







The Sustainable Communities and Waste Hub (SCaW) is led by UNSW as part of the second phase of the National Environmental Science Program (NESP). The program has four multi-disciplinary research hubs as part of a long-term commitment by the Australian Government to deliver co-designed environment and climate research, bringing scientists together with Traditional Owners, land managers, policy makers and government and non-government organisations.



Achieving our vision

SCaW is enabling a systemic response to Australia's waste and pollution challenges by integrating key research fields. Governance, community participation and Indigenous knowledge underpin our approach. The Hub is co-creating actionable knowledge, methods, tools and data for transformation towards circular economies and better environments.

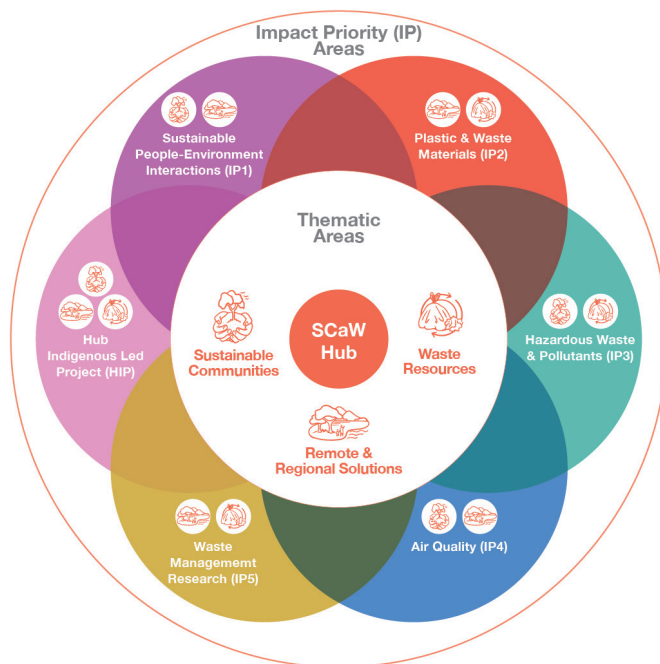
Ultimate vision	Sustainable Communities and Waste Impact Management Healthy, resilient, connected and prosperous urban, regional, remote and Indigenous communities with reduced impact on the environment					
SCaW hub objectives	Circular Economy Transformation Co-create actionable knowledge, decision tools, methods and data for transformation towards circular economies and better environments in Australian cities and regions. Jobs and thriving communities, value from waste, reduced environmental impact					
Priority Impact Areas	 Sustainable People-Environment Interactions	 Reduced Impact of Plastics and Other Materials	 Management of hazardous waste, substances and pollutants	 Improved Air Quality, Forecasting and Assessment	 Waste Impact Management Research	 Hub Indigenous-led Project
Capabilities and engagement	Behaviour change, Human-nature connection, Liveability, Informing policy, Understanding microplastics, Recycling solutions, Waste technologies, Socio-technical systems, Manufacturing, Industry and research, Community co-creation, SDGs, Indigenous knowledge & engagement, Industrial ecology, Circular economy					

Research Impact Priorities and Projects

The **Hub Indigenous Led Project (HIP)** aims at harvesting invasive native and introduced species of plants from landscapes as part of restoring the health and identity of the natural environment with regional and remote communities; using both plant and plastic wastes for remanufacturing.

Sustainable People–Environment Interactions (IP1) explores links between human wellbeing and environmental and ecosystem health.

Reduced Impact of Plastics and Other Materials (IP2) investigates approaches to reduce the impact of plastics and other waste materials.



Management of hazardous waste, substances and pollutants (IP3) generates high-quality data to assist safe recovery and reuse of resources obtained from wastes.

Improved Air Quality, Forecasting and Assessment (IP4) explores how to reduce air pollution and its impacts in Australia.

Waste Impact Management Research (IP5) provides information, data and management tools to support the repurposing of waste, the circular economy and community-based resource recovery, including opportunities in Indigenous communities.

Project snapshot

IP Area	Project	Sub-project	Research Themes
IP1	IP1.04	IP1.02.01 Nature Connections 🇦🇺 🔄 (RL, CS & MaC Hubs)	sc rrs
		IP1.02.02 Water sensitive and liveable communities 🇦🇺	sc rrs
IP2	IP2.04	IP2.02.01 Understanding microplastics 🔄 (MaC Hub)	sc wr
		IP2.02.02 Finding fit for purpose technological recycling solutions for regional and remote communities across Australia 🇦🇺	sc wr rrs
IP3	IP3.04	IP3.02.01 Quantifying mass and potential release of chemicals of potential concern in our wastes and recovered resources	wr
IP4	IP4.04	IP4.02.01 Let's Yarn about Smoke 🇦🇺	sc rrs
		IP4.02.02 How will a changing climate and emissions reduction measures impact sources of air pollution and secondary pollutant formation? 🔄 (CS Hub)	sc rrs
		IP4.02.03 Wood heaters: developing and testing novel solutions to a persistent problem	sc rrs
		IP4.02.04 Evaluation of interventions to reduce air pollution in safe havens and use of Low-Cost Sensors to identify areas of concern	sc rrs
IP5	IP5.04	IP5.04.01 Metrics, data and indicators for material flow and stocks, waste and emissions to monitor progress of Australia's circular economy transition	wr
		IP5.02.02 Exploring opportunities for increasing value recovery from used tyres and conveyor belts in WA	sc wr rrs
		IP5.02.03 Governing community-based waste management and resource recovery and circular economy initiatives	wr rrs
		IP5.02.04 Identifying opportunities from waste management and resource recovery and the circular economy for indigenous communities and businesses 🇦🇺	wr rrs
HIP	HIP.04	HIP.04.01 Remanufacturing Plant and Plastic Wastes in Regional and Remote Communities 🇦🇺	sc wr rrs

🇦🇺 : Indigenous engagement 🔄 : Cross hub collaboration

sc : Sustainable Communities wr : Waste Resource rrs : Remote & Regional Solutions

Join our mailing list:

