**Murton**

The Murton land is to be split into 2 catchments due to existing site topography and discharge points.
Due to the area of the site (50ha +) the FEH Statistical Model for greenfield run-off is to be utilised for the below calculation.

Catchment 1 - North East Discharge

The total site area for catchment 1 has been estimated at 158 ha

A total of 340 l/s has been determined due to the capacity of the 600 mm dia. Culvert.

3no. Ponds as per original proposal 2.151899

Pond 1

| | | | |
|---|---|---|---|
| Area = | 108 | ha | |
| Allowable Discharge, Q = | 232.405 | l/s | |
| 6 hour volume for 100 yr RP Greenfield run-off = | 26,367.317 | $m^3$ | (From Source Control Software) |
| Outflow volume = | 5,019.949 | $m^3$ | |
| Storage Volume = | 21,347.368 | $m^3$ | |
| + 30% for Climate Change = | **27,751.578** | $m^3$ | |

Pond 2

| | | | |
|---|---|---|---|
| Area = | 4.932 | ha | |
| Allowable Discharge, Q = | 10.613 | l/s | |
| 6 hour volume for 100 yr RP Greenfield run-off = | 1,204.107 | $m^3$ | (From Source Control Software) |
| Outflow volume = | 229.244 | $m^3$ | |
| Storage Volume = | 974.863 | $m^3$ | |
| + 30% for Climate Change = | **1,267.321** | $m^3$ | |

Pond 3

| | | | |
|---|---|---|---|
| Area = | 45.068 | ha | |
| Allowable Discharge, Q = | 96.982 | l/s | |
| 6 hour volume for 100 yr RP Greenfield run-off = | 11,002.984 | $m^3$ | (From Source Control Software) |
| Outflow volume = | 2,094.806 | $m^3$ | |
| Storage Volume = | 8,908.178 | $m^3$ | |
| + 30% for Climate Change = | **11,580.631** | $m^3$ | |

Catchment 2 - South East Discharge

Discharge to be set at 50% of greenfield, i.e. 50% of $Q_{MED}$.

Area of Catchment 2 = 90 ha

$Q_{MED}$ = 338 l/s (Rural)

Pond 4

| | | | |
|---|---|---|---|
| Area = | 90 | ha | |
| Allowable Discharge, Q = | 169.000 | l/s | (50% $Q_{MED}$) |
| 6 hour volume for 100 yr RP Greenfield run-off = | 21,972.764 | $m^3$ | (From Source Control Software) |
| Outflow volume = | 3,650.400 | $m^3$ | |
| Storage Volume = | 18,322.364 | $m^3$ | |
| + 30% for Climate Change = | **23,819.073** | $m^3$ | |