|  |
| --- |
| Raingarden design assessment checklist |
| This checklist has been developed by Melbourne Water for use by Councils in assessing capital works and developer constructed raingardens. |

|  |  |
| --- | --- |
| Raingarden location: |    |
| Catchment area (ha) |    |
| Raingarden area (m2) |    |
| Minor flood (m3/s) |    |
| Major flood (m3/s)  |    |

|  |  |  |  |
| --- | --- | --- | --- |
| **Design stage** | **Treatment** | **Y/N** | **Where to look** |
| Concept | Raingarden size appropriate for the catchment size, verified using MUSIC or STORM? |   | Design report |
| Concept | For raingardens located near waterways with water regularly flowing, is the raingarden outlet located above the 1 in 5 year flood level? If it is within the 100 year flood extent, is the water velocity less than 0.5m/s during the 100 year flood? |  | Design report |
| Concept | Edge of raingarden designed to protect both raingarden and public safety? Consider a raised garden bed to surround raingarden. |  | Drawings |
| Concept | Ponding (extended detention) depth indicated? |  | Drawings |
| Functional | Submerged zone considered? The submerged zone can improve nitrogen removal and be beneficial to raingarden plants in drier summer months |  | Drawings / design report |
| Detailed | Filter media specification consistent with FAWB guidelines, and is shown on design drawings |   | Drawings |
|  | **Inlet zone/hydraulics** |  |  |
| Concept | Rainfall station selected for Intensity Frequency Duration (IFD) calculations appropriate for location? |   | Design report |
| Functional | Overall flow conveyance system sufficient for design flood event? |   | Calculations |
| Functional | Velocities at inlet and within bioretention system will not cause scour (<0.5m/s)? |   | Calculations |
| Functional | Inlet zone designed to trap sediment and be cleaned out by maintenance crew? |   | Drawings |
| Functional | Inlet bypass sufficient for conveyance of design flood event >3month ARI / 4 Exceedences per Year? |   | Calculations |
|  | **Collection system** |  |  |
| Functional | Maximum ponding depth and velocity will not impact on public safety? |   | Calculations |
| Concept | Filter media hydraulic conductivity is 100 to 200 mm/hour |   | Calculations |
| Detailed | Maintenance access provided (where reach to any area is >6 m from edge)? |   | Drawings |
| Functional | Protection from gross pollutants and sediment provided (for larger systems)? |   | Drawings |
|  | **Vegetation** |  |  |
| Detailed | Plant species selected can tolerate periodic inundation and at least 70% selected from Council's approved raingarden plant list (or Melbourne Water's if no Council plant list available)? |   | Planting list |
| Detailed | Plant species selected integrate with surrounding landscape design? |   | Drawings |
| Detailed | Detailed soil specification in compliance with FAWB guidelines included in drawings or specification? |   | Drawings |