



# **Environmental research**

ANSTO conducts and enables inter-disciplinary research using nuclear and isotopic techniques to address some of Australia's and the world's most challenging environmental problems.



ANSTO environmental research focuses on on water resource sustainability, environmental change, and the impact of contaminants.

We are committed to training early career researchers from Australia and overseas in the application of nuclear techniques to study environmental systems, as well as developing new research tools and products.

ANSTO undertakes partnerships and collaborations with industry and other eminent research and science organisations, and provides advice to all levels on government on environmental issues.

## Our priorities and programs

### Water resource sustainability

ANSTO environmental research is contributing to sustainable management of water resources. Our studies quantify past and present rates of recharge to key water resource regions.

Using nuclear techniques and isotopic tracing analysis, we provide water resource managers with robust scientific information on water quality and the sustainability of groundwater, surface water and aquatic ecosystems.

#### **Environmental change**

ANSTO is undertaking research that is building Australia's capacity to respond to environmental and climate change by improving our knowledge of the spatial and temporal scales of both past and modern change.

Our studies focus on past climate variability, ocean circulation, the global carbon cycle, landscape evolution and degradation, and other human impacts including past migration patterns.

Our capabilities include isotopic tracing analysis, geochemical and biological techniques, radon measurements and environmental radioactivity measurements.

### **Contaminant impacts**

ANSTO's expertise enables us to identify and quantify the mechanisms which influence the movement of contaminants in soils and the atmosphere, estimate emissions, and assess the interaction of contaminants with ecosystems and human populations.

Our capabilities include isotopic tracing and analysis, geochemical and biological techniques, fine particle analysis, and radon measurement.

For more information on ANSTO's environmental research contact Dr Henk Heijnis at henk.heijnis@ansto.gov.au

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