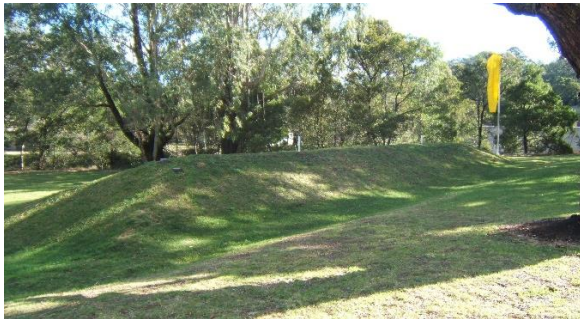




Mounds, Sand Mounds, Wisconsin Mound Systems for On-site Wastewater Treatment

10 October 2024

Penrith, NSW



A short course for Wastewater Professionals on the design, construction, management and regulation of mound systems

This course covers the selection, design, sizing, construction, performance, management and regulation of mound systems, including sand mounds, Wisconsin mounds and nutrient removal mounds, for on-site wastewater management.

Mound systems offer passive and effective options for the on-site treatment and land application of wastewater in both domestic and commercial situations, particularly where site conditions demand small footprint systems, local soil and groundwater conditions are limiting or where particular nutrient reduction targets must be met.

This course covers the basic principles of design of sand mound systems and other mound system variants including nutrient removal mounds. The selection, availability and performance of media for mound construction is investigated in detail. Process and media based nutrient removal options will be discussed. The sizing mound of systems will be reviewed and the requirements of the various legislative guidelines including those of the State Government, the Standard AS/NZS 1547:2012 *On-site Domestic Wastewater Management* and various overseas agencies will be compared. The course will cover the design and construction of sand mounds with examples suited to sensitive and challenging sites.

Pressure dosed distribution systems will be discussed. A number of case studies will be used to illustrate various aspects of mound system construction and maintenance. Monitoring and performance data for various systems will be presented.

In addition, examples of a range of mound systems at both domestic and commercial scales will be discussed and illustrated.

Common problems associated with mounds and key aspects of design to be checked prior to system approval will be described and illustrated.

The course comprises illustrated lectures, practical demonstrations, worked exercises, reviews of design options and case studies of sand mounds both in Australia and overseas.

Technical sessions include:

- Wastewater treatment using sand mounds
- Sand filtration design principles
- Mound systems
- Sand mounds
- Wisconsin mounds
- Amended soil systems
- Selection of media for sand mound construction
- Sourcing of media
- Nutrient removal processes
- Sizing of sand mounds
- Design guidelines and standards
- Pressure dosing systems
- Mounds as land application systems
- Construction of mound systems
- Maintenance of mound systems
- Case studies of sand mounds
- Monitoring and performance data
- Common problems with sand mounds
- What to look for when approving mound systems

The course is designed for those involved in all aspects of on-site wastewater systems and in particular for those seeking small footprint systems producing high quality final effluent.

The course is suitable for designers seeking passive wastewater management solutions for rural residential, leisure, recreational and community facilities and for regulators seeking to better understand the performance of these systems and suitable regulatory controls.

Sand mounds and nutrient removal mounds are well suited to a variety of small commercial applications where site constraints require a small footprint system or where nutrient removal is required.

The course brings together a wealth of knowledge and experience in design, construction, regulation, fault finding, troubleshooting and forensic investigation of a large number of sand mounds and nutrient removal mounds on both domestic and commercial scales.

Mounds, Sand Mounds, Wisconsin Mound Systems

Course Presenter

Joe Whitehead, BSc, MAppSc, FGS.

Joe is the Director of the Centre for Environmental Training and Principal of Whitehead & Associates Environmental Consultants Pty Ltd, a leading consultancy specialising in on-site and decentralised wastewater management throughout Australia, New Zealand and the Pacific Islands. Joe is an experienced designer of alternative on-site wastewater management and reuse solutions on all scales from single domestic premises to community facilities and villages. He has researched the availability and performance of both natural and man-made filter materials for wastewater treatment systems and nutrient removal. Joe has experience in the design, installation, operation and management of a range of treatment and reuse systems and in the specification and selection of media for sand filter and mound systems. Joe has been involved in the preparation and review of a number of technical guidelines for on-site and decentralised wastewater management for various regulatory agencies throughout Australia. Joe has prepared and delivered in excess of 150 professional short courses in on-site and decentralised wastewater topics at venues throughout Australia, New Zealand and the Pacific Islands.



Course Enrolment Form (3778)

Name	
Organisation	
Address	
	Postcode
Tel	
e-mail	

PLEASE REGISTER ME FOR:

Mounds, Sand Mounds, Wisconsin Mound Systems for On-site Wastewater Treatment
10 October 2024



The course will be held from 8.30am to 4.30pm at Penrith RSL Club, 8 Tindale Street, Penrith NSW 2750

Course fee: \$1,250.00 + \$125.00 GST = Total \$1,375.00

10% discount for two or more registrations from the same organisation.

Course fee includes comprehensive course notes, lunch and morning and afternoon tea. Each participant will receive a certificate outlining the detailed content and duration of the course.

Payment Terms and Conditions: Payment can be made by EFT or credit card (a 2.6% surcharge applies). Places will be confirmed upon receipt of payment into our account. If you are unable to attend a course, you will need to advise us of cancellation at least 14 days prior to the course otherwise no refund will be provided. A full refund will be given where notice of cancellation is given more than 14 days before the course. 10% administration charge is applicable to all course transfers due to illness/non-attendance and cancellations received within the 14 days prior to a course.

The Centre for Environmental Training

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Sand Mounds

Do you want to know?

- What are the key design features of sand mounds?
- How to correctly size mounds?
- What is Linear Loading Rate?
- What to look for in sand mound designs?
- What causes mounds to perform poorly or fail?

This course covers all aspects of design, media selection, sizing, approval, construction and performance of sand mounds and amended soil systems for on-site wastewater treatment in both domestic and commercial settings.



Who should attend?

**On-site Wastewater Consultants
Environmental/Engineering Consultants
Wastewater System Designers
Wastewater System Installers
Plumbers and Drainlayers
Environmental Health Officers
Health and Building Surveyors**



Onsite i Site

All course participants receive a complimentary subscription to our on-site wastewater information portal.

www.onsiteisite.com