

Environment Protection Authority

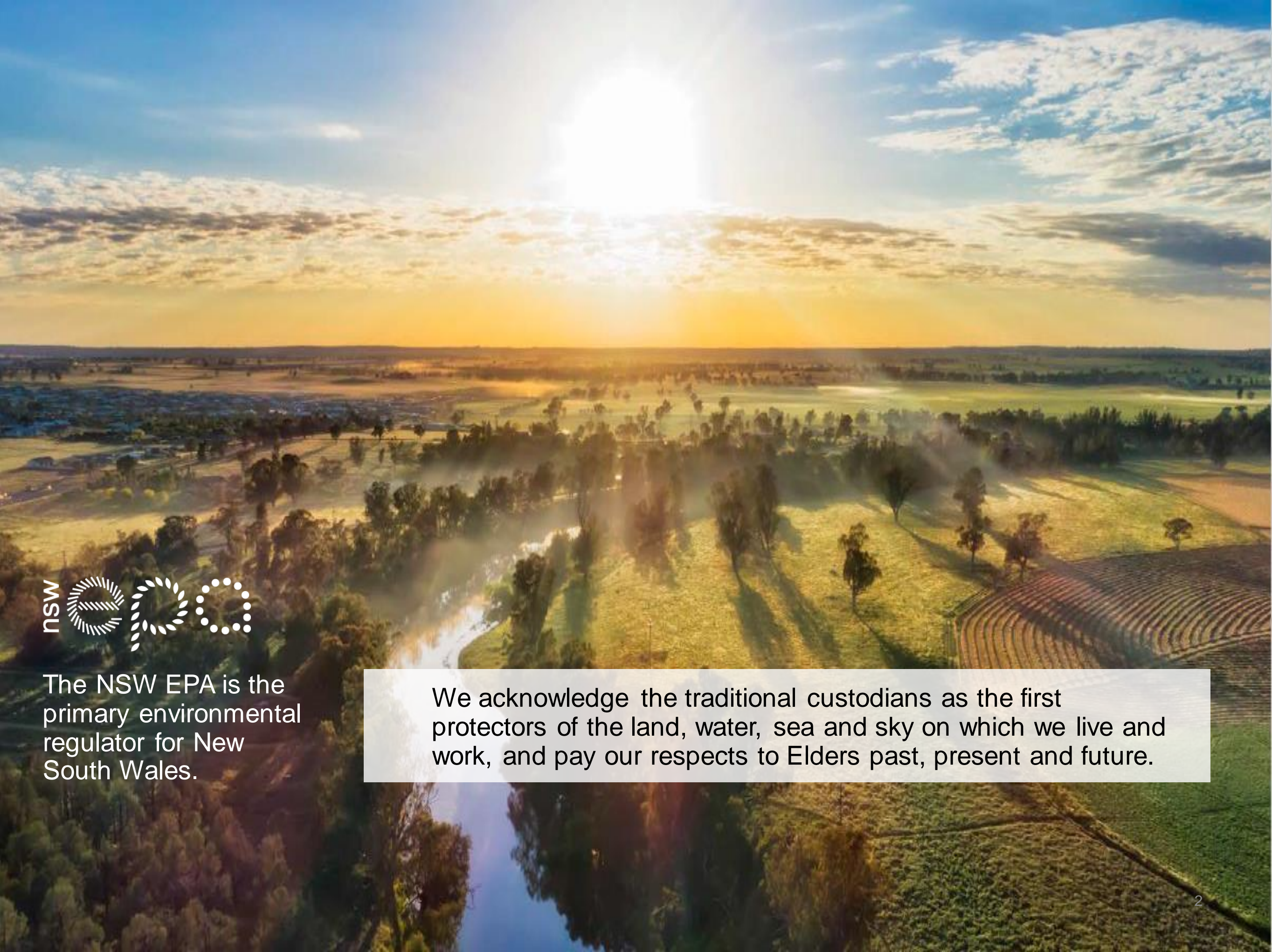
Battery Safety and Recycling Initiatives in NSW

Australian Battery Recycling and
Manufacturing Summit

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Regulatory Practice and Services

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The NSW EPA is the primary environmental regulator for New South Wales.

We acknowledge the traditional custodians as the first protectors of the land, water, sea and sky on which we live and work, and pay our respects to Elders past, present and future.

Overview

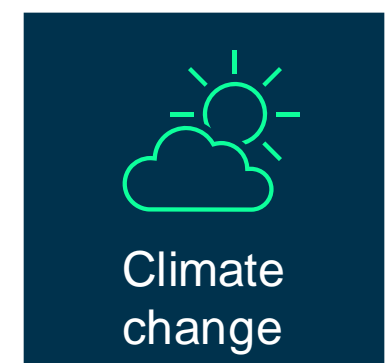
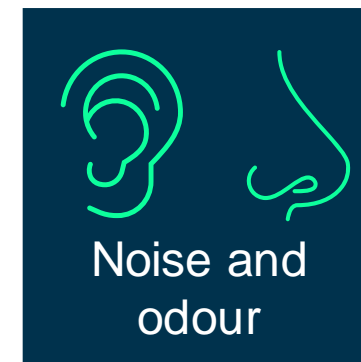


- The NSW EPA and environmental stewardship
- Our role as a regulator of batteries as dangerous goods
- Initiatives and programs to support battery recovery and recycling
- Circular economy – looking forward and opportunities

The NSW EPA and environmental stewardship



- NSW EPA is the primary environmental regulator for NSW
- Past focus has been to react to environmental harms using prescriptive regulation
- Today's complex problems need proactive, holistic solutions
- Increasing focus on environmental stewardship



- Our role as a regulator of batteries as dangerous goods



Lithium batteries as a transportation risk

- Lead acid batteries are well understood, and are handled by established processes
- Lithium batteries are an emerging, much more challenging task
- The Australian Dangerous Goods (ADG) Code includes a prescriptive set of rules for the transport of lithium batteries
 - When lithium batteries are transported they need to comply with the ADG Code
 - Appropriate and practical controls help to support safe transport
 - The ADG Code is derived from the UN Model Regulations on dangerous goods transport

Challenges for dangerous goods regulators

Changing battery mix

- Lithium battery growth presents a significant challenge for regulators
- Batteries present a different risk profile to other dangerous goods

Practices in dangerous good transport of batteries

- Historically lithium and non-lithium batteries have been consolidated together
- We are considering whether this practice should be discouraged
- The ADG Code has provisions for damaged and defective batteries:
 - These batteries present a much higher risk
 - Separating these batteries out reduces the risk of incidents spreading to other batteries

What is the EPA doing in this area?



Understanding the problems

Working to understand the challenges for consolidators, transporters and processors of batteries



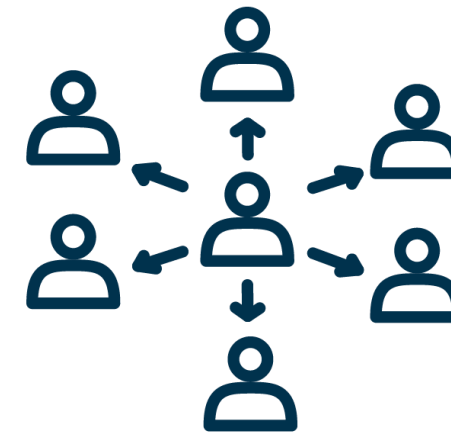
Education and advice

Assessing how education and advice can support more effective transport and better environmental outcomes



Developing guidance

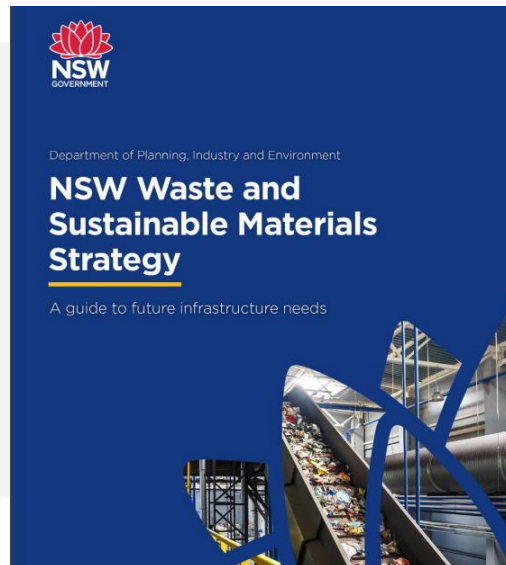
Developing new guidance materials to support more effective transport for batteries – when new and for disposal



Initiatives and programs to support battery recovery and recycling



Battery programs and initiatives



The *Waste and Sustainable Materials Strategy* supports programs and circular economy for batteries in NSW

Battery collection and recycling services are supported by the NSW EPA through:

- The Household Chemical CleanOut program
- Community Recycling Centres (CRC) program
 - The Circular Solar Fund

Promoting collection and recycling



Household Chemical CleanOut Program

- CleanOut program commenced in 2003
- The EPA hosts pop-up events across the Greater Sydney area, including Sydney, Hunter & Central Coast and Illawarra & Shoalhaven regions
- Free service for household problem waste, including household and car batteries

Community Recycling Centres (CRC) Program

- Community Recycling Centres (CRCs) were introduced to fund and support permanent waste processing facilities
- CRCs are typically run by council and accept household problem waste for recycling
- 100 CRCs operate across NSW



Outcomes

- ✓ CleanOut and CRC programs have funded 685+ tonnes of battery collection and recycling, plus 1,975 tonnes of car battery collection
- ✓ CleanOut and CRC are accredited collection events and centres under the scheme

Circular Solar Fund



- \$10 million fund for projects that support solar panel and large battery storage collection
- Projects funded will provide 10,000 tonnes of additional annual recycling capacity
- Two successful projects will support new infrastructure for lithium-ion battery recycling in NSW

Circular Economy – Looking forward and opportunities



Emerging waste challenge

- Emerging challenges with fire risks and lithium-ion batteries
- 114 lithium battery related fires occurred in the first six months of 2023
- Lithium-ion battery waste across Australia may grow from 5,290 tonnes to ~162,000 tonnes by 2036
- Primary focus to address the risk to safety and our waste systems



Battery disposal awareness campaign



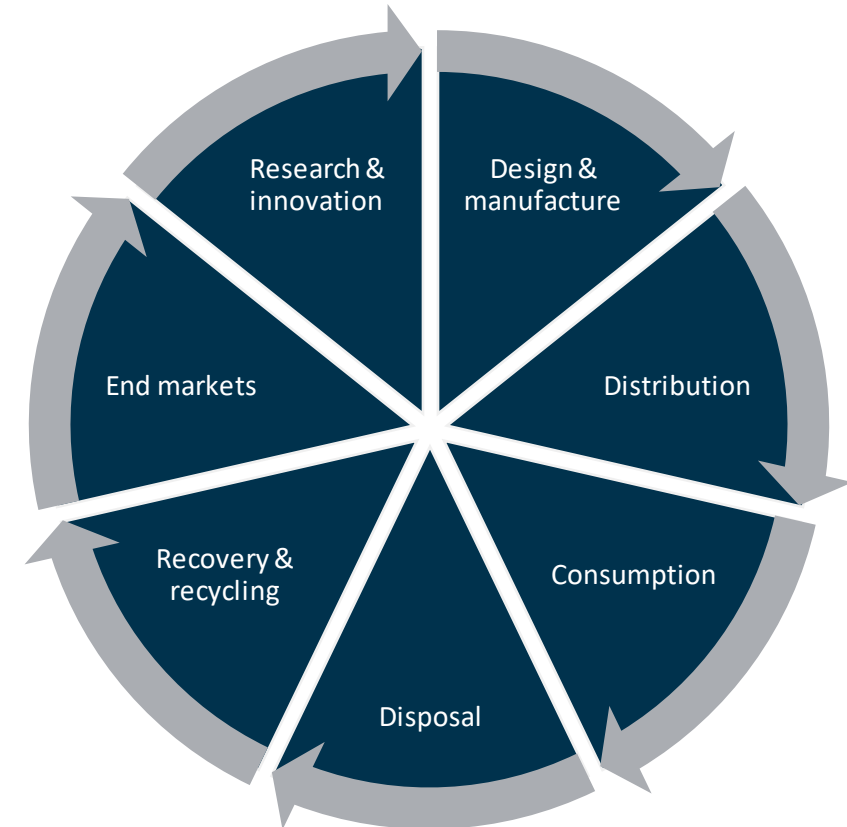
- Campaign launched in response to surge in battery fires
- Boosting awareness of the risks of battery waste
- NSW EPA social media campaign encourages correct disposal at recycling drop-off points



Rethinking our approach to problem waste



- Focusing on maximising circularity of batteries in NSW
- Efforts are guided by collaboration with industry and government stakeholders
- Product stewardship schemes as one model, but need to consider other approaches



Questions & Answers

