Appendix A: Brief Provided to Author by the EDO

See attached pages.



10 November 2020

Professor Penny D Sackett
Penny D Sackett Strategic Advisory Services

By email: pd.sackett@gmail.com

CONFIDENTIAL AND PRIVILEGED

Dear Professor Sackett

Bushfire Survivors for Climate Action Incorporated (INC1901160) v Environment Protection Authority (NSWLEC proceedings 2020/00106678)

- We act for Bushfire Survivors for Climate Action (BSCA). BSCA is a group of bushfire survivors, firefighters and local councillors based in NSW, who have joined together with the objective of seeking immediate meaningful action from the NSW and Commonwealth governments to address the impacts of climate change within Australia.
- 2. BSCA has filed proceedings in the NSW Land and Environment Court (**Court**) seeking to require the NSW Environment Protection Authority (**EPA**) to:
 - a) develop environmental quality objectives, guidelines and policies to ensure environment protection; and
 - b) develop draft policies in accordance with Chapter 2 of the *Protection of the Environment Operations Act 1997* (**POEO Act**) to ensure environment protection; in relation to climate change impacts in NSW.
- 3. Section 9 of the *Protection of the Environment Administration Act* 1991 (**POEA Act**) relevantly states that the EPA is "required" to "develop environmental quality objectives, guidelines and policies to ensure environment protection". Our client is concerned at the apparent lack of any EPA "environmental quality objectives, guidelines and policies" to address climate change.
- 4. Since at least 1998, when Australia signed the Kyoto Protocol, it is arguable that the EPA has been on notice and has had knowledge of the danger created by human-induced greenhouse gas emissions which cause climate change. Consequently, it is arguable that the EPA has long had knowledge of the irreversible damage to the environment of NSW which will occur if annual average global temperatures continue to increase.
- 5. In our client's view, the duty imposed upon the EPA by s 9 of the POEA Act requires the EPA to address climate change and its impacts to ensure the protection of the environment and the people of NSW. The EPA's failure to develop any objectives, guidelines or policies to address this critical issue is a breach of the EPA's statutory duty.

T +61 2 9262 6989 F +61 2 9264 2414 E info@edo.org.au W edo.org.au Level 5, 263 Clarence St, Sydney NSW 2000 ABN 72 002 880 864 6. Our client wishes to retain your services to act as an expert witness, including preparing an expert report and appearing as an expert witness in legal proceedings, to assist the Court impartially on matters relevant to climate change science.

Proceedings/Legal Context

- 7. As a preliminary matter, please note that you are not permitted to express an opinion on any question of law in your report and that your report should confine itself to the relevant issues of fact within your area of expertise. However, you need to understand the legal context of this case to understand the relevant questions of fact on which the Court requires your assistance.
- 8. The EPA is the primary environmental regulator for New South Wales. The EPA was established in 1991 under the POEA Act.
- 9. The explanatory note to the *Protection of the Environment Administration Bill 1991 (No 2)* (**POEA Bill**) states that one of the objects of the POEA Act was to establish the EPA. This is confirmed in s 4 of the POEA Act, which sets out the objects of the POEA Act. Section 4 states that the object of the POEA Act is also to "require the [EPA] to perform particular tasks in relation to the quality of the environment".
- 10. We note that the EPA was created, in part, in response to the recognition of environmental issues of global importance, including climate change, following on from the 1987 Brundtland report.¹ This is noted in the Second Reading Speech for the POEA Bill dated 16 October 1991 at p 2268 [4.33].
- 11. The objectives of the EPA (as referred to in the definition of "environment protection") are set out in s 6.

6 Objectives of the Authority

- (1) The objectives of the Authority are:
 - (a) to protect, restore and enhance the quality of the environment in New South Wales, having regard to the need to maintain ecologically sustainable development, and
 - (b) to reduce the risks to human health and prevent the degradation of the environment, by means such as the following:
 - promoting pollution prevention,
 - adopting the principle of reducing to harmless levels the discharge into the air, water or land of substances likely to cause harm to the environment,
 - minimising the creation of waste by the use of appropriate technology,
 - regulating the transportation, collection, treatment, storage and disposal of waste.
 - encouraging the reduction of the use of materials, encouraging the re-use and recycling of materials and encouraging material recovery,

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¹ Report of the World Commission on Environment and Development: Our Common Future Transmitted to the General Assembly as an Annex to document A/42/427 - Development and International Cooperation: Environment

- adopting minimum environmental standards prescribed by complementary Commonwealth and State legislation and advising the Government to prescribe more stringent standards where appropriate,
- setting mandatory targets for environmental improvement,
- promoting community involvement in decisions about environmental matters,
- ensuring the community has access to relevant information about hazardous substances arising from, or stored, used or sold by, any industry or public authority,
- conducting public education and awareness programs about environmental matters.
- (2) For the purposes of subsection (1) (a), ecologically sustainable development requires the effective integration of social, economic and environmental considerations in decision-making processes. Ecologically sustainable development can be achieved through the implementation of the following principles and programs:
 - (a) the precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be quided by:
 - (i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and
 - (ii) an assessment of the risk-weighted consequences of various options,
 - (b) inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,
 - (c) conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,
 - (d) improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:
 - (i) polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,
 - (ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,
 - (iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.
- 12. Chapter 2 of the POEO Act, empowers the EPA to develop draft policies designed to ensure environmental protection.
- 13. Pursuant to ss 6 and 55 of the POEO Act, the EPA is the regulatory authority responsible for granting environment protection licences which authorise the carrying out of activities identified in Schedule 1 of the POEO Act, including, but not limited to, "mining for coal" and "petroleum exploration, assessment and production".

- 14. On 26 October 2020, BSCA was granted leave to adduce expert evidence at trial directed to the following areas:
 - a) Unregulated release of greenhouse gases is the greatest threat to the environment and people of NSW, as anthropogenic climate change has the potential to adversely and irreversibly alter all aspects of the natural environment.
 - b) To what extent have anthropogenic greenhouse gas emissions caused a long-term increase in extreme fire weather and in the length of the fire season, across Australia and how that would impact on the environment of New South Wales.
 - c) Whether and why the world is or is not on target to achieve a global temperature rise of no more than 1.5 degrees Celsius above pre-industrial levels and how that would impact on the environment of New South Wales.
 - d) Whether and why the current emissions reduction trajectory for Australia is or is not in line with and appropriate to limiting global temperature rise to no more than 1.5 degrees Celsius above pre-industrial levels and how that would impact on the environment of New South Wales.
 - e) Whether and why the current emissions reduction trajectory for New South Wales is or is not in line with and appropriate to limiting global temperature rise to no more than 1.5 degrees Celsius above pre-industrial levels and how that would impact on the environment of New South Wales.
 - f) Whether or not (and why) the objectives, guidelines and policies identified by the Respondent:
 - regulate or reduce direct and indirect sources of greenhouse gas emissions in a manner consistent with global temperature rise being limited to 1.5 degrees Celsius from pre-industrial levels; and
 - ii. are fit for purpose in protecting or mitigating against the threat posed by climate change to the quality of the environment and the people of New South Wales.
- 15. Your expert advice is sought to assist the Court in relation to the issues identified in paragraph 14.

Duty to the Court

- 16. Our client seeks to retain you to act as an expert witness in relation to the proceedings. Your role as an expert witness is to assist the Court impartially on matters relevant to your area of expertise. You are not to act as an advocate for our clients and any opinion expressed must be genuinely held by you based on your professional training, knowledge, or experience.
- 17. In this respect, we draw your attention to Division 2 of Part 31 of the *Uniform Civil Procedure Rules 2005* (**UCPR**), and the Expert Witness Code of Conduct (**Code of Conduct**) contained in Schedule 7 of the UCPR, both of which govern the use of expert evidence in the Court. Your expert evidence must conform with the Code of Conduct.
- 18. In particular, we note that clause 2 of the Code of Conduct states that:

"An expert witness is not an advocate for a party and has a paramount duty, overriding any duty to the party to the proceedings or other person retaining the expert witness, to assist the court impartially on matters relevant to the area of expertise of the witness."

19. Please read those documents carefully before you commence the work requested. Your expert report must contain an acknowledgment that you have read the Expert Witness Code of Conduct under the UCPR and that you agree to be bound by it. Otherwise your report will be inadmissible as evidence.

Overview of the Work Required

- 20. The work we require involves the following:
 - a) review any relevant documentation;
 - b) prepare a written expert report that conforms with the Code of Conduct and addresses questions that will be provided to you in a supplementary expert brief;
 - c) review any expert report(s) provided by the Respondent, if required;
 - d) confer with the Respondent's expert(s) at a joint conference(s) and prepare a joint report, which sets out the matters agreed, matters disagreed, and the reasons for agreement and disagreement as a result of the joint conference(s), if required; and
 - e) appear as an expert witness in the Court, if required.
- 21. We request that you provide us with a draft of your report for review before finalising it. We emphasise that the purpose of this is not to influence the conclusions or recommendations you make but to ensure that the language and expression of the report is clear and complies with the formal legal requirements of an expert report.
- 22. Please let us know as soon as possible if you require further information for the purpose of giving your expert opinion.

Relevant Documents

- 23. We provide the following documents for your consideration:
 - a) UCPR and Code of Conduct (**Tab 1**);
 - b) BSCA Summons, 8 April 2020 (**Tab 2**);
 - c) BSCA Amended Summons, 8 May 2020 (**Tab 3**);
 - d) EPA Response to BSCA Amended Summons, 5 June 2020 (Tab 4);
 - e) BSCA Notice to Admit Facts, 11 June 2020 (**Tab 5**);
 - f) EPA Notice Disputing Facts, 25 June 2020 (**Tab 6**);
 - g) EPA letter accompanying EPA Notice to Dispute Facts, 25 June 2020 (**Tab 7**);
 - h) Affidavit of David Fowler, 28 August 2020 (**Tab 8**);
 - i) BSCA Tender Bundle (**Tab 9**);
 - j) EPA Tender Bundle (**Tab 10**);
 - k) BSCA Tender Bundle in reply (**Tab 11**);
 - l) Short Minutes of Order granting BSCA leave to adduce expert evidence, including Amended areas of expert evidence, 26 October 2020 (**Tab 12**).

Expert Report Requirements

24. Your expert report will be used as evidence in chief of your professional opinion. Information which you believe the Court should be aware of must be contained in your expert report. Whilst you may be able to clarify matters contained in your report at a later date, this is unlikely to extend to the provision of new information.

- 25. In providing your opinion to the Court you must set out all the assumptions upon which the opinion is based. This may include, for example, facts observed as a result of field or lab work or 'assumed' facts based on a body of scientific opinion. If the latter, you should provide references which demonstrate the existence of that body of opinion.
- 26. Your expert report must also set out the process of reasoning which you have undertaken in order to arrive at your conclusions. It is insufficient for an expert report to simply state your opinion or conclusion reached without an explanation as to how this was arrived at. The purpose of providing such assumptions and reasoning is to enable the Court and experts engaged by other parties to the proceedings to make an assessment as to the soundness of your opinion.
- 27. Division 2, Part 31 of the UCPR Rules sets out information that your report must contain, such as:
 - a) your qualifications;
 - b) the facts, and assumptions of fact, on which the opinions in the report are based and your reasons for each opinion expressed;
 - c) if a particular issue falls outside your area of expertise, clear acknowledgement that it falls outside your field of expertise;
 - d) any literature or other materials utilised in support of the opinions;
 - e) details of any examinations, tests or other investigations on which you have relied; including details of the qualifications of the person who carried them out;
 - f) a brief summary of the report;
 - g) if you believe that the report may be incomplete or inaccurate without some qualification, the qualification must be stated in the report;
 - h) If you consider that your opinion is not a concluded opinion because of insufficient research or insufficient data or for any other reason, this must be stated when the opinion is expressed; and
 - i) If you change your opinion on a material matter after providing an expert's report to us, you must provide us with a supplementary report to that effect.
- 28. Please format your report as follows:
 - a) Address your report to the Court;
 - b) Sign and date your report;
 - c) Include a summary of your qualifications and experience as an appendix to your report;
 - d) Use 12 point type and at least 2cm page margins;
 - e) Supply a PDF version of your report for printing and binding;
 - f) Number each paragraph of your report;
 - g) Number all pages, including attachments and annexes, continuously from the first page to the last page (excluding any cover page to your report); and
 - h) Annex this letter of instruction to your report.

Timing

29. The matter is currently listed for a directions hearing on Friday, 20 November 2020. We anticipate that dates for the provision of expert evidence and a hearing date will be determined at that directions hearing.

30. We will provide further information on any expert reporting requirements and hearing dates as they become available.

Fees and Terms

- 31. Thank you for agreeing to provide your advice in this matter on a pro bono (volunteer) basis. EDO relies on experts such as you to assist in matters with very little financial compensation and we thank you for agreeing to provide this advice.
- 32. Please note the following terms:
 - a) your work will only be used by EDO to assist our client;
 - b) EDO will take all reasonable steps to prevent your work being used for purposes other than that mentioned above, but we accept no responsibility for the actions of third parties;
 - c) regardless of the above points, EDO may choose not to use your work; and
 - d) you will not be covered by the EDO's insurance while undertaking the above tasks.

Duty of Confidentiality

- 33. Please treat your work as strictly confidential until your expert report is provided to other parties and the Court, unless authorised by us.
- 34. If you would like to discuss this brief further, please contact the author on (02) 9262 6989 or email matthew.floro@edo.org.au.
- 35. We are grateful for your assistance in this matter.

Yours sincerely

Environmental Defenders Office

Matt Floro

Our Ref: 1926923

Senior Solicitor

Appendix B: Amended Areas of Expert Evidence

See attached page.

"A1"

ANNEX A TO THE FURTHER AMENDED NOTICE OF MOTION

Amended aAreas of expert evidence

- Unregulated release of greenhouse gases is the greatest threat to the environment and people of NSW, as anthropogenic climate change has the potential to adversely and irreversibly alter all aspects of the natural environment.
- 2. To what extent have anthropogenic greenhouse gas emissions caused a long-term increase in extreme fire weather and in the length of the fire season, across Australia and how that would impact on the environment of New South Wales.
- 3. Whether and why the world is or is not on target to achieve a global temperature rise of no more than 1.5 degrees Celsius above pre-industrial levels and how that would impact on the environment of New South Wales.
- 4. Whether and why the current emissions reduction trajectory for Australia is or is not in line with and appropriate to limiting global temperature rise to no more than 1.5 degrees Celsius above pre-industrial levels and how that would impact on the environment of New South Wales.
- 5. Whether and why the current emissions reduction trajectory for New South Wales is or is not in line with and appropriate to limiting global temperature rise to no more than 1.5 degrees Celsius above pre-industrial levels and how that would impact on the environment of New South Wales.
- 6. Whether or not (and why) the objectives, guidelines and policies identified by the Respondent:
 - (a) regulate or reduce direct and indirect sources of greenhouse gas emissions in a manner consistent with global temperature rise being limited to 1.5 degrees Celsius from preindustrial levels; and
 - (b) are fit for purpose in protecting or mitigating against the threat posed by climate change to the quality of the environment and the people of New South Wales.

Appendix C: Curriculum Vitae of Author

See attached pages.

Curriculum Vitae PENNY D. SACKETT

Academic Address:

Private Business Address:

Climate Change Institute

Dr Penny D Sackett

Australian National University

Strategic Advisory Services

Frank Fenner Building, Linnaeus Way

Canberra, ACT 2601

Penny.Sackett@anu.edu.au

www.pennysackett.com

Born: 28 February 1956, Lincoln, Nebraska USA

Citizenship: U.S. and Australian Permanent Residence: Australia

Languages: English: Mother Tongue; Dutch: Good knowledge; Spanish: Beginner's knowledge

Education:

Ph.D. in Physics, University of Pittsburgh, PA, USA 1984 Thesis Title: Scale Parameters for Finite Temperature Actions of Lattice Gauge Theories Coupled to Fermions M.S. in Physics, University of Pittsburgh, PA, USA 1980 1978 B.S. in Physics, University of Nebraska-Omaha (UNO), NE, USA Teaching certification (K-12), Physics and Mathematics, UNO, USA 1978

Distinctions and Honours:

2019 2016 2014 2014	Distinguished Alumni Award, University of Pittsburgh, USA Omaha (USA) North High Magnet School "Viking of Distinction" Award UNO College of Arts and Sciences Outstanding Alumni Award Citation for Alumni Achievement: University of Nebraska-Omaha (UNO)
2011	Opening Keynote Speaker: 2011 Adelaide Festival of Ideas, SA, Australia
2005	Univ of Canberra-Australian National Univ International Women's Day Lecturer
2004	Finalist, Telstra ACT Business Women of the Year, ACT, Australia
2003	Fellow of the UK Royal Astronomical Society
	Election to the Society to honour a person eminent in the field of astronomy and not normally resident in the UK for leadership, enabling activities, etc
2002	Harley Wood Lecturer, Astronomical Society of Australia
2000	Athena Lecturer, St. Andrews University, Scotland
1998	University of Groningen Teaching Award (Onderwijsprijs), The Netherlands
1992-1994	J. Seward Johnson Fellow, Institute of Advanced Study, Princeton, NJ, USA
1981-1982	O.H. Blackwood Award for Excellence in Teaching, University of Pittsburgh, PA, USA
1979-1981	Andrew Mellon Fellowship, University of Pittsburgh, PA, USA
1978	Summa Cum Laude, University of Nebraska-Omaha, NE, USA
1978	Most Outstanding Physics Student, University of Nebraska-Omaha, NE, USA
1978	Most Outstanding Mathematics Student, University of Nebraska-Omaha, NE
1974-1978	Dean's List, University of Nebraska-Omaha, NE, USA
1974-1978	Nebraska Regent's Scholarship, University of Nebraska-Omaha, NE, USA
1974-1978	National Merit Scholarship, University of Nebraska-Omaha, NE, USA

Professional Society Membership

Astronomical Society of Australia International Astronomical Union Royal Astronomical Society

Professional Activity and Appointments

2020-current	Distinguished Honorary Professor (E3), Climate Change Institute, Australian National University, Canberra, Australia Community engagement, climate science synthesis and communication
2011-current	Strategic Scientific Advisor and Principal Penny D Sackett Strategic Advisory Services Sole trader assisting governments, business and other organizations with matters of science and sustainability
2014-2019	Honorary Professor, Climate Change Institute, Australian National University, Canberra, Australia Community engagement, science for policy, subnational climate change action
2008-2014	Academic Adjunct Professor, Research School of Astronomy and Astrophysics, Australian National University, Canberra, Australia Mentoring early career researchers
2008-2011	Chief Scientist for Australia, DIISR, Australian Commonwealth Government, Canberra, Australia Provision of independent, whole-of-government scientific advice, science advocacy, liaison with community, bureaucracy and state governments
2007-2008	Professor (Level E2), Research School of Astronomy and Astrophysics, Australian National University (ANU), Canberra, Australia Research, research training, and international research co-ordination
2002-2007	Director, Research School of Astronomy and Astrophysics, and the Mt. Stromlo and Siding Springs Observatories, ANU, Canberra, Australia Strategic leadership, budget, human & facility management, liaison, advocacy
2001-2002	Chaired Professor of (Extra)Galactic Optical/Infrared Astronomy, Kapteyn Astronomical Institute, University of Groningen, The Netherlands Research, research training, teaching, international program building
1998-2000	Associate Professor with tenure (Universiteits Hoofd Docent), Kapteyn Astronomical Institute, University of Groningen, The Netherlands Research, research training, teaching, international program building
2000	Visiting Member, Institute for Advanced Study, Princeton, NJ, USA (on leave from Kapteyn Institute 1999-2000 academic year) Research of international standing
1999	Visiting Scientist, Anglo-Australian Observatory, Epping, Australia (on leave from Kapteyn Institute 1999-2000 academic year) Research of international standing and international co-ordination
1995-1997	Assistant Professor with tenure (Universiteits Docent), 75% full time Kapteyn Astronomical Institute, University of Groningen, The Netherlands Research, research training, teaching, research program building
1995-1997	Visiting Research Member, School of Natural of Sciences, 25% full time Institute of Advanced Study, Princeton, NJ, USA Research of international standing
1992-1994	Research Member & J. Seward Johnson Fellow, School of Natural of Sciences, Institute of Advanced Study, Princeton, NJ, USA Self-directed research of international standing

1991-1992	Program Director, Education, Human Resources and Special Programs, Div of Astronomical Sciences, National Science Foundation, Washington, DC, USA Program management, cross-division initiatives, external liaison
1990-1992	Research Assistant Professor, Physics and Astronomy Department, University of Pittsburgh, PA, USA Self-directed research
1987-1990	Adjunct Assistant Professor, Physics and Astronomy Department, University of Pittsburgh, PA, USA Self-supported research post
1988-1989	Visiting Scientist, Kapteyn Astronomical Institute, University of Groningen, The Netherlands Self-directed independent research
1987	Scientific Writing Consultant, Pittsburgh Supercomputing Center (PSC), Pittsburgh, PA, USA Technical writing and editing
1986-1987	Research Associate, Biological Sciences Department, University of Pittsburgh, PA, USA Algorithm development and application to cellular activity
1985-1986	Visiting Assistant Professor, Physics and Astronomy Department, University of Pittsburgh, PA, USA University physics teaching
1983-1985	Visiting Assistant Professor, Physics Department, Amherst College, MA, USA University teaching in liberal arts setting
Summer 1983	Science Writer Intern, Science News Magazine, Washington, DC, USA Developing and writing science news stories

Supervision of Junior Researchers

Researcher name	Sackett Supervisory Capacity	Subsequent posting	
Paul Vreeswijk	1997 Honours Thesis Supervisor	Fellow, Weizmann Inst of Science, IL	
Jean Philippe Beaulieu	1996-98 Postdoctoral Supervisor	Director of Research, IAP, Paris, FR	
Martin Dominik	1997-99 Postdoctoral Supervisor	Reader, Univ of St Andrews, UK	
Richard Naber	PhD Thesis (Co-supervisor)	Left field before completion	
Scott Gaudi	2001 PhD Thesis (Co-supervisor)	Professor, Ohio State University, USA	
Eduard Westra	2003 Honours Thesis Supervisor	Industrial Data Analyist, NL	
Ulyana Dyudina	2004 Postdoctoral Supervisor	Assoc Scientist, Space Science Inst, USA	
Jelte de Jong	2005 PhD Thesis (Co-supervisor)	Researcher, University of Groningen, NL	
David Weldrake	2005 PhD Thesis Supervisor	Asst Director, M-D Basin Authority, AU	
Brandon Tingley	2006 PhD Thesis Supervisor	PostDoc, Aarhus University, DK	
Christine Thurl	2007 PhD Thesis Supervisor	Industrial Physicist, DE	
Thomas Evans	2008 Honours Supervisor	Research Fellow, Univ of Exeter, UK	
Daniel Bayliss 2009 PhD Thesis Supervisor		Asst Professor, Univ of Warwick, UK	
Karen Lewis	2011 PhD Thesis (Co-supervisor)	Postdoc, Earth Life Science Inst, JP	

Selected Major Experiences and Accomplishments

2015-present As Councillor and Chair of ACT Climate Change Council:

- Spearheaded recommendation for interim GHG emissions targets in the ACT
- With Prof. Will Steffen, introduced carbon budget approach into ACT policy-making
- Led Canberra's Climate-Fuelled Summer of Crisis Report

2011-present As Private Strategic Scientific Advisor:

- Foresight analyst for 2025 Strategic Plan of BASF, world's largest chemical producer
- Scientific Assessor for Queensland \$20m Smart Futures Fund
- Analyst and advisor to Australian multi-state Climate Action Roundtable
- Facilitator for ACT Government Climate Change Adaptation Needs Workshop

2008-2011 As Chief Scientist for Australia:

Commissioned four cross-disciplinary reports for Prime Minister's Council (PMSEIC):

Challenges at energy-water-carbon intersections
Australia and food security in a changing world
Transforming learning and the transmission of knowledge

- Epidemics in a changing world

 Founded Forum of Australian Chief Scientists
- Established two-way communication tools with Australian community

2002-2007 As Director, Research School of Astronomy and Astrophysics (RSAA)

- Managed University department and observatory staff of 100
- Responsible for annual budget of 6M AUD plus 4M AUD in 2nd & 3rd steam funds
- Oversaw rebuild of main campus of School after devastating 2003 bush fires
- Led national effort to establish next generation telescope access for Australia
- Established ANU Planetary Science Institute, joint venture with ANU Earth Sciences
- Initiated and carried out large change process at RSAA, managing mandated 29% increase in salary costs & 20% reduction in recurrent budget
- Spearheaded entry into two major international partnerships:

Giant Magellan Telescope (GMT) and Murchison Wide Field Array (MWA)

- Negotiated awards of two major instrument contracts: Gemini NIFS (II) and GSAOI
- Oversaw 80% increase in research publication rate, 50% growth in PhD student body, and increase in student completion rate while decrease in time to submission

1989-2010 As Scientific Researcher and Team Leader in USA, NL and Australia:

- Streamlined massive searches for transiting planets in the Milky Way
- Founded and Principal Investigator of the international PLANET Collaboration, managing collaboration of 20 scientists in 7 countries using 5 telescopes to set first limits for Jupiter-like planets around common dwarf stars, determine limb-darkening of distant stars for the very first time, and detect first terrestrial-mass (5-Earth mass) exoplanet around a normal star
- Determined 3-D distribution of dark matter around some galaxies
- Quantified relationship between structure and dark matter in Milky Way
- Determined deep cloud structure in atmosphere of Saturn

1991-1992 As Program Director at U.S. National Science Foundation (NSF), USA

- Managed program of small grants to fund high-risk science
- Initiated first newsletter from NSF Astronomy division (AST) to national community
- Managed all cross-division (AST + another NSF division) awards
- Responsible for all AST projects related to education and diversity
- Initiated study into factors correlated to proposal success and failure

Local, National & International Service

2015-present	Councillor and now Chair, Australian Capital Territory (ACT) Climate Change Council
2017-2020	Member, Business Advisory Board, ACT Renewable Energy Innovation Fund
2017-2019	Member, Scientific Advisory Board, Potsdam Institute for Climate Impact Research
2015	Chair, Memorandum Team, Nobel Laureate Symposium: Climate Change, Changing Cities
2013	Invited Speaker, 2013 Geological Society of America, Denver, CO, USA Contribution: <i>Elemental Cycles in the Anthropocene</i>
2011	Drafting Team, Nobel Laureate Stockholm Memorandum on Global Sustainability
2008-2011	As Chief Scientist for Australia, Member of:
	Prime Minister's Science, Engineering & Innovation Council, Executive Officer Prime Minister's Science Prize Selection Committee Educational Investment Fund Board Defence Science & Technology Organisation Advisory Board Rural Research & Development Council Higher Education Endowment Fund Assessment Panel Cooperative Research Centres Assessment Panel Climate Change Science Framework Implementation Group, Chair National Youth Science Forum, President Forum of Australian Chief Scientists, Founder and Chair
2005-2010	Board of Directors, Association of Universities for Research in Astronomy (AURA)
2006-2008	Board of Directors, Giant Magellan Telescope (GMT) Organisation
2002-2008	ANU Member Representative to AURA
2008	Australian GMT Advisory Committee to Australia Astronomy, Ltd
2003-2007	NCA Task Force on Extremely Large Telescopes (ELT)
2002-2007	National Committee for Astronomy (NCA), Australian Academy of Science
2002-2007	Australian Gemini Telescope Steering Committee
2002-2007	Board of Management for the Australian Astronomy MNRF Award
2004-2007	Chancellor's Award Committee, Australian National University (ANU)
2004-2006	Canberra Partnership Board, ACT, AU
2003-2005	University Science, Health & Engineering Research Committee, ANU
2000-2005	European OPTICON Extremely Large Telescope (ELT) Science Working Group
2004	International review team of the South African Astro-Geoscience Facilities for the NRF
2002-2003	Academic Board, Australian National University, Canberra, AU
1995-2002	Principal Investigator, International PLANET Collaboration
2001-2002	Science Advisory Committee for the Square Kilometer Array
2001-2002	Curriculum Advisory Committee for Astronomy, Kapteyn Astronomical Institute
2000-2002	European Southern Observatory (ESO) Programmes Committee, Member-at-Large
2000-2001	Chair, Stars and Planets Panel for OPTICON ELT Working Group
1996-1998	ESO Working Group on Exo-Solar Planets
1996-1998	Facilities Program Committee, Netherlands Organisation for Scientific Research

Scientific Organising and Steering Committees:

2013-2015	Changing Climate, Changing Cities Nobel Laureates Symposium on Global Sustainability, Hong Kong 2015 also Chair, Symposium Memorandum Drafting Team
2008	2008 Meeting of the Astronomical Society of Australia Perth, Australia
2006-2007	IAU Symposium on Exoplanets: Physics, Dynamics and Evolution Suzhou, China
2006	Transiting Extrasolar Planets 25-28 September 2006, MPIA, Heidelberg, Germany
2003-2004	Planetary Timescales: Stardust to Continents 2003 White Conference, National Academy of Sciences, Canberra, AU
2002-2003	Extrasolar Planets: Today and Tomorrow 30 June - 4 July 2003, IAP, Paris, France
2001-2002	Scientific Frontiers in Research on Extrasolar Planets 11-14 June 2002, Washington, DC, USA
2001	The SKA: Defining the Future 9-12 July 2001, Berkeley, CA, USA
2000-2001	Yale Cosmology Workshop: Shapes of Galaxies and Their Halos 28-30 May 2001, New Haven, USA
1999-2000	Planetary Systems in the Universe: Observation, Formation and Evolution 7-11 August 2000, Manchester, England
1998-2000	Microlensing 2000: A New Era for Microlensing Astrophysics 21-25 February 2000, Capetown, South Africa Chair, Scientific Organising Committee
1997-1999	Impact of Large-Scale Photometry on the Research of Pulsating Stars IAU Conference, 9-13 August 1999, Budapest, Hungary
1997-1999	VLT Opening Symposium: From Extrasolar Planets to Brown Dwarfs 1-4 March 1999, Antofagasta, Chile
1997-1998	4^{th} International Workshop on Microlensing Surveys 15-17 January 1998, Paris, France
1990	Warped Disks and Inclined Rings around Galaxies Workshop 30 May - 1 June 1990, Pittsburgh PA Scientific and Local Organising Committee

PUBLICATIONS

Over 140 publications, 65 in refereed journals, together garnering more than 4300 scientific citations and 1000 normalised citations (Sackett served as PhD or postdoctoral supervisor for authors in italics)

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Elemental cycles in the Anthropocene: mining aboveground

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2016, in Geoscience for the Public Good and Global Development: Toward a Sustainable Future, eds. G.R. Wessel and J.K. Greenberg, J.K., Geological Society of America Special Papers 520, p. SPE520-11, doi:10.1130/2016.2520(11)

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Another Flattened Dark Halo: Polar Ring Galaxy A0136-0801

Penny D. Sackett and Richard W. Pogge

1995, in Dark Matter, AIP 336, 141, astro-ph/9412011

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in Creating a Sustainable and Desirable Future

2014, R. Costanza and I. Kubiszewski (eds), World Scientific Singapore

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eds. John W. Menzies & Penny D. Sackett

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1987, Pittsburgh Supercomputing Center Annual Magazine

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Penny D. Sackett

1998, Zenit, 5, 203

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1998, International J. of Supercomputing App., 2, 1

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1983, Pitt Magazine, 37, 3, 11

Appendix D: EPA Tender Bundle Document Assessment Summary (Refer to point 272) for explanation of the yellow and blue colour-coding)

i,	Doco #	BUS	Α
2013 Calendar Year Air Emissions Inventory for the Greater Metropolitan Region in NSW	Name of document	BUSHFIRE SURVIVORS FOR CLIMATE ACTION INCORRPORATED V ENVIRONMENT PROTECTION AUTHORITY (2020/00106678) EPA TENDER BUNDLE INDEX	В
EPA	* denotes EPA predecessor agencies A denotes EPA (or predecessor agency) was involved in the development of the document	VORS FOR CLIMATE ACTION I V PROTECTION AUTHORITY (2 EPA TENDER BUNDLE INDEX	С
~	Addresses a matter arising under [37](a)-(e), [38](a)-(e) and [39](a)-(e) of the Applicant's Points of Claim	INCORRPORA 2020/0010667	D
2019	Pub. Year	TED 8)	E
Status Report /Inventory	Type of Publication	ų,	G
*	Positive Search Term Return for: greenhouse, methane, carbon dioxide, nitrous oxide, CFC, chlorofluro- carbon, landfill gas, carbon emission(s), Paris or Kyoto.	Docu determined b or Expert Repor	I
Z	Seeks to regulate or reduce direct and indirect sources of GHG emissions, directly or indirectly	Document Categorisation ned by Professor Penny Deport in relation to BSCA	-
Z	Does so in a manner consistent with +1.5C warming	Document Categorisation determined by Professor Penny D Sackett for Expert Report in relation to BSCA v NSW EPA	_
Z	Are fit for purpose in protecting or mitigating against threat to environment and people of NSW		

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Action for Air	A guide to the Noise Policy for Industry	2015–16 National Litter Index Results for New South Wales	2015 State of the Environment Report
EPA predecessor agency (DECCW)*	EPA	EPA	EPA
~	Z	Z	¥
2009	2017	2016	2015
Roadmap/Pl an	Guidelines	Status Report /Inventory	Status Report /Inventory
*	Z	z	*
Y, only as side benefit to reducing Air NEPM pollutants	Z	Z	Y, indirectly by setting out the problem, and listing responses
N, No apparent connection made between GHG emissions and warming targets, though 60% cut in GHG by 2050 as a goal is mentioned	Z	Z	Z
Z	Z	Z	Z

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'n	.7		စ္
An assessment of attitudes and behaviour amongst multi unit dwelling residents in relation to illegal dumping	Air Quality Trends in the Illawarra - Current knowledge based on emission, monitoring and modelling studies, and areas of ongoing research - September 2015	Air pollution — where does it come from? - Air Emissions Inventory for the Greater Metropolitan Region in NSW	Air Emissions Inventory for the Greater Metropolitan Region in New South Wales - 2013 Calendar Year - Consolidated Natural and Human-Made Emissions: Results
EPA predecessor agency (DEC)*	Office of Environment and Heritage (NSW) ^	EPA predecessor agency (DECC)*	EPA
≺	~	~	~
2004	2015	2007	2019
Social Assessment	Status Report /Inventory	Status Report /Inventory	Status Report /Inventory
Z	≺	Z	~
Z	z z		Z
Z	N	Z	Z
Z	Z	Z	Z

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Approved Methods for the sampling and analysis of water pollutants in NSW	Approved Methods for the sampling and analysis of air pollutants in NSW	Approved Methods for the modelling and assessment of air pollutants in NSW	Approved Methods for testing noise emissions	Applying compost and biosolids to land factsheet	
EPA predecessor agency (DEC)*	EPA predecessor agency (DEC)*	EPA	EPA	EPA	
Z	Y	Z	Z	~	
2004	2006	2016	2017	2018	
Approved Methods	Approved Methods	Approved Methods	Approved Methods	Factsheet	
Υ	Y, in relation to CO2 from stationary sources	N	z	*	
N, only discusses sampling methods	N, only discusses sampling methods	Z	Z	N, only as educational tool mentioning how composting can help reduce CH4 and thus GHG, p2	
z	Z	Z	Z	N, No apparent connection made GHG emissions and warming targets	
Z	Z	Z	Z	Z	

19.	ģò	17.	16.	15.
Assessment of domestic waste and recycling systems	Assessment and management of hazardous ground gases - Contaminated Land Guidelines	Assessing Vibration: a technical guideline	Asbestos and Waste Tyre Guidelines	Aquifer interference policy
EPA predecessor agency (DEC)*	EPA	EPA predecessor agency (DEC)*	EPA	Department of Primary Industries - Office of Water (NSW)
~	~	z	Z	Z
2004	2020	2006	2015	2012
Technical Assessment	Guidelines	Guidelines	Guidelines	Policy
~	*	Z	Z	Υ
Y, in the context of domestic waste and recycling	Y, but only in % concentrati ons as ground gases that could be flammable or cause asphyxiatio n	Z	Z	Z
N, No apparent connection made between GHG emissions	N, no connection between assessment guidelines and global warming or temperature rise	Z	Z	Z
Z	Z	Z	Z	Z

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22.	212	21.	20.	
Best Practice Note: Landfarming	Australian and New Zealand Guidelines for Fresh and Marine Water Quality — linked resource	Australian and New Zealand Guidelines for Fresh and Marine Water Quality	Assessment of Garden Organics Collection Systems	
EPA		Australian and New Zealand Governments and Australian state and territory governments (ANZG)^	EPA predecessor agency (DEC)*	
Z		Z	Υ	
2014		2018	2005	
Best Practice	Guidelines	Guidelines	Technical Assessment	
Υ	Z	Z	Z	
Z	Z	Z	Z	
Z	Z	Z	Z	and warming targets
Z	z	Z	z	

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28.	27.	26.	25.	24.	23	
Changing Behaviour Together: Waste Less, Recycle More Education Strategy 2016-21	Bushfire impacts on water quality	Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities	Better practice guide for resource recovery in residential developments	Better Practice Guide for Public Place Recycling	Better fuel for cleaner air - Regulation impact statement	
EPA	EPA	ΕΡΑ	EPA	EPA predecessor agency (DEC)*	Commonweal th of Australia ^	
~	Υ	Y	Υ	¥	~	
2017	2020	2012	2019	2005	2018	
Programme Strategy Overview	Brief	Best Practice Guide	Best Practice Guide	Best Practice Guide	Impact Statement	
Z	Z	Υ	γ	z	~	
Z	N	N, just discussion of case studies	Z	Z	N, overview of different recommen ded options for fuel regulations	
Z	Z	Z	Z	Z	Z	
Z	Z	Z	Z	z	Z	

34.	33	32.	31.	30.	29.
Coal Washery Rejects Levy Operational Guidance Note	Coal seam gas activities and air quality	Cleaning Up Our Act: The Future for Waste and Resource Recovery in NSW Issues Paper	Cleaning Up Our Act: Redirecting the Future of Plastic in NSW Discussion Paper	Clean cars for NSW	Clean Air for NSW - Consultation paper
EPA predecessor agency (DECCW)*	EPA	NSW Government^	NSW Government	EPA	EPA
z	~	~	¥	Υ	~
2009	2014	2020	2020	2003	2016
Guidance	Regulatory	Issue Paper	Discussion Paper	Action Plan	Report
z	*	٧	~	Υ	~
Z	N, explains regulatory framework, no connection to GHG	Y, but only as minor side benefit	Y, but only as minor side benefit	Y, indirectly	Y, seeks consultatio n on plan to create clean air with side benefit of decreasing GHG
Z	Z	Y, if enacted and and achieved, but only for organic waste sector	Z	Z	Z
z z		z	Z	Z	Z

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Compulsory pesticides training	Compulsory notification of pesticides use	Compliance audit handbook	Code of Practice for Coal Seam Gas Well Integrity	Code of practice for coal seam gas fracture stimulation	Co-Collection of Domestic Food Waste and Garden Organics The Australian experience
EPA	EPA	EPA	Department of Trade & Investment - Resources & Energy (NSW)	Department of Trade & Investment - Resources & Energy (NSW)	EPA predecessor agency (DECCW)*
Z	Z	Υ	γ	*	Y
Updat ed 2020	Updat ed 2018	2017	2012	2012	2007
Notice	Notice	Handbook	Code of Practice	Code of Practice	Report
Z	Z	Z	~	~	Z
Z	Z	Z	N, no relation to GHG	N, no relation to GHG	Z
Z	Z	Z	Z	Z	Z
Z	Z	Z	Z	Z	Z

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433	47.	46.	45.	44.	43.	42.	41
Dangerous Goods: Controls and when they apply	Dangerous Goods Vehicle Inspection Manual	Crackdown on illegal dumping - handbook for Local Government	Council resource kit - woodsmoke isn't good smoke education campaign	Contaminated sites - Guidelines for the Assessment and Management of Groundwater Contamination	Contaminated Land Planning Guidelines	Contaminated Land Management Compliance Statement	Considering the environmental values of water when issuing prevention notices
EPA	EPA	EPA predecessor agency (DECC)*	EPA	EPA predecessor agency (DEC)*	NSW Government ^	EPA	EPA predecessor agency (DEC)*
Z	Z	Z	Z	Z	Z	Z	Z
2020	2018	2007	2019	2007	2018	2018	2006
Guidance	Guidance	Handbook	Guidance	Guidance	Guidance	Compliance Statement	Guidance
Z	Z	Z	٧	Z	Υ	Z	Z
Z	Z	Z	Z	Z	Z	Z	Z
z	Z	z	Z	Z	Z	z	Z
Z	Z	Z	Z	Z	Z	Z	Z

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Diesel emissions and their management in NSW - Background paper for EPA diesel emissions workshop 13 June 2014	Diesel and Marine Emissions Management Strategy	Developing Recycled Organic Products for Use in Viticulture Market Needs and Sensitivity	Developing a pesticide use notification plan for outdoor public places	Design Guide for Container Recycling Equipment and Facilities under the NSW Container Deposit Scheme	Dangerous Goods: Tank Design Approvals	Dangerous goods: Overview
EPA	EPA	EPA predecessor agency (DEC)*	EPA	EPA	EPA	EPA
≺	Υ	Υ	Z	*	Z	Z
2014	2015	2005	2017	2017	2020	Updat ed 2020
Report	Guidance	Report	Guidance	Guidance	Guidance	Guidance
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Environment Protection Authority Compliance Policy	Energy Efficiency Action Plan	Eligible waste fuels guidelines	Dust Assessment Handbook	Dry cleaning chemicals (fact sheet)	Draft Financial Assurance Policy - This document is for public consultation purposes only	Diesel Locomotive Fuel Efficiency & Emissions Testing - Prepared for the NSW EPA
EPA	Office of Environment and Heritage (NSW)	EPA	EPA	EPA	EPA	EPA
Z	Z	Z	Z	Z	Υ	γ
2013	2018	2016	2019	2009	2020	2016
Policy Document	Roadmap/Pl an	Guidance	Guidance	Pamphlet	Report	Report
Z	≺	Υ	Z	Z	Z	~
Z	N, no relation to GHG	N, no relation to GHG	Z	Z	Z	Y, as a baseline study of CO2 emission from rail
Z	Z	Z	2	Z	Z	Z
Z	Z	z	Z	Z	Z	Z

	69.	68.	67.	66.	64.		63	
	Environmental improvement	Environmental Guidelines: Use of Effluent by Irrigation	Environmental Guidelines: Solid waste landfills	Environmental Guidelines: Composting and related organics processing facilities	Environmental Guidelines: Aerial Spraying Activities	Environmental Guidelines - Use and Disposal of Biosolids Products	Environmental benefits of recycling	
	EPA	EPA predecessor agency (DEC)*	EPA	EPA predecessor agency (DEC)*	EPA	EPA	EPA predecessor agency (DECCW)*	
	Z	~	~	~	Z	Z	~	
137	2014	2004	2016	2004	2017	2000	2010	
7	Procedure Manual	Guidance	Guidance	Guidance	Guidance	Guidance	Report	
	z	~	~	~	Z	Z	~	
	Z	z	~	Y, indirectly	Z	Z	Y, but only as a baseline study to measure GHG	
	Z	Z	N, restrictions on methane are based on safety at ground level not GHG emissions	Z	Z	Z	Z	
	z	z	Z	Z	Z	z	Z	

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	. "								
updated	EPA Strategic Plan 2017-21 - 2018	EPA Prosecution Guidelines	EPA Litter Prevention Kit Part 4 - Butt Litter Check Guidelines	EPA Litter Prevention Kit Part 3 - Local Litter Check Guidelines	EPA Litter Prevention Kit Part 2 - Delivering effective local litter prevention projects	EPA licensing guideline: Environmental Risk levels	EPA Compliance Plan 2018-2019	Environmental Management Calculation Protocol for Risk-based Licensing.	procedure
	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	
	Z	Z	z	Z	Z	Z	Z	z	
	2018	2013	2019	2016	2019	2016	2019	2019	
Fiair	Strategic	Guidance	Guidance	Guidance	Guidance	Guidance	Compliance Statement	Procedure Manual	
	Z	Z	Z	Z	Z	Z	z	Z	
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	Z	Z	Z	Z	Z	Z	Z	Z	
	Z	Z	2	z	Z	z	Z	Z	

<u>с</u>	84.	83	82.	81.	80.	79.	78.	
Full Cost of Landfill Calculator and brochure	Food and Garden Organics Best Practice Collection Manual	Flaring of Gas	Fire safety in waste facilities	Filling your land? Make sure it's legal	Fact sheet: Rehabilitation of gas sites in NSW	Explanation of Intended Effects - SEPP (Environment)	EPA's Energy from Waste Policy Statement	
EPA predecessor agency (OEH)*; Department of Premier and Cabinet	Commonweal th of Australia ^	EPA	EPA	EPA	EPA	NSW Government ^	EPA	
~	Y	4	Z	Z	Z	Υ	*	
2011	2012	2015	2020	2017	2016	2017	2015	
Webpage	Guidance	Guidance	Guidance	Pamphlet	Fact Sheet	Policy Document	Compliance Statement	
4	~	Υ	Z	Z	z	Z	~	
Z	~	Y, indirectly	Z	Z	Z	Z	N, reduce methane emissions from landfill but no connection to GHG	
Z	Z	Z	Z	Z	Z	Z	Z	
Z	Z	z	Z	Z	Z	Z	Z	

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Greater Sydney Regional Plan - A Metropolis of Three Cities – connecting people and supporting District Plans - Western City District Plan	Greater Sydney Regional Plan - A Metropolis of Three Cities - connecting people and supporting District Plans Greater Sydney Regional Plan - A Metropolis of Three Cities - connecting people and supporting District Plans - Western City District Plan		Future use of mixed waste organic outputs: EPA position statement	Full Cost of Landfill Calculator and brochure — screenshot of tool	Full Cost of Landfill Calculator and brochure – information on how to use tool
	NSW Government ^	Office of Environment and Heritage (NSW) ^	EPA		
	~	*	Υ		
	2018	Updat ed 2019	2019		
Plan	Plan	Policy Document	Policy Document	Calculator	Pamphlet
~	~	~	ZZ		~
4	~ ~		Z	Z	Z
N, but a "goal" of net zero by 2050 is stated N, but a "goal" of net zero by 2050 is stated		N, but targets set for certain targeted areas	Z	2	Z
z	z	z	z	Z	Z

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Green Vehicle Guide	Greater Sydney Regional Plan - A Metropolis of Three Cities — connecting people and supporting District Plans - South District Plan	Greater Sydney Regional Plan - A Metropolis of Three Cities - connecting people and supporting District Plans - North District Plan	Greater Sydney Regional Plan - A Metropolis of Three Cities – connecting people and supporting District Plans - Eastern City District Plan	Greater Sydney Regional Plan - A Metropolis of Three Cities - connecting people and supporting District Plans - Central City District Plan
Australian Government				
Y				
2020				
Webpage	Plan	Plan	Plan	Plan
Z	~	~	~	~
z	≺	~	~	~
Z	N, but a "goal" of net zero by 2050 is stated	N, but a "goal" of net zero by 2050 is stated	N, but a "goal" of net zero by 2050 is stated	N, but a "goal" of net zero by 2050 is stated
z	Z	Z	Z	Z

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93.		92.	91.	90.	89a.
Guideline for the operation of the Mutual Recognition legislation for licensing and accreditation under the Radiation Control Act 1990	Guide to Notices under the POEO Act	Guide to licensing Under the Protection of the Environment Operations Act 1997	Guidance on the resource recovery order and exemption for mulch	Guidance for licensing of mineral-sand mining that generates radioactive residues	Green Vehicle Guide – user guide
EPA	EPA predecessor agency (DECC)*	EPA	EPA	EPA predecessor agency (DECC)*	
Z	Z	Z	Z	Z	
2013	2009	2016	2016	2009	
Guidance	Guidance	Guidance	Guidance	Guidance	Guidance
Z	Z	Z	Z	Z	~
Z	Z Z		Z	Z	Y, indirectly by giving citizens data to make own choice
Z	Z	Z	Z	Z	Z
Z	Z	Z	Z	Z	Z

				1	
100.	99,	9	97.	96.	95.
Guidelines for the Burning of Bio-material - Record-keeping Requirements for Electricity Generating Facilities	Guidelines for implementing the POEO (Underground Petroleum Storage Systems) Regulation 2008	Guidelines for disposal of rinsate (fact sheet)	Guidelines for Consultants Reporting on Contaminated Sites	Guidelines for Conducting Household Kerbside Residual Waste, Recycling and Garden Organics Audits in NSW Local Government Areas	Guideline: Pollution Incident Response Management Plans
EPA	EPA predecessor agency (DECCW)*	EPA	EPA	EPA predecessor agency (DECC)*	EPA
Z	Z	Z	Z	Z	Y
2013	2009	2012	2020	2008	2020
Guidance	Guidance	Guidance	Guidance	Guidance	Guidance
Z	Z	z	4	Z	Z
Z	Z	Z	Z	Z	Z
Z	Z	Z	Z	Z	Z
Z	Z	Z	Z	Z	Z

106.	105.	104.	103.	102.	101.
Guidelines on resource recovery - Orders and Exemptions - For the land application of waste materials as a fertiliser or soil amendment	Guidelines on recovering monetary benefits from environmental offenders	Guidelines on EPA use of unmanned aircraft	Guidelines on Enforceable Undertakings	Guidelines for Using Compost in Land Rehabilitation and Catchment Management	Guidelines for the economic assessment of mining and coal seam gas proposals
EPA	EPA	EPA	EPA	EPA predecessor agency (DECC)*; Department of Primary Industries	NSW Government
~	Z	Z	Z	Υ	~
2017	2019	2018	2017	2008	2015
Guidance	Guidance	Guidance	Guidance	Guidance	Guidance
Z	Z	Z	Z	Z	~
Z	Z	Z	Z	Z	Z
Z	Z	Z	Z	Z	Z
Z	Z	Z	Z	z	Z

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109b.	109a.	109.	108.	107.
Handbook for Design and Operation of Rural and Regional Transfer Stations - (Case Studies 25-37)	Handbook for Design and Operation of Rural and Regional Transfer Stations - Case Studies 12-24	Handbook for Design and Operation of Rural and Regional Transfer Stations	Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997	Guidelines on resource recovery - Orders and Exemptions - For the land application of waste materials as fill
		EPA predecessor agency (DEC)*	EPA	EPA
		Υ	Z	*
		2006	2015	2017
Guidance	Guidance	Guidance	Guidance	Guidance
Υ	Z	Υ	Z	Z
Z	Z	Z	Z	Z
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Identifying Potential Agricultural and Horticultural Markets for Composted Garden Organics in New South Wales	Household chemical CleanOut (fact sheet)	Household building and renovation: Treated timber	Household building and renovation: Lead safety	Household building and renovation: Asbestos	Hazardous waste storage and processing - Guidance for the liquid waste industry	Handbook for the design, construction, operation, monitoring and maintenance of a passive landfill gas drainage and biofiltration system
EPA predecessor agency (DECC)*	EPA	EPA	EPA	EPA	EPA	EPA predecessor agency (DECCW)*
≺	Z	Z	Z	Z	Z	¥
2008	Updat ed 2018	Updat ed 2017	Updat ed 2020	Updat ed 2019	2016	2010
Report	Webpage	Webpage	Webpage	Webpage	Guidance	Guidance
٧	Z	Z	Z	Z	Z	~
Y, indirectly by scoping possible soil carbon options	z	Z	z	Z	z	Y, indirectly by providing useful info to landfill owners
Z	Z	Z	Z	Z	Z	Z
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121.	120.	9	60 F7	7
Industry fact sheet: reducing business waste - Supermarkets	Indicative Secretary's Environmental Assessment Requirements (SEARs) - For state significant mining developments	Improving water quality in catchments using compost	Improving mine rehabilitation in NSW	Illegal dumping prevention and clean-up: Handbook for Aboriginal communities
EPA	NSW Government ^	EPA predecessor agency (DEC)*; Department of Primary Industries	NSW Government ^	EPA predecessor agency (DECC)*
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2017	2015	2005	2017	2008
Fact Sheet	Guidance	Fact Sheet	Discussion Paper	Handbook
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Z	Y, indirectly by indicating GHG of project must be part of EIS for mining projects	Z	Z	Z
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125.	124b.	124a.	124.	12 23	122.
Interim Construction Noise Guidelines	Integrated pest management: IPM Case studies - Bitou bush control in north- east Sydney	Integrated pest management: IPM Case studies - Fox Control in Southern Highlands	Integrated pest management: IPM Case studies	Instructions for E- RAMP: Environmental Risk Assessment and Mitigation Package for Small Waste Facilities	Instructions for E- RAMP: Environmental Risk Assessment and Mitigation Package for Small Waste Facilities
EPA predecessor agency (DECC)*			EPA	EPA	EPA
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2009			Updat ed 2018	2014	2014
Guidance	Webpage	Webpage	Webpage	Guidance	Guidance
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130.	129.	128.	127.	126.
Licences and advice for occupational pesticides users: Farming and horticultural production	Licences and advice for occupational pesticides users: Applying antifouling paints at marinas (Fact sheet)	Licences and advice for occupational pesticides users: Aerially applying pesticides	Large-Scale Solar Energy Guideline - For State Significant Development	Interim OEH Nitrogen Oxide Policy for Cogeneration in Sydney and the Illawarra
EPA	EPA	EPA	NSW Government	EPA predecessor agency (OEH)*; Department of Premier and Cabinet
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Updat ed 2019	2017	Updat ed 2020	2018	2011
Webpage	Fact Sheet	Webpage	Guidance	Policy Document
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Z	Z	Z	Y, in recognising GHG reduction possibility	Y, in recognising GHG reduction possibility
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ë	132.	بدة بدة ف	13 13 14	130a.
Life Cycle Inventory and Life Cycle Assessment for Windrow Composting Systems	Licensing Guidelines for Sewage Treatment Systems	Licences and advice for occupational pesticides users: Pest management technicians, fumigators, training permits and ground applicators – fact sheet	Licences and advice for occupational pesticides users: Pest management technicians, fumigators, training permits and ground applicators	Licences and advice for occupational pesticides users: Farming and horticultural production — "Use pesticides safely" fact sheet
EPA predecessor agency (DEC)*	EPA		EPA	
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2006	2003		Updat ed 2020	
Report	Guidance	Fact Sheet	Webpage	Fact Sheet
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Y, in recognising GHG reduction possibility	Z	Z	Z	Z
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135h.	ය ආ ආ	e S S	133 156 1	135d.	135c.	1355	135a.	j j	134.
Local government air quality toolkit - Module 3 part 3	Local government air quality toolkit - Module 3 part 2	Local government air quality toolkit – Module 3 part 1	Local government air quality toolkit - Module 3 summary tables	Local government air quality toolkit – Module 2	Local government air quality toolkit — Module 1	Local government air quality toolkit - glossary	Local government air quality toolkit - structure	Local government air quality toolkit	Load reduction agreements – Freeing funds for environmental improvements
								EPA	EPA predecessor agency (DECC)*
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								2017	2009
Tools	Tools	Tools	Tools	Tools	Tools	Tools	Tools	Webpage	Guidance
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13 50	135n.	135m.	1351	135k.	135j.	1351.
Local government air quality toolkit - Guidance note — food outlets	Local government air quality toolkit - Guidance note – egg production	Local government air quality toolkit - Guidance note - dairies	Local government air quality toolkit - Guidance note – construction sites	Local government air quality toolkit - Guidance note – composite structural products	Local government air quality toolkit - Guidance note – beef cattle feedlots	Local government air quality toolkit - Guidance note – agricultural stubble burning
Tools	Tools	Tools	Tools	Tools	Tools	Tools
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3 5 E	i i	e G F F F F F F F F F F F F F F F F F F	135.	135q.	135p.
Local government air quality toolkit - Visual guide — inspecting a suburban auto repair shop	Local government air quality toolkit - Visual guide – dust from urban construction sites	Local government air quality toolkit - Guidance note – spray painting operations	Local government air quality toolkit - Guidance note – small- scale sawmills	Local government air quality toolkit - Guidance note — piggeries	Local government air quality toolkit - Guidance note – meat chicken production
Tools	Tools	Tools	Tools	Tools	Tools
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Ballina Shire Local Strategic Planning Statement	Local Strategic Planning Statements (and some Regional Plans)	Local planning for healthy waterways - using NSW Water Quality Objectives	Local Government Strategic Waste Action Plan (LGSWAP) Tool	Local government air quality toolkit - Visual guide — odour complaints from a suburban auto repair shop
	A specific council or groupings of councils ^	EPA predecessor agency (DEC)*	EPA predecessor agency (OEH)*	-
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	Variou s	2006	2011	
Plan	Webpage	Guidance	Guidance	Tools
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N, but calls on State and Federal governments to take actions required to meet 1.5C Paris goal	Z	Z	Z	Z
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143.	142.	141.	140b.	140a.	140.	139.
Managing Urban Stormwater: Soils and construction	Managing particles and improving air quality in NSW	Lower Hunter Particle Characterisation Study - Final report to the NSW Environment Protection Authority	Love Food Hate Waste – why it matters	Love Food Hate Waste - about us	Love Food Hate Waste – interactive resource	Locomotive Emissions Project Scoping Study of Potential Measures to Reduce Emissions from New and In- Service Locomotives in NSW and Australia
NSW Government, Landcom ^	EPA	CSIRO, ANSTO, Office of Environment and Heritage ^			NSW Government ^	EPA
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2004	2013	2016			Curre nt	2013
Guidance	Report	Report	Guidance	Guidance	Guidance	Report
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Z	Z	Z	Y, indirectly	Z	Z	Y, in recognising GHG reduction possibility
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147.	146.	145.	144.
Methane Fact Sheet	Methane and Volatile Organic Compound Emissions in New South Wales - Report for the New South Wales Environment Protection Authority	Marine Quality Objectives for NSW Ocean Waters - Sydney Metropolitan and Hawkesbury-Nepean	Marine Estate Management Strategy 2018- 2028
EPA	CSIRO, EPA	EPA predecessor agency (DEC)*	Marine Estate Management Authority (NSW) ^
Υ	Y	Z	Υ
2015	2016	2005	2018
Fact Sheet	Report	Policy Document	Policy Document
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Z	N, seeks to measure CH4 better. Report commissio ned by EPA and prepared by CSIRO, lead author Stuart Day	Z	Z
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15 22	151a.	151,1	Ċ	149.	148.	
National Directory for Radiation Protection (NDRP)	National Climate Resilience and Adaptation Strategy — Endnotes	National Climate Resilience and Adaptation Strategy	National Clean Air Agreement	Model Waste Not DCP Chapter 2008 - A Site Waste Minimisation and Management Chapter for Consolidated Development Control Plans	Mine Application Guideline - Specific development application requirements for State significant mining and extractive industry developments under the Environmental Planning and Assessment Act 1979	
ARPANSA ^		Commonweal th of Australia	Commonweal th of Australia ^	EPA predecessor agency (DECC)*	NSW Government	
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2017	2015	2015	2015	2008	2015	
Guidance	Policy Document	Policy Document	Policy Document	Guidance	Guidance	
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155c.	1556.	ភ	<u>Ω</u> Ω	154	153.
National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 4	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 3	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 2	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 1	National Environment Protection (Ambient Air Quality) Measure	National Environment Protection (Air Toxics) Measure
			Commonweal th of Australia ^	Commonweal th of Australia ^	Commonweal th of Australia ^
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2013	2013	2013	2013	2016	2011
Legal	Legal	Legal Instrument	Legal Instrument	Legal Instrument	Legal Instrument
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155g. 155h.		155f.	155e.	155d.
National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 9	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 8	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 7	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 6	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 5
2013	2013	2013	2013	2013
Legal Instrument	Legal Instrument	Legal Instrument	Legal Instrument	Legal Instrument
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155l. 155m.		155 K.	155j.	
National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 13 National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 14		National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 12	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 11	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 10
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155q. 155r.		155p.	1550.	155n.
National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 19	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 18	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 17	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 16	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 15
2013	2013	2013	2013	2013
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157.	156.	155u.	155t.	155s.
National Environment Protection (Movement of Controlled Waste between States and Territories) Measure	National Environment Protection (Diesel Vehicle Emissions) Measure 2001 (minor variations May 2009)	National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 21 National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 22		National Environment Protection (Assessment of Site Contamination) Measure 1999 – Vol 20
Commonweal th of Australia ^	Commonweal th of Australia ^			
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2012	2009	2013	2013	2013
Legal Instrument	Legal Instrument	Legal Instrument	Legal Instrument	Legal Instrument
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163.	162.	161.	160c.	160b.	160a.	160.	159.	158
National Water Quality Management Strategy	National Waste Policy - Less Waste, More Resources – 2018	National Pollutant Inventory Guide	National Pollutant Inventory - Understanding NPI data	National Pollutant Inventory - NPI emission data 2018- 2019	National Pollutant Inventory – using NPI emission data	National Pollutant Inventory	National Environment Protection (Used Packaging Materials) Measure	National Environment Protection (National Pollutant Inventory) Measure 1998
Commonweal th of Australia ^	Commonweal th of Australia ^	Commonweal th of Australia ^				Commonweal th of Australia ^	Commonweal th of Australia ^	Commonweal th of Australia ^
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2018	2018	2015	2019	2019	2019	Curre nt	2011	2008
Strategic Plan	Policy Document	Guidance	Webpage	Webpage	Webpage	Webpage	Legal Instrument	Legal Instrument
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N	Υ	Z	Z	Z	Z	Z	Z	Z
Z	Z	Z	Z	Z	Z	Z	Z	Z
Z	z	Z	Z	Z	Z	Z	Z	Z

169.	168.	167.	166.	165.	164.	163a.
Non-road Diesel Air Emission Case Study	Noise Policy for Industry	Noise Guide for Local Government Update: Changes arising from the Noise Control Regulation 2017	Noise guide for local government	Net Zero Plan Stage 1: 2020-2030	Native Forestry Operations Stop Work Orders	National Water Quality Management Strategy - Charter
EPA	EPA	EPA	EPA	Environment, Energy and Science - Department of Planning, Industry and Environment (NSW) ^	EPA	
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2016	2017	2018	2013	2020	2019	2018
Case Study	Policy Document	Guidance	Guidance	Report	Guidance	Strategic Plan
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z	Z	Z	Z	N, 2030 goals are not consistent with 1.5C. Also, the "savings" from the program ignores the increases from new, approved fossil fuel development	Z	Z
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174.	173.	172.	171.	170.
NSW Coal Mining Benchmarking Study Best Practice Measures for Reducing Non- Road Diesel Exhaust Emissions	NSW Climate Change Policy Framework	NSW Cleaner Vehicles and Fuels Strategy	NSW Circular Economy Policy Statement	NSW Asbestos Waste Strategy 2019-21
EPA	Office of Environment and Heritage (NSW) ^	EPA predecessor agency (DECCW)*	EPA	EPA
Z	Y	≺	Y	Z
2015	2016	2008	2019	2019
Report	Policy Document	Strategic Plan	Policy Document	Strategic Plan
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Z	Y, in laying out a framework with that goal	*	Y, indirectly	Z
Z	N, not consistent with achieving 1.5C	N, stated goal of 20% GHG reduction in government fleet in 2008, appears to have been superseded by document #87	Z	Z
Z	Z	Z	z	Z

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j=7 00 1−7	180.	179.	170.	177.	176.	175.
NSW Illegal Dumping Strategy 2017–21	NSW Gas Plan	NSW Extended Producer Responsibility Priority Statement 2010	NSW EPA's Load-based Licensing Scheme: Overview and facts	NSW Environment Protection Authority Annual Report 2018– 19	NSW Energy Efficiency Action Plan	NSW Electric and Hybrid Vehicle Plan - Future Transport 2056
EPA	NSW Government^	EPA predecessor agency (DECCW)*	EPA	EPA	Office of Environment and Heritage (NSW) ^	Transport for NSW ^
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2017	2014	2010	2016	2019	2013	2019
Strategic Plan	Plan	Guidance	Guidance	Report	Strategic	Strategic Plan
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Z	N, not a stated goal, even indirectly	Z	Z	Z	Z	Y, indirectly
Z	Z	Z	Z	Z	Z	N, but the NSW "goal" of net zero by 2050 is stated
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187.	14 88 60	1305	184.	⊛ 00 19	182.
NSW State of the Environment 2018	NSW Road Noise Policy	NSW Renewable Energy Action Plan	NSW Radiation Series No. 5 - Recommendations for radiation safety officers and radiation safety committees	NSW Natural Resources Monitoring, Evaluation and Reporting Strategy 2010- 2015	NSW Litter Prevention Strategy 2019-2022
EPA	EPA predecessor agency (DECCW)*	NSW Government ^	EPA predecessor agency (DEC)*	EPA predecessor agency (DECCW)*	EPA
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2018	2011	2013	2003	2010	2019
Report	Policy Document	Plan	Guidance	Strategic Plan	Strategic Plan
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Y, indirectly by setting out the problem, and listing responses	Z	N, not a stated goal, even indirectly	Z	Z	Z
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194. Pesticides in NSW EPA		Persistent Herbicides predecessor 193. Risk Management agency Program (DEC)*	Owner's guide to lawful disposal of construction and demolition waste	Organics recycling predecessor offers major agency environmental benefits (DECC)*	190. NSW Water Quality NSW and River Flow Government Objectives ^	NSW Waste Avoidance and Resource Recovery EPA Strategy 2014-2021	NSW Waste and Resource Reporting Portal (WARRP) User Guide
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2017	Updat ed 2018	2004	2019	2007	2006	2014	2016
Fact Sheet	Webpage	Report	Guidance	Guidance	Report	Strategic Plan	Guidance
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202.	201.	200.	199.	52 00	197.	196.
Pollution studies - Operating procedure	Pollution reduction programs - Operating procedure	Plastic microbeads in product and the environment	Planning and development process for sites with underground petroleum storage systems	Petroleum Minimum Standards and Merit Assessment Procedure	Pesticides use in NSW: Schools, childcare centres and pesticides	Pesticides use in NSW: Engaging a pest management technician
EPA	EPA	EPA	EPA predecessor agency (DEC)*	Department of Industry, Skills and Regional Development (NSW)^	EPA	EPA
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2014	2014	2016	2008	2015	Updat ed 2018	Updat ed 2018
Procedure Manual	Procedure Manual	Report	Guidance	Guidance	Webpage	Webpage
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208.	207.	206.	205.	204.	203.
Private Native Forestry advisory notes (x15)	Priorities for Biodiversity Adaptation to Climate Change	Preventing pesticides misuse: Safe Disposal of Pesticides	Preventing pesticides misuse: Avoiding spray drift	Practice Note - Managing run-off from service station forecourts	Powers of Authorised Officers - A guide to your powers under environment protection legislation
EPA (2); EPA predecessor agency (DECC)* (13)	EPA predecessor agency (DECCW)*	EPA	EPA	EPA	EPA predecessor agency (DEC)*
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Variou s	2010	Updat ed 2018	Updat ed 2018	2019	2006
Webpage	Guidance	Guidance	Guidance	Practice Note	Guidance
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208g.	208f.	208e.	208d.	208c.	208b.	208a.
Private Native Forestry advisory notes - Fact sheet — Bat Roosts	Private Native Forestry advisory notes - Fact sheet – Roost and Nest Trees – Raptor and Water Birds	Private Native Forestry advisory notes - Fact sheet – Fleshy fruits food trees for wildlife	Private Native Forestry advisory notes - Fact sheet – Nectar feed trees	Private Native Forestry advisory notes - Fact sheet Yellow-Bellied Glider feed trees	Private Native Forestry advisory notes - Fact sheet – Glossy Black- cockatoo feed trees	Private Native Forestry advisory notes - Fact sheet - Identifying hollow-bearing and recruitment trees
Guidance	Guidance	Guidance	Guidance	Guidance	Guidance	Guidance
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208n. Private Native Forestry advisory notes - Fact sheet — Threatened species recovery plans	208m. Private Native Forestry advisory notes - Fact sheet — Threatened species conservation	208I. Private Native Forestry advisory notes - Fact sheet — Biodiversity, it's everyone's business	208k. Private Native Forestry advisory notes - Private Native Forestry Aboriginal cultural heritage information sheet	208j. Private Native Forestry advisory notes - Fact sheet — Old Growth Forests	208i. Private Native Forestry advisory notes - Fact sheet – Koala Habitat	208h. Private Native Forest advisory notes - Fact sheet — Flying-fox Camps
ive Forestry tes - Fact eatened every plans	ive Forestry tes - Fact eatened servation	ive Forestry tes - Fact diversity, e's	ive Forestry tes - Private stry ultural ormation	ive Forestry tes - Fact Growth	ive Forestry tes - Fact la Habitat	Private Native Forestry advisory notes - Fact sheet — Flying-fox Camps
Guidance	Guidance	Guidance	Guidance	Guidance	Guidance	Guidance
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213.	212.	211.	210.	209.	2080.		
Protocol for calculating monetary benefits	Protection of the Environment Operations Risk-based licensing - Guidance on using the risk assessment tool	Private Native Forestry Code of Practice Guideline No. 5 - Techniques for measuring stand basal area	Private Native Forestry Code of Practice Guideline No. 4 - Techniques for measuring stand height	Private Native Forestry Code of Practice Guideline No. 1 - Guidelines for assessing regeneration and stocking	Private Native Forestry advisory notes - Fact sheet — Spotted-tail Quoll - Den and Latrine Sites		
EPA	EPA	EPA	EPA	EPA			
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2019	2016	2013	2013	2013			
Guidance	Guidance	Guidance	Guidance	Guidance	Guidance		
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219.	2100	217.	216.	215.	214.
Radiation Guideline 6-Registration requirements & industry best practice for ionising radiation apparatus used in diagnostic imaging, Second edition – Part 1	Radiation Guideline 4 - Compliance requirements for x-ray protective clothing	Radiation Guideline 3 - Recommendations for minimum standards and safety requirements for fixed radiation gauges (sealed source devices)	Radiation Guideline 2 - Preparation of radiation management plans	Radiation Guideline 1 - Monitoring devices	Radiation Advisory Council - Annual Report 2018-19
EPA	EPA	EPA	EPA	EPA predecessor agency (DEC)*	EPA
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2016	2018	2013	2018	2005	2019
Guidance	Guidance	Guidance	Guidance	Guidance	Report
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219с.	219b.	219a.
Radiation Guideline 6 - Registration requirements & industry best practice for ionising radiation apparatus used in diagnostic imaging,, Second edition – Part 4	Radiation Guideline 6 - Registration requirements & industry best practice for ionising radiation apparatus used in diagnostic imaging,, Second edition – Part 3	Radiation Guideline 6-Registration requirements & industry best practice for ionising radiation apparatus used in diagnostic imaging,, Second edition – Part 2
Guidance	Guidance	Guidance
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222.	221.	220.	219e.	219d.	
Radiation protection information: Household smoke detectors	Radiation protection information: Disposal of regulated material	Radiation Guideline 7- Radiation shielding design assessment and verification requirements	Radiation Guideline 6 - Registration requirements & industry best practice for ionising radiation apparatus used in diagnostic imaging,, Second edition – Part 6	Radiation Guideline 6-Registration requirements & industry best practice for ionising radiation apparatus used in diagnostic imaging,, Second edition – Part 5	
EPA	EPA	EPA			
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Updat e web page 2017	Updat e web page 2017	2015			
Webpage	Webpage	Guidance	Guidance	Guidance	
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229.	228.	227.	226b.	226a.	226.	225.	224.	223.
Reducing Illegal Dumping at Charitable Recyclers Action Plan 2019-2021	Reducing Contamination of Dry Recyclables and Garden Organics at the Kerbside: The NSW Experience	Reducing business waste - Cafes and restaurants	Environmental benefits of recycling report	Recyculator – pdf of tool	Recyculator	Recycled Organics in Mine Site Rehabilitation A review of the scientific literature	Recycled Organic Products in Stormwater Treatment Applications	Rail Infrastructure Noise Guidelines
EPA	EPA predecessor agency (DECC)*	EPA			EPA	EPA predecessor agency (DEC)*	EPA predecessor agency (DEC)*	EPA
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2019	2007	2017			2017	2006	2006	2013
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	237.	236.	235.	234a.	234.	233.	232.	231.	230.
	Risk Management Tools for the Recycled Organics Industry	Review of Coal Fired Power Stations Air Emissions and Monitoring	Responding to spills	Resource Recovery Order and Exemptions - factsheet	Resource Recovery Order and Exemptions	Requirements for publishing pollution monitoring data	Regulatory Assurance Statement	Registration and off label use	Regional waste avoidance and resource recovery strategy guidance
	EPA predecessor agency (DEC)*	EPA	EPA predecessor agency (DEC)*		EPA	EPA	EPA	EPA	EPA
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7 10	2006	2018	2005		Variou s	2012	2019	Updat ed 2018	2014
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	244.	243.	242.	241.	240.	239.	238.
	Safe use of chemicals in the home	Safe compost for fruit and vegetables A guide for the supply of recycled organics to fresh produce growers	Road and rail transport checklist for Alcoholbased hand sanitiser	Risk-based licensing: Regulatory actions tool profiles	Risk-based licensing: Regulatory actions guideline	Risk-based licensing Environmental management systems guidelines - April 2020	Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions
	EPA	EPA, Freshcare, applied horticultural research (ahr), MRA Consulting Group	EPA	EPA	EPA	EPA	Office of Environment and Heritage (NSW) and EPA
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179	2020	2016	2020	2015	2015	2020	2017
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250.	249.	248.	247.	246.	245.
Sources of air pollution in NSW Air Emissions Inventory for the Greater Metropolitan Region of NSW – 2013	Social Research on Small to Medium Enterprises (SME) Waste and Recycling Summary Benchmark Study	Social impact assessment guideline - For State significant mining, petroleum production and extractive industry development September 2017	Smoke abatement notices	Security of sealed radioactive sources	Safeguarding future environmental liabilities from Coal Seam Gas Activities in NSW
EPA	EPA	Department of Planning and Environment (NSW) ^	EPA	EPA	EPA
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2019	2016	2017	2019	Updat ed	2020
Report	Report	Guidance	Webpage	Webpage	Guidance
~	Z	Z	Z	Z	Z
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z	Z	Z	Z	Z	Z
Z	N	N	Z	Z	z

257.	256.	25 5	254.	253.	252.	251.
State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (and Amendment 2014)	State Environmental Planning Policy (Infrastructure) 2007	State Environmental Planning Policy (Exempt and Complying Development Codes) 2008	State Environmental Planning Policy - Three Ports - (various amendment proposals)	State and Territory Greenhouse Gas Inventories 2017 - Australia's National Greenhouse Accounts	Standards for managing construction waste in NSW	Standards and Best Practice Guidelines for Vapour Recovery at Petrol Service Stations
NSW Government	NSW Government ^	NSW Government ^	NSW Government ^	Commonweal th of Australia	EPA	EPA
<	Υ	Z	Z	~	Z	Z
2007	2020	2020	2020	2019	2019	2017
Policy Document	Policy Document	Policy Document	Policy Document	Report	Guidance	Guidance
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Z	Z	Z	Z	Z	Z	Z

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263.	262.	261.	260.	259.	258.
TBL Assessment of (Domestic) Food Organics Management	Sydney Particle Characterisation Study PM2.5 Source Apportionment in the Sydney Region between 2000 and 2014	Storing liquid waste	State Environmental Planning Policy No 55—Remediation of Land (and various amendments to it)	State Environmental Planning Policy (Sydney Region Growth Centres) 2006	State Environmental Planning Policy (Primary Production and Rural Development) 2019
EPA predecessor agency (DEC)*	EPA, ANSTO	EPA predecessor agency (DEC)*	NSW Government ^	NSW Government ^	NSW Government ^
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2006	2016	2005	2020	2020	2020
Report	Report	Fact Sheet	Policy Document	Policy Document	Policy Document
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Y, indirectly	Z	Z	Z	Z	Z
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268.	267.	266.	265.	264.
Technical Note: Vapour Intrusion	Technical Note (Immobilisation Technical Note 2): Cement-based Solidification/Stabilisati on Treatment of Organic chemical Contaminants in Waste	Technical Note (Immobilisation Technical Note 1): Mixing - process equipment for Treatment of Contaminated Soil and Sludge Waste	Technical guidelines for the estimation of greenhouse gas emissions by facilities in Australia - 2017-18 reporting year	Technical Framework - Assessment and Management of odour from stationary sources
EPA predecessor agency (DECCW)*	EPA	EPA	Commonweal th of Australia	EPA predecessor agency (DEC)*
4	Z	Z	Y	Z
2010	2017	2017	2017	2006
Guidance	Guidance	Guidance	Guidance	Guidance
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Z	Z	Z	N, just guidelines for reporting of GHG	Z
Z	Z	Z	Z	z
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274.	273.	272.	271.	270.	269.
Upper Hunter Air Quality Particle Model - Final Report	Upper Hunter Air Particles Action Plan	Tracking sources of air pollution in NSW communities - Air emissions inventory for the Greater Metropolitan Region of NSW	The recycling trouble shooter	The benefits of using compost for mitigating climate change	Technical Notes: Assessment and Management of odour from stationary sources
EPA	EPA	EPA	EPA predecessor agency (OEH)*	EPA predecessor agency (DECCW)*	EPA predecessor agency (DEC)*
Υ	~	Z	Z	~	Z
2014	2013	2012	2011	2011	2006
Report	Plan	Guidance	Guidance	Guidance	Guidance
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280.	279.	278.	277.	276.	275.
Using Compost Materials on Council Sporting Fields	Using Compost Materials in the Construction of Community Parklands	Using Biofilters to Reduce the Greenhouse Impact of Small to Medium Sized landfills	UPSS Technical Note: Investigation of Service Station Sites	UPSS Technical Note: Decommissioning, Abandonment and Removal of UPSS	Upper Hunter Wood Smoke Community Research Project - Final report prepared for the NSW Environment Protection Authority
EPA predecessor agency (DEC)*	EPA predecessor agency (DECC)*	EPA predecessor agency (DECC)*	ЕРА	EPA predecessor agency (DECCW)*	EPA
Y	~	Υ	Z	Z	Z
2007	2007	2007	2014	2010	2016
Guidance	Case Study	Case Study	Technical Note	Technical Note	Report
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285a.	285.	284.	283.	282.	281.
Vehicle Standard (Australian Design Rule 30/01 – Smoke Emission Control for Diesel Vehicles) 2006 – Vol 2	Vehicle Standard (Australian Design Rule 30/01 – Smoke Emission Control for Diesel Vehicles) 2006 – Vol 1	Vapour Recovery Regulation in NSW	Using the ANZECC Guidelines and Water Quality Objectives in NSW	Using environment protection licensing to control water pollution	Using compost safely - A guide for the use of recycled organics in horticulture
	Commonweal th of Australia ^	EPA	EPA predecessor agency (DEC)*	EPA	ЕРА
	Y	Z	Z	≺	Υ
2006	2006	2012	2006	2013	2018
Legal Instrument	Legal Instrument	Guidance	Guidance	Guidance	Guidance
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287b.	287a.	287.	286a.	286.
Vehicle Standard (Australian Design Rule 80/03 – Emission Control for Heavy Vehicles) 2006 – Vol 3	Vehicle Standard (Australian Design Rule 80/03 – Emission Control for Heavy Vehicles) 2006 – Vol 2	Vehicle Standard (Australian Design Rule 80/03 – Emission Control for Heavy Vehicles) 2006 – Vol 1	Vehicle Standard (Australian Design Rule 79/04 – Emission Control for Light Vehicles) 2011 – Vol 2	Vehicle Standard (Australian Design Rule 79/04 – Emission Control for Light Vehicles) 2011 – Vol 1
		Commonweal th of Australia ^		Commonweal th of Australia ^
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Legal Instrument	Legal Instrument	Legal Instrument	Legal Instrument	Legal Instrument
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288b.	288a.	288.	287d.	287c.
Vehicle Standard (Australian Design Rule 81/02 – Fuel Consumption Labelling for Light Vehicles) 2008 – Vol 3	Vehicle Standard (Australian Design Rule 81/02 – Fuel Consumption Labelling for Light Vehicles) 2008 – Vol 2	Vehicle Standard (Australian Design Rule 81/02 – Fuel Consumption Labelling for Light Vehicles) 2008 – Vol 1	Vehicle Standard (Australian Design Rule 80/03 – Emission Control for Heavy Vehicles) 2006 – Vol 5	Vehicle Standard (Australian Design Rule 80/03 – Emission Control for Heavy Vehicles) 2006 – Vol 4
		Commonweal th of Australia ^		
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Legal Instrument	Legal Instrument	Legal Instrument	Legal Instrument	Legal Instrument
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294.	293,	292.	291.	290.	289.	288c.
Ways to reduce food waste in your business	Waste Wise Events Guide	Waste Locate: Important information for tyre outlets, transporters, recyclers and waste facilities	Waste Locate: Important information for the building industry, transports and waste facilities	Waste Levy Guidelines	Waste Classification Guidelines	Vehicle Standard (Australian Design Rule 81/02 – Fuel Consumption Labelling for Light Vehicles) 2008 – Vol 4
EPA	EPA predecessor agency (DEC)*	EPA	EPA	EPA	EPA	
Υ	Y	Z	Z	z	Υ	
2016	2007	2015	2015	2018	2014	
Guidance	Guidance	Guidance	Guidance	Guidance	Legal Instrument	Legal Instrument
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Z	Y, indirectly	Z	Z	N	Z	Z
Z	Z	Z	Z	N	Z	Z
Z	Z	Z	Z	Z	Z	Z

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298.	297.	296.	295,	
Who Cares about Water and Climate Change in 2007?	Who Cares about the Environment in 2015?	Who Cares about the Environment in 2012?	Who Cares about the Environment in 2009?	
EPA predecessor agency (DECC)*	Office of Environment and Heritage (NSW) ^	Office of Environment and Heritage (NSW) ^	EPA predecessor agency (DECCW)*	
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2007	2017	2013	2010	
Report	Report	Report	Report	
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Y, indirectly in the sense of survey data to guide public education	y, indirectly in the sense of survey data to guide public education	Y, indirectly in the sense of survey data to guide public education	Y, indirectly in the sense of survey data to guide public education	
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300.	299a.	299.
National Greenhouse and Energy Reporting Scheme – Greenhouse and Energy information by registered corporation 2018-2019	Wind Energy: Noise Assessment Bulletin – For State Significant wind energy development	Wind Energy Guideline - For State significant wind energy development December 2016
Clean Energy Regulator - Australian Government		Department of Planning and Environment (NSW) ^
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Updat ed 2020		2016
Table	Guidance	Guidance
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N, just record keeping by company	Z	~
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