



**Australian Government**  
**Department of Industry,  
Innovation and Science**

# Supplementary Submission to Senate Inquiry into the National Radioactive Waste Management (Site Specification, Community Fund and Other Measures) Bill 2020

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## Introduction

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The Department of Industry, Science, Energy and Resources (the department) thanks the Economics Legislation Committee for the opportunity to provide a supplementary submission to the inquiry into the National Radioactive Waste Management Amendments (Site Specification, Community Fund and Other Measures) Bill 2020 (the Bill).

This supplementary submission builds on the department's initial submission and provides the committee with additional information on the following key issues raised in other submissions to the inquiry, including:

- consideration of alternative sites, including ANSTO's Lucas Heights campus and Woomera
- Intermediate Level Waste (ILW) disposal
- rationale for building an 'above ground' Low Level Waste (LLW) disposal facility
- agriculture
- transportation of radioactive waste
- community consultation about site selection
- costs and economic benefits associated with the facility
- government amendments that prohibit the acquisition of native title, and other matters relevant to indigenous interests
- definitions and volumes of low, intermediate and high level waste
- decision-making processes
- procedural fairness, and
- the interrelation between the Bill and other state, territory or Commonwealth laws

## Consideration of alternative sites, including ANSTO's Lucas Heights campus and Woomera

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The government has considered a wide range of potential sites for the location of the National Radioactive Waste Management Facility (the Facility).

Between 1992 and 2000, an Australia-wide survey was undertaken to site the construction of a near-surface repository for disposal of Australia's low level and short-lived intermediate level radioactive waste. Three sites were considered in South Australia following this process, two adjacent to the Woomera Prohibited Area (WPA), and one within the WPA. While an initial Environmental Impact Statement (EIS) report from 2002 indicated the site within the WPA (52a) was a suitable site for the Facility, the Supervising Scientist subsequently assessed the site as unsuitable, finding an unacceptably high probability that Australian Defence Force activities would impact the Facility. The report is public and can be found on the Department of Agriculture, Water and the Environment's website. The government's subsequent acquisition of one of the sites adjacent to the WPA was overturned in court in 2004.

In 2005, the *Commonwealth Radioactive Waste Management Act 2005* (Cth) was passed by Parliament to facilitate the construction of co-located facilities on Commonwealth land for the management of low and intermediate level radioactive waste produced by Australian Government agencies. At the request of the Northern Territory, the government considered Muckaty Station as a site for the Facility, although this nomination was later withdrawn.

The current site selection process for this important piece of national infrastructure has been a complex endeavour, consistent with international best practice, and based around volunteered land in areas where there is broad community support for the Facility.

The proposed site for this nationally significant facility has been identified following:

- analysis of forty-two discrete Commonwealth-owned sites, none of which were found suitable against the relevant technical, economic, social and environmental criteria;
- a nation-wide voluntary nomination process, including preliminary community ballots in 2017 indicating majority support for further discussions on the Facility; and
- a consultation phase involving significant community participation in consultative committees, economic working groups, site characterisation activities and community events.

Initially, some 28 landowners put forward land, 25 of which met basic criteria, and six of those were initially shortlisted. Of these, only the Wallerberdina Station site was found to have enough community support to move forward to the site selection phase. Subsequently, two voluntarily nominated sites near Kimba also moved forward to the site selection phase, after also meeting basic criteria and being found to have enough community support for further investigations at those sites. In 2018, the Senate Economics References Committee inquired into the process for the selection of a site for the national facility and did not find any fundamental flaws in the site selection process.

Information on the suitability of Napandee as the site for the Facility can be found in the Minister's assessment of the preferred site published on the department's website in March 2020. More detailed information can be found in the site assessment information, published on the department's website in April 2020.

### Lucas Heights

The ANSTO Lucas Heights campus is a total of 70 hectares with more than 80 buildings located on it. The small amount of remaining free space at Lucas Heights will need to accommodate the expansion of the campus' future science and research activities. The Facility requires at least 100 hectares and will therefore not fit within the ANSTO campus.

As noted in ANSTO's submission to this Inquiry (Submission 21), regardless of the size limitations, the Lucas Heights campus would be unlikely to satisfy geological and hydrological requirements of a disposal site.

ANSTO's mandate relates to science and medicine production. The campus was never intended as a long-term waste management facility. ANSTO is only licenced to store waste at its Lucas Heights campus on a temporary basis, and on the condition that it provide full life-cycle plans for management, storage and disposal of its radioactive waste by 30 June 2020.

Further information on the reasons for a national facility, including the reasons why the waste cannot stay where it is, can be found in the fact sheet *Why we need a Radioactive Waste Management Facility*, published on the department's website in June 2018.

### Woomera

As noted above, a potentially suitable site within the WPA (52a) was identified in 2002, but subsequently assessed by the Supervising Scientist as unsuitable, due to an unacceptably high probability that Australian Defence Force activities would impact the Facility.

In 2017, forty-two discrete Commonwealth-owned sites were assessed using a desktop multi-criteria site assessment tool. This tool was also used for the current shortlisted sites and considers technical, economic, social and environmental criteria.

In that 2017 assessment, two sites within the WPA and one within 10km of its boundary all passed the initial multi-criteria assessment, but were subsequently assessed by Defence as unsuitable due to Defence operational requirements. The sites were:

- Woomera (Nurrunga Test Area): south of Woomera and the WPA
- Woomera (Airfield, Technical Area, Woomera Village): within the WPA, contains Woomera township and the Woomera Airfield, and on Defence land, and
- Woomera (Small Arms Test Range): within the WPA, contains built structures on site and on Defence land.

The majority of the WPA is comprised of Aboriginal freehold title and South Australian Crown land that is subject to pastoral leases, mining and resource exploration tenements and conservation areas. The small number of Commonwealth-owned Defence land parcels within the WPA lie mainly within a larger area prescribed as the 'red zone' that is legislatively designated for continuous Defence use.

Certain Aboriginal people and pastoralists have existing permission to access the red zone but this may be suspended during periods of testing war materiel (including missile testing). Exclusion periods of between 56 to 140 days are periodically implemented, which would require the Facility to be shut down and prevent necessary environmental and radiological monitoring.

The Department of Defence has also evaluated and recently re-confirmed its position that a permanent disposal facility would be incompatible with Defence's ongoing operations—the *Defence White Paper 2016* and WPA review in 2018 foreshadowed an increase in operations in the WPA, which would further limit the ability to use and monitor the site.

The CSIRO radioactive waste storage within the WPA was developed as an interim solution, with plans to relocate the waste to the national facility once it is operational. CSIRO has recently reviewed the physical condition and nature of its holdings, and now estimates that the amount of LLW is less than 200 drums (in the store of almost 10,000 drums). There is no current indication that there is any intermediate level waste.

## Intermediate level waste (ILW) disposal

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As outlined in the Australian Radioactive Waste Management Framework, the Facility will be designed and licenced for the temporary storage of ILW for a number of decades, while an ILW disposal pathway is developed. The design life for the stores will be about 50 years allowing for a period of waste storage and a period for waste transfer to the ILW disposal site.

A different type of facility will be needed for permanent disposal of ILW. The ILW disposal facility will be sited in a different location to the LLW disposal facility. A suitable site for ILW disposal will be subject to a separate siting and regulatory process and will require significant research and development.

Government is currently considering options to progress further development of an ILW disposal pathway.

## Rationale for building an 'above ground' low level waste (LLW) disposal facility

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Internationally, LLW is typically disposed of in near surface or above ground disposal facilities. These are in the form of simple or engineered trenches or concrete vaults in which containerised waste is placed.

The concept design for the Facility is for concrete vaults which will isolate the waste from the environment and from people. After vault closure an engineered earthen cap is placed over the waste containers to further isolate the waste and to minimise water infiltration. The facilities are subject to surveillance until the hazard associated with the waste has declined to acceptable levels, as determined by safety regulators.

The decision to pursue an above ground facility took into account Adnyamathanha traditional owners who indicated a strong preference for an above ground facility rather than an underground facility.

## Agriculture

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Internationally, radioactive waste facilities and farms have existed side-by side for decades without any reputational or market impact on surrounding agriculture, tourism or other community activities. The common experience of such facilities located in the farming regions of France, Belgium, the UK, Spain, the United States and Germany is that the new industry plays an important role in the life of local communities by providing jobs and investment, and diversifying local economic and social development.

Australian major grain export markets include China, Japan and South Korea, which all have nuclear energy. Further, the largest exporters of grain in the world, Russia and the USA, both also have significant nuclear programs.

Radioactive waste is already found in more than 100 locations around Australia, including at five sites within 200 kilometres of Kimba. None of these facilities—internationally, or in South Australia—have negatively impacted local or regional farming products, prices or reputations.

Former Minister Canavan hosted an agricultural round table on 12 June 2018. This was attended by representatives of major South Australian agricultural associations, and representatives from the then Department of Agriculture to discuss the potential establishment of a facility. The Department of Agriculture, Water and the Environment has subsequently stated there is no reason why there would be any issues obtaining export licences or accreditation.

Experts at Organics Australia have also advised that organic certification would not be impacted by a nearby facility. The Senate Economics References Committee Inquiry in 2018 into the selection process for a national radioactive waste management facility in South Australia considered that concerns about the potential perception issues for agricultural produce were unfounded.

The government recognises the importance of the agricultural industry around Kimba and is committed to promoting research and development benefits for the agricultural sector there.

Space in the larger zone surrounding the Facility, the parameters of which are proposed to be set out in legislation, has been added to accommodate a research and development agricultural zone. This is in line with recommendations from the Senate Economics References Committee Inquiry in 2018 and consultations with the community. The department is working with the Kimba community to explore how the unused land around the Facility could be used and how additional support could be provided to boost farm productivity.

Further information is available in the factsheet *Agriculture and the Facility*, published in 2018 on the department's website.

## Transportation of radioactive waste

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Radioactive waste is currently stored at more than 100 locations around Australia, including at facilities like the ANSTO, the CSIRO, the Department of Defence, hospitals, and universities.

The majority of this waste arises from the production of nuclear medicines, from which two in three Australians on average will benefit during their lifetime. For example, in hospitals and nuclear medicine clinics around the country, special devices called Gentech Generators, which contain the radioactive compound, sodium pertechnetate [ $^{99m}\text{Tc}$ ] are used for imaging of the brain, thyroid, liver, lungs, bones, and kidneys to determine their function and health. Other radioactive materials of longer life are or were formerly used in the treatment of cancers through techniques such as brachytherapy and radiotherapy. In universities, for example, radioactive waste is produced in laboratories as a result of historical and current research activities—this typically is of a low level of radioactivity and may comprise contaminated laboratory equipment, glassware, liquid waste from historical experiments, and material test samples.

Once the Facility is established, it is expected that about a dozen university stores, as well as CSIRO's Woomera waste storage facility, other CSIRO sites in New South Wales and Victoria, several defence facilities, and a number of other sites would no longer be needed for the storage of radioactive waste.

Transporting radioactive waste to the Facility will comply with strict Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) requirements. This will ensure the highest safety standards are upheld that includes a broad range of checks and balances, such as waste being conditioned and packaged at its source for transport, in-built safety features of each package, and emergency response procedures. Waste packages will also meet the Facility's waste acceptance criteria which includes the requirement for them to be being fully immobilised, solid and non-dispersible.

The impeccable safety record for transporting and shipping radioactive materials across Australia is longstanding. This is primarily due to the strict regulatory controls and implementation of the Code of Practice for the Safe Transport of Radioactive Material by the ARPANSA, which is based on the International Atomic Energy Agency's Regulations of the Safe Transport of Radioactive Material. Radioactive material has been safely transported in Australia for approximately 70 years and there has never been an accident resulting in a significant impact on the health and safety of people or the environment. Furthermore, with over 7,000 international shipments of spent fuel (more than 80,000 tonnes) since 1971, there has been no breach of containment or release of radiation as a consequence of any of these shipments. Every week around 10,000 doses of nuclear medicine are safely transported on public roads and commercial flights to around 250 hospitals and nuclear medicine clinics in Australia and the Australasian region.

Further information is available in the factsheet *Transportation of radioactive materials*, published in July 2018 on the department's website, over 1300 copies of this factsheet have been made available.

## Consultation with communities

Determining the most viable transport route from major waste holders is a complex process. It requires detailed engineering and technical assessments to be conducted on the various modes of transport and alternative routes, as well as a thorough examination of the service infrastructure that will be required to support the transportation. It is not until after a site is acquired that a detailed plan can be established for the transport of Australia's radioactive waste to the Facility, after which time consultation along these routes can be considered.

A transport plan will form part of the environmental assessment required under the *Environment Protection and Biodiversity Conservation Act 1999* and regulatory assessments required before the operational licenses for the Facility can be issued by ARPANSA under the *Australian Radiation Protection and Nuclear Safety Act 1998* (ARPANS Act). As part of these processes, it is expected that regulators would consult with communities along transport routes if they consider there is significant public interest in doing so.

## Community consultation about site selection

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The government has maintained a commitment to public participation in the site selection process. Public participation includes objective information about the nominated sites, the Facility and its future operation, as well as a range of engagement activities to establish understanding and develop informed sentiment.

Each member of the communities surrounding the nominated sites, including the relevant Traditional Owners, has been provided with objective information, and has been given the opportunity to meaningfully engage with and participate in the site selection process. Community Consultative Committees were established in Hawker (December 2016) and Kimba (January 2018) to exchange information about the project and get feedback from the community. The committees were supported by Economic Working Groups in each community. The department undertook specific engagement and direct consultation with various local groups. This included:

- publication of monthly newsletters in each community
- Facility content on the department's website and Facebook page
- information sessions and webinars
- local shopfronts in Kimba and Hawker, staffed by a departmental Community Liaison Officer

Some opportunities to comment were open to anyone, while others were open only to individuals and organisations in the host community of each nominated site. These individuals and organisations included neighbours to nominated sites, local business owners or operators, residents and Registered Native Title Bodies Corporate (RNTBCs).

The department sought to engage directly with Traditional Owner groups, including RNTBCs wherever possible. Traditional Owners were encouraged to provide input through public submissions and engagement activities with department staff (see Aboriginal engagement, pg 10). The department has approached the following groups for consultation and offered financial support for these groups to undertake surveys of their members to determine levels of support for a facility within the vicinity of their Native Title areas:

- Barngarla Determination Aboriginal Corporation (BDAC)
- Adnyamathanha Traditional Lands Association (ATLA)
- Viliwarinha Yura Traditional Lands Association (VYAC)
- Gawler Ranges Aboriginal Corporation (GRAC)

Experts and regulators were also key contributors and participated in a range of formal meetings, forums and otherwise assisted with activities where appropriate and requested.

The department has facilitated presentations from individuals known to oppose the Facility, for example:

- David Sweeney, Australian Conservation Foundation
- Dr Peter Karamoskos, Australian Conservation Foundation
- Dr Margaret Beavis, President of the Medical Association for Prevention of War
- Dr Victor Gostin, University of Adelaide



## Costs and economic benefits associated with the Facility

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Cadence Economics conducted an economic benefit analysis in July 2018 based on conservative estimated construction costs of \$325 million for the Facility. These costs include<sup>1</sup>:

- capital works of \$250 million for the Facility over 2 years, consisting of the administration, laboratory, waste reception and security facilities, as well as LLW buildings and the low level disposal vaults, and building the support infrastructure on site (power, fire prevention systems, IT systems, drainage), and
- enabling works of \$75 million staged over 2 years (connecting and establishing infrastructure to the site of power, water, roads and communication).

These costs were estimated prior to the identification of a suitable site, based on international experience and generic concept designs. They do not factor in the implications of developing the Facility in a regional setting or the specific characteristics of the shortlisted sites, and are highly conservative.

While government has undertaken more detailed cost analysis of the Facility, it is in the public interest to keep those costs confidential prior to construction, to ensure the government can achieve the best value for money during a tendering process.

Costs associated with project will be subject to Public Works Committee (PWC) review. The PWC will receive in-confidence briefings of the detailed costs in due course. The project is also subject to the Department of Finance's Gateway Assurance Review process.

### Economic benefits

Cadence Economics estimated that

- during construction:
  - \$2.5 million worth of construction per annum would be undertaken by local firms
  - construction workers from outside the region are expected to spend an average of \$100 a day locally, and
  - there would also be significant investment in site infrastructure—such as roads, telecommunications and energy.
- when fully operational:
  - the Facility will generate an additional \$8.3–\$8.4 million in annual benefits to the local economy, and
  - employ 45 full-time equivalent workers, of which 75 per cent would come from the local region and who would earn, in total, a combined \$4.7 million in salary per annum.

### Estimate of jobs at the Facility

In 2016, during the initial stages of the voluntary nomination process (2015–2017), the government announced that the Facility would create 15 local jobs. This early estimate included the waste management jobs associated with a LLW facility alone. It did not include supporting jobs in areas such as environment monitoring, community liaison, and health and safety roles.

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<sup>1</sup> Detailed costs about the Facility have not been released in the public domain. During community consultations, AECOM suggested that the project would draw on tier 1 contractors, consistent with most capital projects of \$150 million. More considered numbers have been provided in economic reports that were released to the public in July 2018. While carefully calculated, these numbers are still estimates and also include additional estimate costs around possible enabling work (power, water, roads and communications). General government practise is that detailed cost estimate numbers remain commercial-in-confidence).

Once the full scope of the Facility was confirmed to include ILW storage, and on the advice of ANSTO, the estimate was revised to 45 local jobs, including nine technicians, two administration roles and 11 support services roles (safety, environment, security, radiation protection, and community liaison).

More information on the specific job roles and potential organisational structure is available in the *Jobs at the Facility* factsheet first published in May 2018 on the department's website.

## Government amendments that prohibit the acquisition of native title, and other matters relevant to indigenous interests

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### Native title

The Barngarla People's native title determination, which came into effect on 6 April 2018, covers about 44,500 square kilometres of the Eyre Peninsula and includes the cities of Port Lincoln and Whyalla.

No native title exists on the identified facility site at Napandee.

Proposed section 19B of the Bill enables the Minister to acquire additional land for the purposes of providing all-weather access to the Facility. This is consistent with subsection 14(4) of the current Act. While it is unlikely that additional land for access will be required (two access roads already exist at the site), this section enables additional land to be acquired, for example to meet requirements as they arise, or conditions that may be imposed in the regulatory approval process.

In June 2020, the government amended the Bill during debate in the House of Representatives to put beyond doubt that native title rights and interests, within the meaning of the *Native Title Act 1993*, cannot be acquired or extinguished as part of any additional acquisition made under section 19B.

### Aboriginal engagement

The need to avoid, minimise and mitigate impacts to Aboriginal heritage and cultural values remains, despite the absence of native title at the site. Aboriginal heritage and cultural values that may be affected by the Facility will be assessed and the government will need to ensure impacts to those values are avoided, minimised and mitigated to obtain approval under the *Environment Protection and Biodiversity Protection Act 1999* for the Facility.

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) provides that Indigenous peoples have the right to self-determination, by virtue of which they freely determine their political status and freely pursue their economic, social and cultural development. The declaration also provides that Indigenous people have the right to participate in decision making on matters which would affect their rights. Australia announced its support for the UNDRIP in 2009. In recognition of this, the government has and continues to pursue meaningful engagement to ensure that Indigenous people continue to have a say in the establishment of the Facility, and continue to be treated respectfully.

The Barngarla People are recognised as key stakeholders in the engagement process. At the request of BDAC, primary engagement has been correspondence through their legal representatives, and offers to meet with and directly consult with the Barngarla People on the project have been met with limited success.

Since the nomination of the sites at Lyndhurst and Napandee, the taskforce has recorded 89 interactions with Barngarla People, BDAC, or their legal representatives. This has included, as at 12 June 2020, at least:

- 30 instances of sharing information, or offers of meetings to share information, regarding the Facility
- 8 instances where an offer was made to conduct a cultural heritage assessment in collaboration with a working group of Barngarla knowledge holders
- 4 offers to fund BDAC to gather the views of their members regarding the Facility, and
- 3 offers of a funded trip for its board and interested members to visit the ANSTO Lucas Heights facility to see how radioactive waste is currently managed.

In contrast, since the nomination of the site at Wallerberdina, the taskforce has undertaken extensive and varied engagement with Adnyamathanha People. This has been a highly collaborative process, particularly with the VYAC and highlights the government's commitment to effective engagement with the traditional custodians of country. Engagement with Adnyamathanha People included:

- collaboration on the heritage working group and input into the heritage assessment (further information is available in the factsheet *Heritage at Wallerberdina*, first published on the department's website in July 2018)
- active engagement in relevant groups such as the consultative committee and economic working group
- the delivery of cultural awareness training to project staff
- acceptance of support to undertake member ballots about sentiment for the Facility, and
- attendance at regional information sessions held for traditional owners.

The government acknowledges the Barngarla People as the traditional custodians for country where this facility is proposed to be located, and respects their cultural connection to and heritage value associated with the land. The government continues to seek to form a long term relationship with the Barngarla community based on mutual respect, and to provide opportunities for the Barngarla People to engage with the government about the project in a way that is meaningful to them, and which provides a range of benefits for the Barngarla People.

In particular, the government is currently seeking to engage with the Barngarla and to work with them to undertake a detailed heritage and cultural assessment. Government's preference is to design this assessment with the Barngarla People, and to work with Barngarla representatives to identify how the project can be undertaken in a manner that avoids, minimises and mitigates impact to the heritage and cultural values identified during the assessment. The government will also provide an opportunity for the Barngarla People to hear about and provide their views on the broader environmental impact assessment. All of this information will be available for the detailed assessment that will occur under the EPBC Act, and the outcomes will inform the regulatory conditions imposed on the project should it be approved by the Minister for Environment. The government's preference is to reach agreement with the Barngarla about how the Facility can proceed in a manner that voids or has minimal and mitigated impact on the values that are important to the Barngarla People and for the outcomes of this engagement to inform the assessment and approval decision under the EPBC Act. The Facility cannot proceed until it has received regulatory approval under the EPBC Act and ARPANS Act.

## Federal Court proceedings

Some submissions queried the impact of the Bill on the proceedings in the Federal Court between BDAC and Kimba Council. BDAC initiated court proceedings in the Federal Court on 29 October 2018, alleging that the Kimba National Radioactive Waste Management Facility Ballot excluded the Barngarla people from participating on the basis of their Aboriginality, in contravention of the *Racial Discrimination Act 1975* (RDA).

At a hearing on 30 January 2019, Kimba Council provided evidence on the eligibility of persons who could participate in the ballot. Specifically, that eligibility was based on the same legislative criteria to qualify for voting in local government elections under the section 14 of the *Local Government (Elections) Act 1999* (SA). This criteria focuses on residence and rateable property in the council area, and not race. On 12 July 2019 the court dismissed BDAC's case on the basis that the ballot, specifically eligibility to take part in the ballot, did not exclude or disqualify participation on the basis of race and did not contravene the RDA. The decision was appealed to the full bench of the Federal Court, where the appeal was dismissed on 13 March 2020. The primary judge's finding that the ballot run by Kimba Council did not breach the RDA was upheld.

## Definitions and volumes of low, intermediate and high level waste

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Radioactive waste contains radioactive material, meaning it emits ionizing radiation or particles. Australia's radioactive waste comes from a number of locations including science facilities like ANSTO, CSIRO, the Department of Defence and hospitals and universities.

Australia's Open Pool Australian Lightwater (OPAL) reactor guarantees our supply of nuclear medicines. While there are alternative techniques, they cannot produce at the volume, reliability or purity required to meet demand.

Low level waste (LLW) emits radiation at levels which generally require minimal shielding during handling, transport and storage. It predominantly comes from the production of nuclear medicine, and includes materials such as the gloves, gowns and other tools used in the production, distribution and use of nuclear medicines. The concentration and amount of radionuclides in LLW is limited to that suitable for near surface disposal. (For example for waste to be classed as LLW in the UK, radioactivity concentration must not exceed 4,000 Bq/g alpha emitting radionuclides and 12,000 Bq/g beta/gamma emitting radionuclides and a total waste package limit is applied of 4,000,000,000 Bq alpha or 12,000,000,000 Bq beta/gamma emitting radionuclides).

Australia's intermediate level waste (ILW) is also largely associated with the production of nuclear medicine. Australia has different types of ILW. Some examples include: the vitrified residues resulting from the reprocessing of spent fuel that returned from France in 2015, activated components of the research reactors at Lucas Heights, high activity radiation sources used in hospitals and in industry and liquid waste resulting from the production of Molybdenum 99 for nuclear medicine purposes.

The measure that determines whether or not waste is intermediate or high level is heat generation and the level of long-lived radionuclides. If the waste generates more than two kilowatts per cubic metre it is categorised as HLW. ANSTO's waste that returned from France generated 0.28 kilowatts of heat per cubic metre, which is many times beneath the threshold of HLW.

The Facility will dispose of an estimated 9818 cubic metres of LLW (4975m<sup>3</sup> legacy + 4843 m<sup>3</sup> future) and store 3734 cubic metres of ILW (1771m<sup>3</sup> legacy + 1963m<sup>3</sup> future)<sup>2</sup>.

ILW takes a range of forms. For example, TN81 casks are very large, but the waste they hold only comprises a small part of the ILW held by ANSTO, less than 1 per cent by volume. Other ILW going to the Facility includes Synroc—a new technology developed by ANSTO and the Australian National University that is used to convert liquid waste into glass to ensure it is solid and suitable for disposal. Other ILW includes waste from reactor and nuclear medicine operations and associated equipment.

High level waste (HLW) is usually generated from reprocessing of spent fuel from nuclear power plants. Australia does not have any HLW and the Facility will not be designed or licensed to accept this type of waste, this also includes not accepting any overseas waste. The South Australian Nuclear Fuel Cycle Royal Commission considered the feasibility of establishing and operating a facility in South Australia. Their report recommends that South Australia pursue a purpose-built waste storage and disposal facility for used nuclear fuel, and identifies a number of geological, political and climactic features which make South Australia suitable for this activity. It does not identify any sites where HLW storage would be possible.

Full information on Australia's waste inventory is published in the Australian Radioactive Waste Management Framework. A summary of the framework can be found in the factsheet *Australian Radioactive Waste Management Framework Summary* published on the department's website in June 2018.

## Decision-making processes

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The Bill proposes that the acquisition of a site for this important national facility be a decision of the Parliament of Australia, representing the people of Australia, rather than being at the discretion of one Minister. Stringent accountability mechanisms will apply to the decision made through the parliamentary process but that would not include judicial review proceedings under the *Administrative Decisions (Judicial Review) Act 1977* (ADJR Act). The parliamentary process requires scrutiny of all bills and instruments by elected officials against a set of accountability standards and principles. It also includes consideration by a broader cohort of ministers, with opportunities provided to all members of Parliament to scrutinise and comment on the proposal, and to put forward amendments.

The ADJR Act generally applies to administrative decisions made by Commonwealth officers under an Act or instrument, and aims to ensure aggrieved persons can seek judicial review where they believe those decisions have been made unlawfully. However, a judicial review conducted under the ADJR Act does not enable the court to enquire into the substance of an administrative decision, or assess its merits. It merely allows for a court to look at the process by which the decision was made, and if that process was conducted lawfully.

Amending the site selection process from a ministerial decision to a parliamentary one adds additional scrutiny, visibility and ministerial involvement in this important infrastructure decision. This is because it allows for the proposal to be scrutinised in a forum which allows for more in-depth analysis and debate on its merits from technical, cultural and socioeconomic perspectives.

The Bill is the result of an extensive process which has given stakeholders significant opportunity and ability to influence the decision to select a site for the Facility. The identification of Napandee as the preferred site for the Facility is the culmination of in-depth community consultation and extensive

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<sup>2</sup> Future waste = Expected waste arising from current or future activities until 1 January 2070.  
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technical work undertaken over a four year period. This included a nomination approval process with the people who hold the land, which was undertaken in line with the Act.

Before the operation of the Facility commences, those with a right or interest in the land may also have further opportunities to comment on the assessment processes and decisions under regulatory approval frameworks such as the EPBC Act and ARPANS Act.

In accordance with administrative law principles, government decisions made under the Act may be subject to judicial review.

## Procedural fairness

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Some submissions to the inquiry raised concerns about the impact of the Bill on procedural fairness, particularly in relation to opportunities for people to have a say in the decisions regarding the Facility.

A procedural fairness process for the identification of a site for the Facility has been undertaken in accordance with the site selection process under Parts 2 and 3 of the Act. This process included voluntary nominations and extensive consultation over a number of years, which has now concluded. As the site is now being acquired through legislation, the parliamentary process effectively replaces the procedural fairness provisions in the Act.

However, it is important that appropriate consultation is undertaken before a ministerial decision is made to acquire additional land. The current Act provides for additional land to be acquired after the initial acquisition by way of a ministerial declaration, either for the purposes of providing all-weather road access (subsection 14(4)) or to expand the site if a larger foot print is required (subsection 14(2)). Section 18 of the Act sets out the procedural fairness requirements associated with these decisions. These provisions are being consequentially repealed as part of the broader repeal of the site selection framework in the Act, and replaced with new sections.

Proposed sections 19A and 19B of the Bill will enable the Commonwealth to acquire additional land in response to requirements set by regulators during the regulatory approval process. If additional land could not be acquired for these purposes, the Facility may not be able to go ahead.

The Bill amends the processes by which additional land can be acquired. Under proposed section 19A, acquisition of additional land to extend the site for the Facility must be done by way of regulation rather than ministerial declaration. This introduces the opportunity for these additional land acquisitions to be considered by Parliament and subject to disallowance. Similarly, under proposed section 19B, additional land needed to provide all-weather access to the Facility must be acquired by way of a notifiable instrument, allowing for more transparency regarding how these acquisitions are made.

Proposed section 19C of the Bill retains the key elements of the 'procedural fairness requirements' set out in section 18 of the current Act. This includes the requirement for the Minister to do the following before any acquisition takes place:

- invite those with a right or interest in the land to comment
- ensure the invitation to comment be published in local and daily newspapers, and
- take into account any relevant comments received.

The timeframe for comments has been amended from at least 60 days to at least 30 days. This is appropriate because, under the amended Act, the Minister would be making ancillary acquisition decisions and it is unlikely that these acquisitions would significantly affect the rights or interests of any person other than the owner of the land to be acquired. The Bill also simplifies the provision by removing some of the unnecessary procedural detail.

In the relation to acquisitions of additional land for the purposes of expanding the Facility (proposed section 19A), the land owner has been extensively consulted as part of the site selection process, and had voluntarily nominated the land available for expansion for the purpose of establishing the Facility.

In coming years, and before the Facility is even constructed there will be additional opportunities for affected persons to comment on the impact of the Facility. This includes opportunities to comment during the environmental approvals process under the EPBC Act, and siting, construction and operating licences considered by ARPANSA.

## Interrelation between the Bill and other State, Territory or Commonwealth laws

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To ensure that the construction and operation of the Facility can proceed, the *National Radioactive Waste Management Act 2012* (the Act) provides that certain Commonwealth, State and Territory laws do not apply where they would regulate, hinder, or prevent certain activities conducted under that Act. Similar 'override provisions' were included in the *Commonwealth Radioactive Waste Management Act 2005* (2005 Act), which preceded the Act. Both the Act and the 2005 Act contain provisions overriding certain other laws to the extent they interfere with:

- the granting of rights and interests in land to original owners
- assessment and selection of a site
- the Commonwealth's acquisition of a potential site, and
- the construction, operation and decommissioning of the Facility, and the transport of radioactive waste.

The effect of the override provisions will change depending on the activity they are overriding. The Bill will not substantially change the effect of these override provisions. Although the Bill will repeal the override relating to assessment and selection of a site, it will include a transitional override which preserves the Commonwealth's ability to remediate land that was in any way disrupted during the site selection phases of the program.

### Granting of rights and interests in land to original owners

Section 31 of the Act is an override provision that applies only if Aboriginal land (within the meaning of the *Aboriginal Land Rights (Northern Territory) Act 1976*) in the Northern Territory is nominated by a land council, and is selected as the site for the Facility. The Bill repeals this section because the proposed site is not located in the Northern Territory and was not nominated by a land council.

### Assessing and acquiring a site

To allow activities such as the collection of flora and fauna samples, the placement of monitoring equipment, and the construction and operation of bores to take place unimpeded throughout the site selection process, section 13 of the Act provides for the override of two Commonwealth laws: the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* and the EPBC Act.

The override provisions in section 12 make clear that certain types of State and Territory laws or provisions relating to: controlled material, radioactive material or dangerous goods; use of land or premises; environmental consequences, archaeological or heritage values of land, premises or objects; or licencing, do not apply in relation to activities undertaken during site selection.

Regulations may be made to override other Commonwealth or State and Territory laws, or to exclude other State and Territory laws or provisions from being overridden. No regulations have been made

under these sections, and the sections will be repealed as part of the broader repeal of the site selection framework in the Act.

Section 20 of the Act provides that, despite other Commonwealth, State or Territory laws, the Commonwealth will acquire or extinguish the rights or interests specified in the declaration to acquire the site for the Facility and all-weather access. The Bill updates the section to refer to the new provisions acquiring land for the site and land for the purposes of providing all-weather access, but is not otherwise affected. Section 20 will continue to apply to the *Land Acquisitions Act 1989* and the *Native Title Act 1993*, noting that native title does not exist at Napandee. In addition, the Bill makes clear that any acquisition of additional land outside Napandee for all-weather access will not acquire or extinguish native title rights and interests.

### Transitional provisions

The Bill repeals the override provisions relating to site assessment and selection and replaces them with transitional provisions to preserve the Commonwealth's ability to remediate land that was in any way disrupted during the site selection phases of the program after the Bill commences. Such remediation may be required where disruption may have been caused by activities such as constructing or rehabilitating bores, operating drilling equipment, placing meteorological or hydrological monitoring equipment on the land, or collecting water or flora and fauna samples. Without these provisions, it would be difficult for the government to continue to remediate any land disrupted during the site assessment process, after the commencement of the amending legislation.

### Construction, operation and decommissioning of a facility

The Act contains separate override provisions to facilitate the construction, operation and decommissioning of a facility. Similar to section 12 discussed above, section 24 of the Act automatically overrides State or Territory laws relating to certain subject matter, insofar as they regulate, hinder or prevent the construction, operation or decommissioning of a facility. It also enables the making of regulations to specify additional State or Territory laws that are either overridden, or will continue to apply for these purposes.

The override applying to Commonwealth legislation in section 25 of the Act does not operate automatically in the same way as State and Territory override. Instead, the regulations must specify which Commonwealth laws or provisions are to be overridden, in order for the section 25 override to have any effect. If it is considered appropriate for regulations to be made these would be subject to appropriate consultation with the departments and ministers with administrative responsibility for the relevant Acts, and any other relevant stakeholders. Regulations would also be subject to the usual level of parliamentary scrutiny, including disallowance by either house of Parliament and review by the Senate Standing Committee for the Scrutiny of Delegated Legislation.

Three Commonwealth Acts are explicitly excluded from being overridden for the purposes of constructing, operating and decommissioning the Facility: the ARPANS Act, the EPBC Act and the *Nuclear Non-Proliferation (Safeguards) Act 1987*. The Bill retains these provisions, preserving the existing protections relating to Indigenous heritage and the environment, and to ensure that radioactive waste is safely managed.

The establishment of the Facility is contingent on regulatory approvals under the EPBC and ARPANS Acts. As part of this process the Department of Agriculture Water and the Environment will likely require an extensive investigation into the environmental impacts of the proposed Facility, which will include a broad consultation process. The government will work with local Traditional Owners to manage any Indigenous heritage impacts on or near the site and comply with any environmental protection requirements.



While the Act provides that the construction or operation of the Facility is not prevented by South Australian legislation, the Australian Government is committed to working with the South Australian Government and impacted communities to ensure that the level of support for the Facility is maintained throughout its establishment and operation. The override provisions also allow for the transport of controlled material and use of infrastructure for that transport. The Bill does not change this. However, the government will ensure appropriate consultation is undertaken along transport routes where there is a significant public interest (see transport section above for further detail).