

## Seminar & site tour

### Infiltration systems: The WSUD asset that keeps on giving.

*SA case studies delivering ecosystem services, flood protection and urban cooling*

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<b>Venue:</b>	Site tour: Newenham development, <a href="#">cnr Newenham Parade and Irwin Grove, Mount Barker</a> : Ecological sponges
	Seminar: Kitchen Farm Pantry, Newenham, <a href="#">164 Flaxley Road, Mount Barker</a>
<b>Date:</b>	27 October 2021
<b>Time:</b>	2:00 – 5:30pm
<b>Cost:</b>	Free – Water Sensitive SA partners, Stormwater SA members \$30 – Others

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## Overview

Early infiltration systems were introduced to manage stormwater peak flow rates, however increasingly these water sensitive urban design assets are being installed to provide ecosystem services and build climate resilience within our streets and suburbs.

A site tour of the ecological sponges within the Newenham development in Mount Barker will be complemented by presentations on South Australian case studies that demonstrate the multiple benefits infiltration systems provide.

Following the seminar you will have a chance to network over drinks and nibbles.

## Program

Time	Topic	Who
2:00pm	<b>Site tour: Newenham ecological sponges</b> Innovative ecological sponges in the award-winning Newenham development provide ecosystem services that protect the Western Flat Creek from the potential impacts of development.	Joe La Spina WGA
2:40pm	<i>Registration – tea and coffee on arrival</i>	
2:50pm	Welcome	Mellissa Bradley
2:55pm	<b>Infiltration systems: Siltation prevention and soil movement</b> Cost effective solutions to siltation prevention exist for infiltration systems. The performance of infiltration systems over time has been monitored in terms of siltation and soil movement	Tim Johnson City of Mitcham
3:25pm	<b>Characterisation of sediments in urban catchments found in infiltration systems</b> – Kingswood case study	Harsha Sapdhare, UniSA/Space Down Under
3:45 pm	<b>George Whittle Reserve infiltration system</b> A solution for flood management	John Zunis City of Prospect

### Event partner



Time	Topic	Who
4:05 pm	Plenary	All presenters
4:30pm	<i>Networking drinks and nibbles</i>	
5:30 pm	<i>Close</i>	

## What to bring

- Hi-viz vest
- Wide-brimmed hat
- Enclosed shoes

For more information, contact Mellissa Bradley, Program Manager, Water Sensitive SA – [mellissa@watersensitivesa.com](mailto:mellissa@watersensitivesa.com), 0431 828 980.

## Presenters



### **Joe La Spina**, WGA Consulting Engineers

Joe is an industry leader in WSUD and sustainable stormwater management. He applies his skills across all scales of development including major SA infrastructure projects. His strong technical understanding of WSUD systems stems from local government and private consultancy with [Wallbridge Gilbert Aztec](#).

Joe has implemented innovative projects featuring WSUD and is focused on delivering the best outcomes with regards to the environmental management of stormwater and its integration into many forms of development. Joe has developed and designed many projects featuring constructed wetlands, watercourse remediation, source control, infiltration systems, and erosion and sediment control practices. Joe has a keen focus on integrating engineering design with ecological system services.

His innovative WSUD projects have been recognised by industry peers for producing award winning designs at state and national awards for excellence in WSUD



### **Tim Johnson**, City of Mitcham

Tim's professional and personal interests cover many areas of the biological, engineering and human sciences which overlap in his work in local government. As Mitcham Council's Sustainable Infrastructure Engineer, his work at the boundary between civil engineering and urban horticulture focuses on enhancing natural and built assets through integration by design. Drawing on technical and academic knowledge and practical skills developed as a hands-on landscaper and horticulturist, Tim works with Council's teams developing methods to demonstrate how green infrastructure can infiltrate stormwater into reactive clay soil to deliver drainage solutions, sustain urban vegetation and minimise impacts on built assets. In his civil engineering doctoral research, Tim showed that infiltration through permeable paving reduced reactive soil movement near trees and increased the depth at which their roots grew, thereby reducing the likelihood of pavement damage. Tim's Adjunct roles with the University of South Australia-STEM and Flinders University's College of Science and Engineering links their multi-disciplinary expertise with opportunities to conduct applied research in Council's streets and parks. As a result, many of Mitcham's working WSUD sites incorporate experimental design components and research partners are working on an ongoing basis to analyse the data they're providing

**Event partner**





**Harsha Sapdhare** University of SA / Space Down Under

Harsha is a water and environmental engineer experienced in field monitoring, carbon sequestration assessment, hydraulic modelling, water quality, and economic and environmental impact assessment. She is currently working as a Research and Development Manager at [Space Down Under](#).

Harsha obtained her PhD from the University of South Australia in 2020, and has published numerous scientific papers. Her research interest is in the investigation of cost-effectiveness and environmental impacts of infiltration systems and other green infrastructure or water sensitive urban development tools.

During her PhD, Harsha also received an Australian Postgraduate Research (APR) internship, and worked with the Legatus Group on the Community Wastewater Management Scheme Survey and Sludge Processing Plant Viability Investigation. She has published her research work in peer-reviewed journals and received a High Commendation award from the Natural and Built Environment Research Centre



**John Zunis**, City of Prospect

John is a driven civil engineer with a strong focus on innovative and integrated engineering solutions. In his role as Manager Infrastructure & Assets at City of Prospect, and through his project management experience of infrastructure delivery in past roles within local government, John is passionate about enhancing civil and landscape design projects with sustainable stormwater management approaches.

John has a diverse background in developing and managing the delivery of WSUD outcomes across several projects within City of Prospect, which has become a key focus in planning and design phases. His attention to detail and ability to problem solve has produced sustainable initiatives that enhance water infiltration across various assets that contribute to greening and stormwater management.

John strives to continually challenge conventional design methods and share his knowledge and experiences across the local government sector to inform and collaborate with others

**Event partner**

