

Chapter 1

Introduction

1.1 On 6 February 2018, the Senate referred an inquiry into the selection process for a national radioactive waste management facility in South Australia to the Senate Economics References Committee for inquiry and report by 14 August 2018.¹

1.2 The terms of reference for the inquiry were:

The appropriateness and thoroughness of the site selection process for a national radioactive waste management facility at Kimba and Hawker in South Australia, noting the Government has stated that it will not impose such a facility on an unwilling community, with particular reference to:

- a) the financial compensation offered to applicants for the acquisition of land under the Nominations of Land Guidelines;
- b) how the need for 'broad community support' has played and will continue to play a part in the process, including:
 - i) the definition of 'broad community support', and
 - ii) how 'broad community support' has been or will be determined for each process advancement stage;
- c) how any need for Indigenous support has played and will continue to play a part in the process, including how Indigenous support has been or will be determined for each process advancement stage;
- d) whether and/or how the Government's 'community benefit program' payments affect broad community and Indigenous community sentiment;
- e) whether wider (Eyre Peninsular or state-wide) community views should be taken into consideration and, if so, how this is occurring or should be occurring; and
- f) any other related matters.

Conduct of the inquiry

1.3 The committee advertised the inquiry on its website and wrote to relevant stakeholders and other interested parties to draw attention to the inquiry and invite them to make written submissions.

1.4 The committee received 112 submissions as well as additional information and answers to questions on notice. Details of the material received are listed at Appendix 1.

1.5 The committee held three public hearings:

- 5 July in Kimba;

1 *Journals of the Senate*, No. 81, 6 February 2018, pp. 2593–2594.

- 6 July in Hawker; and
- 2 August in Canberra.

1.6 The names of witnesses who appeared at the hearings are listed at Appendix 2.

1.7 References to Committee Hansard are to the Proof Hansard and page numbers may vary between the Proof and Official Hansard transcripts.

1.8 The committee thanks all of the individuals and organisations that assisted with the inquiry, especially those who made written submissions and/or gave evidence at the public hearings.

Background to the inquiry

1.9 As a result of more than 70 years of research, health, environmental and industrial applications, Australia has a widely dispersed inventory of low-level and intermediate-level radioactive waste. The majority of Australia's current and anticipated future low-level and intermediate-level radioactive waste arises from:

- the production of nuclear medicine that is used to diagnose and treat serious illnesses; and
- a range of nuclear based scientific and industrial purposes.²

1.10 While the Australian community benefits from the production of nuclear medicine and nuclear research activities, there is also a responsibility to safely and securely manage the associated radioactive waste products from its generation, through interim storage solutions and ultimately to permanent disposal.³ The process for finding a permanent solution for storing and disposing of Australia's radioactive waste began in the 1970s and is ongoing.

1.11 The main holders of radioactive waste in Australia are Commonwealth agencies, accounting for about 96 per cent of estimated intermediate-level waste and nearly all low-level waste (Table 1). It is anticipated that as much low-level and intermediate-level waste will be produced until 2070 as is currently being stored in legacy inventories.

1.12 Presently, there is no disposal pathway for stored Australian radioactive waste, including the waste stored at Lucas Heights. The approach favoured by the Australian Government is to establish a dedicated National Radioactive Waste Management Facility (NRWMF):

Successive Australian Governments have recognised the efficiency, safety and security benefits that are derived from the centralised management of our radioactive waste holdings in a state-of-the-art special purpose facility.⁴

2 Department of Industry, Innovation and Science, *Submission 40*, p. 7.

3 Department of Industry, Innovation and Science, *Submission 40*, pp. 3 and 7.

4 Department of Industry, Innovation and Science, *Submission 40*, p. 7.

1.13 A central NRWMF would permanently house the government's legacy and future streams of low-level radioactive waste along with holdings of other entities where these meet strict acceptance criteria. The NRWMF would also store, on an interim basis, Australia's relatively modest holdings of intermediate-level waste. Australia does not produce or store any high-level radioactive waste, and any such waste would not be accepted at the NRWMF.⁵ Further, no foreign waste will be accepted at the NRWMF.⁶

Table 1: Radioactive waste inventory volumes (cubic metres) as at 10 January 2018⁷

	Low Level Waste		Intermediate Level Waste	
	Legacy	Future ^b	Legacy	Future ^b
Commonwealth				
ANSTO	2,771	4,685	1,211	1,849
ARPANSA	6	36	1	43
CSIRO	1,967	40	419	62
Defence	224	83	60	9
Subtotal C'wth	4,967	4,843	1,691	1,963
States and Territories	8	Not reported	66	Not reported
Industry, hospitals, universities ^c	Not reported	Not reported	13	Not reported
Total	4,975	4,843	1,771	1,963

Source: Department of Industry, Innovation and Science, *Australian Radioactive Waste Management Framework*, April 2018, p. 4.

1.14 Regarding the need for a facility, Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) Chief Regulatory Officer, Mr Jim Scott, succinctly stated the reasons why current arrangements at Lucas Heights were not suitable:

The Lucas Heights site is not actually able to be a disposal site; that is part of the ANSTO [Australian Nuclear Science and Technology Organisation] Act. The site that is currently being looked at for the national radioactive waste management facility will be a disposal site for low-level waste. That cannot be Lucas Heights under the current legislation. World's best practice establishes that long-term storage is not an option; you must have a disposal pathway. So the establishment of a national radioactive waste management facility is to attempt to locate a site for a disposal facility. The waste that is currently stored at ANSTO cannot remain there indefinitely.⁸

5 Department of Industry, Innovation and Science, *Submission 40*, p. 3.

6 Department of Industry, Innovation and Science, *Submission 40*, p. 7.

7 Expected waste from current and future activities until 1 January 2070.

8 Jim Scott, Australian Radiation Protection and Nuclear Safety Agency, *Committee Hansard*, 2 August 2018, pp. 9–10.

1.15 The enabling legislation to establish a NRWMF was introduced into Parliament in October 2010 and passed in March 2012.⁹ The *National Radioactive Waste Management Act 2012* (the Act) ensures the Commonwealth's power to make arrangements for the safe and secure management of radioactive waste generated, possessed or controlled by the Commonwealth. The legislative framework is based on volunteerism, as no site can be considered as a potential location for a radioactive waste management facility without the voluntary nomination of that site and agreement of persons with relevant rights and interests.¹⁰

The site selection process

1.16 The process of finding a suitable site for a NRWMF is complex and needs to take into account a suite of technical, environmental, social, and indigenous cultural and heritage considerations.¹¹

1.17 The authority and broad process for finding land to establish a NRWMF is defined under the Act. The Act prescribes the minimum set of steps that must be followed by the responsible Minister in selecting a preferred site.¹² The Minister may then consider accepting a nomination and instruct the department to undertake relevant technical assessments before selecting a single preferred site. At each stage, the Minister is only required to consult with, and take into account comments from, the nominator and persons with a right or interest in the nominated land.¹³

1.18 The key activities in the site selection process are:

- **Pre-nomination information**—nomination guidelines were developed and published online to inform nominees of the process.
- **Minister calls for nominations**—potential nominees are encouraged to speak with the department about their nomination.
- **Initial site assessment (desktop)**
- **Nomination**—the nominator submits a nomination of land to the Minister.
- **60 day comments period**—allows all community members and members of the public opportunity to comment on whether they would like to continue with the site selection process.
- **Nomination decision**—Minister decides whether to accept the nomination and uses the Site Selection Framework to inform his decision under the Act (see below).

9 Parliament of Australia, *National Radioactive Waste Management Bill 2010*, https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bId=r4472 (accessed 27 July 2018).

10 National Radioactive Waste Management Bill 2010, *Explanatory Memorandum*, p. 2.

11 Department of Industry, Innovation and Science, *Submission 40*, p. 3.

12 Department of Industry, Innovation and Science, *Submission 40*, p. 3.

13 Department of Industry, Innovation and Science, *Submission 40*, p. 3.

- **Continuous public consultation**—the consultation process continues after the nomination has been accepted and is designed in partnership with the community. At a minimum, consultation includes numerous information sessions, the establishment of a local consultative committee, information booklets and newsletters, the engagement of a community liaison officer and the establishment of a local office to act as link between the community and the government.
- **Detailed onsite technical assessment**—site characterisation assessments are undertaken to further assess the site technical capacity to host the NRWMF, including geotechnical characteristics, security, safety and radiation characteristics, potential environmental and cultural heritage values of the land that may be affected by the NRWMF, transport routes and infrastructure availability and constraints.
- **Community sentiment assessment**—community sentiment will be assessed including through submissions made to the Minister and the department, and the community led vote.
- **Site assessment**—the Minister will make an assessment of the site taking into consideration various factors including community sentiment, site characterisation, heritage assessment, infrastructure and cost.
- **Site elimination or site declared**—the Minister may eliminate or select a site using powers under the Act.
- **Detailed Business Case**—submission to the Public Works Committee for approval to construct.
- **Regulatory approvals preparation**
- **Regulatory approvals**—submission and assessment under the Environmental Protection and Biodiversity Conservation (EPBC) and Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) approval processes, culminating in decisions as to whether to grant permission to begin construction.
- **Construction**—if decisions under the previous step are positive, site clearance and construction to commence, including associated infrastructure. Further ARPANSA approvals sought to provide an operating license.
- **Operation**—if an operating license is granted, NRWMF to commence operation.¹⁴

1.19 Put simply, the project phases of the site selection process are:

- Phase 1: Nominations, site assessment and shortlist identification.
- Phase 2: Technical assessment, site characterisation studies and preferred site identification.

14 Department of Industry, Innovation and Science, *Submission 40*, pp. 18–19.

- Phase 3: Site selection, facility design and licensing.
- Phase 4: Construction.
- Phase 5: Operation.¹⁵

1.20 The government has also published a *National Radioactive Waste Management Facility Site Selection Framework*. This document outlines the multi-criteria site analysis (MCSA) framework that the Department of Industry, Innovation and Science (DIIS) has applied to the nominated land to initially assess nominations for their suitability. The MSCA framework can also be used in subsequent phases of the project and the outcomes will be part of the information provided to the Minister for consideration when making a decision under the Act.¹⁶

*The selection process to date*¹⁷

1.21 Following the Act receiving royal assent in April 2012, the government released a notice of intention to consider opening a nationwide volunteer process of land owners to nominate land for a NRWMF in September 2014.

1.22 The official call for nominations was conducted between 2 March and 5 May 2015. A total of 28 applications were received, including the Hawker site and two sites from the township of Kimba—'Pinkawillinie' and 'Cortlinye'.

1.23 In November 2015, former Minister for Resources, the Hon Josh Frydenberg MP, announced the six nominated areas that had been assessed as suitable for a further assessment and public consultation to assess the level of community support to continuing the site selection process. Between November 2015 and March 2016, the consultation process for the six nominated sites was undertaken.

1.24 In April 2016, the former Minister announced that the Hawker site, 'Wallerberdina Station', was the only site of the six shortlisted to be chosen to progress to the next stage of consideration. In January 2017, the subsequent Minister for Resources, Senator the Hon Matt Canavan, announced the 11 successful grant recipients for Round 1 of the Community Benefits Programme in the Hawker region.

1.25 In November 2016, Minister Canavan approved a revision to the *Radioactive Waste Management: Nominations of Land Guidelines*, that set out a process by which land holders may nominate their land for consideration as a potential site for the facility. Following this change to the nomination process, the Working for Kimba's Future group approached the government with three potential new sites for nomination—'Lyndhurst', 'Napandee' and 'Tola Park'.

15 Department of Industry, Innovation and Science, *Answers to questions on notice*, 2 August 2018, p. 7 (received 8 August 2018).

16 GHD, *National Radioactive Waste Management Facility, Site Selection Framework*, 23-15328, May 2018, p. ii.

17 The information in this section is derived from 'Appendix 6—Chronology of site selection process', Department of Industry, Innovation and Science, *Submission 40*, pp. 31–33.

1.26 In March 2017, Minister Canavan announced the formal receipt of two new land nominations near Kimba which were both accepted to proceed to an initial Phase 1 consultation—'Napandee' and 'Lyndhurst'. Community consultation to assess the level of community support for two Kimba sites continuing in the site selection process was undertaken between 20 March and 21 June 2017. The Australian Electoral Commission (AEC) conducted a ballot at the request of the Kimba District Council in the last three weeks of this consultation process. On 27 June 2017, the Minister accepted the nominations of the Kimba sites and announced that the sites were to proceed to the next phase of assessment.

1.27 On 1 November 2017, Minister Canavan announced the successful grant recipients for Round 1 of the Community Benefits Programme in Kimba and Round 2 of the Community Benefits Programme in Hawker.

1.28 Public consultation, detailed onsite technical assessment, and community sentiment assessment has been conducted for all the three nominated sites that have been accepted—'Wallerberdina Station' (near Hawker), 'Napandee' and 'Lyndhurst' (both near Kimba). As of April 2018, DIIS indicated that an Aboriginal Cultural Heritage Assessment has been conducted with the traditional owners at the 'Wallerberdina Station' site and work is underway for similar assessments for the two sites in Kimba.¹⁸

1.29 Further, DIIS submitted that:

The department anticipates that an assessment of community sentiment will occur in the second half of 2018. The department expects that the Minister will have sufficient information on site suitability (environment, heritage, infrastructure, and community services) to inform his decision to select a preferred site by the end of 2018.¹⁹

1.30 A final community sentiment vote is scheduled to be undertaken by the AEC on behalf of the District Council of Kimba and the Flinders Ranges Council between 20 August and 28 September 2018. This vote seeks to determine community support for hosting a radioactive waste management facility in both Kimba and Hawker.

1.31 Following the completion of the community sentiment assessment (including the vote) and the detailed onsite technical assessment, the Minister will decide if any of the nominated sites are selected to progress to a detailed business case. It is anticipated that this decision will take place before the end of 2018.

Structure of the report

1.32 This report consists of five chapters, including this introductory chapter:

- Chapter 2 discusses the concept of broad community support and wider community views;
- Chapter 3 focuses on issues related to Indigenous consultation;

18 Department of Industry, Innovation and Science, *Submission 40*, p. 8.

19 Department of Industry, Innovation and Science, *Submission 40*, p. 8.

- Chapter 4 considers the financial incentives provided to land nominators and affected communities; and
- Chapter 5 explores general issues related to the site selection process.

