

Appendix C : Unit Cost per Option

| Description | Unit Type | Unit Measure | Unit Rate (base prices) | Rate year (2014 prices) | Source | Quantity (approx) | Cost (rounded) | Design Fee (15% of Construction Cost) | General Preliminaries (40% of Construction Cost) | TOTAL CAPITAL COSTS (inc. Oncost etc.) | Maintenance cost per annum* | CDC | Assumptions |
|--|---|-------------------------------------|-------------------------|-------------------------|------------------------------------|-------------------|----------------|---------------------------------------|--|--|-----------------------------|-----|--|
| Pond | Ponds and wetlands | m ³ Detention Volume | £33.00 | £38.40 | CIRIA SuDS manual | 20,736.59 | £796,000 | £119,400 | £318,400 | £1,233,800 | £30,845 | 2 | Volume Calculated from difference modelled DEM_Z difference grids |
| Pond excavation | Excavation | Volume of excavation m ³ | £4.04 | £4.48 | Spons | 20,736.59 | £93,000 | £13,950 | £37,200 | £144,150 | £0 | 2 | As Above |
| Disposal of excavation material | Landfill Non hazardous gate fee only (m3) | Volume of excavation m ³ | £33.64 | £34.22 | WRAP gate fees report (2013) | 20,736.59 | £709,519 | £106,428 | £283,808 | £1,099,754 | £0 | 2 | |
| Add pipe Connected to the pond | Increase capacity in drainage system | m length of box culvert | £0.00 | £1,200.00 | EA FRM Estimating Guide Appendix B | 211 | £253,000 | £37,950 | £101,200 | £392,150 | £9,804 | 2 | Circular culvert d= 0.5 211m long (pipes assumed to have d=0.8 since this is the smallest in the table. Note: EA advise not to use costs for circular pipes. Circular pipes are likely to be cheaper 'off the shelf' compared to box culverts, therefore these costs are likely to be conservative.) |
| Culvert excavation | Excavation | Volume of excavation m ³ | £4.04 | £4.48 | Spons | 41 | £180 | £27 | £72 | £279 | £0 | 2 | As above (A=0.2m2 L=211m) |
| Disposal of excavation material | Landfill Non hazardous gate fee only (m3) | Volume of excavation m ³ | £33.64 | £34.22 | WRAP gate fees report (2013) | 41 | £1,403 | £210 | £561 | £2,174 | £0 | 2 | |
| Infiltration Practice (Detention Basins) | Infiltration Practice | per m ³ Stored Volume | £89.13 | £106.96 | CIRIA SuDS Manual (2007) | 13912.17 | £1,488,000 | £223,200 | £595,200 | £2,306,400 | £57,660 | 2 | Assumed 1.5m deep (total area of Infiltration Basins = 9275 m2) |
| Infiltration Practice (Detention Basins) | Infiltration Practice | per m ³ Stored Volume | £89.13 | £106.96 | CIRIA SuDS Manual (2007) | 17347.67 | £1,855,000 | £278,250 | £742,000 | £2,875,250 | £71,881 | 3 | Assumed 1.5m deep (total area of Infiltration Basins = 11565 m2) |
| Infiltration Practice (Detention Basins) | Infiltration Practice | per m ³ Stored Volume | £89.13 | £106.96 | CIRIA SuDS Manual (2007) | 2917.92 | £312,000 | £46,800 | £124,800 | £483,600 | £12,090 | 4 | Assumed 1.5m deep (total area of Infiltration Basins = 1945 m2) |

| Description | Unit Type | Unit Measure | Unit Rate (base year prices) | Unit Rate (2014 prices) | Source | Quantity (approx) | Cost (rounded) | Design Fee (15% of Construction Cost) | General Preliminaries (40% of Construction Cost) | TOTAL CAPITAL COSTS (inc. Oncost etc.) | Maintenance cost per annum* | CDC | Assumptions |
|--|-----------------------|----------------------------------|------------------------------|-------------------------|--------------------------|-------------------|----------------|---------------------------------------|--|--|-----------------------------|-----|--|
| Infiltration Practice (Detention Basins) | Infiltration Practice | per m ³ Stored Volume | £89.13 | £106.96 | CIRIA SuDS Manual (2007) | 3842.12 | £411,000 | £61,650 | £164,400 | £637,050 | £15,926 | 6 | Assumed 1.5m deep (total area of Infiltration Basins = 2561m ²) |
| Infiltration Practice (Detention Basins) | Infiltration Practice | per m ³ Stored Volume | £89.13 | £106.96 | CIRIA SuDS Manual (2007) | 11906.49 | £1,273,000 | £190,950 | £509,200 | £1,973,150 | £49,329 | 12 | Assumed 1.5m deep (total area of Infiltration Basins = 7938 m ²) |

The unit cost for each of the SuDS practices have been derived from available cost data, including the CIRIA SuDS Manual (2007) and EA FRM Estimating Guide as explained above. However, the costs of the actual schemes could be lower or higher depending on individual site circumstances.