

## Questions for DIIS – Kimba 6 August 2018

**Did the Minister or DIIS need council support to come back to the same community in Kimba following the initial nomination of sites within Kimba were removed by Frydenberg? Why didn't the department provide mediation for the community going forward? Mr Canavan said there is a community consensus issue, so how will DIIS ensure this facility will not be imposed on a community that doesn't want it?**

**Bruce Wilson:** Mediation was something the department was willing to provide following the initial vote. Additionally, money was provided by the department for a mental health workshop. A request for mediation during the initial process was never received. Should a request be made during the current process, the department will be happy to oblige.

The Minister has said to the KCC, if the votes were sitting at 50%, he would not regard this as broad community support. The minister as the individual with the power to make the decision, will make this decision based on the poll, the submissions, and the suitability of the site.

The community ballot is to determine support in the local community. The broader community is able to provide contributions through the form of submissions, which will be included in the report provided to the Minister.

The department will not provide a percentage figure to the Minister regarding what constitutes broad community support.

**I would like to ask about the recent information that has been in the media in regards to transportation of waste via sea. Has this been considered and any consultation with ports completed? Would this need ARPANSA licensing?**

**Bruce Wilson:** We have not established any transport routes at this stage. There are clear options for LLW by train and truck. This does not pose an inherent risk and would largely be similar to moving large pieces of concrete around.

The ILW may come via sea, rail or road, but this has not yet been established. Experts will work with ARPANSA to plan movement routes

There will be consultation depending on how waste is moved, such as through ports, but these consultations will not need to be as in depth as the process currently being undertaken for the facility. Not every community that waste passes through will be consulted.

Adi Patterson: For TN-81 casks coming from France, an extensive consultation process was given to communities in Sydney and Wollongong. There is consultation with state and federal members, and stakeholder communities along the routes. There is also significant consultation regarding policing. Planning and public perception both factor in to the level of consultation needed.

Dr Carl-Magnus Larsson: ARPANSA is given the responsibility for the safe transport of radioactive material, and ensures national uniformity in the way waste is transported. One of the national codes that has been adopted is the RPSC2: code for the safe transport of radioactive material, adopted by all jurisdictions within Australia. This takes into account the international guidelines. The Australian Maritime Safety Authority also takes into account sea transport.

Consultation on transport is dependent on the site chosen and what transport routes are considered. From ARPANSA's perspective, provisions from consultation are outlined, and once the proposal is known, submissions on transportation can be received. Consultation as well as collaboration will be used for establishing transport protocols, as first responders and police are involved. At that point in time, a lot of collaboration with the state agencies and authorities around transport and security will happen.

## Questions for DIIS – Quorn 7 August 2018

**In view of the seismic and hydrological reports by Dr vonder Borch and Dr Gostin, how can the conclusions of AECOM and GA be so widely at odds with the academics' reports?**

**Bruce Wilson:** The Department has taken into account the works done by Dr vonder Borch and Dr Gostin. The conclusion by the professors that the sites are not suitable for long term disposal of intermediate level waste over tens of thousands of years is correct, and the department agrees with this assessment. However, waste disposed at the facility will only be radioactive for a period of around 300 years, so seismic activity occurring over geological time periods is not relevant to the facility. Intermediate level waste, which does require disposal solutions extending into thousands of years, will only be present at the Facility for 30-50 years. This short term storage does not require geological time periods to be taken into consideration as it is not relevant.

Additionally, the study does not look at data on the proposed site, and instead uses data on the general area surrounding the site. AECOM have analysed data at a site level and looked at the seismic risk on the site and surrounds and found the site to be suitable. The data used by AECOM was more comprehensive and up to date than the data used by Dr vonder Borch and Dr Gostin, which means the AECOM assessment gives a more rigorous and up to date picture of the seismic risk.

Similar issues are present in the study of flood risk by the professors. Their report does not look at the flood risks on the site itself, but in the broader area. The proposed site has not flooded in any recent flooding events. Modelling and assessment of the site has indicated the site does not have a major flood risk.

The conclusions made by Dr vonder Borch and Dr Gostin at the landscape level are sensible about geological formations, however the assumptions they make in relation to site suitability are not sound.

**If we take the Cadence Economics report into account, it says that 34 jobs will come from the local labour pool. How can we be sure that this will not create a labour vacuum and local businesses will possibly be unable to compete? How can local business compete with a federal government wage?**

**Bruce Wilson:** The assumption from the Cadence modelling was that 75% of the jobs at the facility would come from the local job pool, with an additional 11 jobs coming from people outside the area. However the modelling had a limitation, and assumed the 34 local jobs would be filled entirely by currently employed people. Unemployed people were not factored into the modelling and some of the jobs will be filled by these people.

The report indicates that it is likely the jobs at the facility will, on average, have higher wages than jobs in the local community, and this will provide a significant benefit to workers and the

local economy. We estimate around \$4.7 million will be provided as wages for these jobs. Other jobs within the community will be backfilled. There is a relatively high unemployment rate in the area and the department is confident that additional workers will be found from the area.

The modelling provided by Cadence is an economic model and is therefore based on maths and assumptions. At a high level, modelling can provide robust conclusions, however as with all economic modelling the assumptions need to be considered as conclusions based solely from the assumptions are not robust. The facility will undoubtedly create higher paying wages and some job shifting in the labour market, but will be a net benefit to the area.

### **How much low level and intermediate level waste will be transported?**

**Bruce Wilson:** The movement of waste is dependent on multiple factors. Type of waste is one factor. Low level waste will likely be moved by truck or train. LLW is easy to transport and doesn't present any risks or dangers, and careful licencing and regulation by ARPANSA ensures this.

The intermediate level waste in TN-81 canisters would likely come to a port close to the facility from overseas, and move by road or rail. This has not yet been planned and will occur once a preferred site is selected. Transport is safe, with storage within robust containers that keep the waste safe from all plausible and implausible transport hazards.

Dr Carl-Magnus Larsson: will understand the amount of low level waste and intermediate level waste when we receive a site licence application whereby the application, Safety Case and supporting documents will articulate the inventory expected to be disposed of and stored at the Facility.

In that regard, ARPANSA does not know at this stage the final amount of waste that will be transported to the Facility.

### **Why wouldn't the NRWMF be an important part of a "comprehensive service provider for taking used nuclear fuel? This is the opportunity for South Australia" – Ben Heard, 12<sup>th</sup> International Uranium Conference 2017.**

Adi Paterson: The scope of the Facility is developed under the NRWM Act. This was drafted and passed as a Commonwealth Act, and was eventually amended to be a National Act. This allows waste from states and territories to be disposed of alongside Commonwealth waste.

The scope of the Act does not envisage in any way the importation of waste from overseas, and does not relate to the ongoing discussions about whether this would be an economic opportunity for Australia.

Additionally, the NRWMF is being designed for the disposal and interim storage of Australia's modest volumes of LLW and ILW respectively. The NRWMF, therefore, would not be suitable in terms of both design and size for the storage of international spent nuclear fuel.

Dr Carl-Magnus Larsson: The licence application for the facility will describe and outline the waste holdings that are, and will be, destined for the facility in the future. The source and activities from the activities that will produce this waste will be outlined, and this will prevent waste being taken from overseas.

**Bruce Wilson:** There is no prospect that international waste will be stored at this facility, and it will not be licensed for this purpose.

**Why have the EPBC and ARPANSA processes not been followed before the community goes to a vote?**

Dr Carl-Magnus Larsson: ARPANSA is not the organisation that is driving the voting process. At this point in time, the vote is to establish whether community support is present.

**Bruce Wilson:** The department has undergone the consultation process to establish community support prior to undertaking the licencing and regulatory processes. Site suitability has still been assessed to establish whether there are any major issues that would prevent any of the proposed sites from being used. The community is at the centre of the process, the licencing and regulatory work will come afterwards.

**Before the vote goes ahead, can the department disclose all those that have an interest in stake?**

**Bruce Wilson:** We are asking a whole range of stakeholders their views on the facility. There are no investors in this project apart from the Commonwealth Government. The Government does not have any partners or business interests. Negotiations will occur with landowners, however there are no other interests.

## Questions for DIIS – Hawker 7 August 2018

**Transport – what opportunities do the communities along the proposed transport routes have to be consulted?**

**Bruce Wilson:** The department does not anticipate impact to communities located through any transport routes. The movement of radioactive waste is highly regulated and safe. Intermediate level waste currently leaves and re-enters Australia via Wollongong and is transported to Lucas Heights. ANSTO currently consults with the communities the ILW is transported through. These consultations have not yet occurred for this project as no site has been selected and thus transport routes have not yet been established. Road, rail, or sea are all potential transport options for the different waste forms. Consultation will occur once routes are known.

Dr Carl-Magnus Larsson: ARPANSA provides the licencing for transport, and is only granted if the waste meets strict guidelines in line with international standards. The level of consultation needed will depend on the site chosen and the routes taken. People will be given the opportunity to make submissions to ARPANSA during their consultation period for licencing.

**The \$31 million package for the community includes \$3 million from the Indigenous Advancement Strategy (IAS). Since the total funding for the IAS is \$4.9 billion, will the \$3 million provided to the community take away from Indigenous funding in other parts of Australia?**

**Bruce Wilson:** The amount available through the IAS is not \$4.9 million, there is \$4.9 billion allocated to the fund. Given the size of the IAS fund, the \$3 million that will be allocated to the community that hosts the facility will not impact the workings or the availability of the IAS.

Information on the total funding provided through the IAS is available at:

<https://www.pmc.gov.au/indigenous-affairs/indigenous-advancement-strategy>

**Is there scope to have the visitor centre in Hawker, with an ancillary centre at the facility? What can Hawker/Quorn do to maximise benefit from the facility?**

**Bruce Wilson:** The department cannot promise at this point which projects will or won't be funded, but wants to work with the successful community to look at the various options and plan facilities such as tourist centres to maximise benefit to the community.

**What does the modelling from Cadence show about impact on the community?**

**Bruce Wilson:** The evidence from the Cadence work, and from research undertaken by the department, is that these facilities in Australia and around the world have not had any negative impacts in terms of tourism, land values or agriculture.

In fact the very clear evidence presented during the visit by French farmers and the Mayor of the town around the Facility at Aube in France showed the facility has provided many positive benefits for the community.

**Doesn't the modelling from Cadence show that the facility will cost jobs in industries such as tourism?**

**Bruce Wilson:** The modelling from Cadence shows that the impact of the 45 jobs at the Facility will be an additional 16-18 jobs in the Kimba/Hawker economies, which it is assumed would be met from external workers moving to the two communities. It is also assumed that around three quarters of the 45 jobs (34) would come from the local workforce.

A large project of this size will almost certainly cause people to move from current jobs to new jobs at the Facility where the average wage is likely to be higher.

However, care needs to be exercised when interpreting changes in sectoral employment outcomes, as this can be heavily influenced due to the way the model works.

The model construct assumes all local jobs are filled by redeploying workers from current jobs to the Facility. It assumes that jobs at the Facility and redeployed jobs are not backfilled from the unemployment pool and so this induces lower employment in some sectors as wages across the economy rise to some extent, and total employment numbers remain constant.

In reality, there will be a significant increase in overall jobs with opportunities for people to be taken from unemployment or people who are not currently in the workforce to meet the new jobs at the Facility, and for backfilling of jobs where employees relocate.

**Is there the possibility of doing research at the facility, and having the facility be in part a research facility?**

**Adi Patterson:** ANSTO believes that there would be interest in having scientific tourism with possible conferences and related events at the Facility.

**Bruce Wilson:** There are also opportunities for agricultural research on and around the Facility in its buffer zone and through the engagement of scientists at the Facility or within ANSTO's programs on agricultural improvement.

### **After a site is selected, how will the department help repair the community spirit?**

**Bruce Wilson:** The minister has accepted that there are differences of view within the community, and the department has always asked people to interact with others with respect. Our experience with the other communities that have not gone forward under other processes is that the communities have healed over time.

The minister has committed to helping any communities or community members that approach the department if they need assistance.

**Cadence Economics has taken into account the information available about similar facilities world-wide, including the Aube facility in France. They then conclude (page 41) that a review of the literature did not reveal any studies quantifying either the benefits or adverse impacts of hosting a facility similar to the NRWMF on key economic areas such as housing, agricultural production or tourism. In other words, there is no evidence available to say that there will or will not be an effect on tourism. The anecdotes provided from Aube and elsewhere are not evidence.**

**Bruce Wilson:** The fact that there is no evidence to support the materialisation of negative effects for a topic so intensely scrutinized as the nuclear industry strongly suggests to an experienced researcher that there are in fact none that have been observed.

The research and feedback from the French visitors living and working around the Aube Facility is more than just anecdotal. It includes testimony from the local Mayor and a local long term farmer who is involved in key industry associations. It is based on personal experience supported by data on land and crop prices and sales as well as polls of community views.

### **Why can't the waste be stored at Lucas Heights?**

Adi Paterson: ANSTO's Lucas Heights campus is only licensed by the independent nuclear regulator, ARPANSA, to store waste on a temporary basis, and on the condition that a plan is developed by the end of the decade for a final disposal pathway for its waste. Also, multiple commitments have been given to the community around Lucas Heights over many years that the waste could only be stored at Lucas Heights on an interim basis until a purpose-built facility was available. Importantly, ANSTO is a science and research organisation, not a waste management organisation.

**Bruce Wilson:** This is more than just considering what to do with waste at ANSTO. The project will be taking waste not just from ANSTO but from a number of sources. Waste at places like Woomera has to relocate, and so it makes sense to bring all ILW holdings to a new purpose built, central state-of-the-art facility.

Dr Carl-Magnus Larsson: ARPANSA maintains what it has expressed in the past, that is we consider the waste currently stored at ANSTO to be managed in an appropriate and safe manner, and that ANSTO currently holds a licence to do so, however there has to be an end to this given the legislation says that the waste cannot be disposed of at ANSTO.

**The Adnyamathanha Traditional Lands Association is the registered native title body corporate and the Aboriginal Regional Authority and therefore the peak body for all Adnyamathanha people. The Adnyamathanha Traditional Lands Association has voted against the waste dump from the start of this process. Why are we being ignored? Why do we not have veto over this waste dump being put on our country? Will ARPANSA come out on country with the Adnyamathanha Traditional Lands Association so you can learn first-hand about our culture?**

**Bruce Wilson:** The department has always recognised ATLA as the representative for the Adnyamathanha people on native title issues.

While ATLA's and the broader Adnyamathanha view is important to our process, we have always said no one group or individual, including ATLA and the Aboriginal community, has a right to veto the Facility. This is important to ensure all voices in the community that wish to be heard are taken into account.

The department disagrees with the proposition that we are ignoring ATLA. We are working closely with the Adnyamathanha people in the Aboriginal and Cultural Heritage Assessment. We have met several times with the CEO of ATLA, and have presented to the ATLA board on multiple occasions.

There are different views on the cultural heritage at the site, and RPS have recorded what they were told. The department will continue to maintain open communication with members of ATLA who wish to contribute.

Tone Doyle: Yes, we would appreciate that. ARPANSA has reached out to the CEO of ATLA on a number of occasions since 2016 and has received no response. I understand the CEO does not speak for all 16 family groups, but it is very difficult for us to know what the right way to go about this is. We do not pretend to understand the cultural protocols and we would be grateful for an invitation from ATLA to come to country and learn first-hand about the Adnyamathanha culture.

ARPANSA was invited to come out on country by members of the Viliwarinha Yura Aboriginal Corporation (members of ATLA) which ARPANSA graciously accepted.

## Questions for DIIS - from all communities 6\_7 August 2018

**Q: The Flinders Ranges is a seismically active region, with geology academics (Dr Gostin) claiming that it is not suitable to hold a radioactive waste facility, why is the nomination still being considered?**

- a. Geo-technical assessments carried out by engineering firm AECOM through an on-ground seismic survey of the 100 hectare site at Wallerberdina confirmed, with a high-level of confidence, the absence of active faults within or near the foundation beneath the study area. Although the Western Range front faults are assumed to exist in the nearby area, hazards from ground shaking or deformation can be mitigated through design and implementation of structural engineering measures, as per industry standards and methods.

AECOM's data and methodology was peer reviewed by Geoscience Australia.

In contrast, the seismic risks referred to by Dr Gostin in his report were assessed at a regional and not a site specific level. Moreover, the data and understandings relied on in Dr Gostin's report have been replaced with an improved understandings of the seismic risks, geology and fault structures in the region.

Geoscience Australia in their testimony to the recent Senate Inquiry into the Site Selection process put the level of seismic risk at a regional level into an appropriate context, noting that all areas in Australia are seismically active, and that the level of seismic risk for the Flinders Ranges region is similar to that of Adelaide, Sydney or Melbourne. In contrast Canberra has a higher seismic risk rating than the area under consideration.

That said, the Government takes this issue seriously and carefully considered the issues raised by the learned academics and members of the community. The Facility will be subject to strict regulation, and would need to be approved by both the independent nuclear regulator, ARPANSA, and the Department of the Environment and Energy. Before any location could be selected or a Facility established, these bodies would need to be satisfied any seismicity risks have been identified and mitigated through design and other operational features.

If any proposed location is not assessed as safe for people and the environment the Facility will not be built there.

**How does the flooding at Hookina Creek affect the suitability of Wallerberdina Station?**

- a. Geo-technical assessments carried out by engineering firm AECOM indicate that the site at Wallerberdina Station could be subject to localised flooding in rare flood events but would not be impacted by floodwaters from Hookina Creek. It also concluded that localised flood risks can be readily mitigated through standard flood –proofing measures.

AECOM's assessment was based on detailed surface mapping which was developed into a specific hydrological model for the catchment by a specialist arid zone hydrologist. Predictive flood modelling using industry accepted software was undertaken at the Wallerberdina Station site. It was also complemented by historical data for the 2007 and 1955 flood events. This showed that the site was not impacted by either event with the primary flood zones to the south and west of proposed site.

The department particularly notes that photos being circulated of these flood events are in locations many kilometres (some up to 20 kms) from the proposed site

The modelling considered the level of inundation and stream flow conditions under events of varying magnitude with the potential to occur once or twice within the period of a person's lifetime (50 and 100 years) up to once within a millennium (1000 years).

Hookina Creek is more than 3.5 kilometres from the site and passes through and beyond the southern edge of Wallerberdina Station. The nearest tributary of Hookina Creek is 1.5 kilometres east of the site. The predicted model indicated that at the peak of a one-in-100-year flood event, waters from Hookina Creek would only reach the edges of the 100 hectare site. For even rarer flood events, it was predicted that flood water depths on the site may temporarily increase up to an average depth of around 0.5 metres. The study concluded that impacts of these very rare flood events can all be mitigated through the use of bunds, levees and other diversion structures.

**Why has the Department and the Minister given no serious consideration the Azark Project at Leonora, when, on face value at least, it seems to tick all the criteria - community acceptance, deep(4000 metres), stable granitic sub-surface geology, no surface water issues - that would include permanent underground disposal of radioactive waste?**

- a. While we appreciate that Azark claims to have undertaken considerable assessment, we have yet to receive any detailed information that we can independently assess, and cannot accept unverified information to short cut the necessary community consultation and site assessment processes.

Under the Act, any landowner is free to nominate a site until the final site selection is made. We will continue to speak in good faith with communities that are interested. However, the Government will not be progressing detailed assessment of other nominations until the results of the votes in the two South Australian communities are known. At this late stage of consultation, it would not be in good faith before the outcome of the existing nominations are known, to start a detailed, likely 18-month minimum process with communities near Leonora.

**Carl-Magnus Larsson mentioned that "local knowledge" will be taken into consideration in the ARPANSA licencing process. How much notice of local knowledge has been involved in the site survey and characteristics process at Wallerberdina Station so far?**

- a. Local knowledge has been taken into account through the heritage and technical site characterisation investigations of Wallerberdina Station.

The cultural heritage assessment of Wallerberdina Station identified, documented and mapped locations of culturally sensitive areas across the site and surrounds, through the Heritage Working Group. In addition to the cultural heritage assessment of Wallerberdina Station, RPS has carried out a targeted archaeological survey in collaboration with 30 members of the Adnyamathanha community through the Heritage Working Group.

This targeted archaeological survey was undertaken to enable AECOM to commence technical investigations. Local rangers and cultural heritage monitors were also engaged during AECOM's technical investigations, with monitoring led by the local Adnyamathanha community.

**Explain if a full Heritage Assessment was done with the Adnyamathanha community, not just VYAC.**

- a. Yes the Heritage Assessment was open to the full Adnyamathanha community and RPS engaged with many members of the Adnyamathanha community, not just VYAC, in carrying out its independent assessment.

The department undertook a competitive tender process and commissioned RPS Australia to undertake the Aboriginal Cultural Heritage Assessment at Wallerberdina Station. The final report is available on the department's website and will inform the assessment of the nominated land for the Facility and the assessment and approvals process under the EPBC Act. This work has improved the department's understanding of the cultural and heritage values on the site and will result in a management plan for the community.

The department has included ATLA throughout its engagement process. ATLA were given equal representation with VYAC on the Heritage Working Group, and given the opportunity to participate in the ACHA which was declined.

The Minister and department has met a number of times with ATLA and other Adnyamathanha representatives and has a sound understanding of their views.

**Explain the desecration of a significant women's site and RPS's role in it?**

- a. The department disagrees that any culturally significant sites were desecrated in its placement of cloth markers on Wallerberdina Station.

As a component of the geotechnical and heritage work being conducted on Wallerberdina Station, a LIDAR survey was conducted. This involves a low flying plane mapping terrain through shooting radar sounds onto the ground. As part of this process, six cloth markers were placed on the surface of the ground throughout the area. RPS planned the location of these markers along public roads. Several of these cloth markers were placed outside of their intended location but on the surrounds of roads and not on any undisturbed sites.

Following concerns raised about this by several ATLA members, the department facilitated a meeting between ATLA and RPS to discuss the issue and settle on a path forward. While the department believes the marker placement process could have been conducted better, we are confident there is no permanent damage done. All subsequent work was conducted with both male and female Adnyamathanha cultural monitors present to avoid similar situations arising again.

**Is Aboriginal Heritage going to be an issue in Kimba if a site is picked here?**

- a. The department has been seeking formal engagement with the Barngarla Determination Aboriginal Corporation (BDAC) since early 2017 with a view to establish an Aboriginal Cultural Heritage Working Group and have BDAC involvement in an Aboriginal Cultural Heritage Assessment for both sites.

In the meantime, the department engaged RPS to undertake a desktop investigation of heritage on the Kimba sites. This study concluded that there are no recorded sites of cultural significance on either of the Kimba sites.

The department notes that an independent heritage assessment was commissioned by the BDAC Board and that this has been provided to several groups, notably Kimba Council and the Senate Committee inquiring into Site Selection Process. Despite several requests BDAC lawyers have declined to provide it to the department.

Following a meeting with the BDAC board on 12 August 2018, BDAC has agreed to work with the department and conduct a detailed cultural and heritage assessment, as well as a cultural heritage management plan should either of the Kimba sites go ahead.

### **Why not find a permanent disposal for ILW now?**

Intermediate level waste will be temporarily stored at the Facility while a separate process is undertaken to identify a site and construct a Facility for permanent disposal of ILW. The Australian Government has confirmed to the national independent regulator ARPANSA, and through policy statements, that this process will commence once the NRWMF process is well established.

The Government has committed to establish a formal Waste Management Function (WMF) in government which will, amongst other tasks, take forward identification and development of a separate permanent disposal facility for ILW. This will commence once the NRWMF project is bedded down.

Based on Australian and international experience this process will realistically take 20+ years.

### **How can we be certain the Facility won't be used for high level waste in the future?**

- a. The Facility will not be used to store or dispose of high level waste.

Australia does not produce high level waste and this Facility will not store it. The independent regulator (ARPANSA) will licence the Facility to undertake specified activities and this will include strict waste criteria which exclude high level waste. Any attempt to do so would contravene licence conditions and a breach of the commitments provided to communities.

High level waste requires completely different storage and disposal solutions, geologies, management practices and regulation.

### **If DIIS are claiming that they are following world's best practice, why have they continually pushed all information from their own platform and discredited any information that might hold a different view?**

- a) At no point has the department attempted to "discredit" information just because it presents a different view. We do seek to correct factually incorrect material where we consider this to be important in shaping community discussions.

The department has at all times facilitated the presentation of facts from leading independent experts in various fields. These experts have included a number of radioactive waste experts from ANSTO, geoscience experts from Geoscience Australia, experts from the regulator ARPANSA, an academic specialising in nuclear medicine from Charles Sturt University, a radiation safety expert from Rio Tinto and an academic specialising in social sciences from the University of Queensland.

The department welcomes open community debate and alternative perspectives. To this end we have 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
- Former Senator Scott Ludlam.

This includes facilitating two webinar debates which we have made available on our website.

**Why have the number of jobs estimated for the Facility changed so many times?**

- a. The estimate of a minimum of 15 jobs was a conservative assessment of jobs only associated with management of low level waste and was taken from the 30 overall jobs estimated in the 2013 Initial Business Case. The 15 jobs did not include supporting jobs in areas such as environment monitoring, administration, security, community liaison, education, and health and safety roles.

Now that the Government has confirmed the full scope of the Facility to include intermediate waste storage, ANSTO was able to map out the full range of jobs – this now includes at least 12 positions for security, nine waste technicians and two for administration. A fact sheet detailing the jobs and expected roles is available on our website.

**Will the Department make a recommendation to minister Canavan on the percentage of support required in the upcoming vote?**

- a. No. The department will not be providing a recommendation on the percentage of support required. This will be an assessment formed by the Minister consistent with his decision making powers under the *National Radioactive Waste Management Act 2012*.

In forming his view the Minister has said he will take into account a range of factors in relation to determining community support. They include the results of a public ballot, public and private submissions and the feedback from stakeholders including neighbours, council and local groups, during community discussions.

**I understand you have organised a Webinar for Friday 10th August but my question is: For the past 3 years we have repeatedly requested the Department to host an open public forum in Kimba and include guest speakers and experts with differing views so the entire Kimba community has the opportunity to listen to and hear both sides of the conversation and therefore be able to make an informed decision. So far, the Department of Industry, Innovation and Science have only provided experts and speakers of whom they have decided our community should hear from. If this process is so open and transparent, why have you not provided the opportunity for our community to be able to ask questions face-to-face to experts from both sides? Who decided our community does not deserve this opportunity? What are you hiding and what are you afraid of?**

- a) The department is very supportive of promoting community discussion on this issue and has held a number of open community meetings in each community to provide information on the project and answer questions. We have also supported open community meetings with independent subject matter experts and a French delegation comprising members of a local community around the ANDRA radioactive waste management facility.

The department's role is to provide factually correct information to the community rather than enter into debate on whether a facility is right for a community. We have offered to support alternative views and community-driven discussions but have had no formal proposals put to us. We also note that feedback to us has been clear that each community does not want outsiders telling them what is best for their community.

**In approx. 2016 media covered the CSIRO leaking of drums that were low and intermediate waste. How can the intermediate waste, after two years, be no longer radioactive?**

- a. There are no "leaking drums" in the CSIRO stores at Woomera.

A 2016 inspection report by ARPANSA outlined concerns that rusting and deterioration was present on a number of drums containing radioactive waste stored in Woomera. At a single location a radiation measurement increased from  $90\text{nSv.hr}^{-1}$  eight years prior to  $2\mu\text{Sv.hr}^{-1}$ , which could possibly indicate leakage. However more recent assessments of the site conducted by both CSIRO and ARPANSA independently have found there is no elevated radiation present at the site above background radiation levels, indicating there has been no leakage from the drums.

In conjunction with ARPANSA, CSIRO committed \$30 million to conduct a rigorous assessment, separation, and treatment process to ensure waste is safely contained. This process will continue to be ongoing for the next 12 to 24 months.

**How frequently were the CSIRO 10,000 barrels monitored? Was it monitored prior to moving to Woomera? What other waste is at Woomera? When is the WAC for a NRWMF finalised?**

- a. The CSIRO barrels were inspected at least two times while at ANSTO in 1991 and 1993, prior to being moved to Woomera. The barrels were monitored at least 10 times while at Woomera (1994/1995 – 2018). CSIRO does not have any other waste at Woomera.

Once a specific site has been selected, the Waste Acceptance Criteria (WAC) will be revised and further developed. Currently the WAC has been developed for a generic facility, with common requirements for all waste packages to be solid and stable, non-reactive and non-flammable, and resistant to degradation.

**What is the source of the Little Forest waste?**

- a. The Little Forest Legacy Site at Lucas Heights contains low level radioactive waste produced in the research facilities at Lucas Heights between the years of 1960 to 1968.

**Why not discuss what causes cancer and radiation's role in that?**

- a. The role of radiation in causing cancer is not relevant to the discussion of siting a National Radioactive Waste Management Facility. All radioactive waste at the Facility will be safely shielded so radiation levels for workers even close to stored or handled materials will be well below regulated safety levels.

As is the case at Lucas Heights, workers and visitors will not require protective clothing. Radiation dose measured off-site from normal activities at the Facility will be indistinguishable from background radiation; and so local people, crops and stock will not be affected.

**Can you please explain what types and amounts of waste if any, will come out of Hospitals around the country? In an address to an audience in Kimba from Dr. Karamoskos yesterday, he stated there was no waste in hospitals, other than a very small amount of old legacy waste.**

- a. Nuclear medicine and radiology are the major source of medical techniques and procedures that involve use of radiation or radioactivity to diagnose, treat and prevent disease. Approximately one-third of all procedures used in modern hospitals, from pediatrics to cardiology, involve radiation or radioactivity. Most of the products used in these procedures quickly decay and are disposed of in regular landfill.

While the department does not have figures on the quantities or types of waste stored in hospitals, it is documented that there are more than 100 licensed storage sites across the country, including hospitals, across Australia.

We expect only a small volume of waste from hospitals would enter the Facility and most of this would be orphaned sealed sources.

**The big push is that Cyclotrons should replace Australia's Opal Reactor. Can you please explain if this is a viable alternative, whether they generate any waste etc. and how this move is working in Canada?**

- a. Canada's experiments with cyclotrons have failed to produce both the quantity and quality of Technetium-99m predicted and as a result the costs have significantly increased. The cyclotrons fail to produce the other radionuclides used widely in nuclear medicine that rely on the reactor. The Canadian cyclotron solution can currently only provide several teaching hospitals in Vancouver.

The vast majority of 99mTc demands across the country require the import of reactor produced generators.

The cyclotron technology does not meet the needs of Australia in terms of quality or quantity, does not provide flexible service delivery – for example for after-hours emergency service – and would require billions of dollars of infrastructure investment and far more expertise in the form of scientists, technicians and operators decentralised across the country. Canada is not opposed to nuclear reactors, indeed, about 16 per cent of electricity supply is generated in nuclear power plants there. Canada is not making a philosophical move away from nuclear and is researching new generation reactor technologies.

There are 250 hospitals and nuclear medicine centers around Australia, and if they relied on cyclotrons instead of nuclear reactors, then they would not get the amount, quality, availability or reliability of medicine they need. It would also cost billions of dollars to install the sort of capacity required to meet need.

**With over 200 deliveries each week of nuclear medicine to hospitals and clinics it would seem that Australia is well practiced at the movement of radioactive materials. How do you envisage radioactive waste being transported to the Waste Facility and how often?**

- a. No decision has yet been made on how the waste will be transported to the Facility, or the frequency of shipments. Each potential site will generate different transport options. For this reason it is best left to the waste management experts who will work with the various national and state regulators to finalise the specifics of movement campaigns. Communities will be consulted as part of this process.

The number of waste movements in any given period will depend on a range of technical and cost factors which have yet to be determined. However, suggestions that there would be very infrequent movements (i.e. once a year or every few years) are unfounded and wrong.

**If the Facility comes to Kimba, is the waste going to be transported ready for storage or will it be encased in concrete on site?**

- a. The NRWMF will be designed with a limited capacity for some final conditioning and packaging of incoming materials. This will not involve reopening raw waste material. It will be in effect to add the final top up to existing packages. This will significantly reduce the cost of transport without any compromise to safety.

All waste will be required to be conditioned and packaged at the source prior to transport in line with strict ARPANSA requirements. In addition the waste packages will need to meet the Facility's waste acceptance criteria including being fully immobilised, solid and non-dispersible.

**In the Advertiser the \$20 million was referred to as infrastructure development. Please elaborate.**

- a. The \$20 million NRWMF Community Fund is designed to deliver benefits for the community and will focus on enhancing the long-term social and economic sustainability of the host community, necessary to support the Facility.

Once a site has been selected, the Department of Industry, Innovation and Science will work with the host community to develop the guidelines and governance arrangements. The mechanics of how the fund will be delivered to the community is still to be confirmed, but will involve consultation with the Regional Consultative Committee. The NRWMF Community Fund will contribute to:

- sustainable health services
- agriculture research and development
- enhancements to local critical infrastructure, including telecommunications
- further develop the indigenous economy
- economic diversification
- skills and training opportunities.

**How do you intend to help rebuild in both communities? The community spirit that was once there has been affected.**

- a. We accept that there are differences of view within each community. The department has always asked people to interact with others with respect. Our experience with the communities that have not gone forward under similar processes is that any disagreements or divisions have quickly repaired.

The minister has committed to helping any communities/members to approach the department if they need assistance in moving on.

**To DIIS and ANSTO, can you please outline the benefits to the agricultural community that might arise out of the Facility in terms of agricultural research and any other areas?**

- a. Nuclear scientific, industrial, and technological research can result in considerable benefits for agricultural research and agricultural applications. Every year, many researchers and scientists from agricultural organisations and universities use technologies developed and available at ANSTO for various research purposes, including:
  - assessment of the sustainability of groundwater extraction
  - analysing soil cores
  - monitoring of the environment and pollution
  - analysing new machinery for wear and fatigue
  - analysing new farm chemicals
  - quantifying soil erosion
  - irradiating seeds to produce new characteristics for disease resistance, different food qualities, and agronomic traits to improve the productivity and marketability of grain crops.

**What can Quorn and Hawker do to improve the current services we already have (bus to transport workers, increase business operating hours, food van to the site etc.).**

- a. The Federal Government has confirmed a Community Development Package of \$31 million will be available to the community that is successfully chosen as the future site of the Facility. This package has been developed to ensure the community is ready and able to take advantage of the Facility, both during the construction and operational phase. Components of this package could be used to improve current services.

While the department cannot comment on specific projects at this stage, we will continue to work with the successful community to ensure it is taking full advantage of the benefits available through hosting the Facility.

**Is any radioactive waste stored in the Hawker or Quorn hospitals? If so; what quantity and what level? If waste exists in these hospitals. How will it be relocated to the Facility? Will it go directly or via Lucas Heights or another place?**

- a. The department does not have the data to answer whether any radioactive waste is present in Hawker or Quorn hospitals, or information about transport routes at this point in time. We do know that most waste in hospitals will decay and be disposed of in regular landfill.

We therefore expect only a small volume of waste from hospitals would enter the Facility and most of this would be orphaned sealed sources.

**Where does Wallerberdina Station stand in favour of a nuclear waste repository when compared to Kimba based on research to date? Is Kimba in front when weighed up on suitability?**

- a. Our technical assessments show that there are no identified technical impediments to establishing a facility at any of the three sites. However, they all have different characteristics and a cross comparison at this point is not possible.

**Previously it was indicated that ILW would be temporarily stored at the proposed site for up to 30 years. Today, the slide show gave a time frame of 30-50 years storage for ILW. Why has the timing changed?**

- a. Timing has not been settled, the process for finding a site to dispose of ILW will commence once the LLW disposal pathway has been established. 30-50 years is an indication on how long the ILW process may take. We expect around 30 years but need to plan for 50.

**Why for 2 ½ years we have all heard of a LLW coming and this is the truth of the reason and now there is the ILW coming now. Adi Paterson says we are fortunate to be getting the ILW because without it there would be very little economic benefit to the region. Why weren't the public told this from day one?**

- a. The government's position has always been that co-location of waste is preferred. This has now been made a commitment.

We have confirmed that Dr Paterson did not say that without ILW there would be little benefit to the community and do not know the source of this view.

**Is the site in or out of council area? Is it rateable? Whose idea was it to involve Quorn residents in the poll?**

- a. Wallerberdina Station sits within the Outback Communities Authority, who have been engaged in the process. Quorn has been included from the outset of the project in an effort to include towns that would be primary "service centres" to support the Facility, as well as the primary local government area surrounding the nominated site.

**Why did you not stop the process in 2016 when you could clearly see that the original survey was flawed and the 65% agreement may not have been correct?**

- a. We stand by the results of the ORIMA survey process. The responsible minister decided that the community surrounding Wallerberdina Station had sufficient support for the project to be taken to Phase 2. This stage comprises of further community consultation, technical and heritage evaluations, and a final assessment of community sentiment.

**It has been stated in the community by individuals who are close to the Viliwarinha organisation that this organisation will be given the balance of the property. What is DIIS' intention regarding the purchase of land to house the Facility? What is their intention for the balance of Wallerberdina which hasn't been selected for the Facility?**

- a. The department is seeking to purchase a 100 hectare site to house the Facility. What will happen to the rest of Wallerberdina Stations is principally a matter for the owners and outside the scope of establishing the Facility.

**Will all the details be made public by the AEC? The total number of eligible voters? The total number of votes received? The total NO/YES votes? The breakup of votes from the FRC and the OCA areas?**

- a. The AEC will provide details on who participated in the ballot, returned votes, vote results, and any rejected or informal votes. The votes will be determined for a community as a whole, and will not be reported on a sub-community basis.

**Can you please elaborate on the timeline and process that will take place for the successful host community after the announcement is made by the Minister up until the operation of the Facility commences?**

- a. After a site is selected, the department will undergo a process of further technical works to characterise the site, detailed design works, seek approval by the Environment Minister under the EPBC processes, seek ARPANSA licensing, and transport logistics amongst other things to bring the Facility into operation.

A definitive timeline is unable to be given due the nature of licencing and other processes. However, we anticipate project approvals to be around 18 months and construction to be between 2-3 years if there are no unexpected delays.

Throughout this process the community will be kept at the centre of the process, with updates from the department, as well as continued assistance on how to maximise benefits from the Facility's construction and operation.

**Land councils did not nominate because they believed the 2 months consultation period was an unrealistic timeframe. Does the DIIS acknowledge in hindsight that this has excluded nominations from these areas and may indeed exclude the best possible locations from being considered?**

- a. We do not agree with this statement.

We have received no feedback from any Land Council to indicate either dissatisfaction with the nomination process and timeframe or expressing an interest in making a nomination. To the best of our knowledge no Land Council which has been interested in making a nomination has been excluded.

Through the initial nomination process in 2015, the Australian Government received 28 nominations from landholders. This process enabled nominations from across the country, with multiple suitable locations being identified. Land Councils which have valid title to land are able to make a nomination at any point, the same as any other landowner who meets the nomination criteria.

**Are the access licence agreements already signed a binding legal document that allows the Minister the right to acquire any of the land nominations at his discretion?**

- a. No. The land access agreements facilitated access to the nominated sites for purposes of conducting site characterisation works to assess the suitability of the sites to host the Facility.

**Will the community see an amendment to legislation and a binding contract between the Government and Community prior the 20th August vote, securing funds and pathways for distribution?**

- a. The Australian Government has committed to providing \$31 million in benefits to the community that hosts the Facility. Once a site is established, the necessary arrangements will be made to facilitate this.

**Will surrounding neighbour's views within a 10km radius be taken into consideration at all and what weighting will this have?**

- a. The minister will take into account the views of all direct, bordering neighbours to the nominated sites. Members of the community are invited to make a submission to the department outlining their position on the Facility as well as participate in the local ballot.

**The nominated owner was originally to be paid 3 times the land value for the nominated property. Later somewhere that amount was increased to 4 times the amount and now we have heard via the senate hearing on 2<sup>nd</sup> August that the property owner will now negotiate the amount, which will be kept secret. Is this ethical as well as honest and transparent?**

- a. Yes. The department will be accountable for the expenditure of all public monies in this process in line with the laws of the Australian Parliament.

The guidelines surrounding the paying of landholders has remained consistent and transparent throughout the process. Under the Act, the department is required to provide reasonable compensation to the landowner.

The amount given as compensation is determined through a negotiation with each landowner utilising independent valuations of affected land and other interests which may be affected by the acquisition. It is standard practice for such negotiations to be undertaken through confidential processes.

. In the *Nominations of Land: Guidelines* of November 2016, section 5.4 outlines an estimate of compensation as the value of the land plus a premium of three times the value of the land.

**If the community accepts the offer to host the Facility in our district will adjacent land holders be paid any compensation?**

- a. Under the Act, the Commonwealth is liable to pay compensation to those who have rights and interests in the land, and those rights or interests are acquired, extinguished, or otherwise affected.

**If a licence is not approved by ARPANSA for the temporary storage of intermediate level waste and only a low level waste facility is approved what happens to the capital contribution fund? What is offered on only low level waste and why has this not been an option on the table for discussion.**

- a. The offer by the government will stand for the community that hosts the National Facility.

The Community Skills and Development Program will provide \$8 million in community grants after a site is selected for the Facility, alongside \$3 million for the development of an Aboriginal Economic Heritage Participation Plan. Once the Facility has been licensed to operate, the Australian Government will provide \$20 million into a NRWMF Community Fund, which will support community driven projects.

**How often will ILW be returned from France and be moved to the Facility and how? When are shipments of Australia's reprocessed ILW expected to arrive in Australia?**

- a. Shipments of ILW from France are expected another two times over the course of the next 40 years. The transport of the waste from France to its location in Australia is multi-modal involving road, rail and water (ship).

**Will the Kimba community be receiving the revenue from the tourists who visit the visitors centre?**

- a. Operational specifics of Facility functions such as the visitors centre have yet to be established, although the department is committed to ensuring the local community obtains the maximum practical benefit from the establishment of the Facility.

The visitors centre will provide employment opportunities for locals, as well as opportunities for ancillary services such as hospitality and accommodation. To the extent that the Facility induces additional tourism activity in Kimba through extra visitors, longer stops and/or the purchase of food or hotel accommodation, this will benefit the community.

**Why don't you tell people the difference between cosmic radiation and fission products?**

- b. The difference between cosmic radiation and fission products is not relevant to the discussion of siting a National Radioactive Waste Management Facility. However ARPANSA does have publically available information on radiation and its sources.  
<https://www.arpansa.gov.au/understanding-radiation/radiation-sources>

**Why have this session (Quorn) when most people are at work or unavailable at this time?**

- a. Due to the busy schedules of some of the panellists, there were constraints in organising sessions at times where all panellists could attend. No other times were possible for the Quorn session.

**Why did Minister Canavan say the dump may not necessarily be managed by ANSTO? IE private enterprise could be running the dump with the guidelines of ANSTO.**

- a. The decision on who will manage the Facility has not yet been determined.

**Why has there been no hard evidence from the economic study compiled relating to loss of income into SA for tourism. Only a study of tourism in the Champagne region in France. Why didn't the DIIS get their consultant to even attempt to gain figures from tourism SA to get some idea of loss of tourism? Why didn't the consultant obtain on the ground evidence of tourism at Hawker as there are enough there to gain a statistical overview of how they feel it would impact on them and others returning if a waste dump was put in the region?**

- a. The value of tourism to the Hawker/Quorn region is captured in the consultant's report which has reported the regions total Gross State Product (GSP) and the sectoral contribution.

There was no evidence compiled as to the impact on tourism, as there is no evidence of a negative impact on tourism from the establishment of a radioactive waste management facility in any part of the world, including Australia.

**Why was job and economic modelling not done prior to the federal government looking for a site through the National Radioactive Waste Management Act when the administered fund and budget was known?**

- a. Economic modelling for a specific region cannot be undertaken until that region is known. The department did not presume to undertake this sort of assessment until the community indicated it wished to participate in the siting process.

**Why are the traditional owners of the area not included in the vote?**

- a. Members of each Aboriginal community may participate in the ballot if they are on the relevant electoral role if they meet the District Council's criteria as an eligible voter. The Minister and department will also consult specific stakeholder groups in each community, including the native title holders (through their Respective Peak Bodies), and take this into account when making a decision relating to community support. Public submissions are also sought from any interested party.

**Why did the Cultural Heritage Survey continue when six out of the ten members left the group? Is this ethical?**

- a. The cultural heritage issues outlined in the ACHA are an accurate reflection of those who engaged in the process, which includes a broad range of Adnyamathanha men and women, and clearly identifies limitations. Importantly, the Heritage Assessment process did include members of the ATLA heritage working group.

The ATLA members who were instructed to withdraw from the HWG by the ATLA CEO were still provided the same opportunities to take part in the ACHA as the other members.

## **Abbreviations and acronyms**

AEC

Australian Electoral Commission

ANSTO

Australian Nuclear Science and Technology Organisation

ARPANSA

Australian Radiation Protection and Nuclear Safety Agency

ATLA

Adnyamathanha Traditional Lands Association RNTBC

BDAC

Barnjarla Determination Aboriginal Corporation

CBP

Community Benefits Programme

CDP

Community Development Package

DIIS

Department of Industry, Innovation and Science

EPBC

Environmental Protection and Biodiversity Conservation

FTE

Full Time Equivalent

NRWMF

National Radioactive Waste Management Facility

The Act

National Radioactive Waste Management Act 2012

VYAC

Viliwarinha Yura Aboriginal Corporation