

Professional Short Course

National Acid Sulfate Soils Guidance – identification and assessment

Course Program

Thursday 15 September 2022: Introduction to acid sulfate soils and sampling (9:00 am – 5:00 pm)

9:00 to 9:15	Welcome and introductions	Graham Lancaster EAL, SCU	15 min
9:15 to 10:05	Introduction to acid sulfate soils	Dr Leigh Sullivan ASSMS	50 min
10:05 to 10:55	Introduction to acid sulfate soils in WA: typical soil and groundwater characteristics	Dr Steve Appleyard WA DWER	50 min
10:55 to 11:10	Morning tea		15 min
11:10 to 11:40	Introduction to National acid sulfate soil guidance	Nadia Toppler EAL, SCU	30 min
11:40 to 12:15	Legislative framework for managing acid sulfate soil risk	Dr Steve Appleyard WA DWER	35 min
12:15 to 12:40	When do sites need to be investigated for acid sulfate soils?/Desktop assessment	Dr Leigh Sullivan ASSMS	25 min
12:40 to 13:20	Lunch		40 min
13:20 to 13:55	Field assessment and sampling	Dr Leigh Sullivan ASSMS	35 min
13:55 to 14:20	Acid sulfate soil reporting requirements: investigation reports	Brad Palmer Galt Environmental	25 min
14:25 to 17:00	Field trip - Spoonbill Reserve, Stirling		2 h 35 min

Friday 16 September 2022: Assessment and management of acid sulfate soils (9:00 am – 5:00 pm)

9:00 to 9:15	Welcome and introductions	Graham Lancaster EAL, SCU	15 min
9:15 to 10:15	Introduction to laboratory assessment of acid sulfate soils	Graham Lancaster EAL, SCU	1 h
10:15 to 10:25	Short break		10 min
10:25 to 10:55	Introduction to laboratory assessment of acid sulfate soils (continued)	Graham Lancaster EAL, SCU	30 min
10:55 to 11:10	Morning tea		15 min
11:10 to 11:40	Introduction to laboratory assessment of acid sulfate soils (continued)	Graham Lancaster EAL, SCU	30 min
11:40 to 12:10	Interpretation and analysis of laboratory and field results (case studies)	Nadia Toppler EAL, SCU	30 min
12:10 to 12:40	Interpretation and analysis of laboratory and field results (practical exercise)	Dr Leigh Sullivan ASSMS	30 min
12:40 to 13:30	Lunch		50 min
13:30 to 14:10	Interpretation and analysis of laboratory and field results (practical exercise - continued)	Dr Leigh Sullivan ASSMS	40 min
14:10 to 14:15	Short break		5 min
14:15 to 15:00	An overview of acid sulfate soil and groundwater management	Dr Karen Mackenzie Land & Water Consulting	45 min
15:00 to 15:15	Afternoon tea		15 min
15:15 to 15:45	Acid sulfate soil reporting requirements: management plans and closure reporting	James Gibson Western Environmental	30 min
15:45 to 15:50	Short break		5 min
15:50 to 16:50	Case examples from the consulting industry perspective	Alan Foley RPS	1 h
17:00	Conclusion		

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Draft Field Trip Itinerary

Thursday 15 September 2022: Introduction to acid sulfate soils and sampling

Time	Location	
14:25 Travel 30 min	Mercure Hotel Perth CBD	Depart venue
14:55 Duration 1h & 35 min	Spoonbill Reserve, Shearwater Drive Stirling	<p>Dr Steve Appleyard (WA DWER), Dr Leigh Sullivan (ASSMS), Graham Lancaster (SCU) & Nadia Toppler (SCU)</p> <p>Site introduction Impacts of acid sulfate soils on parkland, lake and ground water quality</p> <p>Remediation work by Edith Cowan University and effects this has had on the distribution of sulfide minerals in the soil profile.</p> <p>Field sampling and assessment including:</p> <ul style="list-style-type: none"> • use of field indicators, • appropriate sampling regimes, • soil sampling technique, • soil logging, • the field pH and peroxide test, • how to select the appropriate sample for analysis, and • safe transport samples to lab. <p><i>Demonstration on the use of a drill rig to sample acid sulfate soils, and how to conduct field tests and sampling.</i></p>
16:40 Travel 30 min	Spoonbill Reserve, Shearwater Drive Stirling	Depart Spoonbill Reserve
17:00	Mercure Hotel Perth CBD	Arrive back at venue