

## Clearwater Tool for Water Sensitive Urban Design Guidelines

*A tool assisting professionals to find the right information to better manage Water Sensitive Urban Design assets at any stage of the project management process*

### 1. Introduction

#### Overview

The Clearwater Tool for Water Sensitive Urban Design (WSUD) Guidelines provides an overview of a selection of some of the best available WSUD guidelines. The tool draws on the wealth of publicly available guidelines, and organises them into a matrix according to the WSUD asset type and the project management stage they relate to, so that the user can quickly and easily find the information most relevant to them.

#### How to use the tool

- Users can navigate the tool via two methods, either by using the traditional contents page or the matrix.
- At the end of each page there is a link “back to the top” which takes the user back to the matrix page.
- Each cell in the matrix is hyperlinked to the relevant chapter of the relevant document. If the user clicks on the symbol in the cell, the tool will display the related section of information.
- If the cell says “N/A” that means there are no guidelines available for that category.
- The guidelines within the categories are listed in no particular order.













































#### Acknowledgement

Clearwater wishes to acknowledge the input provided by Micah Pendergast from Melbourne Water, Vaughn Grey from Moreland City Council and Sam Innes from City of Port Phillip during the development of this tool.

#### Feedback

If you wish to provide feedback or submit a guideline for the tool, please contact the Clearwater team via [info@clearwatervic.com.au](mailto:info@clearwatervic.com.au). Don't forget to use “Clearwater Tool for Water Sensitive Urban Design Guidelines” in the subject line.

## 2. Clearwater Tool for WSUD Guidelines Matrix

	Overview of WSUD asset	Planning and compliance	Concept, Functional & Detailed Design	Construction & Handover	Operation & Maintenance	Case Studies & Examples
WSUD systems in general						N/A
Stormwater harvesting and rainwater tanks						
Raingardens and bioretention systems						
Permeable pavement		N/A				N/A
Treepits				N/A		
Sediment ponds/basins						
Wetlands						
Swales						N/A
Additional resources						

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## 3. Guidelines

### WSUD systems in general – Overview of WSUD asset

- Melbourne Water: South Eastern councils WSUD guidelines  
<https://www.melbournewater.com.au/media/614/download>

### WSUD systems in general – Planning & compliance

- Melbourne Water: Clause 56 and council permits  
<https://www.melbournewater.com.au/planning-and-building/stormwater-management/clause-56-and-council-permits>
- Melbourne Water: Developing a Strategic Approach to WSUD Implementation – Guidelines for Councils  
<https://www.clearwatervic.com.au/user-data/resource-files/Strategic-Approach-to-WSUD-Implementation-Guidelines.pdf>
- Melbourne Water: Stormwater management – Early planning – planning meeting requirements  
<https://www.melbournewater.com.au/planning-and-building/stormwater-management/early-planning>
- Melbourne Water: STORM and MUSIC tools  
<https://www.melbournewater.com.au/planning-and-building/stormwater-management/storm-and-music-tools>

### WSUD systems in general – Concept, functional & detailed design

- Melbourne Water: Stormwater management – Concept design  
<https://www.melbournewater.com.au/planning-and-building/stormwater-management/concept-design>
- Melbourne Water: Stormwater management – Detailed design  
<https://www.melbournewater.com.au/planning-and-building/stormwater-management/detailed-design>
- Melbourne Water: Stormwater management – Functional design  
<https://www.melbournewater.com.au/planning-and-building/stormwater-management/functional-design>

### WSUD systems in general – Construction & handover

- Melbourne Water: Stormwater management – Construction and handover  
<https://www.melbournewater.com.au/planning-and-building/stormwater-management/construction-and-handover>

### WSUD systems in general – Operation & maintenance

- Melbourne Water: Stormwater management – Maintenance  
<https://www.melbournewater.com.au/planning-and-building/stormwater-management/maintenance>
- MUSIC Auditor  
<https://www.musicauditor.com.au/>
- New WAtER Ways (Western Australia): WSUD Fact Sheets – Maintaining WSUD assets  
[https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/Maintenance\\_final.pdf](https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/Maintenance_final.pdf)

### WSUD systems in general – Case Studies & examples

N/A

## Stormwater harvesting and rainwater tanks – Overview of WSUD asset

- Melbourne Water: Rainwater tanks  
<https://www.melbournewater.com.au/planning-and-building/stormwater-management/options-treating-stormwater/rainwater-tanks>
- New WAter Ways (Western Australia): WSUD Fact Sheets – Rainwater storage and reuse systems  
<https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/rainwater-storage-and-reuse-systems.pdf>

## Stormwater harvesting and rainwater tanks – Planning & compliance

- Melbourne Water: Stormwater harvesting guidelines  
<https://www.melbournewater.com.au/media/619/download>
- Melbourne Water: Stormwater harvesting licence  
<https://www.melbournewater.com.au/planning-and-building/stormwater-management/stormwater-harvesting/stormwater-harvesting-licence>
- Melbourne Water: Rainwater tank diversion – instruction sheet  
<https://www.melbournewater.com.au/media/450/download>
- Natural Resource Management Ministerial Council, Environment Protection and Heritage Council, National Health and Medical Research Council: Australian Guidelines for Water Recycling (Phase 2) - Stormwater Harvest and Reuse  
[https://www.clearwatervic.com.au/user-data/resource-files/WQ\\_AGWR\\_GL\\_Stormwater\\_Harvesting\\_and\\_Reuse\\_Final\\_200907\[1\].pdf](https://www.clearwatervic.com.au/user-data/resource-files/WQ_AGWR_GL_Stormwater_Harvesting_and_Reuse_Final_200907[1].pdf)

## Stormwater harvesting and rainwater tanks – Concept, functional & detailed design

- Melbourne Water: Guidelines for stormwater harvesting on Melbourne Water drainage assets – Design, construction and maintenance of diversion structures Chapter 1-3, 6 & 7 (design)  
<https://www.melbournewater.com.au/media/623/download>
- Melbourne Water: Stormwater harvesting – Design checklist  
<https://www.melbournewater.com.au/media/676/download>
- Melbourne Water: Rainwater tank diversion – instruction sheet  
<https://www.melbournewater.com.au/media/450/download>
- Melbourne Water: WSUD Engineering procedures: stormwater  
<https://www.publish.csiro.au/book/4974/>
- Natural Resource Management Ministerial Council, Environment Protection and Heritage Council, National Health and Medical Research Council: Australian Guidelines for Water Recycling (Phase 2) - Stormwater Harvest and Reuse  
[https://www.clearwatervic.com.au/user-data/resource-files/WQ\\_AGWR\\_GL\\_Stormwater\\_Harvesting\\_and\\_Reuse\\_Final\\_200907\[1\].pdf](https://www.clearwatervic.com.au/user-data/resource-files/WQ_AGWR_GL_Stormwater_Harvesting_and_Reuse_Final_200907[1].pdf)

## Stormwater harvesting and rainwater tanks – Construction & handover

- Melbourne Water: Guidelines for stormwater harvesting on Melbourne Water drainage assets – Design, construction and maintenance of diversion structures Chapter 4 (construction)  
<https://www.melbournewater.com.au/media/623/download>
- Melbourne Water: Rainwater tank diversion – instruction sheet  
<https://www.melbournewater.com.au/media/450/download>

## Stormwater harvesting and rainwater tanks – Operation & maintenance

- Melbourne Water: Guidelines for stormwater harvesting on Melbourne Water drainage assets – Design, construction and maintenance of diversion structures - Chapter 5 (Maintenance)  
<https://www.melbournewater.com.au/media/623/download>
- Melbourne Water: Rainwater tank diversion – instruction sheet  
<https://www.melbournewater.com.au/media/450/download>
- Natural Resource Management Ministerial Council, Environment Protection and Heritage Council, National Health and Medical Research Council: Australian Guidelines for Water Recycling (Phase 2) - Stormwater Harvest and Reuse  
[https://www.clearwatervic.com.au/user-data/resource-files/WQ\\_AGWR\\_GL\\_Stormwater\\_Harvesting\\_and\\_Reuse\\_Final\\_200907\[1\].pdf](https://www.clearwatervic.com.au/user-data/resource-files/WQ_AGWR_GL_Stormwater_Harvesting_and_Reuse_Final_200907[1].pdf)

## Stormwater harvesting and rainwater tanks – Case studies & examples

- AECOM for Moonee Valley City Council: Napier Park Stormwater Reuse Project – concept Design Report:  
<https://www.melbournewater.com.au/media/666/download>

## Raingardens and bioretention systems – Overview of WSUD asset

- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix A1 – Why choose stormwater biofiltration? - <https://watersensitivecities.org.au/wp-content/uploads/2016/06/AGSBS-A1-Why-choose-stormwater-biofiltration.pdf>
- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix A2 – How does stormwater biofiltration work? <https://watersensitivecities.org.au/wp-content/uploads/2016/06/AGSBS-A2-How-does-stormwater-biofiltration-work.pdf>
- Melbourne Water: Raingardens (Planning and building) <https://www.melbournewater.com.au/planning-and-building/stormwater-management/options-treating-stormwater/raingardens>
- Melbourne Water: Raingardens (Community education) <https://www.melbournewater.com.au/community-and-education/help-protect-environment/raingardens>
- Melbourne Water: Raingardens – Green roof raingarden instruction sheet <https://www.melbournewater.com.au/media/445/download>
- New WAtEr Ways (Western Australia): WSUD Fact Sheets – Biofilters [https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/Biofilters\\_2016\\_final.pdf](https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/Biofilters_2016_final.pdf)
- New WAtEr Ways (Western Australia): WSUD Fact Sheets - Dry or ephemeral detention areas <https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/dry-or-ephemeral-detention-areas.pdf>
- New WAtEr Ways (Western Australia): WSUD Fact Sheets – Infiltration basins and trenches <https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/infiltration-basins-and-trenches.pdf>

## Raingardens and bioretention systems – Planning & compliance

- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix A3 – What are the ingredients for successful systems? <https://watersensitivecities.org.au/wp-content/uploads/2016/06/AGSBS-A3-Stormwater-biofiltration-O%CC%82C%CC%A7o%CC%82-What-are-the-ingredients-for-successful-systems.pdf>
- CRC for Water Sensitive Cities: Adoption guidelines for stormwater biofiltration systems: Chapter 2 – The business case for biofiltration <https://watersensitivecities.org.au/wp-content/uploads/2016/06/Adoption-Guidelines-for-Stormwater-Biofiltration-Systems-Chapter-2.pdf>
- Melbourne Water: WSUD life cycle costing <https://www.melbournewater.com.au/media/587/download>

## Raingardens and bioretention systems – Concept, functional & detailed design

- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix A4 – Biofilter design to meet objectives and adapt to local site conditions <https://watersensitivecities.org.au/wp-content/uploads/2016/06/AGSBS-A4-Biofilter-design-to-meet-objectives-and-adapt-to-local-site-conditions.pdf>
- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix A5 – Vegetation selection for stormwater biofilters



<https://watersensitivecities.org.au/wp-content/uploads/2016/06/AGSBS-A5-Vegetation-selection-for-stormwater-biofilters.pdf>

- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix C – Guidelines for filter media in stormwater biofiltration systems  
<https://watersensitivecities.org.au/wp-content/uploads/2016/10/AGSBS-C1-Appenix.pdf>
- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix F - Biofilters that look good – Enhancing aesthetics, community appreciation and acceptance  
<https://watersensitivecities.org.au/wp-content/uploads/2016/10/AGSBS-F1-Appenix.pdf>
- CRC for Water Sensitive Cities: Adoption guidelines for stormwater biofiltration systems: Chapter 3 – Technical considerations  
<https://watersensitivecities.org.au/wp-content/uploads/2016/06/Adoption-Guidelines-for-Stormwater-Biofiltration-Systems-Chapter-3.pdf>
- Melbourne Water: Downpipe diversion - instruction sheet  
<https://www.melbournewater.com.au/media/444/download>
- Melbourne Water: Infiltration raingarden - instruction sheet  
<https://www.melbournewater.com.au/media/446/download>
- Melbourne Water: Inground raingarden - instruction sheet  
<https://www.melbournewater.com.au/media/447/download>
- Melbourne Water: Planter box raingarden - instruction sheet  
<https://www.melbournewater.com.au/media/448/download>
- Melbourne Water: Raingarden Design for Melbourne’s West  
<https://www.melbournewater.com.au/media/671/download>
- Melbourne Water: Raingardens – Design checklist  
<https://www.melbournewater.com.au/media/668/download>
- Melbourne Water: Vegetable raingarden - instruction sheet  
<https://www.melbournewater.com.au/media/452/download>
- Melbourne Water: WSUD Engineering procedures: stormwater  
<https://www.publish.csiro.au/book/4974/>
- Moreland Council: Streetscape raingarden and tree pit design package  
<https://www.moreland.vic.gov.au/environment-and-waste/water/wsud-design-package.html>

## Raingardens and bioretention systems – Construction & handover

- CRCWSC: Adoption Guidelines for Stormwater Biofiltration Systems Appendix A7 - Biofilter construction checks  
<https://watersensitivecities.org.au/wp-content/uploads/2016/06/AGSBS-A7-Biofilter-construction-checks.pdf>
- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix K: Maintenance requirements for biofiltration systems: plan and checking tools – Chapter 1,2,3 & 4  
<https://watersensitivecities.org.au/wp-content/uploads/2016/10/AGSBS-K1-Appenix.pdf>
- CRC for Water Sensitive Cities: Adoption guidelines for stormwater biofiltration systems: Chapter 4.2 – Construction and establishment  
<https://watersensitivecities.org.au/wp-content/uploads/2016/06/Adoption-Guidelines-for-Stormwater-Biofiltration-Systems-Chapter-4.pdf>

- Melbourne Water: Raingardens – Construction checklist  
<https://www.melbournewater.com.au/media/667/download>
- Melbourne Water: Raingardens – Handover checklist  
<https://www.melbournewater.com.au/media/670/download>
- Melbourne Water: Downpipe diversion - instruction sheet  
<https://www.melbournewater.com.au/media/444/download>
- Melbourne Water: Infiltration raingarden - instruction sheet  
<https://www.melbournewater.com.au/media/446/download>
- Melbourne Water: Inground raingarden - instruction sheet  
<https://www.melbournewater.com.au/media/447/download>
- Melbourne Water: Planter box raingarden - instruction sheet  
<https://www.melbournewater.com.au/media/448/download>
- Melbourne Water: Vegetable raingarden - instruction sheet  
<https://www.melbournewater.com.au/media/452/download>

## Raingardens and bioretention systems – Operation & maintenance

- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix A6 – Stormwater biofilter monitoring and maintenance  
<https://watersensitivecities.org.au/wp-content/uploads/2016/06/AGSBS-A6-Stormwater-biofilter-monitoring-and-maintenance.pdf>
- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix H – Performance assessment of biofiltration system using simulated rain events  
<https://watersensitivecities.org.au/wp-content/uploads/2016/10/AGSBS-H1-Appensix.pdf>
- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix I – Measurement of hydraulic conductivity – Using in situ and ex situ (laboratory) sampling methods  
<https://watersensitivecities.org.au/wp-content/uploads/2016/10/AGSBS-I1-Appensix.pdf>
- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix K: Maintenance requirements for biofiltration systems: plan and checking tools – Chapter 5  
<https://watersensitivecities.org.au/wp-content/uploads/2016/10/AGSBS-K1-Appensix.pdf>
- CRC for Water Sensitive Cities: Adoption guidelines for stormwater biofiltration systems: Chapter 4.3 - 4.4 – Inspection and maintenance requirements; Remedial works, re-sets and biofilter lifespan  
<https://watersensitivecities.org.au/wp-content/uploads/2016/06/Adoption-Guidelines-for-Stormwater-Biofiltration-Systems-Chapter-4.pdf>
- Melbourne Water: WSUD maintenance guidelines – Inspection and maintenance activities – Raingardens page 2-3  
<https://www.melbournewater.com.au/media/635/download>
- Melbourne Water: WSUD Maintenance – Asset manager guidelines – Raingardens Chapter 1  
<https://www.melbournewater.com.au/media/636/download>
- Melbourne Water: Downpipe diversion - instruction sheet  
<https://www.melbournewater.com.au/media/444/download>
- Melbourne Water: Infiltration raingarden - instruction sheet  
<https://www.melbournewater.com.au/media/446/download>
- Melbourne Water: Inground raingarden - instruction sheet  
<https://www.melbournewater.com.au/media/447/download>

- Melbourne Water: Planter box raingarden - instruction sheet  
<https://www.melbournewater.com.au/media/448/download>
- Melbourne Water: Porous paving - instruction sheet  
<https://www.melbournewater.com.au/media/449/download>
- Melbourne Water: Vegetable raingarden - instruction sheet  
<https://www.melbournewater.com.au/media/452/download>

## Raingardens and bioretention systems – Case studies & examples

- CRC for Water Sensitive Cities: Adoption Guidelines for Stormwater Biofiltration Systems Appendix E – Case Studies  
<https://watersensitivecities.org.au/wp-content/uploads/2016/10/AGSBS-E1-Appensix.pdf>
- Melbourne Water: Raingardens – Detailed design drawings – example  
<https://www.melbournewater.com.au/media/669/download>

## Permeable pavement – Overview of WSUD asset

- New WAter Ways (Western Australia): WSUD Fact Sheets - Carpark developments/retrofits  
[https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/CarparkRetrofit\\_final.pdf](https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/CarparkRetrofit_final.pdf)
- New WAter Ways (Western Australia): WSUD Fact Sheets – Pervious paving  
<https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/pervious-paving.pdf>

## Permeable pavement – Planning & compliance

N/A

## Permeable pavement – Concept, functional & detailed design

- Melbourne Water: Porous paving - instruction sheet  
<https://www.melbournewater.com.au/media/449/download>

## Permeable pavement – Construction & handover

- Melbourne Water: Porous paving - instruction sheet  
<https://www.melbournewater.com.au/media/449/download>

## Permeable pavement – Operation & maintenance

- Melbourne Water: WSUD maintenance guidelines – Inspection and maintenance activities – Permeable pavement page 8-9  
<https://www.melbournewater.com.au/media/635/download>
- Melbourne Water: WSUD Maintenance – Asset manager guidelines – Permeable pavements Chapter 5  
<https://www.melbournewater.com.au/media/636/download>

## Permeable pavement – Case studies & examples

N/A

## Treepits – Overview of WSUD asset

- New WAtER Ways (Western Australia): WSUD Fact Sheets – Tree pits  
[https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/TreePits\\_final.pdf](https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/TreePits_final.pdf)

## Treepits – Planning & compliance

- Melbourne Water: WSUD life cycle costing  
<https://www.melbournewater.com.au/media/587/download>

## Treepits – Concept, functional & detailed design

- Moreland Council: Streetscape raingarden and tree pit design package  
<https://www.moreland.vic.gov.au/environment-and-waste/water/wsud-design-package.html>

## Treepits – Construction & handover

N/A

## Treepits – Operation & maintenance

- Melbourne Water: WSUD maintenance guidelines – Inspection and maintenance activities – page 4-5  
<https://www.melbournewater.com.au/media/635/download>
- Melbourne Water: WSUD Maintenance – Asset manager guidelines - Chapter 3  
<https://www.melbournewater.com.au/media/636/download>

## Treepits – Case studies & examples

- Clearwater: Langtree Mall Tree Pits – Case Study  
<https://www.clearwatervic.com.au/resource-library/case-studies/langtree-mall-tree-pits.php>

## Sediment ponds/basins – Overview of WSUD asset

- Melbourne Water: Sediment basins  
<https://www.melbournewater.com.au/planning-and-building/stormwater-management/options-treating-stormwater/sediment-basins>

## Sediment ponds/basins – Planning & compliance

- Melbourne Water: WSUD life cycle costing  
<https://www.melbournewater.com.au/media/587/download>

## Sediment ponds/basins – Concept, functional & detailed design

- Melbourne Water: Sediment ponds – Design checklist  
<https://www.melbournewater.com.au/media/673/download>
- Melbourne Water: WSUD Engineering procedures: stormwater  
<https://www.publish.csiro.au/book/4974/>

## Sediment ponds/basins – Construction & handover

- Melbourne Water: Sediment ponds – Construction checklist  
<https://www.melbournewater.com.au/media/672/download>
- Melbourne Water: Sediment ponds – Handover checklist  
<https://www.melbournewater.com.au/media/674/download>

## Sediment ponds/basins – Operation & maintenance

- Melbourne Water: Sediment ponds – Maintenance checklist  
<https://www.melbournewater.com.au/media/675/download>

## Sediment ponds/basins – Case studies & examples

- Melbourne Water: Resetting sediment ponds – Best practice guide  
<https://www.melbournewater.com.au/media/602/download>

## Wetlands – Overview of WSUD asset

- Melbourne Water: Constructed wetlands  
<https://www.melbournewater.com.au/planning-and-building/stormwater-management/options-treating-stormwater/constructed-wetlands>

## Wetlands – Planning & compliance

- Melbourne Water: WSUD life cycle costing  
<https://www.melbournewater.com.au/media/587/download>
- Melbourne Water: Constructed wetlands design manual – Part A1 – Vision, core aspirational outcomes  
<https://www.melbournewater.com.au/media/528/download>
- Melbourne Water: Constructed wetland design manual – Part A2 – Deemed to comply criteria  
<https://www.melbournewater.com.au/media/4596/download>

## Wetlands – Concept, functional & detailed design

- Melbourne Water: Constructed wetlands design manual – Part A1 Introduction  
<https://www.melbournewater.com.au/media/527/download>
- Melbourne Water: Constructed wetland design manual – Part A3 – Design considerations for constructed wetlands  
<https://www.melbournewater.com.au/media/530/download>
- Melbourne Water: Constructed wetland design manual – Part B Design acceptance process  
<https://www.melbournewater.com.au/media/531/download>
- Melbourne Water: Constructed wetland design manual – Part C – Technical design, construction, establishment approach  
<https://www.melbournewater.com.au/media/532/download>
- Melbourne Water: Constructed wetland design manual – Part D – Design tools, resources and glossary  
<https://www.melbournewater.com.au/media/533/download>
- Melbourne Water: WSUD Engineering procedures: stormwater  
<https://www.publish.csiro.au/book/4974/>

## Wetlands – Construction & handover

- Melbourne Water: Constructed wetland design manual – Part C – Technical design, construction, establishment approach  
<https://www.melbournewater.com.au/media/532/download>
- Melbourne Water: Constructed wetland design manual – Part D – Design tools, resources and glossary  
<https://www.melbournewater.com.au/media/533/download>
- Melbourne Water: Constructed wetlands – Construction checklist  
<https://www.melbournewater.com.au/media/661/download>
- Melbourne Water: Constructed wetlands – Handover checklist  
<https://www.melbournewater.com.au/media/663/download>

## Wetlands – Operation & maintenance

- Melbourne Water: Constructed wetlands – Maintenance checklist  
<https://www.melbournewater.com.au/media/664/download>

## Wetlands – Case studies & examples

- Melbourne Water: Constructed wetlands – Example detailed design report  
<https://www.melbournewater.com.au/media/665/download>

## Swales – Overview of WSUD asset

- New WAter Ways (Western Australia): WSUD Fact Sheets – Swales and buffer strips  
<https://2exng84502273uappbxzksve-wpengine.netdna-ssl.com/wp-content/uploads/2017/09/swales-and-buffer-strips.pdf>

## Swales – Planning & compliance

- Melbourne Water: WSUD life cycle costing  
<https://www.melbournewater.com.au/media/587/download>

## Swales – Concept, functional & detailed design

- Melbourne Water: Swales – Design checklist  
<https://www.melbournewater.com.au/media/678/download>
- Melbourne Water: Swale raingarden instruction sheet  
<https://www.melbournewater.com.au/media/451/download>
- Melbourne Water: WSUD Engineering procedures: stormwater  
<https://www.publish.csiro.au/book/4974/>

## Swales – Construction & handover

- Melbourne Water: Swale raingarden instruction sheet  
<https://www.melbournewater.com.au/media/451/download>
- Melbourne Water: Swales – Construction checklist  
<https://www.melbournewater.com.au/media/677/download>
- Melbourne Water: Swales – Handover checklist  
<https://www.melbournewater.com.au/media/679/download>

## Swales – Operation & maintenance

- Melbourne Water: Swale raingarden instruction sheet  
<https://www.melbournewater.com.au/media/451/download>
- Melbourne Water: WSUD maintenance guidelines – Inspection and maintenance activities - page 8-9  
<https://www.melbournewater.com.au/media/635/download>
- Melbourne Water: WSUD Maintenance – Asset manager guidelines – Chapter 4  
<https://www.melbournewater.com.au/media/636/download>

## Swales – Case studies & examples

N/A



## 4. Additional Resources

- **E2DesignLab: Prioritisation of WSUD opportunities study**  
<https://www.clearwatervic.com.au/resource-library/case-studies/prioritisation-of-wsud-opportunities-study.php>
- **Manningham Council: ZAM-WSUD Handbook** - Zero Additional Maintenance Water Sensitive Urban Design without ongoing maintenance requirements for asset owners  
<https://www.clearwatervic.com.au/user-data/resource-files/zam-wsud-handbook---with-attachments-30-8-18.pdf>
- **Melbourne Water and Stormwater Victoria: WSUD Asset Audit Guidelines**  
<https://www.clearwatervic.com.au/resource-library/guidelines-and-strategy/wsud-audit-guidelines.php>
- **WSUD asset technical training:** Clearwater's [Maintenance training](#) and [Construction Hold Points training](#) delivered on-request, builds in-house knowledge, confidence and skill of staff and contractors through a tailored and interactive learning experience. Register your interest online. For more information visit the Clearwater website at <https://www.clearwatervic.com.au/>