

Constructed wetland maintenance

| | |
|---------------|--|
| Date: | Thursday 21 March 2024 |
| Registration: | 8:30am |
| Time: | 9:00am-4.30pm |
| Venue: | Noel Lothian Hall, Hackney Road, Adelaide (State Herbarium of South Australia, Botanic Gardens) |

Learn about the science and function of constructed wetlands, and be guided through the application of Water Sensitive SA's *Inspection and Maintenance Guidelines – Wetlands*, before putting it all into practice undertaking a field assessment of the beautiful First Creek wetlands. You will also have a chance to test the theory against your own case study wetland.

Learning objective

To assist participants build their capacity for maintaining constructed wetlands to optimise water quality outcomes, essential ecosystems service provision, amenity enhancement and public space integration.

Program

| Time | Topic | Who |
|---------|---|--------------|
| 8:30am | <i>Registration</i> | |
| 9:00am | Welcome and overview of the day <ul style="list-style-type: none"> • What do you want to get out of today's session? • Why do we construct wetlands? • Introduce your wetland (if you have one to showcase) | Kerri Muller |
| 9:30am | Introduction <ul style="list-style-type: none"> • Changes to Greater Adelaide landscape since colonisation • The role of constructed wetlands in landscapes as water sensitive urban design (WSUD) elements • Constructed wetland ecosystem services provision, including amenity and well-being enhancement | Kerri Muller |
| 10:00am | Functional components of wetlands <ul style="list-style-type: none"> • Form and function of the eight theoretical components of constructed wetlands • Macrophyte (wetland plant) form and function • The problems with sediment in constructed wetlands and catchments | Kerri Muller |
| 10:30am | Participant exercise: Review the functional components in your case study wetland (or a provided case study) – does it conform to the theory? | |
| 10:45am | <i>Morning tea</i> | |
| 11:00am | Maintenance planning – Part 1 <ul style="list-style-type: none"> • Maintenance planning tasks • Routine inspections using Water Sensitive SA guidelines and condition assessment tools, and e-forms • Performance indicators and water quality targets | Kerri Muller |



| | | |
|---------|--|--------------|
| 11:30am | Group or individual brainstorm: What inspection and maintenance activities will my wetland need? | |
| 12:30pm | <i>Lunch</i> | |
| 1:15pm | Maintenance planning – Part 2 <ul style="list-style-type: none">• Sediment basin maintenance• Macrophyte zone maintenance• Preparing a maintenance calendar• Troubleshooting• Forward planning for maintenance and rectification | Kerri Muller |
| 1:45pm | Group exercise: What's your wetland problem? Discussions of real-world problems and potential solutions. | |
| 2:15pm | <i>Afternoon tea</i> | |
| 2:30pm | Field application of the inspection and maintenance forms: Inspect functional components of the First Creek wetlands and complete the relevant forms. | |
| 3:45pm | Group exercise: What did you see in First Creek wetlands? What are you going to do next (for your wetland)? | Kerri Muller |
| 4:00pm | General discussion and further needs | |
| 4:15pm | <i>Close</i> | |

What to bring

Participants are encouraged to select a case study wetland prior to the workshop and bring along a laptop, maps, designs, hard copy plans, aerial photos or other materials to use throughout the day. A case study package will be provided to participants that do not have a case study wetland who can work on a laptop or in hard copy.

- An iPad/android tablet with internet access OR mobile phone (to access the online electronic maintenance forms).

Note: An iPad or tablet is preferred, if possible, for readability of the information, however the electronic maintenance form will also work on a smart phone. Please contact us if you have any issues accessing either of these devices for the training.

- Safety vest
- Hat
- Closed in shoes

Maintenance of vegetated WSUD assets:

- [More information](#)
- [Register to attend](#)

Location of training

Venue: Noel Lothian Hall, State Herbarium of South Australia (Adelaide Botanic Gardens)
Hackney Road, Adelaide)

Link to [Google map](#)



Parking:

Ticketed car parking is available on Plane Tree Drive and in front of the Goodman Building and State Herbarium (in front of the Rose Garden, closest to the Hackney Gate), accessed from Hackney Road.

Further instructions are available on the [Botanic Gardens website](#), scroll down to “Parking”.

Your trainer



Dr Kerri Muller has joined the [Water Sensitive SA](#) team in 2023 as its Principal Ecologist, and is an expert in constructed wetlands.

Kerri has been working on constructed wetlands since the 1990s when she undertook her PhD on greenhouse gas emissions from wetlands constructed for stormwater and sewage treatment, and organised a constructed wetlands tour around Adelaide for national and international delegates as part of the Australian Society for Limnology 1996 annual conference. Over the ensuing years, Kerri’s career has been highly diverse but management of wetlands, whether they be natural, managed natural or constructed, has remained at the forefront of her work. Kerri has prepared more than 40 environmental water infrastructure management plans, including the weir pool operation plan for the SA River Murray Locks 6 to 1, the barrage operating strategy for Lakes Alexandrina and Albert and operational plans for 45 managed natural or constructed wetlands across South Australia’s regional and urban catchments. Kerri is currently working as Principal Ecologist for Water Sensitive SA in a capacity building role as well as running her own consulting business. After 20 years trading as Kerri Muller NRM, she is creating a new brand, AU2100, which focuses on building natural capital for the year 2100 and beyond.

For more information, contact Kathryn Bothe, Communications and Events Manager, Water Sensitive SA – kathryn@watersensitivesa.com, 0438 114 994.