 4.229          | 2.796          | 1.133          | Open Manhole     | 1500                  |
| S4.013 | 12.303        | 219.7          | S7954      | 4.250          | 2.740          | 1.210          | Open Manhole     | 1200                  |
| S4.014 | 17.628        | 352.6          | S27        | 4.210          | 2.540          | 1.220          | Open Manhole     | 1500                  |
| S4.015 | 71.169        | 395.4          | S28        | 3.850          | 2.360          | 1.040          | Open Manhole     | 1500                  |
| S4.016 | 4.107         | 410.7          | SSWMH      | 3.730          | 2.350          | 0.930          | Open Manhole     | 1200                  |

Free Flowing Outfall Details for Storm

| Outfall<br>Pipe Number | Outfall<br>Name | C. Level<br>(m) | I. Level<br>(m) | Min<br>I. Level<br>(m) | D,L<br>(mm) | W<br>(mm) |
|------------------------|-----------------|-----------------|-----------------|------------------------|-------------|-----------|
| S1.010                 | SOUT1           | 4.000           | 2.600           | 0.000                  | 600         | 0         |

|                                                    |                                                                     |                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |                                                                     | Page 8                                                                              |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

Free Flowing Outfall Details for Storm

| Outfall<br>Pipe Number | Outfall C. Level<br>Name (m) | I. Level<br>(m) | Min<br>I. Level<br>(m) | D,L<br>(mm) | W<br>(mm) |
|------------------------|------------------------------|-----------------|------------------------|-------------|-----------|
| S4.016                 | SSWMH                        | 3.730           | 2.350                  | 0.000 1200  | 0         |

Simulation Criteria for Storm

|                                 |       |                                     |        |
|---------------------------------|-------|-------------------------------------|--------|
| Volumetric Runoff Coeff         | 0.750 | Additional Flow - % of Total Flow   | 0.000  |
| Areal Reduction Factor          | 1.000 | MADD Factor * 10m³/ha Storage       | 10.000 |
| Hot Start (mins)                | 0     | Inlet Coefficient                   | 0.800  |
| Hot Start Level (mm)            | 0     | Flow per Person per Day (l/per/day) | 0.000  |
| Manhole Headloss Coeff (Global) | 0.500 | Run Time (mins)                     | 60     |
| Foul Sewage per hectare (l/s)   | 0.000 | Output Interval (mins)              | 1      |

|                             |   |                              |    |
|-----------------------------|---|------------------------------|----|
| Number of Input Hydrographs | 0 | Number of Storage Structures | 6  |
| Number of Online Controls   | 3 | Number of Time/Area Diagrams | 10 |
| Number of Offline Controls  | 0 | Number of Real Time Controls | 0  |

Synthetic Rainfall Details

|                       |                   |                       |        |
|-----------------------|-------------------|-----------------------|--------|
| Rainfall Model        | FSR               | Profile Type          | Summer |
| Return Period (years) | 2                 | Cv (Summer)           | 0.750  |
| Region                | England and Wales | Cv (Winter)           | 0.840  |
| M5-60 (mm)            | 19.000            | Storm Duration (mins) | 30     |
| Ratio R               | 0.350             |                       |        |

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|                                                    |                                                                     |                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |                                                                     | Page 9                                                                              |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

Online Controls for Storm

Hydro-Brake® Optimum Manhole: SCPM3, DS/PN: S1.010, Volume (m³): 4.3

|                                   |                            |
|-----------------------------------|----------------------------|
| Unit Reference                    | MD-SHE-0080-3000-1155-3000 |
| Design Head (m)                   | 1.155                      |
| Design Flow (l/s)                 | 3.0                        |
| Flush-Flo™                        | Calculated                 |
| Objective                         | Minimise upstream storage  |
| Application                       | Surface                    |
| Sump Available                    | Yes                        |
| Diameter (mm)                     | 80                         |
| Invert Level (m)                  | 2.625                      |
| Minimum Outlet Pipe Diameter (mm) | 100                        |
| Suggested Manhole Diameter (mm)   | 1200                       |

| Control Points            | Head (m) | Flow (l/s) |
|---------------------------|----------|------------|
| Design Point (Calculated) | 1.155    | 3.0        |
| Flush-Flo™                | 0.354    | 3.0        |
| Kick-Flo®                 | 0.717    | 2.4        |
| Mean Flow over Head Range | -        | 2.6        |

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

| Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) |
|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| 0.100     | 2.3        | 1.200     | 3.1        | 3.000     | 4.7        | 7.000     | 6.9        |
| 0.200     | 2.8        | 1.400     | 3.3        | 3.500     | 5.0        | 7.500     | 7.2        |
| 0.300     | 3.0        | 1.600     | 3.5        | 4.000     | 5.3        | 8.000     | 7.4        |
| 0.400     | 3.0        | 1.800     | 3.7        | 4.500     | 5.6        | 8.500     | 7.6        |
| 0.500     | 2.9        | 2.000     | 3.9        | 5.000     | 5.9        | 9.000     | 7.8        |
| 0.600     | 2.8        | 2.200     | 4.0        | 5.500     | 6.2        | 9.500     | 8.0        |
| 0.800     | 2.5        | 2.400     | 4.2        | 6.000     | 6.5        |           |            |
| 1.000     | 2.8        | 2.600     | 4.4        | 6.500     | 6.7        |           |            |

Hydro-Brake® Optimum Manhole: SCPM2, DS/PN: S4.008, Volume (m³): 2.8

|                                   |                            |
|-----------------------------------|----------------------------|
| Unit Reference                    | MD-SHE-0077-2000-0300-2000 |
| Design Head (m)                   | 0.300                      |
| Design Flow (l/s)                 | 2.0                        |
| Flush-Flo™                        | Calculated                 |
| Objective                         | Minimise upstream storage  |
| Application                       | Surface                    |
| Sump Available                    | Yes                        |
| Diameter (mm)                     | 77                         |
| Invert Level (m)                  | 3.487                      |
| Minimum Outlet Pipe Diameter (mm) | 100                        |
| Suggested Manhole Diameter (mm)   | 1200                       |

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|                                                    |                                                                     |                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |                                                                     | Page 10                                                                             |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

**Hydro-Brake® Optimum Manhole: SCPM2, DS/PN: S4.008, Volume (m³): 2.8**

| Control Points            | Head (m) | Flow (l/s) |
|---------------------------|----------|------------|
| Design Point (Calculated) | 0.300    | 2.0        |
| Flush-Flo™                | 0.113    | 2.0        |
| Kick-Flo®                 | 0.228    | 1.8        |
| Mean Flow over Head Range | -        | 1.6        |

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

| Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) |
|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| 0.100     | 2.0        | 1.200     | 3.8        | 3.000     | 5.8        | 7.000     | 8.8        |
| 0.200     | 1.9        | 1.400     | 4.1        | 3.500     | 6.2        | 7.500     | 9.1        |
| 0.300     | 2.0        | 1.600     | 4.3        | 4.000     | 6.7        | 8.000     | 9.4        |
| 0.400     | 2.3        | 1.800     | 4.6        | 4.500     | 7.1        | 8.500     | 9.7        |
| 0.500     | 2.5        | 2.000     | 4.8        | 5.000     | 7.4        | 9.000     | 10.0       |
| 0.600     | 2.7        | 2.200     | 5.0        | 5.500     | 7.8        | 9.500     | 10.3       |
| 0.800     | 3.1        | 2.400     | 5.2        | 6.000     | 8.2        |           |            |
| 1.000     | 3.5        | 2.600     | 5.4        | 6.500     | 8.5        |           |            |

**Hydro-Brake® Optimum Manhole: SCPM1, DS/PN: S4.012, Volume (m³): 2.9**

|                                   |                            |
|-----------------------------------|----------------------------|
| Unit Reference                    | MD-SHE-0142-1000-1270-1000 |
| Design Head (m)                   | 1.270                      |
| Design Flow (l/s)                 | 10.0                       |
| Flush-Flo™                        | Calculated                 |
| Objective                         | Minimise upstream storage  |
| Application                       | Surface                    |
| Sump Available                    | Yes                        |
| Diameter (mm)                     | 142                        |
| Invert Level (m)                  | 2.878                      |
| Minimum Outlet Pipe Diameter (mm) | 225                        |
| Suggested Manhole Diameter (mm)   | 1200                       |

| Control Points            | Head (m) | Flow (l/s) |
|---------------------------|----------|------------|
| Design Point (Calculated) | 1.270    | 10.0       |
| Flush-Flo™                | 0.372    | 10.0       |
| Kick-Flo®                 | 0.810    | 8.1        |
| Mean Flow over Head Range | -        | 8.7        |

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

| Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) |
|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| 0.100     | 5.1        | 0.300     | 9.9        | 0.500     | 9.8        | 0.800     | 8.2        |
| 0.200     | 9.4        | 0.400     | 10.0       | 0.600     | 9.6        | 1.000     | 8.9        |

|                                          |  |                                                                     |  |
|------------------------------------------|--|---------------------------------------------------------------------|--|
| MJA Consulting                           |  | Page 11                                                             |  |
| Monarch House<br>Barton Lane<br>OX14 3NB |  | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019                          |  | Designed by S.Smith                                                 |  |
| File 99 UNIT SCHEME +10% 11....          |  | Checked by                                                          |  |
| Innovyze                                 |  | Network 2017.1.2                                                    |  |



Hydro-Brake® Optimum Manhole: SCPM1, DS/PN: S4.012, Volume (m³): 2.9

| Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) |
|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| 1.200     | 9.7        | 2.400     | 13.5       | 5.000     | 19.2       | 8.000     | 24.0       |
| 1.400     | 10.5       | 2.600     | 14.0       | 5.500     | 20.1       | 8.500     | 24.7       |
| 1.600     | 11.1       | 3.000     | 15.0       | 6.000     | 20.9       | 9.000     | 25.4       |
| 1.800     | 11.8       | 3.500     | 16.2       | 6.500     | 21.7       | 9.500     | 26.1       |
| 2.000     | 12.4       | 4.000     | 17.2       | 7.000     | 22.5       |           |            |
| 2.200     | 13.0       | 4.500     | 18.2       | 7.500     | 23.3       |           |            |

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|                                                    |                                                                     |                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |                                                                     | Page 12                                                                             |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

### Storage Structures for Storm

#### Cellular Storage Manhole: STank, DS/PN: S3.000

Invert Level (m) 2.830 Safety Factor 2.0  
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95  
Infiltration Coefficient Side (m/hr) 0.00000

| Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) |
|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|
| 0.000     | 318.0                  | 318.0                       | 0.801     | 0.0                    | 384.9                       |
| 0.800     | 318.0                  | 384.9                       |           |                        |                             |

#### Cellular Storage Manhole: S30, DS/PN: S1.009

Invert Level (m) 2.730 Safety Factor 2.0  
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95  
Infiltration Coefficient Side (m/hr) 0.00000

| Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) |
|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|
| 0.000     | 72.0                   | 72.0                        | 0.801     | 0.0                    | 99.5                        |
| 0.800     | 72.0                   | 99.5                        |           |                        |                             |

#### Cellular Storage Manhole: SCPM3, DS/PN: S1.010

Invert Level (m) 2.625 Safety Factor 2.0  
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95  
Infiltration Coefficient Side (m/hr) 0.00000

| Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) |
|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|
| 0.000     | 84.0                   | 84.0                        | 0.801     | 0.0                    | 116.0                       |
| 0.800     | 84.0                   | 116.0                       |           |                        |                             |

#### Tank or Pond Manhole: SHW2, DS/PN: S4.007

Invert Level (m) 3.547

| Depth (m) | Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) |
|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|
| 0.000     | 16.0                   | 0.500     | 424.0                  | 1.000     | 674.0                  | 1.500     | 938.0                  |
| 0.100     | 18.0                   | 0.600     | 473.0                  | 1.100     | 726.0                  | 1.600     | 992.0                  |
| 0.200     | 20.0                   | 0.700     | 523.0                  | 1.200     | 778.0                  | 1.700     | 1048.0                 |
| 0.300     | 22.0                   | 0.800     | 572.0                  | 1.300     | 830.0                  | 1.800     | 1103.0                 |
| 0.400     | 376.0                  | 0.900     | 623.0                  | 1.400     | 884.0                  | 1.900     | 1159.0                 |

#### Cellular Storage Manhole: STank, DS/PN: S6.000

Invert Level (m) 3.410 Safety Factor 2.0  
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95  
Infiltration Coefficient Side (m/hr) 0.00000



| MJA Consulting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                            | Page 14                                                                             |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
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| Monarch House<br>Barton Lane<br>OX14 3NB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme        |  |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Designed by S.Smith<br>Checked by                                          |                                                                                     |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Network 2017.1.2                                                           |                                                                                     |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| <u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for Storm</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                            |                                                                                     |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| <u>Simulation Criteria</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                            |                                                                                     |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Areal Reduction Factor 1.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Additional Flow - % of Total Flow                                          | 0.000                                                                               |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Hot Start (mins) 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MADD Factor * 10m³/ha Storage                                              | 10.000                                                                              |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Hot Start Level (mm) 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Inlet Coeffiecient                                                         | 0.800                                                                               |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Manhole Headloss Coeff (Global) 0.500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Flow per Person per Day (l/per/day)                                        | 0.000                                                                               |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Foul Sewage per hectare (l/s) 0.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                            |                                                                                     |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Number of Input Hydrographs 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Number of Storage Structures                                               | 6                                                                                   |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Number of Online Controls 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Number of Time/Area Diagrams                                               | 10                                                                                  |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Number of Offline Controls 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Number of Real Time Controls                                               | 0                                                                                   |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| <u>Synthetic Rainfall Details</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                            |                                                                                     |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Rainfall Model                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FSR                                                                        | Ratio R 0.350                                                                       |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Region England and Wales Cv (Summer)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.750                                                                      |                                                                                     |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| M5-60 (mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 19.000 Cv (Winter)                                                         | 0.840                                                                               |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Margin for Flood Risk Warning (mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                            | 300.0                                                                               |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Analysis Timestep 2.5 Second Increment (Extended)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                            |                                                                                     |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| DTS Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                            | ON                                                                                  |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| DVD Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                            | ON                                                                                  |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Inertia Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                            | ON                                                                                  |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Profile(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                            | Summer and Winter                                                                   |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Duration(s) (mins)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320 |                                                                                     |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Return Period(s) (years)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                            | 1, 30, 100                                                                          |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| Climate Change (%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                            | 0, 0, 40                                                                            |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| <table><tr><th>PN</th><th>US/MH Name</th><th>Storm</th><th>Return Period</th><th>Climate Change</th><th>First (X) Surge</th><th>First (Y) Flood</th><th>First (Z) Overflow</th><th>Overflow Act.</th></tr><tr><td>S1.000</td><td>S24</td><td>30 Winter</td><td>1</td><td>+0%</td><td>100/960 Winter</td><td></td><td></td><td></td></tr><tr><td>S1.001</td><td>S23</td><td>30 Winter</td><td>1</td><td>+0%</td><td>100/600 Winter</td><td></td><td></td><td></td></tr><tr><td>S1.002</td><td>S22</td><td>15 Winter</td><td>1</td><td>+0%</td><td>100/600 Winter</td><td></td><td></td><td></td></tr><tr><td>S1.003</td><td>S21</td><td>15 Winter</td><td>1</td><td>+0%</td><td>100/480 Winter</td><td></td><td></td><td></td></tr><tr><td>S1.004</td><td>S20</td><td>30 Winter</td><td>1</td><td>+0%</td><td>100/120 Summer</td><td></td><td></td><td></td></tr><tr><td>S2.000</td><td>S25</td><td>60 Winter</td><td>1</td><td>+0%</td><td>100/60 Winter</td><td></td><td></td><td></td></tr><tr><td>S1.005</td><td>S19</td><td>30 Winter</td><td>1</td><td>+0%</td><td>100/15 Winter</td><td></td><td></td><td></td></tr><tr><td>S1.006</td><td>S18</td><td>30 Winter</td><td>1</td><td>+0%</td><td>100/30 Winter</td><td></td><td></td><td></td></tr><tr><td>S1.007</td><td>S17</td><td>30 Winter</td><td>1</td><td>+0%</td><td>100/60 Summer</td><td></td><td></td><td></td></tr><tr><td>S3.000</td><td>STank</td><td>4320 Winter</td><td>1</td><td>+0%</td><td>100/360 Winter</td><td></td><td></td><td></td></tr><tr><td>S1.008</td><td>S16</td><td>240 Winter</td><td>1</td><td>+0%</td><td>100/60 Summer</td><td></td><td></td><td></td></tr><tr><td>S1.009</td><td>S30</td><td>240 Winter</td><td>1</td><td>+0%</td><td>30/120 Winter</td><td></td><td></td><td></td></tr><tr><td>S1.010</td><td>SCPM3</td><td>240 Winter</td><td>1</td><td>+0%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>S4.000</td><td>S14</td><td>15 Winter</td><td>1</td><td>+0%</td><td>100/15 Summer</td><td></td><td></td><td></td></tr><tr><td>S4.001</td><td>S13</td><td>15 Winter</td><td>1</td><td>+0%</td><td>100/15 Summer</td><td></td><td></td><td></td></tr><tr><td>S4.002</td><td>S12</td><td>15 Winter</td><td>1</td><td>+0%</td><td>100/15 Summer</td><td></td><td></td><td></td></tr><tr><td>S4.003</td><td>S11</td><td>240 Winter</td><td>1</td><td>+0%</td><td>30/15 Winter</td><td></td><td></td><td></td></tr><tr><td>S5.000</td><td>S15</td><td>15 Winter</td><td>1</td><td>+0%</td><td>100/15 Summer</td><td></td><td></td><td></td></tr></table> |                                                                            |                                                                                     | PN            | US/MH Name     | Storm           | Return Period   | Climate Change     | First (X) Surge | First (Y) Flood | First (Z) Overflow | Overflow Act. | S1.000 | S24 | 30 Winter | 1 | +0% | 100/960 Winter |  |  |  | S1.001 | S23 | 30 Winter | 1 | +0% | 100/600 Winter |  |  |  | S1.002 | S22 | 15 Winter | 1 | +0% | 100/600 Winter |  |  |  | S1.003 | S21 | 15 Winter | 1 | +0% | 100/480 Winter |  |  |  | S1.004 | S20 | 30 Winter | 1 | +0% | 100/120 Summer |  |  |  | S2.000 | S25 | 60 Winter | 1 | +0% | 100/60 Winter |  |  |  | S1.005 | S19 | 30 Winter | 1 | +0% | 100/15 Winter |  |  |  | S1.006 | S18 | 30 Winter | 1 | +0% | 100/30 Winter |  |  |  | S1.007 | S17 | 30 Winter | 1 | +0% | 100/60 Summer |  |  |  | S3.000 | STank | 4320 Winter | 1 | +0% | 100/360 Winter |  |  |  | S1.008 | S16 | 240 Winter | 1 | +0% | 100/60 Summer |  |  |  | S1.009 | S30 | 240 Winter | 1 | +0% | 30/120 Winter |  |  |  | S1.010 | SCPM3 | 240 Winter | 1 | +0% | 1/15 Summer |  |  |  | S4.000 | S14 | 15 Winter | 1 | +0% | 100/15 Summer |  |  |  | S4.001 | S13 | 15 Winter | 1 | +0% | 100/15 Summer |  |  |  | S4.002 | S12 | 15 Winter | 1 | +0% | 100/15 Summer |  |  |  | S4.003 | S11 | 240 Winter | 1 | +0% | 30/15 Winter |  |  |  | S5.000 | S15 | 15 Winter | 1 | +0% | 100/15 Summer |  |  |  |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | US/MH Name                                                                 | Storm                                                                               | Return Period | Climate Change | First (X) Surge | First (Y) Flood | First (Z) Overflow | Overflow Act.   |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S1.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S24                                                                        | 30 Winter                                                                           | 1             | +0%            | 100/960 Winter  |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S1.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S23                                                                        | 30 Winter                                                                           | 1             | +0%            | 100/600 Winter  |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S1.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S22                                                                        | 15 Winter                                                                           | 1             | +0%            | 100/600 Winter  |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S1.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S21                                                                        | 15 Winter                                                                           | 1             | +0%            | 100/480 Winter  |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S1.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S20                                                                        | 30 Winter                                                                           | 1             | +0%            | 100/120 Summer  |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S2.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S25                                                                        | 60 Winter                                                                           | 1             | +0%            | 100/60 Winter   |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S1.005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S19                                                                        | 30 Winter                                                                           | 1             | +0%            | 100/15 Winter   |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S1.006                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S18                                                                        | 30 Winter                                                                           | 1             | +0%            | 100/30 Winter   |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S1.007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S17                                                                        | 30 Winter                                                                           | 1             | +0%            | 100/60 Summer   |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S3.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | STank                                                                      | 4320 Winter                                                                         | 1             | +0%            | 100/360 Winter  |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S1.008                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S16                                                                        | 240 Winter                                                                          | 1             | +0%            | 100/60 Summer   |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S1.009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S30                                                                        | 240 Winter                                                                          | 1             | +0%            | 30/120 Winter   |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S1.010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SCPM3                                                                      | 240 Winter                                                                          | 1             | +0%            | 1/15 Summer     |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S4.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S14                                                                        | 15 Winter                                                                           | 1             | +0%            | 100/15 Summer   |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S4.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S13                                                                        | 15 Winter                                                                           | 1             | +0%            | 100/15 Summer   |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S4.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S12                                                                        | 15 Winter                                                                           | 1             | +0%            | 100/15 Summer   |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S4.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S11                                                                        | 240 Winter                                                                          | 1             | +0%            | 30/15 Winter    |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| S5.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S15                                                                        | 15 Winter                                                                           | 1             | +0%            | 100/15 Summer   |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |
| ©1982-2017 XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                            |                                                                                     |               |                |                 |                 |                    |                 |                 |                    |               |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |                |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |       |             |   |     |                |  |  |  |        |     |            |   |     |               |  |  |  |        |     |            |   |     |               |  |  |  |        |       |            |   |     |             |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |           |   |     |               |  |  |  |        |     |            |   |     |              |  |  |  |        |     |           |   |     |               |  |  |  |

|                                                    |                                                                     |                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |                                                                     | Page 15                                                                             |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

| PN     | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status     | Level<br>Exceeded |
|--------|---------------|-----------------------|----------------------------|---------------------------|----------------|-------------------|-----------------------|------------|-------------------|
| S1.000 | S24           | 3.701                 | -0.183                     | 0.000                     | 0.08           |                   | 3.0                   | OK         |                   |
| S1.001 | S23           | 3.609                 | -0.177                     | 0.000                     | 0.10           |                   | 3.4                   | OK         |                   |
| S1.002 | S22           | 3.559                 | -0.157                     | 0.000                     | 0.20           |                   | 6.3                   | OK         |                   |
| S1.003 | S21           | 3.442                 | -0.223                     | 0.000                     | 0.15           |                   | 9.5                   | OK         |                   |
| S1.004 | S20           | 3.317                 | -0.214                     | 0.000                     | 0.18           |                   | 11.6                  | OK         |                   |
| S2.000 | S25           | 3.320                 | -0.176                     | 0.000                     | 0.11           |                   | 3.8                   | OK         |                   |
| S1.005 | S19           | 3.133                 | -0.262                     | 0.000                     | 0.19           |                   | 17.2                  | OK         |                   |
| S1.006 | S18           | 3.089                 | -0.255                     | 0.000                     | 0.21           |                   | 20.5                  | OK         |                   |
| S1.007 | S17           | 3.020                 | -0.244                     | 0.000                     | 0.26           |                   | 25.0                  | OK         |                   |
| S3.000 | STank         | 2.897                 | -0.683                     | 0.000                     | 0.00           |                   | 0.0                   | OK         |                   |
| S1.008 | S16           | 3.003                 | -0.192                     | 0.000                     | 0.16           |                   | 14.1                  | OK         |                   |
| S1.009 | S30           | 3.001                 | -0.104                     | 0.000                     | 0.11           |                   | 9.6                   | OK         |                   |
| S1.010 | SCPM3         | 2.999                 | 0.224                      | 0.000                     | 0.27           |                   | 3.0                   | SURCHARGED |                   |
| S4.000 | S14           | 4.317                 | -0.158                     | 0.000                     | 0.19           |                   | 6.5                   | OK         |                   |
| S4.001 | S13           | 4.179                 | -0.226                     | 0.000                     | 0.14           |                   | 8.8                   | OK         |                   |
| S4.002 | S12           | 4.036                 | -0.223                     | 0.000                     | 0.15           |                   | 9.4                   | OK         |                   |
| S4.003 | S11           | 3.980                 | -0.137                     | 0.000                     | 0.08           |                   | 5.2                   | OK         |                   |
| S5.000 | S15           | 4.013                 | -0.182                     | 0.000                     | 0.08           |                   | 3.0                   | OK         |                   |

|                                                                                                       |  |  |  |  |                                                                     |  |  |  |                                                                                     |
|-------------------------------------------------------------------------------------------------------|--|--|--|--|---------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------|
| MJA Consulting                                                                                        |  |  |  |  |                                                                     |  |  |  | Page 16                                                                             |
| Monarch House<br>Barton Lane<br>OX14 3NB                                                              |  |  |  |  | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |  |  |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11....                                                    |  |  |  |  | Designed by S.Smith<br>Checked by                                   |  |  |  |                                                                                     |
| Innovyze                                                                                              |  |  |  |  | Network 2017.1.2                                                    |  |  |  |                                                                                     |
| <u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for Storm</u> |  |  |  |  |                                                                     |  |  |  |                                                                                     |
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| MJA Consulting                                     |                                                                     | Page 17                                                                             |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

| PN     | US/MH<br>Name | Surcharged Flooded |                | Pipe                    |               | Status | Level<br>Exceeded |
|--------|---------------|--------------------|----------------|-------------------------|---------------|--------|-------------------|
|        |               | Depth<br>(m)       | Volume<br>(m³) | Flow / Overflow<br>Cap. | Flow<br>(l/s) |        |                   |
| S4.011 | STank         | -0.178             | 0.000          | 0.19                    | 9.4           | OK     |                   |
| S4.012 | SCPM1         | -0.100             | 0.000          | 0.14                    | 9.4           | OK     |                   |
| S4.013 | S26           | -0.222             | 0.000          | 0.15                    | 9.4           | OK     |                   |
| S4.014 | S7954         | -0.372             | 0.000          | 0.07                    | 9.4           | OK     |                   |
| S4.015 | S27           | -0.378             | 0.000          | 0.06                    | 9.4           | OK     |                   |
| S4.016 | S28           | -0.366             | 0.000          | 0.08                    | 9.4           | OK     |                   |

|                                                                                                        |  |                                                                            |  |                                                                     |  |        |  |                                                                                     |  |
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| MJA Consulting                                                                                         |  |                                                                            |  |                                                                     |  |        |  | Page 18                                                                             |  |
| Monarch House<br>Barton Lane<br>OX14 3NB                                                               |  |                                                                            |  | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |        |  |  |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11....                                                     |  |                                                                            |  | Designed by S.Smith<br>Checked by                                   |  |        |  |                                                                                     |  |
| Innovyze                                                                                               |  |                                                                            |  | Network 2017.1.2                                                    |  |        |  |                                                                                     |  |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for Storm</u> |  |                                                                            |  |                                                                     |  |        |  |                                                                                     |  |
| <u>Simulation Criteria</u>                                                                             |  |                                                                            |  |                                                                     |  |        |  |                                                                                     |  |
| Areal Reduction Factor                                                                                 |  | 1.000                                                                      |  | Additional Flow - % of Total Flow                                   |  | 0.000  |  |                                                                                     |  |
| Hot Start (mins)                                                                                       |  | 0                                                                          |  | MADD Factor * 10m³/ha Storage                                       |  | 10.000 |  |                                                                                     |  |
| Hot Start Level (mm)                                                                                   |  | 0                                                                          |  | Inlet Coeffiecient                                                  |  | 0.800  |  |                                                                                     |  |
| Manhole Headloss Coeff (Global)                                                                        |  | 0.500                                                                      |  | Flow per Person per Day (l/per/day)                                 |  | 0.000  |  |                                                                                     |  |
| Foul Sewage per hectare (l/s)                                                                          |  | 0.000                                                                      |  |                                                                     |  |        |  |                                                                                     |  |
| Number of Input Hydrographs                                                                            |  | 0                                                                          |  | Number of Storage Structures                                        |  | 6      |  |                                                                                     |  |
| Number of Online Controls                                                                              |  | 3                                                                          |  | Number of Time/Area Diagrams                                        |  | 10     |  |                                                                                     |  |
| Number of Offline Controls                                                                             |  | 0                                                                          |  | Number of Real Time Controls                                        |  | 0      |  |                                                                                     |  |
| <u>Synthetic Rainfall Details</u>                                                                      |  |                                                                            |  |                                                                     |  |        |  |                                                                                     |  |
| Rainfall Model                                                                                         |  | FSR                                                                        |  | Ratio R                                                             |  | 0.350  |  |                                                                                     |  |
| Region England and Wales Cv (Summer)                                                                   |  | 0.750                                                                      |  |                                                                     |  |        |  |                                                                                     |  |
| M5-60 (mm)                                                                                             |  | 19.000                                                                     |  | Cv (Winter)                                                         |  | 0.840  |  |                                                                                     |  |
| Margin for Flood Risk Warning (mm)                                                                     |  | 300.0                                                                      |  |                                                                     |  |        |  |                                                                                     |  |
| Analysis Timestep                                                                                      |  | 2.5 Second Increment (Extended)                                            |  |                                                                     |  |        |  |                                                                                     |  |
| DTS Status                                                                                             |  | ON                                                                         |  |                                                                     |  |        |  |                                                                                     |  |
| DVD Status                                                                                             |  | ON                                                                         |  |                                                                     |  |        |  |                                                                                     |  |
| Inertia Status                                                                                         |  | ON                                                                         |  |                                                                     |  |        |  |                                                                                     |  |
| Profile(s)                                                                                             |  | Summer and Winter                                                          |  |                                                                     |  |        |  |                                                                                     |  |
| Duration(s) (mins)                                                                                     |  | 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320 |  |                                                                     |  |        |  |                                                                                     |  |
| Return Period(s) (years)                                                                               |  | 1, 30, 100                                                                 |  |                                                                     |  |        |  |                                                                                     |  |
| Climate Change (%)                                                                                     |  | 0, 0, 40                                                                   |  |                                                                     |  |        |  |                                                                                     |  |
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| MJA Consulting                                     |                                                                     | Page 19                                                                             |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

| PN     | US/MH<br>Name | Surcharged Flooded |                | Pipe           |                   | Status     | Level<br>Exceeded |
|--------|---------------|--------------------|----------------|----------------|-------------------|------------|-------------------|
|        |               | Depth<br>(m)       | Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) |            |                   |
| S1.000 | S24           | -0.158             | 0.000          | 0.20           | 7.3               | OK         |                   |
| S1.001 | S23           | -0.144             | 0.000          | 0.23           | 7.7               | OK         |                   |
| S1.002 | S22           | -0.101             | 0.000          | 0.57           | 18.0              | OK         |                   |
| S1.003 | S21           | -0.159             | 0.000          | 0.43           | 27.8              | OK         |                   |
| S1.004 | S20           | -0.150             | 0.000          | 0.49           | 31.3              | OK         |                   |
| S2.000 | S25           | -0.148             | 0.000          | 0.26           | 9.3               | OK         |                   |
| S1.005 | S19           | -0.182             | 0.000          | 0.46           | 42.5              | OK         |                   |
| S1.006 | S18           | -0.161             | 0.000          | 0.19           | 18.3              | OK         |                   |
| S1.007 | S17           | -0.083             | 0.000          | 0.22           | 20.9              | OK         |                   |
| S3.000 | STank         | -0.401             | 0.000          | 0.00           | 2.5               | OK         |                   |
| S1.008 | S16           | -0.016             | 0.000          | 0.17           | 14.8              | OK         |                   |
| S1.009 | S30           | 0.070              | 0.000          | 0.10           | 9.0               | SURCHARGED |                   |
| S1.010 | SCPM3         | 0.398              | 0.000          | 0.27           | 3.0               | SURCHARGED |                   |
| S4.000 | S14           | -0.115             | 0.000          | 0.47           | 15.8              | OK         |                   |
| S4.001 | S13           | -0.174             | 0.000          | 0.36           | 23.1              | OK         |                   |
| S4.002 | S12           | -0.073             | 0.000          | 0.25           | 16.1              | OK         |                   |
| S4.003 | S11           | 0.052              | 0.000          | 0.14           | 8.4               | SURCHARGED |                   |
| S5.000 | S15           | -0.027             | 0.000          | 0.03           | 0.9               | OK         |                   |

|                                                                                                        |  |  |  |  |                                                                     |  |  |  |                                                                                     |
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| MJA Consulting                                                                                         |  |  |  |  |                                                                     |  |  |  | Page 20                                                                             |
| Monarch House<br>Barton Lane<br>OX14 3NB                                                               |  |  |  |  | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |  |  |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11....                                                     |  |  |  |  | Designed by S.Smith<br>Checked by                                   |  |  |  |                                                                                     |
| Innovyze                                                                                               |  |  |  |  | Network 2017.1.2                                                    |  |  |  |                                                                                     |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for Storm</u> |  |  |  |  |                                                                     |  |  |  |                                                                                     |
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| MJA Consulting                                     |                                                                     | Page 21                                                                             |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

| PN     | US/MH<br>Name | Surcharged Flooded |                | Pipe                    |               | Status     | Level<br>Exceeded |
|--------|---------------|--------------------|----------------|-------------------------|---------------|------------|-------------------|
|        |               | Depth<br>(m)       | Volume<br>(m³) | Flow / Overflow<br>Cap. | Flow<br>(l/s) |            |                   |
| S4.011 | STank         | 0.120              | 0.000          | 0.22                    | 10.8          | SURCHARGED |                   |
| S4.012 | SCPM1         | 0.288              | 0.000          | 0.15                    | 10.0          | SURCHARGED |                   |
| S4.013 | S26           | -0.219             | 0.000          | 0.16                    | 10.0          | OK         |                   |
| S4.014 | S7954         | -0.369             | 0.000          | 0.07                    | 10.0          | OK         |                   |
| S4.015 | S27           | -0.375             | 0.000          | 0.07                    | 10.0          | OK         |                   |
| S4.016 | S28           | -0.363             | 0.000          | 0.08                    | 10.0          | OK         |                   |

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| MJA Consulting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                            |        |                                                                     |           |                   |           | Page 22                                                                             |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Monarch House<br>Barton Lane<br>OX14 3NB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                                                                            |        | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |           |                   |           |  |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                                                                            |        | Designed by S.Smith<br>Checked by                                   |           |                   |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
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| <u>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                            |        |                                                                     |           |                   |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| <u>Simulation Criteria</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                            |        |                                                                     |           |                   |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Areal Reduction Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           | 1.000                                                                      |        | Additional Flow - % of Total Flow                                   |           | 0.000             |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Hot Start (mins)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | 0                                                                          |        | MADD Factor * 10m³/ha Storage                                       |           | 10.000            |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Hot Start Level (mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | 0                                                                          |        | Inlet Coeffiecient                                                  |           | 0.800             |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Manhole Headloss Coeff (Global)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | 0.500                                                                      |        | Flow per Person per Day (l/per/day)                                 |           | 0.000             |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Foul Sewage per hectare (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           | 0.000                                                                      |        |                                                                     |           |                   |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Number of Input Hydrographs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | 0                                                                          |        | Number of Storage Structures                                        |           | 6                 |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Number of Online Controls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | 3                                                                          |        | Number of Time/Area Diagrams                                        |           | 10                |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Number of Offline Controls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | 0                                                                          |        | Number of Real Time Controls                                        |           | 0                 |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| <u>Synthetic Rainfall Details</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |                                                                            |        |                                                                     |           |                   |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Rainfall Model                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           | FSR                                                                        |        | Ratio R                                                             |           | 0.350             |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Region England and Wales                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | Cv (Summer)                                                                |        | 0.750                                                               |           |                   |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| M5-60 (mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | 19.000                                                                     |        | Cv (Winter)                                                         |           | 0.840             |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Margin for Flood Risk Warning (mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                                                                            |        |                                                                     |           | 300.0             |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Analysis Timestep                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | 2.5                                                                        |        | Second Increment (Extended)                                         |           |                   |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| DTS Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                            |        |                                                                     |           |                   |           | ON                                                                                  |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| DVD Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                            |        |                                                                     |           |                   |           | ON                                                                                  |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Inertia Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                            |        |                                                                     |           |                   |           | ON                                                                                  |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Profile(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                            |        |                                                                     |           | Summer and Winter |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Duration(s) (mins)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320 |        |                                                                     |           |                   |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Return Period(s) (years)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                                                                            |        |                                                                     |           | 1, 30, 100        |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| Climate Change (%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                                                                            |        |                                                                     |           | 0, 0, 40          |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |                                                                            |        |                                                                     |           |                   |           |                                                                                     |       |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| <table><tr><td></td><td>US/MH</td><td></td><td>Return</td><td>Climate</td><td>First (X)</td><td>First (Y)</td><td>First (Z)</td><td>Overflow</td><td>Water</td></tr><tr><td>PN</td><td>Name</td><td>Storm</td><td>Period</td><td>Change</td><td>Surcharge</td><td>Flood</td><td>Overflow</td><td>Act.</td><td>Level</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>(m)</td></tr><tr><td>S1.000</td><td>S24 960</td><td>Winter</td><td>100</td><td>+40%</td><td>100/960</td><td>Winter</td><td></td><td></td><td>3.894</td></tr><tr><td>S1.001</td><td>S23 960</td><td>Winter</td><td>100</td><td>+40%</td><td>100/600</td><td>Winter</td><td></td><td></td><td>3.893</td></tr><tr><td>S1.002</td><td>S22 960</td><td>Winter</td><td>100</td><td>+40%</td><td>100/600</td><td>Winter</td><td></td><td></td><td>3.893</td></tr><tr><td>S1.003</td><td>S21 960</td><td>Winter</td><td>100</td><td>+40%</td><td>100/480</td><td>Winter</td><td></td><td></td><td>3.892</td></tr><tr><td>S1.004</td><td>S20 960</td><td>Winter</td><td>100</td><td>+40%</td><td>100/120</td><td>Summer</td><td></td><td></td><td>3.891</td></tr><tr><td>S2.000</td><td>S25 960</td><td>Winter</td><td>100</td><td>+40%</td><td>100/60</td><td>Winter</td><td></td><td></td><td>3.891</td></tr><tr><td>S1.005</td><td>S19 960</td><td>Winter</td><td>100</td><td>+40%</td><td>100/15</td><td>Winter</td><td></td><td></td><td>3.890</td></tr><tr><td>S1.006</td><td>S18 960</td><td>Winter</td><td>100</td><td>+40%</td><td>100/30</td><td>Winter</td><td></td><td></td><td>3.889</td></tr><tr><td>S1.007</td><td>S17 960</td><td>Winter</td><td>100</td><td>+40%</td><td>100/60</td><td>Summer</td><td></td><td></td><td>3.887</td></tr><tr><td>S3.000</td><td>STank 720</td><td>Winter</td><td>100</td><td>+40%</td><td>100/360</td><td>Winter</td><td></td><td></td><td>3.962</td></tr><tr><td>S1.008</td><td>S16 720</td><td>Winter</td><td>100</td><td>+40%</td><td>100/60</td><td>Summer</td><td></td><td></td><td>3.918</td></tr><tr><td>S1.009</td><td>S30 960</td><td>Winter</td><td>100</td><td>+40%</td><td>30/120</td><td>Winter</td><td></td><td></td><td>4.082</td></tr><tr><td>S1.010</td><td>SCPM3 960</td><td>Winter</td><td>100</td><td>+40%</td><td>1/15</td><td>Summer</td><td></td><td></td><td>4.127</td></tr><tr><td>S4.000</td><td>S14 30</td><td>Winter</td><td>100</td><td>+40%</td><td>100/15</td><td>Summer</td><td></td><td></td><td>4.572</td></tr><tr><td>S4.001</td><td>S13 30</td><td>Winter</td><td>100</td><td>+40%</td><td>100/15</td><td>Summer</td><td></td><td></td><td>4.549</td></tr><tr><td>S4.002</td><td>S12 30</td><td>Winter</td><td>100</td><td>+40%</td><td>100/15</td><td>Summer</td><td></td><td></td><td>4.504</td></tr><tr><td>S4.003</td><td>S11 180</td><td>Winter</td><td>100</td><td>+40%</td><td>30/15</td><td>Winter</td><td></td><td></td><td>4.462</td></tr><tr><td>S5.000</td><td>S15 720</td><td>Winter</td><td>100</td><td>+40%</td><td>100/15</td><td>Summer</td><td></td><td></td><td>4.432</td></tr></table> |           |                                                                            |        |                                                                     |           |                   |           |                                                                                     |       |  | US/MH |  | Return | Climate | First (X) | First (Y) | First (Z) | Overflow | Water | PN | Name | Storm | Period | Change | Surcharge | Flood | Overflow | Act. | Level |  |  |  |  |  |  |  |  |  | (m) | S1.000 | S24 960 | Winter | 100 | +40% | 100/960 | Winter |  |  | 3.894 | S1.001 | S23 960 | Winter | 100 | +40% | 100/600 | Winter |  |  | 3.893 | S1.002 | S22 960 | Winter | 100 | +40% | 100/600 | Winter |  |  | 3.893 | S1.003 | S21 960 | Winter | 100 | +40% | 100/480 | Winter |  |  | 3.892 | S1.004 | S20 960 | Winter | 100 | +40% | 100/120 | Summer |  |  | 3.891 | S2.000 | S25 960 | Winter | 100 | +40% | 100/60 | Winter |  |  | 3.891 | S1.005 | S19 960 | Winter | 100 | +40% | 100/15 | Winter |  |  | 3.890 | S1.006 | S18 960 | Winter | 100 | +40% | 100/30 | Winter |  |  | 3.889 | S1.007 | S17 960 | Winter | 100 | +40% | 100/60 | Summer |  |  | 3.887 | S3.000 | STank 720 | Winter | 100 | +40% | 100/360 | Winter |  |  | 3.962 | S1.008 | S16 720 | Winter | 100 | +40% | 100/60 | Summer |  |  | 3.918 | S1.009 | S30 960 | Winter | 100 | +40% | 30/120 | Winter |  |  | 4.082 | S1.010 | SCPM3 960 | Winter | 100 | +40% | 1/15 | Summer |  |  | 4.127 | S4.000 | S14 30 | Winter | 100 | +40% | 100/15 | Summer |  |  | 4.572 | S4.001 | S13 30 | Winter | 100 | +40% | 100/15 | Summer |  |  | 4.549 | S4.002 | S12 30 | Winter | 100 | +40% | 100/15 | Summer |  |  | 4.504 | S4.003 | S11 180 | Winter | 100 | +40% | 30/15 | Winter |  |  | 4.462 | S5.000 | S15 720 | Winter | 100 | +40% | 100/15 | Summer |  |  | 4.432 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US/MH     |                                                                            | Return | Climate                                                             | First (X) | First (Y)         | First (Z) | Overflow                                                                            | Water |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Name      | Storm                                                                      | Period | Change                                                              | Surcharge | Flood             | Overflow  | Act.                                                                                | Level |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |                                                                            |        |                                                                     |           |                   |           |                                                                                     | (m)   |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S1.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S24 960   | Winter                                                                     | 100    | +40%                                                                | 100/960   | Winter            |           |                                                                                     | 3.894 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S1.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S23 960   | Winter                                                                     | 100    | +40%                                                                | 100/600   | Winter            |           |                                                                                     | 3.893 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S1.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S22 960   | Winter                                                                     | 100    | +40%                                                                | 100/600   | Winter            |           |                                                                                     | 3.893 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S1.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S21 960   | Winter                                                                     | 100    | +40%                                                                | 100/480   | Winter            |           |                                                                                     | 3.892 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S1.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S20 960   | Winter                                                                     | 100    | +40%                                                                | 100/120   | Summer            |           |                                                                                     | 3.891 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S2.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S25 960   | Winter                                                                     | 100    | +40%                                                                | 100/60    | Winter            |           |                                                                                     | 3.891 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S1.005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S19 960   | Winter                                                                     | 100    | +40%                                                                | 100/15    | Winter            |           |                                                                                     | 3.890 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S1.006                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S18 960   | Winter                                                                     | 100    | +40%                                                                | 100/30    | Winter            |           |                                                                                     | 3.889 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S1.007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S17 960   | Winter                                                                     | 100    | +40%                                                                | 100/60    | Summer            |           |                                                                                     | 3.887 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S3.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | STank 720 | Winter                                                                     | 100    | +40%                                                                | 100/360   | Winter            |           |                                                                                     | 3.962 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S1.008                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S16 720   | Winter                                                                     | 100    | +40%                                                                | 100/60    | Summer            |           |                                                                                     | 3.918 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S1.009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S30 960   | Winter                                                                     | 100    | +40%                                                                | 30/120    | Winter            |           |                                                                                     | 4.082 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S1.010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | SCPM3 960 | Winter                                                                     | 100    | +40%                                                                | 1/15      | Summer            |           |                                                                                     | 4.127 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S4.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S14 30    | Winter                                                                     | 100    | +40%                                                                | 100/15    | Summer            |           |                                                                                     | 4.572 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S4.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S13 30    | Winter                                                                     | 100    | +40%                                                                | 100/15    | Summer            |           |                                                                                     | 4.549 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S4.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S12 30    | Winter                                                                     | 100    | +40%                                                                | 100/15    | Summer            |           |                                                                                     | 4.504 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S4.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S11 180   | Winter                                                                     | 100    | +40%                                                                | 30/15     | Winter            |           |                                                                                     | 4.462 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
| S5.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S15 720   | Winter                                                                     | 100    | +40%                                                                | 100/15    | Summer            |           |                                                                                     | 4.432 |  |       |  |        |         |           |           |           |          |       |    |      |       |        |        |           |       |          |      |       |  |  |  |  |  |  |  |  |  |     |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |         |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |         |        |     |      |        |        |  |  |       |        |           |        |     |      |      |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |        |        |     |      |        |        |  |  |       |        |         |        |     |      |       |        |  |  |       |        |         |        |     |      |        |        |  |  |       |
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|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |                                                                     | Page 23                                                                             |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

| PN     | US/MH<br>Name | Surcharged Flooded |                | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status     | Level<br>Exceeded |
|--------|---------------|--------------------|----------------|----------------|-------------------|-----------------------|------------|-------------------|
|        |               | Depth<br>(m)       | Volume<br>(m³) |                |                   |                       |            |                   |
| S1.000 | S24           | 0.010              | 0.000          | 0.06           |                   | 2.3                   | SURCHARGED |                   |
| S1.001 | S23           | 0.107              | 0.000          | 0.08           |                   | 2.7                   | SURCHARGED |                   |
| S1.002 | S22           | 0.177              | 0.000          | 0.13           |                   | 4.0                   | SURCHARGED |                   |
| S1.003 | S21           | 0.227              | 0.000          | 0.08           |                   | 5.4                   | SURCHARGED |                   |
| S1.004 | S20           | 0.360              | 0.000          | 0.15           |                   | 9.9                   | SURCHARGED |                   |
| S2.000 | S25           | 0.395              | 0.000          | 0.33           |                   | 11.8                  | SURCHARGED |                   |
| S1.005 | S19           | 0.495              | 0.000          | 0.19           |                   | 17.4                  | SURCHARGED |                   |
| S1.006 | S18           | 0.545              | 0.000          | 0.20           |                   | 19.6                  | SURCHARGED |                   |
| S1.007 | S17           | 0.623              | 0.000          | 0.23           |                   | 22.3                  | SURCHARGED |                   |
| S3.000 | STank         | 0.382              | 0.000          | 0.04           |                   | 41.5                  | SURCHARGED |                   |
| S1.008 | S16           | 0.723              | 0.000          | 0.43           |                   | 36.9                  | SURCHARGED |                   |
| S1.009 | S30           | 0.977              | 0.000          | 0.21           |                   | 18.5                  | SURCHARGED |                   |
| S1.010 | SCPM3         | 1.352              | 0.000          | 0.29           |                   | 3.1                   | SURCHARGED |                   |
| S4.000 | S14           | 0.097              | 0.000          | 0.67           |                   | 22.7                  | SURCHARGED |                   |
| S4.001 | S13           | 0.144              | 0.000          | 0.45           |                   | 28.7                  | SURCHARGED |                   |
| S4.002 | S12           | 0.245              | 0.000          | 0.42           |                   | 27.2                  | SURCHARGED |                   |
| S4.003 | S11           | 0.345              | 0.000          | 0.37           |                   | 22.5                  | SURCHARGED |                   |
| S5.000 | S15           | 0.237              | 0.000          | 0.03           |                   | 1.1                   | SURCHARGED |                   |

|                                                    |                                                                     |                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |                                                                     | Page 24                                                                             |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

| PN     | US/MH Name | Storm      | Return Period | Climate Change | First (X) Surcharge | First (Y) Flood | First (Z) Overflow | Overflow Act. | Water Level (m) |
|--------|------------|------------|---------------|----------------|---------------------|-----------------|--------------------|---------------|-----------------|
| S4.004 | S10        | 720 Winter | 100           | +40%           | 30/15 Summer        |                 |                    |               | 4.432           |
| S4.005 | S29        | 720 Winter | 100           | +40%           | 30/15 Summer        |                 |                    |               | 4.432           |
| S4.006 | SHW1       | 720 Winter | 100           | +40%           | 30/15 Summer        |                 |                    |               | 4.431           |
| S4.007 | SHW2       | 720 Winter | 100           | +40%           | 1/15 Summer         |                 |                    |               | 4.428           |
| S4.008 | SCPM2      | 960 Winter | 100           | +40%           | 1/15 Summer         |                 |                    |               | 4.443           |
| S6.000 | STank      | 480 Winter | 100           | +40%           | 1/120 Summer        |                 |                    |               | 4.125           |
| S4.009 | S31        | 480 Winter | 100           | +40%           | 100/240 Winter      |                 |                    |               | 4.162           |
| S4.010 | S9         | 480 Winter | 100           | +40%           | 100/60 Summer       |                 |                    |               | 4.200           |
| S7.000 | S7         | 15 Winter  | 100           | +40%           |                     |                 |                    |               | 4.198           |
| S7.001 | S6         | 360 Winter | 100           | +40%           | 100/360 Winter      |                 |                    |               | 4.167           |
| S7.002 | S5         | 360 Winter | 100           | +40%           | 100/120 Winter      |                 |                    |               | 4.171           |
| S8.000 | S8         | 360 Winter | 100           | +40%           | 100/240 Winter      |                 |                    |               | 4.163           |
| S7.003 | S4         | 360 Winter | 100           | +40%           | 100/60 Winter       |                 |                    |               | 4.169           |
| S7.004 | S3         | 360 Winter | 100           | +40%           | 100/30 Winter       |                 |                    |               | 4.168           |
| S9.000 | S2A        | 480 Winter | 100           | +40%           | 100/120 Winter      |                 |                    |               | 4.150           |
| S9.001 | S2         | 480 Winter | 100           | +40%           | 100/120 Winter      |                 |                    |               | 4.148           |
| S7.005 | S1         | 360 Winter | 100           | +40%           | 100/60 Winter       |                 |                    |               | 4.168           |
| S7.006 | S32        | 480 Winter | 100           | +40%           | 100/120 Winter      |                 |                    |               | 4.201           |
| S4.011 | STank      | 480 Winter | 100           | +40%           | 30/120 Summer       |                 |                    |               | 4.204           |
| S4.012 | SCPM1      | 480 Winter | 100           | +40%           | 30/60 Summer        |                 |                    |               | 4.204           |
| S4.013 | S26        | 480 Winter | 100           | +40%           |                     |                 |                    |               | 2.878           |
| S4.014 | S7954      | 480 Winter | 100           | +40%           |                     |                 |                    |               | 2.671           |
| S4.015 | S27        | 480 Winter | 100           | +40%           |                     |                 |                    |               | 2.615           |
| S4.016 | S28        | 480 Winter | 100           | +40%           |                     |                 |                    |               | 2.447           |

|        |            | Surcharged |             | Flooded     | Pipe           |                 |            |                |
|--------|------------|------------|-------------|-------------|----------------|-----------------|------------|----------------|
| PN     | US/MH Name | Depth (m)  | Volume (m³) | Flow / Cap. | Overflow (l/s) | Pipe Flow (l/s) | Status     | Level Exceeded |
| S4.004 | S10        | 0.393      | 0.000       | 0.32        |                | 15.3            | SURCHARGED |                |
| S4.005 | S29        | 0.409      | 0.000       | 0.31        |                | 15.3            | SURCHARGED |                |
| S4.006 | SHW1       | 0.424      | 0.000       | 0.26        |                | 15.2            | SURCHARGED |                |
| S4.007 | SHW2       | 0.581      | 0.000       | 0.07        |                | 4.1             | SURCHARGED |                |
| S4.008 | SCPM2      | 0.706      | 0.000       | 0.04        |                | 2.8             | SURCHARGED |                |
| S6.000 | STank      | 0.415      | 0.000       | 0.18        |                | 10.5            | SURCHARGED |                |
| S4.009 | S31        | 0.122      | 0.000       | 0.07        |                | 8.3             | SURCHARGED |                |
| S4.010 | S9         | 0.750      | 0.000       | 0.08        |                | 7.6             | SURCHARGED |                |
| S7.000 | S7         | -0.045     | 0.000       | 0.98        |                | 34.7            | OK         |                |
| S7.001 | S6         | 0.029      | 0.000       | 0.18        |                | 11.9            | SURCHARGED |                |
| S7.002 | S5         | 0.237      | 0.000       | 0.30        |                | 18.6            | SURCHARGED |                |
| S8.000 | S8         | 0.097      | 0.000       | 0.18        |                | 6.8             | SURCHARGED |                |
| S7.003 | S4         | 0.353      | 0.000       | 0.55        |                | 35.7            | SURCHARGED |                |
| S7.004 | S3         | 0.513      | 0.000       | 0.84        |                | 46.2            | SURCHARGED |                |
| S9.000 | S2A        | 0.367      | 0.000       | 0.06        |                | 1.8             | SURCHARGED |                |
| S9.001 | S2         | 0.417      | 0.000       | 0.10        |                | 3.5             | SURCHARGED |                |
| S7.005 | S1         | 0.540      | 0.000       | 0.42        |                | 49.0            | SURCHARGED |                |
| S7.006 | S32        | 0.495      | 0.000       | 0.04        |                | 41.3            | SURCHARGED |                |

|                                                    |                                                                     |                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MJA Consulting                                     |                                                                     | Page 25                                                                             |
| Monarch House<br>Barton Lane<br>OX14 3NB           | New Barn Lane, N.Bersted<br>Surface Water Network<br>99 Unit Scheme |  |
| Date 16/08/2019<br>File 99 UNIT SCHEME +10% 11.... | Designed by S.Smith<br>Checked by                                   |                                                                                     |
| Innovyze                                           | Network 2017.1.2                                                    |                                                                                     |

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

| PN     | US/MH<br>Name | Surcharged Flooded |                | Pipe                    |               | Status     | Level<br>Exceeded |
|--------|---------------|--------------------|----------------|-------------------------|---------------|------------|-------------------|
|        |               | Depth<br>(m)       | Volume<br>(m³) | Flow / Overflow<br>Cap. | Flow<br>(l/s) |            |                   |
| S4.011 | STank         | 0.934              | 0.000          | 0.28                    | 13.7          | SURCHARGED |                   |
| S4.012 | SCPM1         | 1.026              | 0.000          | 0.15                    | 10.0          | SURCHARGED |                   |
| S4.013 | S26           | -0.218             | 0.000          | 0.16                    | 10.0          | OK         |                   |
| S4.014 | S7954         | -0.369             | 0.000          | 0.07                    | 10.0          | OK         |                   |
| S4.015 | S27           | -0.375             | 0.000          | 0.07                    | 10.0          | OK         |                   |
| S4.016 | S28           | -0.363             | 0.000          | 0.08                    | 10.0          | OK         |                   |