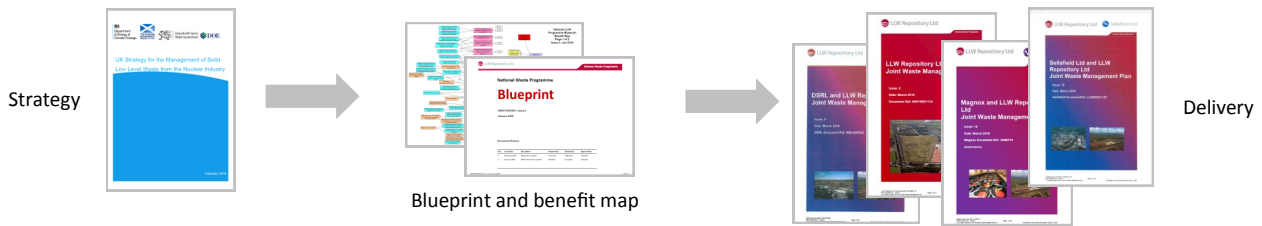


NATIONAL WASTE PROGRAMME QUARTERLY REPORT Q2 FY18/19

What is the National Waste Programme?

The National Waste Programme (NWP) is a cross-UK programme of work to lead the ongoing implementation and delivery of the *UK Strategy for the Management of Solid Low Level Waste from the Nuclear Industry*. The NWP covers all nuclear industry waste producers including those in the NDA estate, the public sector and the private sector. The NWP is led by LLW Repository Ltd on behalf of the NDA (who are responsible for leading strategy implementation for BEIS). The NWP works collaboratively with its stakeholders to produce a Blueprint and Benefit Map to show the direction of travel for strategy implementation. The activities to deliver the strategy are executed by the stakeholders of the NWP; for example by waste producers through their waste management practices.



The vision of the National Waste Programme is:

Optimised LLW management across the UK that delivers value for money.

The purpose of the NWP is to deliver a transformation in the way that LLW is managed in the UK, in accordance with the LLW Strategy. The NWP will deliver five strategic benefits:

- NWP Strategic Benefits:
1. The life of the LLWR is extended to 2130.
  2. Overall waste management costs are reduced.
  3. Optimised LLW management that supports and enables effective hazard reduction and decommissioning.
  4. Continued application of the Waste Hierarchy.
  5. Stakeholders to the strategy are increasingly engaged with its delivery.

What is the purpose and structure of this report?

This report provides a “snapshot in time” of the progress being made within the NWP community to achieve the strategic objectives of the programme. The report is divided into five sections broadly aligned with the strategic benefits (to enable visibility of benefit realisation):

- Section 1 (Benefits 1 and 4) - waste diversion / disposal metrics and waste route availability map.
- Section 2 (Benefit 2) - cost avoidance metrics.
- Section 3 (Benefit 3) - updates from waste producers across the UK, key project tracker showing progress against delivery of projects to support priority business changes, an update on Peer Reviews/Assists, an update on the NWP training framework, details of NWP publications over the past quarter and of external publications / consultations from the past quarter.
- Section 4 (Benefit 5) - information on stakeholder interactions in the quarter and an update on industry issues/concerns.
- Section 5 - look forward—information on the priorities for the NWP community over the next 12 months, look forward notice-board, forward calendar and strategic threats and opportunities.

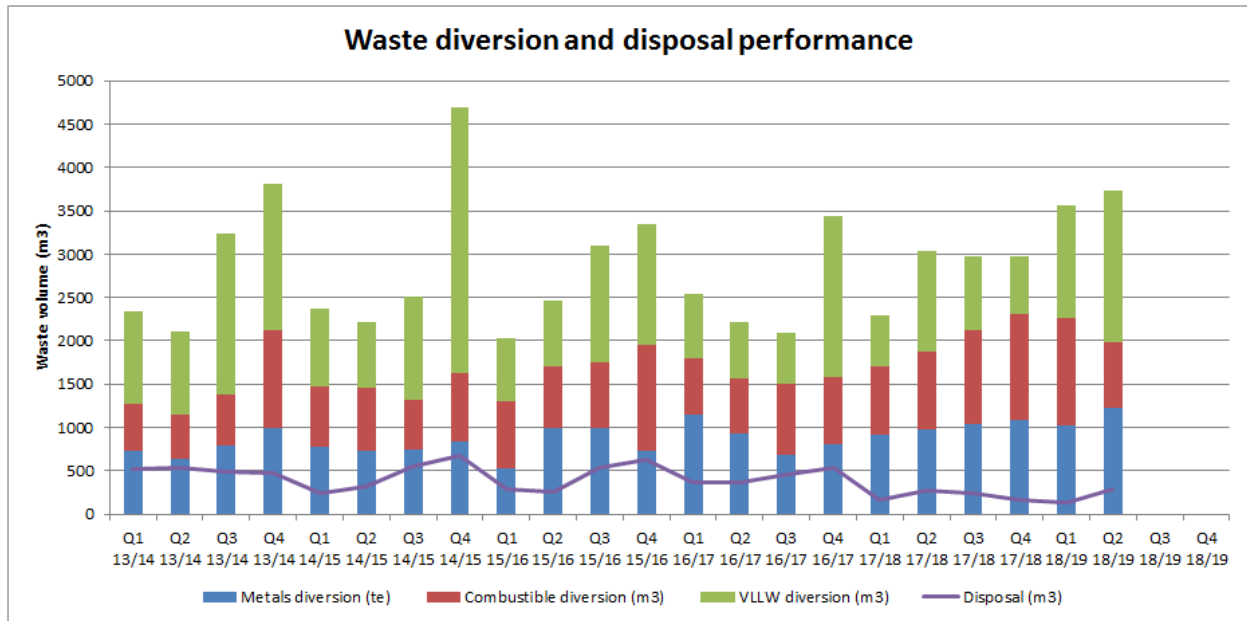
**SECTION 1: Benefit 1 — The life of the LLWR is extended to 2130 & Benefit 4—Continued application of the Waste Hierarchy**
**Waste diversion and disposal performance**
**KEY**

- Actual waste diversion is less than JWMP or LLW disposal exceeds JWMP
- Actual waste diversion or LLW disposal in line with JWMP.
- Actual waste diversion exceeds JWMP or LLW disposal is less than JWMP.

Waste producer	Route	JWMP (for year)	Actual (Year to Date)	Actual Performance against JWMP (Year to Date)	% diversion (Year to Date)
Dounreay Site Restoration Ltd	Combustible (m <sup>3</sup> )	0	0		N/A
	LLW disposal (no. containers)	0	0		
LLW Repository Ltd	Metallic (te)	0	28		100%
	Combustible (m <sup>3</sup> )	156	114		
	VLLW (m <sup>3</sup> )	16	0		
	LLW disposal (no. containers)	2	0		
Magnox Ltd	Metallic (te)	1110	941		~100%
	Combustible (m <sup>3</sup> )	1186	751		
	VLLW (m <sup>3</sup> )	9087	2921		
	LLW disposal (no. containers)	42	1		
Sellafield Ltd	Metallic (te)	2800	1282		91% (Including CLESA)
	Combustible (m <sup>3</sup> )	1800	1125		
	VLLW off-site (m <sup>3</sup> )	600	132		
	VLLW on-site at CLESA (m <sup>3</sup> )	3600	1201		
	LLW disposal (no. containers)	80	38		
Non-NDA estate (total)	Metallic (te)	672	4		99%
	Combustible (m <sup>3</sup> )	300	9		
	VLLW (m <sup>3</sup> )	7618	4716		
	LLW disposal (no. containers)	25	3		
NDA estate (total)	Metallic (te)	3911	2251		95%(Excluding CLESA)
	Combustible (m <sup>3</sup> )	3142	1990		
	VLLW off-site (m <sup>3</sup> )	9703	3053		96% (Including CLESA)
	LLW disposal (no. containers)	124	39		
UK nuclear industry (total)	Metallic (te)	4583	2255		97%(Excluding CLESA)
	Combustible (m <sup>3</sup> )	3442	1999		
	VLLW (m <sup>3</sup> )	17321	7768		97% (Including CLESA)
	VLLW on-site (m <sup>3</sup> ) (CLESA)	3600	1204		
	LLW disposal (no. containers)	149	42		

Note: Diversion calculated using National Waste Programme norms and assumptions. Waste producers may use different assumptions in their own calculations.

Waste Diversion and Disposal Performance



NDA estate waste diversion performance across the UK has remained high (>97%) during Q2 FY18/19, achieving the third highest total diversion volume since FY13/14. This level of diversion is due to a number of large-scale decommissioning projects such as Chapelcross’ Top Ducts (Magnox) and Harwell’s Liquid Effluent Treatment Plant projects (Magnox). In addition, the non-NDA estate (not captured above) are also diverting significant volumes of waste, most notably from the land remediation project at Capenhurst (Urenco Nuclear Stewardship).

Availability of Waste Diversion and Disposal Routes

This table provides a summary of the usage of the waste diversion and disposal routes for waste producers across the UK; reflecting the routes used for waste management since 2008 through reclassification to out-of-scope, self-perform, use of direct contracts and use of the LLW Repository Ltd frameworks. This differs to the Waste Metric Dashboard, in that it records information gathered by the National Programme Office and not actuals data provided by the waste producers.

		Organisation																														
		DSRL	LLW Repository Ltd	Magnox Ltd	Sellafield Ltd	AWE	Active Collection Bureau	Babcock Marine	Urenco Nuclear Stewardship	Cristal Pigment UK Ltd	Doosan Power Systems Ltd	HIMNB Clyde	HIMNB Devonport	HIMNB Rosyth	EDF Nuclear Generation Ltd	EDS	GE Healthcare	Medical Research Council	NNL	Nuvia	Police National Centre	RR MoD	Rutherford Appleton Laboratory	Springfields	Cyclife	Tradebe	Tradebe Inutec	UKAEA Culham	Umicore Coating Services Ltd	UniTech Services Group Ltd	Urenco	
Route	M	•	✓	✓	✓	✓	•	•	✓	•	•	•	✓	•	✓	•	•	•	✓	•	•	•	✓	✓	•	✓	•	•	•	•	•	•
	C	•	✓	✓	✓	✓	•	•	✓	•	•	✓	•	•	•	•	•	•	•	•	•	•	✓	•	•	✓	•	•	•	•	•	•
	V	•	✓	✓	✓	✓	•	•	✓	•	✓	•	•	✓	✗	•	•	•	•	•	•	•	•	•	•	✓	•	•	•	•	•	•
	L	✓	✓	✓	✓	✓	•	•	✓	✓	•	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	•	•	✓	✓	•	✓	✓	•	•	•

KEY: note that information refers to known route usage (via direct contract, on-site infrastructure or LLWR framework) since 2008.

✗ Waste route is not open (either not permitted or has not been opened by the waste producer).

• Waste route is open but is not in use by the waste producer.

✓ Waste route is open and is in use by the waste producer.

M Metallic treatment (surface decontamination and / or metal melting).

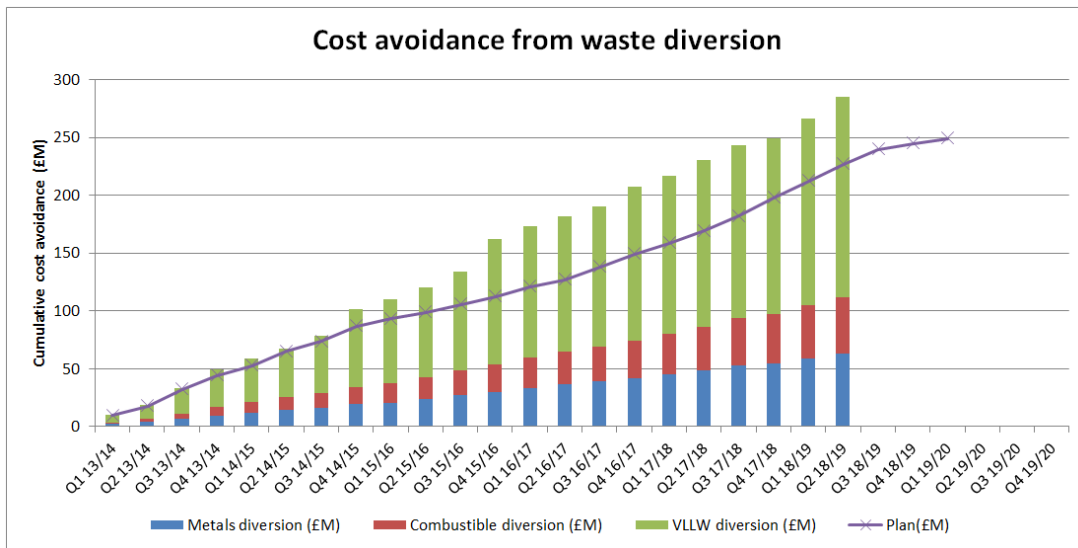
C Combustible waste management (incineration).

V Very Low Level Waste / low-activity Low Level Waste disposal.

L LLW disposal (to LLWR or to the Dounreay near site disposal repository/demolition waste vault).

SECTION 2: Benefit 2 — Overall waste management costs are reduced

Cost Avoidance from Waste Diversion



Cost avoidance is calculated by comparing the cost norm for the relevant route against the cost for disposal at the repository for the actual volumes diverted during the quarter.

SECTION 3: Benefit 3 — Optimised LLW management that supports and enables effective decommissioning and hazard reduction

Waste Producer Quarterly Updates



Good levels of diversion noted during Q2, including: 514te of metal diverted for recycling (1282te YTD); 834m<sup>3</sup> of VLLW to landfill capabilities (1333m<sup>3</sup> YTD); and 440m<sup>3</sup> of material diverted for incineration (1125m<sup>3</sup> YTD). In Q2 there has been a marginal increase in the number of containers generated and transferred for disposal. Identification of a suitable waste to support the NWP-led project to develop a Decay Storage Business Case has been completed.

To support enhancing effective LLW management and diversion from LLWR, focus has been on setting out the approach for waste capability development, identifying a number of near term deliverables.

Focus areas in Q2 included:

- A Sellafield wide LLW / sub-LLW study to investigate future capability needs to support the next 2 decades of SL business has been progressed.
- Issuing of the further competition to the supply chain for the 2nd soft bagged waste trial covering larger volumes and waste streams.
- The progression of the feasibility study for waste pilots to bring about transformational change across the site as it moves from standard operations to Remediation and Waste Management.

Key Boundary LLW/ILW areas have been progressed:

- The transfer of 10 WAGR boxes to LLWR with a further 5 being approved for Q3.
- Work continues to carry out bespoke discrete item assessments on the next population residing within WAGR store.
- Building on the problem and definition work previously progressed with AGR graphite sleeves it has now been proven BAT to dispose of this waste at LLWR, with a further schedule of work being developed.


**Magneox**

At the end of Quarter 2, Magnox has diverted an impressive 97% of its LLW from the repository, predominantly VLLW from the Harwell LETP project, and the Chapelcross heat exchanger ducts. This high diversion rate is also due to there being minimal scheduled disposals or supercompaction campaigns to date (they are planned for back end of the year, as re-forecast in the recent issue JWMP15). Bradwell FED continues to progress with seven further containers packaged ready for shipment to LLWR. A project has been initiated to seek permissions for the disposal of FED from Sizewell and Oldbury, again working collaboratively with LLWR and Tradebe Inutec. The Chapelcross heat exchangers top ducts project has completed, seeing 850te sent for recycling. A contract award has been made for the management of ILW / LLW boundary wet wastes from Dungeness (first of a kind). The Oldbury Wet Waste (second of a kind) and Winfrith TRS Drums (Magneox scope only, not LLWR scope) projects have been deferred as a result of portfolio management to meet funding constraints this year. Activity assessment work has progressed significantly on potential diversion of Harwell nuclear material transport drums to LLW routes.


**LLW Repository Ltd**

Consignment of the Legacy Drums Soft Waste commenced this quarter, so far we have consigned 224 drums for Combustible Waste Treatment. We have also consigned 3 TC01 containers (Bag Assay) to Tradebe and 1 TC01 (Magazine Waste) to Veolia for Combustible Treatment. Metals consignments to re-start shortly following the close-out from the audit (see below). We have also consigned Metals off-site as Out of Scope for recycling, these were the redundant Type B Fleet.

The September 2018 Waste Forecast Form was reviewed and submitted by the September deadline.

The Service Assurance Team carried out an audit on our Waste Management Processes, this was the usual audit that is carried out every 12 months plus close-out of the 2 Condition Reports.


**Dounreay**  
Decommissioning excellence

There have been no disposals of LLW or DLLW in Q2, however a short grout campaign of 4 containers was undertaken at the Encapsulation Plant to empty the powders silos. WRACS assay and supercompaction operations have continued and 1850 drums have been compacted. The LLW Verification project commenced late July and has assessed approximately 50% of the stored and disposed wastes to date, highlighting a number of wastes that may be non-compliant with D3100 Vaults Waste Acceptance Rules. The project has started to develop BPM arguments in support of disposal of these wastes. Prioritised reviews have been carried out of key elements of the waste management process. Improved processes are under development.

**National Waste Programme Office Update**

The National Waste Programme has finalised the *Problem Statement Report for Problematic Waste Disposability*. This work will be supported by specific disposability assessment review sessions with waste producers (Magneox Ltd, Sellafield Ltd and EDF Energy) in Q3.

A representative of the Programme Office delivered a presentation on 'the UK's approach to waste management at the IAEA Annual Meeting on the Status and Trends Project on Spent Fuel and Radioactive Waste' in Luxembourg.

The Integrated Radioactive Waste Programme continues to make progress on the Baseline Review. The Baseline Review encompasses a series of projects which seek to capture a 'snapshot in time' of radioactive waste management across the UK. A series of interviews have been held in Q2 with NDA and non-NDA organisations to feed into the work on the ten different topics identified, which will each form a part of the final Baseline Review report.






**Non-NDA Estate**







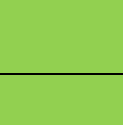
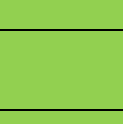




Diversion continues with non-NDA estate consignments being routine business across the portfolio of services. Urenco Nuclear Stewardship have consigned significant volumes of VLLW under LLWR's new VLLW framework, with over 2400m<sup>3</sup> being disposed of to permitted landfill in Q2.

## Key Project Tracker

The NWP community agree, on an annual basis, a number of priority business changes from the NWP Benefit Map. These priority business changes are those which are critical to supporting strategy implementation in the near term or are longer term changes which need to be initiated or driven to ensure they are delivered when the nuclear industry need them. This tracker provides a snapshot of performance of delivery of projects (tasks undertaken by waste producers) or enablers (tasks outwith of the control of waste producers, such as those undertaken by the regulators) which support achievement of the priority business changes for the current FY.

### KEY

-  Project not yet commenced.
-  Project has commenced and is on target to deliver on or ahead of schedule.
-  Project has commenced and is behind schedule; but is expected to recover.
-  Project has commenced and is behind schedule; but is not expected to recover.
-  Project is complete.

Priority Business Change	Project	Status
Waste management processes enable robust and effective material diversion; with streamlined characterisation, sorting, segregation, packaging and consignment.	<b>Magnox</b> - Deliver the Magnox Waste Assurance Programme.	
	<b>Sellafield</b> - Work with LLWR to develop BAT for management of 3000 drums of AGR graphite.	
	<b>Sellafield</b> - Programme to integrate POCO, decommissioning and solid waste management arrangements under the planned change to the site management system.	
	<b>Sellafield</b> - Work with LLWR to enable assessment of the next tranche of WAGR boxes.	
	<b>Sellafield</b> - Develop approach to support acceleration of removal of material from high hazard facilities.	
	<b>Sellafield</b> - Implement programme of work to further segregate material from the alpha stream that can be managed as LLW.	
	<b>Sellafield</b> - Develop approaches for assay of bulk materials.	
	<b>Sellafield</b> - Undertake study to establish how LLW and sub-LLW system should evolve.	
	<b>Sellafield</b> - Develop and implement programme of follow-up bagged waste trials.	
	<b>Sellafield</b> - Develop local capability to support removal of material from high hazard facilities.	
	<b>Sellafield</b> - Undertake a review of BAT for LA-LLW / VLLW metal. Introduce beneficial option(s).	
	<b>Sellafield</b> - Undertake a review of BAT for LA-LLW / VLLW process wastes. Introduce beneficial option(s).	
<b>Sellafield</b> - Increase segregation of inorganic material currently disposed as LLW, in line with review findings.		

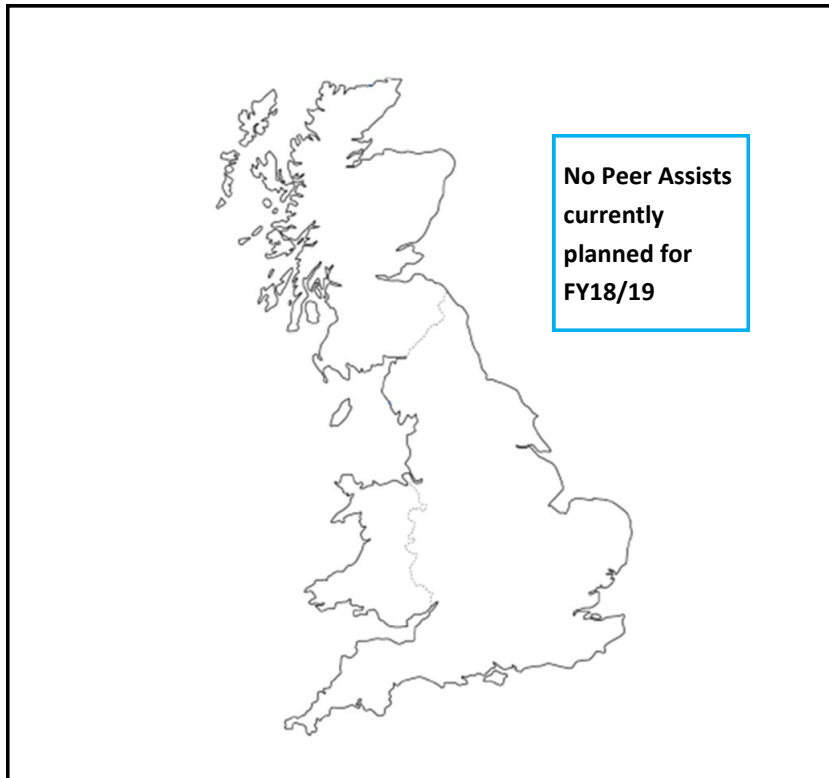
Priority Business Change	Project	Status
<p>Waste management processes enable robust and effective material diversion; with streamlined characterisation, sorting, segregation, packaging and consignment.</p> <p>There is a flexible, sustainable supply chain infrastructure which includes enhanced options. The supply chain offers characterisation, sorting, segregation, pre-treatment and conditioning infrastructure to complement the infrastructure on sites.</p> <p>A full understanding of the LLWR ESC assumptions and material limits is available and informs waste producer operations.</p>	<b>LLWR</b> - Project to explore the level of understanding of the LLWR WAC amongst key stakeholder groups and implementation of a programme of initiatives to improve this.	
	<b>LLWR</b> - Project to identify and implement improvements to the processes used in Waste Management Services.	
	<b>LLWR</b> - Project to explore and identify the requirements for the next evolution of the Waste Services Treatment Frameworks.	
	<b>LLWR</b> - Delivery of project to re-compete the Waste Services Treatment Framework.	
	<b>LLWR</b> - Implement outcomes from review of the LLWR Waste Acceptance Process.	
	<b>LLWR</b> - Undertake a project to review the LLWR Waste Acceptance Process to increase usability and robustness of arrangements.	
<p>There is a flexible, sustainable supply chain infrastructure which includes enhanced options. The supply chain offers characterisation, sorting, segregation, pre-treatment and conditioning infrastructure to complement the infrastructure on sites.</p>	<b>Magnox</b> - Cross-estate project to understand and assess the disposability of wastes identified in the 2017 Problematic Waste Inventory as problematic owing to not being disposable in the LLWR.	
	<b>Sellafield</b> - Investigate how best to use the current on-site and off-site LLW facilities.	
	<b>Sellafield</b> - Investigate opportunities for optimising LLW waste collection and treatment facilities.	
<p>A full understanding of the LLWR ESC assumptions and material limits is available and informs waste producer operations.</p>	<b>Magnox</b> - Participation in a project to explore waste producer perspectives on their understanding of the LLWR WAC and its structure, with the aim of identifying potential improvements / initiatives to improve waste producer understanding of the WAC.	
	<b>Sellafield</b> - Investigate the opportunities for decay storage.	
	<b>LLWR</b> - Project to enable the utilisation of magazine demolition rubble as profiling material for capping of Vault 8.	
<p>Risk Based disposability approaches have been developed and are being implemented.</p>	<b>Sellafield</b> - Investigate the opportunities for a risk based approach to disposal.	
	<b>LLWR</b> - Project to deliver an outline business case on decay storage of a specific short-lived ILW wastestream.	

Priority Business Change	Project	Status
<p>There are solutions in place for most problematic LLW, including items that fall outside the LLWR ESC</p>	<p><b>Magnox</b> - Project to determine solutions for Magnox problematic wastes (various).</p>	
	<p><b>Magnox</b> - Delivery of problematic waste IPT projects, on specific problematic waste groups.</p>	
	<p><b>Sellafield</b> - Liaise with analytical services regarding step change in using exchange columns and the disposal route.</p>	
	<p><b>Sellafield</b> - Develop the combustible route for small quantities of orphaned chemicals.</p>	
	<p><b>LLWR</b> - Project to develop an information resource to collate information on projects and opportunities for ILW to LLW reclassification.</p>	
	<p><b>LLWR</b> - Deliver the Problematic Waste IPT (jointly with RWM).</p>	
<p>Appropriate and flexible packaging and transport assets available; with increased use of rail and the ability to use mixed loads where appropriate</p>	<p><b>Magnox</b> - Cross estate project to explore packaging of LLW and ILW with the potential to be managed as LLW (including that already packaged as ILW).</p>	
	<p><b>Sellafield</b> - Implement additional packaging options for more efficient consignment of oil.</p>	
	<p><b>LLWR</b> - Participation in NDA Critical Enablers transport and packaging strategy development.</p>	
	<p><b>LLWR</b> - Project to establish transport and packaging agreements with Sellafield Ltd for transfer of profiling material for capping programme.</p>	

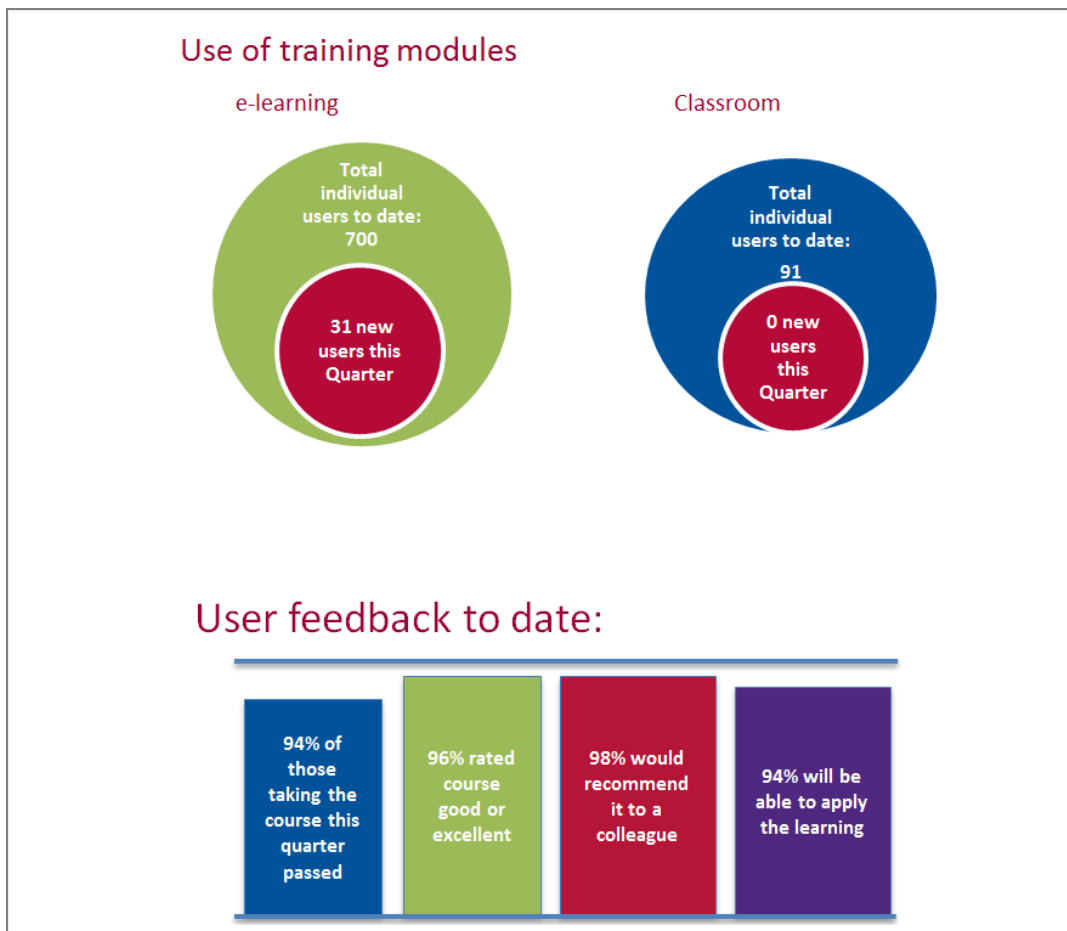


**Peer Reviews and Peer Assists**

This provides a summary of the planned and delivered peer reviews / peer assists during the financial year.



**NWP Training Framework**



Looking Back Notice Board— publications, consultations and information

**NWP REPORT**

**Problematic Waste Inventory Summary**

This document provides a high-level summary of the problematic waste inventory within the UK nuclear industry as collected in 2017.

Published August 2018

**NWP REPORT**

**Radioactive waste management approaches in the non-nuclear industry**

An information resource produced by Problematic Waste IPT for owners of problematic waste.

Published August 2018

**EXTERNAL CONSULTATION**

Government response published.

**National Policy Statement for new nuclear above 1GW post 2025: siting criteria and process**

National Policy Statements (NPS) establish the case for Nationally Significant Infrastructure Projects, as defined in the Planning Act 2008. The current nuclear power NPS lists 8 sites as potentially suitable for the deployment of new nuclear power stations by the end of 2025.

BEIS is considering the planning framework for nuclear power generation for the long term by starting work towards a new NPS for nuclear power generation for deployment after 2025.

The first step towards this new NPS was to consult on the process and criteria for designating potentially suitable sites for the deployment of new nuclear power stations between 2026 to 2035 and with over 1GW of single reactor electricity generating capacity. There will be a further consultation on the draft NPS, which will build on the outcome of this consultation.

**EXTERNAL CONSULTATION**

Government response published.

**Environmental impact assessment: Nuclear Decommissioning Regulations**

This consultation invited comments on proposals for implementing amendments of the European Union Directive on environmental impact assessments in so far as the Directive applies to consent for nuclear reactor decommissioning projects in the UK under the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations.

**EXTERNAL CONSULTATION**

Consultation closed.

**Nuclear Safeguards Regulations**

Following withdrawal from the European Atomic Energy Community (Euratom), the UK will be introducing new Nuclear Safeguards Regulations to enable a domestic nuclear safeguards regime to operate in the UK. This consultation seeks views on the operability and effectiveness of these draft Nuclear Safeguards Regulations.



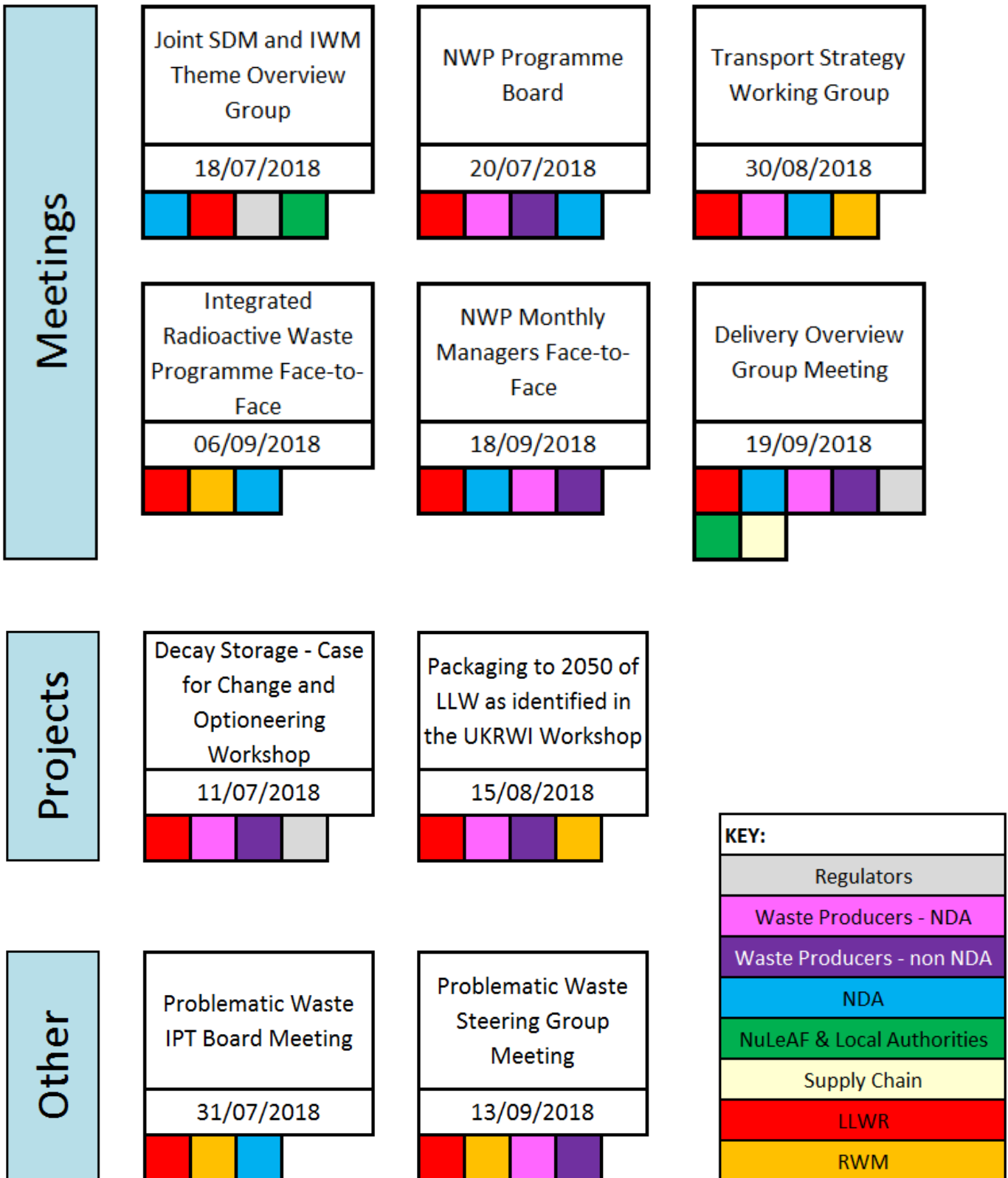
NWP Office publications, reports or training.



Publications or consultations external to the NWP Office.

SECTION 4: Benefit 5 — stakeholders to the strategy are increasingly engaged with its delivery.




Stakeholder interactions in the NWP during the quarter








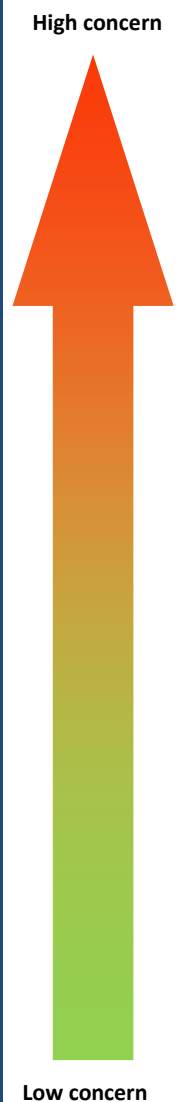
### Stakeholders' Key Issues and Concerns

The following table provides a summary of the key issues and concerns within the nuclear industry relevant to LLW management, collected by the National Waste Programme through formal and informal interactions with waste producers. The chart provides a summary of each issue, a statement of the change in status for that issue (i.e. whether the issue has become more or less important to the NWP community) and a commentary on actions that are being taken to resolve the issue.

**KEY**

-  No change in issue status since last quarter.
-  Issue status has increased since last quarter.
-  Issue status has reduced since last quarter.

Issue	Change since last quarter	Commentary
Risk of waste mis-consignment.		<ul style="list-style-type: none"> <li>• There were some waste mis-consignment near-misses and concerns during FY17/18, and a number of lower-level near-misses and concerns in FY18/19.</li> <li>• LLW Repository Ltd is working with waste producers and initiating additional work to support further mitigation of this risk.</li> </ul>
Paris-Brussels nuclear liability implementation.		<ul style="list-style-type: none"> <li>• Government working with NDA, LLW Repository Ltd and the supply chain to understand the changes and mitigate impacts.</li> <li>• Uncertainty remains as to the timescale for implementation.</li> </ul>
Waste packaging and transport.		<ul style="list-style-type: none"> <li>• Issues with Waste Loading Plans, hauliers and the range of waste containers available etc. continue to impact waste producers.</li> </ul>
Complex projects and problematic waste management.		<ul style="list-style-type: none"> <li>• Greater interest and impetus in this area, with a number of complex projects being delivered.</li> <li>• The Problematic Waste Integrated Project Team (involving RWM, NDA and LLW Repository Ltd) is working with waste producers to identify opportunities for problematic waste management.</li> </ul>
Access to supercompaction facilities for non-NDA estate.		<ul style="list-style-type: none"> <li>• One supercompaction facility not accessible for external waste producers who wish to use it due to challenges with LLWR WAC5 information requirements compliance.</li> <li>• Waste producers have successfully implemented alternative arrangements; change has not had significant adverse impacts.</li> </ul>



**SECTION 5: Looking Forward**

**Sellafield Ltd**

- Commence the soft bagged waste trial.
- Complete waste pilot feasibility study.
- Complete the transfer of the remaining 5 WAGR boxes to LLWR in line with agreed transfer schedule and progress next tranche of assessments.
- Develop approaches for assay of bulk materials.
- Progress LLW and sub-LLW programme study.


**Magnox**

- Transition Bradwell into its Care & Maintenance phase.
- Progress LAW improvements project, focusing on activity assessment spreadsheets rationalisation and fit-for-purpose ways of characterising decommissioning projects to improve efficiency.
- Participate in new 2018/19 collaborative NWP/IPT cross estate projects.
- Seek disposability approvals from LLWR for FED from Sizewell and Oldbury.
- Take forward diversion of Harwell NMT drums; dialogue to begin with LLWR on potential disposal routes.


**Dounreay**  
Decommissioning excellence

- Complete decant and consignment of LLW oils and solvents for off-site incineration.
- Continue development of business case for LLW Handling Facility to allow waste diversion and better packaging fractions in disposal containers.
- Continue with work on variation to D3100 RSA Authorisation.
- Complete LLW verification exercise on stored wastes, develop supporting BPM arguments and resume LLW encapsulation and disposal operation.


**LLW Repository Ltd**

- Ramping up consignments to ensure that waste is consigned from the site so that decommissioning work can continue.
- Consign remainder of redundant Type B Fleet off-site for recycling (Out of Scope).
- Continue to liaise with Projects with regard to Project Waste Management Plans.

**Non-NDA Estate**

- Continue embedding business as usual arrangements for waste diversion.
- Open new waste management routes as applicable and appropriate.
- Seek new opportunities for management of complex wastes.

**NWP Notice Board— looking forward**



**EXTERNAL CONSULTATION**

**NDA Radioactive Waste Management Strategy**

In the NDA's 2016 Strategy a commitment was made to develop a single radioactive waste strategy for the NDA Group. Views are sought on this single radioactive waste strategy that will apply to all radioactive waste generated within the NDA Group, including materials that may become waste at some point in the future.

**Consultation closes at midday on 31 October**



**NWP Publication**

**NWP Container Signposting Resource**

The resource is intended to help waste producers generate a shortlist of potential transport container options to enable the management of waste for disposal or diversion.

**Expected November 2018**



**NWP Publication**

**Sellafield, Magnox and LLWR Joint Waste Management Plans (JWMPs)**

JWMPs identify projects and activities to support the embedding and implementation of the UK LLW Strategy and good practice within these organisations. JWMPs also provide a 5-year forecast of waste arisings.

**Expected October 2018**



Publication or consultation from the NWP Office.



Publication or consultation external to the NWP Office.

**Forward Calendar**

October 2018						
M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				





**02/10/18** – IRWP Baseline Review Stakeholder Workshop (MA)  
**15/10/18** – NWP Monthly Managers Meeting (T)  
**16/10/18** – Assessment of waste identified in the PW inventory as ‘not disposable at LLWR’ EDF Workshop (C)  
**24/10/18** – Assessment of waste identified in the PW inventory as ‘not disposable at LLWR’ Sellafield Workshop (C)  
**25/10/18** – Assessment of waste identified in the PW inventory as ‘not disposable at LLWR’ Magnox Workshop (C)

November 2018						
M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

**13/11/18** – IRWP Core Team Meeting (WA)  
**14/11/18** – LLW NWP Regulatory Meeting (WA)  
**19/11/18** – NWP Monthly Managers Meeting (T)  
**27/11/18** – LLW Practitioners Forum (BM)

December 2018						
M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

**11/12/18** – NWP Monthly Managers Meeting (MA)  
**12/12/18** – IRWP Baseline Review Stakeholder Workshop (MA)

KEY									
	Meeting		Project workshop		Peer Review / Peer Assist		Deadlines		
BM=Birmingham		MA=Manchester		WA=Warrington		C=Cumbria		T=Teleconference	

**Strategic Threats**

Threat	Impacts	Proximity	Rating (current)	Rating (target)	Mitigation activities
Significant waste mis-consignment event causes partial or full closure of diversion or disposal route(s).	<p>Waste route(s) closed for individual producer or whole industry.</p> <p>Closure of routes reduces supply chain sustainability (supply chain organisation(s) withdraws from market).</p> <p>Increased waste disposal due to loss of diversion routes.</p> <p>Increased waste accumulation due to lack of disposal routes.</p> <p>Loss of radiological / volumetric capacity at LLWR due to potential loss of diversion routes.</p> <p>Increased costs for waste producers.</p> <p>NDA required to invest capital in new facilities.</p>	Near term	High (14)	Low (5)	<p>Waste producers review and improve waste consignment practices/barriers.</p> <p>Guidance on waste consignment developed by LLWR.</p> <p>Peer Reviews and Assists conducted at some sites covering mis-consignment.</p> <p>Highlighted in NWP training modules.</p> <p>External buffer storage capability on line to manage waste flows.</p> <p>Temporary LLWR Task force established for investigation of some recent mis-consignment events.</p>
Insufficient non radiological, radiological or volumetric capacity at LLWR.	<p>Inadequate capacity at LLWR; leads to requirement for new repository.</p> <p>Potential Increase in number/volume of problematic streams.</p> <p>Some waste may have to be managed as HAW.</p> <p>Creates the need for additional storage and potentially higher treatment and disposal costs.</p>	Medium term	Medium (9)	Very low (1)	<p>Increased or enhanced incentivisation for diversion.</p> <p>NDA intervention or direct action to engender different approaches at waste producer sites.</p>



Threat	Impacts	Proximity	Rating (current)	Rating (target)	Mitigation activities
Large volumes of waste from contaminated land remediation are generated and have to be managed as lower activity waste.	<p>Disposal of increased volumes of waste result in inadequate capacity at LLWR; leading to requirement for new repository.</p> <p>Some waste may need to be managed as HAW.</p> <p>Creates need for additional storage.</p> <p>Reduced volumetric capacity at LALLW/VLLW disposal sites.</p>	Medium term	Medium (9)	Very low (2)	<p>NDA working with regulators, planning authorities and other stakeholders to develop de-licensing approach and arrangement.</p> <p>Revised regulatory guidance on in situ disposal drafted (GRR); being trialled at three sites.</p> <p>On-site or near-site disposal of LALLW/VLLW.</p>
Insufficient radiological, non-radiological or volumetric capacity in the supply chain.	<p>Fewer routes available; less capability and less redundancy in marketplace.</p> <p>Higher prices.</p> <p>No/inadequate diversion routes or capacity for waste.</p> <p>Excess volumes being sent to LLWR, so inadequate capacity at repository.</p> <p>NDA required to invest capital in new facilities.</p> <p>Increased waste accumulation due to lack of disposal routes.</p> <p>Increased costs for waste producers.</p>	Near term	Medium (8)	Low (5)	<p>Working with consignors to improve short term forecasting of waste.</p> <p>Introduction of new Waste Treatment Services Framework (estimated 2020).</p>

**Strategic Opportunities**

Threat	Impacts	Proximity	Rating (current)	Rating (target)	Mitigation activities
Changes in legislation, governmental policy and regulatory perspective prevents execution of LLW Strategy.	<p>Could restrict ability to divert or dispose of LLW.</p> <p>Increased volume of waste that needs to be managed as LLW or that is disposable at LLWR.</p> <p>Additional cost to treat and dispose of waste to meet revised regulatory expectations.</p> <p>Adverse impact on LLWR and/or supply chain capacity.</p>	Medium term	Very Low (2)		N/A - risk tolerated.
Stakeholder concerns over radioactive waste management constrain access to existing routes and / or development of new routes and facilities.	<p>Increased volumes of waste have to be disposed of at LLWR.</p> <p>Supply chain cannot secure authorisation for sites/facilities.</p> <p>Transport of waste is constrained.</p> <p>Waste producers unable or unwilling to use the routes because of stakeholder opposition.</p> <p>Inadequate capacity at the LLWR; requiring need for new repository in worst case.</p> <p>Requirement to buffer store more VLLW and LLW.</p>	Near term	Very Low (2)		N/A - risk tolerated.

**Strategic Opportunities continued**

Opportunity	Impacts	Proximity	Rating (current)	Rating (target)	Realisation activities
Optimised use of waste diversion and disposal routes by waste producers.	<p>Diversion is optimised.</p> <p>Use of most cost effective, optimised routes for radioactive waste.</p> <p>Optimised used of repository capacity (disposal of only those wastes that require engineered protections).</p>	Near term	High (16)	High (18)	<p>Execute NWP scope of work and programmes at waste producer sites.</p> <p>Sellafield Ltd pursue re-Permitting of CLESA and plans for CLESA2.</p> <p>Trialling and roll out of application of GRR by regulators.</p> <p>Further studies to understand potential opportunity for re-use of VLLW/LALLW in LLWR cap.</p> <p>Liaising with BEIS, NDA and supply chain organisations to minimise adverse impacts of Paris-Brussels and to further legislative exemption for landfill sites.</p>
Management solutions available and in use for complex, challenging and problematic wastes.	<p>Prompt hazard and risk reduction.</p> <p>Earlier solution for the management of such wastes.</p> <p>Cost savings across industry.</p> <p>Routes available for problematic waste.</p> <p>Avoidance of critical path schedule impacts due to inability to sentence problematic wastes that need to be dealt with.</p>	Long term	Medium (8)	High (12)	<p>Work through Problematic Waste IPT to identify and pursue opportunities.</p> <p>Work to identify opportunities for SL-ILW and Boundary Waste through NWP projects.</p> <p>Project on HAW Treatment capability being delivered by LLWR NWP / RWM and additional work through WMS.</p> <p>Waste producers progressing opportunities for reclassification of ILW.</p> <p>Waste producers undertake work to progress opportunities for management of complex / problematic wastes.</p> <p>LLWR work with suppliers to understand and promote opportunities.</p>

Opportunity	Impacts	Proximity	Rating (current)	Rating (target)	Realisation activities
Improve the sustainability and health of the supply chain.	<p>Better environment for investment in capacity and capability by supply chain.</p> <p>Continued presence for the supply chain.</p> <p>Improved value from the supply chain.</p> <p>Continued and optimised waste diversion.</p> <p>Release of LLWR resource for other activities (no need for liability channelling arrangements).</p> <p>Reduced prices (landfills may no longer require insurance for nuclear liabilities).</p>	Near term	Medium (8)	High (12)	<p>Future competitions for frameworks continue to consider sustainability.</p> <p>Embed aggregating process.</p> <p>Supply chain sustainability review undertaken by LLWR on behalf of NDA in FY16/17 and FY17/18.</p> <p>During FY17/18, review of customer demand for LLWR WMS Frameworks and specific focussed engagement on frameworks to be recompleted in near term.</p> <p>Delivery of inventory improvement tasks.</p> <p>Implementation of a new design for Waste Services Frameworks (estimated 2020).</p>
Non-NDA estate consignors and New Build are fully engaged with the Strategy.	<p>Diversion maximised.</p> <p>Waste hierarchy applied and new waste management routes being used.</p>	Near term	Medium (8)	High (12)	<p>Potential to interact with New Build forums to increase visibility of NWP.</p>
Management solutions for earlier management of ILW employed.	<p>Potential reduction in storage and disposal costs for waste producers.</p> <p>Prompt hazard and risk reduction.</p> <p>Diversion from GDF maximised.</p> <p>Improved value from supply chain.</p> <p>Enables earlier solution for waste producer.</p>	Medium term	Medium (8)	High (16)	<p>Ongoing collaboration work.</p> <p>Delivery of projects FY17/18 to investigate boundary waste management.</p> <p>Work on Near Surface Disposal IPT.</p> <p>Share LFE from projects to manage complex wastes.</p> <p>NWP On-Site Decay Storage Principles project being delivered FY17/18.</p> <p>Alignment of permits, WACs and planning consents to safety cases.</p>

Opportunity	Impacts	Proximity	Rating (current)	Rating (target)	Realisation activities
Fit-for-purpose, flexible and agile package fleets available for LLW management.	Optimised use of transport models. Quicker and cheaper LLW management.	Long term	<b>Low (4)</b>	<b>Medium (8)</b>	Execute LTP 13 scope. Develop new and fit-for-purpose packages. NDA work on transport and packaging strategy initiated in FY17/18 under Critical Enablers thematic area.
Buffer storage capabilities available and in use.	Diversion maximised. Improved value from supply chain. Allows variability in waste arisings to be managed to remove peaks and troughs to supply chain. Enables greater aggregation of waste from around the UK for treatment (driving better value). Enables an earlier solution (removal of waste from site) for consignors.	Medium term	<b>Very Low (2)</b>	<b>Low (4)</b>	Undertake work to understand potential for and logistics of buffer storage options (NWP Gate 0 project) and next steps of that project.
Improved use of rail infrastructure to support management of LLW.	Reduced use of road (better carbon footprint, improved safety). Potential for improved value from supply chain.	Medium term	<b>Very Low (2)</b>	<b>Low (4)</b>	DRS and LLWR undertaking some work to establish what might be available. NDA work on transport and packaging strategy initiated in FY17/18 under Critical Enablers thematic area.