

The Knowledge Strategy sets priorities for the knowledge needed by the Office of Environment and Heritage (OEH) to support NSW Government and corporate objectives. *Pollution* is one of six 'knowledge themes' in the Knowledge Strategy



**Knowledge goal: Reduce the risks of harm from pollution to human health and the environment while protecting, restoring and enhancing the quality of the environment**

In 2012, the NSW Environment Protection Authority (EPA) was re-established as an independent authority. The EPA regulates activities that can affect human health and the environment. OEH provides research, expert advice and technical services to the EPA.

### Outcomes

The *Pollution* knowledge theme aims to provide knowledge to:

- encourage and work with business and industry to minimise pollutant emissions and develop cleaner technologies
- support the development of effective regulatory and policy tools to help minimise pollution
- continue to optimise the use of knowledge on all aspects of pollution
- inform statutory review processes.

## Major OEH programs to address priority knowledge needs

### Monitor air quality and analyse particle emissions

- OEH monitors air quality in NSW through a network of monitoring stations across the state. The Air Quality Index ([www.environment.nsw.gov.au/AQMS/aqi.htm](http://www.environment.nsw.gov.au/AQMS/aqi.htm)) is updated every hour.
- Increased air quality monitoring and reporting are targets for the NSW Government. OEH will continue to publish monitoring data and will establish new monitoring stations as needed for the air quality monitoring network.
- OEH is working with the CSIRO and the Australian Nuclear Science and Technology Organisation to evaluate the composition and assess the sources of air-polluting particles. This information will give the EPA better information to regulate particle emissions across NSW.

### Minimise pollutant emissions and develop cleaner technologies

- OEH and the EPA are identifying ways to increase the recycling of waste products using alternative waste treatment technologies. Research includes understanding the long-term impacts of the material from waste facilities on human and environmental health.
- OEH is improving existing ecotoxicity tests and developing new tests.

### Improve tools and resources to minimise pollution

- OEH and the EPA provide expert scientific and technical advice to revise national guidelines for pollutants and polluting activities. This advice supports the National Environment Protection Council, National Industrial Chemicals Notification and Assessment Scheme, and the National Measurement Institute.
- OEH and the EPA assess the potential risks to human health and the environment from chemicals, pollution and contaminated land. This is critical to improve compliance activities and regulatory outcomes.



# Opportunities to collaborate with OEH

OEH seeks collaborators and/or funding to address the following priority knowledge needs.

## Understand activities that cause pollution and types of pollutants from activities

- Develop new or improved tools to measure, identify and determine the source and concentration of pollutants.
- Study potential sources and impacts of non-traditional or emerging pollutants and polluting processes.
- Investigate cost-effective technologies (including maintaining and developing expertise and skills) to control and mitigate pollution.
- Understanding the impacts of alternative waste treatment technologies on the environment and human health.

## Understand how to determine the risk of unacceptable impacts to human and environmental health

- Increase information to help predict future impacts of pollutants and polluting processes, including cumulative impacts or impacts that occur well after exposure to pollution.
- Update and develop tools, decision-support systems and chemical analyses to estimate risks, and to prioritise and support management options.
- Create or update guidance for the sampling and measurement of pollutants.

## Understand what drives and influences behaviour

- Improve understanding of the factors that influence the behaviour and expectations of the regulated community, to reduce red tape, manage expectations and increase uptake of policies.

## More information

**Email:** [knowledge.strategy@environment.nsw.gov.au](mailto:knowledge.strategy@environment.nsw.gov.au)

**Visit:** [www.environment.nsw.gov.au/knowledgestrategy](http://www.environment.nsw.gov.au/knowledgestrategy)

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Below: D. Elmes/OEH

