

SOIL SCIENCE CAPABILITY STATEMENT

Soil and Environmental Science Experts for over 40 years.

ABOUT SESL AUSTRALIA



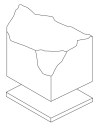
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SESL Australia stands at the forefront as Australia's premier NATA-accredited soil laboratory and consultancy, spearheading innovative and sustainable solutions. Founded in 1984 by Director of Science, Simon Leake, the company has evolved remarkably.

Our dedicated team comprises highly skilled scientists leveraging cutting edge technology to develop the finest solutions aligning with clients' objectives. Specialising in environmental, resource recovery, horticulture, and soil science, SESL Australia pioneers environmental stewardship. With over 40 years of unparalleled expertise, we've emerged as the go to trusted advisor, fostering a positive environmental impact and paving the way towards a more sustainable future.



OUR SERVICES

SESL Australia is the industry leader in soil science, environmental science and resource recovery. Our strength is in our team's ability to work effectively with our partners to deliver successful iconic projects, environmental benefits, sustainable solutions and sound financial returns. We partner with a wide range of industry sectors from government, private enterprise and multi-nationals delivering advice to all phases of the project life cycle from project inception to construction, and ongoing monitoring of infrastructure projects.

Our experienced multi-disciplinary team allows for faster decision making, collaboration and the timely delivery of desired outcomes combined with our in-house NATA accredited laboratory allowing all your project needs to be catered for in one centralised location.

Soil Science

Environmental Science

Resource Recovery & Waste

Horticulture

Research & Development

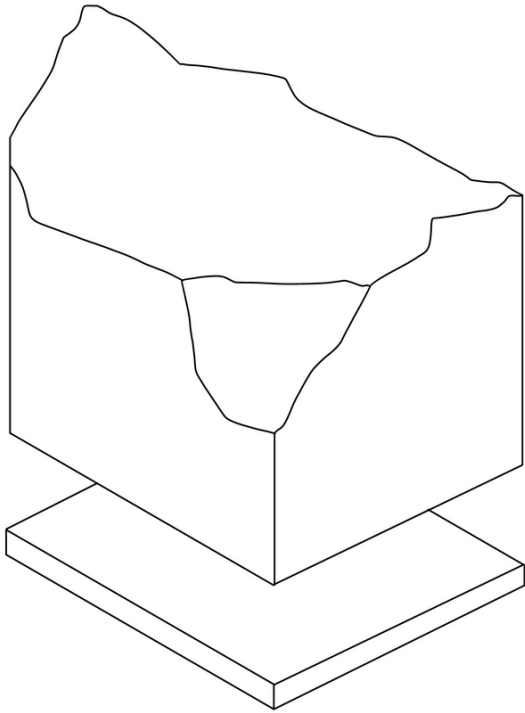
NATA-accredited Laboratory

Expert Witnesses

Site Remediation

Contamination Testing

SOIL SCIENCE SERVICES



SESL Australia's team of highly qualified soil scientists provide a comprehensive range of services for clients including on-site investigation, project management, scientific reporting, soil manufacturing, specification design and amelioration advice.

At SESL Australia, we are dedicated and demonstrated experts in all things soil science, and will ensure the highest degree of professionalism to ensure your project's success.

Urban Landscaping



SESL Australia's Soil Science team has vast amounts of experience in the urban landscaping industry. Our scientists have extensive skills and background knowledge in urban environment management, green wall and green roof landscaping, city parks, street trees, allotment gardening and more. Some of our urban landscaping projects include green walls in Brisbane's hotels, as well as the complete reconstruction of the Barangaroo Headland, and the creation of Barangaroo Reserve. With over 85 species planted and an over 99% success rate 8 years later, SESL Australia's success in urban landscaping & horticulture is clearly demonstrated.

Soil Design for Manufacture



SESL Australia provides specialist advice on any soil type, designed for any end-use. We can assess the manufactured soils and soil design in accordance with the requirements of Australian Standard AS4419 or your preferred bespoke specification. We can design topdressing or turf underlays, and support the planning of greenwalls, greenroofs, and other on-slab lightweight soils. We can design structural soils for sportsfields, as well as Water Sensitive Urban Design Soils (WSUD). SESL Australia is well versed in the requirements of AS4419, AS4454 & AS3743, and can provide testing & formulation advice to achieve compliant mixes.

Bespoke-written Soil Specifications



SESL Australia's bespoke-written soil specifications are an excellent tool to ensure landscaping and construction contractors meet the minimum requirements for the successful installation of a landscape. A well-designed specification considers the availability of in-situ & local resources, the planting palette and landscape typology. SESL are seasoned experts at producing specifications tailored for end-use, as demonstrated through our work on numerous large-scale complete rejuvenation projects, including King Salman Park in Riyadh, Saudi Arabia. Our scientists constructed a soil specification to replace the bedrock limestone currently on-site using recovered materials from around Riyadh.

Sports Fields & Racetracks



Sports Fields and Racetracks around the world are under constant pressure to perform. At SESL Australia, we understand the need for a sports field or racetrack to be in top shape come game or race day. Our expert team of Soil Scientists leverage their past experience and in-depth knowledge of soils to deliver the best result possible. From the design and specification of new fields and tracks, through to management and amelioration of 100+ year-old fields and tracks, we know the challenges and complications of sports fields and tracks, and how to use soil chemistry and physics to deliver the best outcome.

Soil Resource Survey & Sustainable Management



SESL Australia are highly experienced in Sustainable Land Management, and can develop a detailed topsoil stripping and reuse plan for any proposed development site. We have specially trained expert scientists skilled in site specific surveying of soil resources for Biophysical Strategic Agricultural Land (BSAL), Land and Soil Capability (LSC) classification and mapping. SESL Australia are experts when it comes to additional advice surrounding the suitability and sustainable management of soil within the production areas of individual properties & developments. By using SESL Australia's experts, you can guarantee both the best outcome financially, and for the environment.

Mine Revegetation & Rehabilitation



Soil rehabilitation prior to revegetation in mine sites is critical to ensure the success of plantings. Poor growing conditions in the ground and water is all too common. A deep understanding of the science is essential in devising a successful rehabilitation plan, and this is where SESL Australia's high level of expertise comes into play. Geotechnical reports alone will never provide your contractors with enough detail to ensure a rehabilitation project is successful. We can help you to justify the technical differences, assisting to demonstrate the time and cost savings associated with proper soil management.

Sodic & Dispersive Soils



SESL's Soil Science Team are highly skilled in managing sodic soils, and can prepare Sodic and Dispersive Soil Management Plans (SDSMP). Our specialists are experts in addressing the unique challenges posed by sodic and dispersive soils. Through rigorous soil analysis, we create tailored management plans that incorporate sustainable solutions such as gypsum application, soil stabilisation techniques, and plant selection to enhance soil structure and fertility. Our proactive approach not only resolves existing soil issues but also prevents future occurrences, futureproofing your development.

NATA-accredited Laboratory



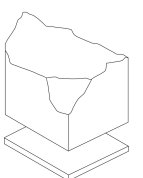
SESL Australia is one of the only soil science consultancies in Australia to have an in-house NATA-accredited Laboratory. Our in-house team of Laboratory Technicians are experts in their field, and their proximity means we can cut your wait time for results down. Our Laboratory has an enormous range of skills, able to test sports field sands to USGA standards, support the development of commercial soil with in-house trials, and test plant tissue and water to diagnose and support any issues with your project.



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KEY PROJECTS



King Salman Park

King Salman Park **est. 2024 | Riyadh, Saudi Arabia**

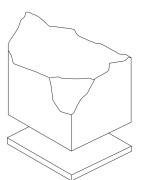
King Salman Park will be the largest urban park in the world. Located in the centre of Riyadh, transforming the landscape from flat, exposed desert on a former air force base, into an undulating, lush forest and parkland area. After a global search for the best soil scientists available, SESL Australia was selected to lead the soil design programs needed to transform the desert, and grow a forest. Working with a global partnership led by Gerber Architekten, SESL Australia's team flew to Saudi Arabia to examine the site, and successfully developed a blended soil that would support the Park's exact requirements.



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Western Sydney Airport

Western Sydney Airport **est. 2026 | Western Sydney, Australia**

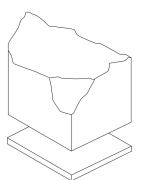
The creation of a second airport in Sydney was a ground-breaking proposal, and one that resulted in SESL Australia leading the effort to ensure quality, affordable soil was available. Nearly a million cubic metres of topsoil and 2000 hectares of subgrade was characterised and developed by SESL Australia during this project, resulting in an affordable and sustainable outcome for the client. With the project on track for completion in 2026, SESL Australia maintains an active presence in the development working with the earthworks and landscaping teams to support the challenges they are facing.



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Barangaroo Reserve

Barangaroo Reserve

est. 2015 | Sydney, Australia

American Architecture Prize 2017 | 2015 Australian Institute of Landscape Architects (AILA) Presidents Choice Award (NSW) | Infrastructure Partnerships Australia Project of the Year (2016) | WAN Waterfront 2015 Award.

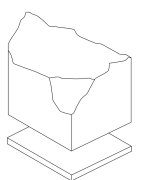
Located on the foreshore of Sydney Harbour, this 6-hectare site was transformed from a concrete slab into a pre-industrial headland. SESL Australia was brought on to develop a soil profile that most accurately resembled the original soil, ensuring the most efficient native plant rehabilitation. Due to a total absence of soil, SESL Australia developed a highly specialised media comprising waste products destined for landfill. Plant trials were conducted to determine specifics to guarantee the >99% success rate of the diverse and sensitive plant communities.



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Sydney Olympic Park

Sydney Olympic Park **est. 2000 | Sydney, Australia**

2001 The UN Environment Program's Global | 500 Award for Environmental Excellence | 2000 Gold Banksia Award | Rivercare 2000 Gold Award | 2005 Energy Australia -National Trust Heritage Award | 2006 Energy Australia National Trust Heritage Awards

This ground-breaking project involved the significant improvement of the onsite soils, seeking out organic wastes and recycled crushed sandstone from across Sydney to develop suitable soils for the landscapes.

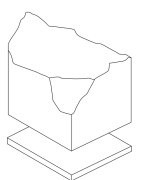
In addition, SESL implemented the concept of structural soils which were installed in tree pits to enable to establishment of mature trees in highly trafficked areas without causing compaction of tree roots.



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The World Islands

The World Islands

est. 2005 | Dubai, United Arab Emirates

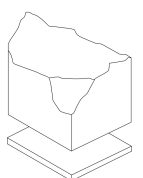
In Sydney's Innovation and Technology Precinct, the Atlassian Sydney Headquarters will be a 40-floor tower reaching 180 meters high, featuring a youth hostel on lower levels. The design combines timber, glass, and steel, creating a seamless indoor-outdoor space. Civil engineering aspects include stormwater connections, flood protection, and public domain coordination. The project prioritises stability and design elements like steel composite and timber. Approval from Transport for NSW was required due to its location near Central Station. TTW, an approved engineering organization, oversees the project.



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OUR SCIENTISTS



Simon Leake BSc.Ag. (Hons I) CPSS RH
Director of Science

Simon Leake is the Director of Science and Founder of SESL Australia, having founded the company in 1984. As Director of Science, Simon mentors the SESL Australia Science Team in the objective application of soil science to solve our clients' problems. Simon is an expert in soil & vegetation rehabilitation, including across mine sites and urban renewal projects. He is a Certified Professional Soil Scientist and expert witness in legal matters related to soil, waste and composting sciences.



Owen Guy BScAg (Hons I) SSA
Soil Science Manager

Owen brings a diverse range of skills in soil management obtained from a degree in Agriculture and 5 years of project experience, providing advice specific to each site material, soil type and desired end use. Owen has extensive experience in managing a range of projects, providing soil science advice across all stages (inception, design, construction, supervision, validation and sign off) ensuring the best outcome is achieved. In 2023, Owen was promoted to the position of Soil Science Manager, leading SESL Australia's Soil Science team in delivering high quality results for our clients. Historically, Owen has provided advice on a range of high profile global projects, including King Salman Park in Saudi Arabia, Western Sydney Airport and a large number of the freeways and tunnels built in Sydney.



Samantha Grant-Vest BEnv SSA MAIH
Environmental, Resource Recovery & Horticulture Manager

Samantha holds numerous senior management roles at SESL Australia. As Environmental Science Manager, she has extensive experience in contaminated lands assessments. In her role as Resource Recovery Manager, Samantha works closely with clients and environmental regulators to identify solutions for re-use of organic wastes to improve soils and plant health. A senior horticulturist in the media industry for ten years; nursery manager for four years and providing horticultural support for SESL's clients for 7 years, Samantha is also heading the new Horticultural Department at SESL Australia. Samantha will be providing SESL Australia's clients with horticultural expertise to support their urban horticulture and landscaping projects.

Michael Fox BSc Geosc (Hons)
Soil Scientist (Vic)



Michael joined SESL in 2024 with over 15 years of experience in the mining industry as a Geologist, having worked across every Australian state in commodities ranging from oil and gas to coal, lithium, and gold. His extensive background encompasses work on offshore oil rigs, large open-cut and underground mines, and in a city-based environmental consultancy, equipping him with the skills to engage with diverse stakeholders and clients. Known for his ability to build and foster relationships from initial connections to well-established partnerships, Michael takes pride in this interpersonal strength. He has led large-scale geological projects, demonstrating his aptitude for managing complex initiatives with multiple stakeholders—a challenge he embraces. Eager for this new career pivot into soil science, Michael brings a wealth of technical expertise in earth sciences and looks forward to growing and delivering in the consultancy space at SESL.

Annalise Grieve BEnv
Environmental Scientist



Annalise joined SESL Australia in 2022 after completing her Bachelor of Environmental Science. She quickly excelled in external data management, client services, and project contributions. Notably, she led the company's online rebranding and client-facing presentation, and played a key role in developing SESL's retail soil kits. Transitioning to consulting, Annalise broadened her expertise in Resource Recovery, demonstrating skills in various areas such as VENM and ENM Assessments, waste-to-land applications, and soil resource assessments. Her proficiency extends to sportsfield maintenance, landscaping assessments, validation assessments, soil specification design, and QA/QC compliance. Annalise's diverse skill set also covers horticultural assessments, water quality monitoring, and contamination assessments, making her a valuable asset to SESL Australia in the field of environmental science.

Kate Tamlyn BScAg (Hons I)
Soil Scientist



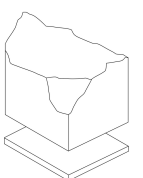
Kate is a Graduate Soil Scientist who joined SESL in 2025. She completed a Bachelor of Agricultural Science at the University of Sydney in 2020 and has industry experience as a cotton classer, providing her with practical insight into agricultural systems. Kate brings a fresh perspective and a strong interest in environmental consulting, and is committed to applying her knowledge while continuing to develop her skills as part of the SESL team.



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