

MODIFIED COPAS EQUATION FOR STORMWATER RETENTION

Town of Bassendean

Lot Area (ha) = 0.08
 Roof & Paved Area (ha) = 0.0500
 Time of Concentration (mins) = 5
 Predevelopment Flow (l/s) = 5.04
 Orifice diameter (mm) = 66

| | 1 in 2yr cu.m | 1 in 5yr cu.m | 1 in 10yr cu.m | 1 in 20yr cu.m | 1 in 50 yr cu.m |
|--------------------------|------------------|------------------|-------------------|-------------------|--------------------|
| Maximum Storage Required | 1.24 | 2.50 | 3.45 | 5.03 | 7.63 |

T I M E

minutes/hours

| | | | | | | |
|----|------|----------|----------|----------|----------|----------|
| 5 | 5 | 0.94 | 1.80 | 2.47 | 3.44 | 4.94 |
| 6 | 6 | 1.07 | 2.05 | 2.81 | 3.88 | 5.54 |
| 10 | 10 | 1.24 | 2.50 | 3.45 | 4.81 | 6.88 |
| 20 | 20 | 0.52 | 2.10 | 3.29 | 5.03 | 7.63 |
| 30 | 30 | -0.91 | 0.87 | 2.20 | 4.14 | 7.06 |
| 1 | 60 | -6.66 | -4.55 | -3.00 | -0.72 | 2.74 |
| 2 | 120 | -20.37 | -18.05 | -16.25 | -13.57 | -9.60 |
| 3 | 180 | -35.26 | -32.80 | -30.90 | -28.00 | -23.61 |
| 6 | 360 | -82.43 | -79.71 | -77.60 | -74.40 | -69.28 |
| 12 | 720 | -181.09 | -178.11 | -175.71 | -171.80 | -165.81 |
| 24 | 1440 | -384.38 | -381.09 | -378.21 | -373.50 | -365.90 |
| 48 | 2880 | -799.49 | -796.35 | -793.09 | -787.47 | -777.73 |
| 72 | 4320 | -1218.99 | -1216.94 | -1213.88 | -1208.00 | -1197.82 |

| |
|--------------------|
| 1 in 100yr cu.m |
| 9.82 |
| 6.23 |
| 6.95 |
| 8.73 |
| 9.82 |
| 9.55 |
| 5.73 |
| -6.16 |
| -19.89 |
| -65.00 |
| -160.52 |
| -359.35 |
| -769.19 |
| -1188.06 |