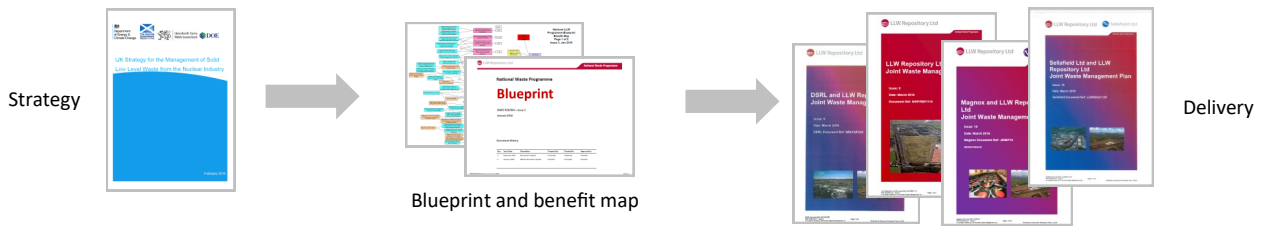


NATIONAL WASTE PROGRAMME QUARTERLY REPORT Q1 & 2 FY19/20

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**

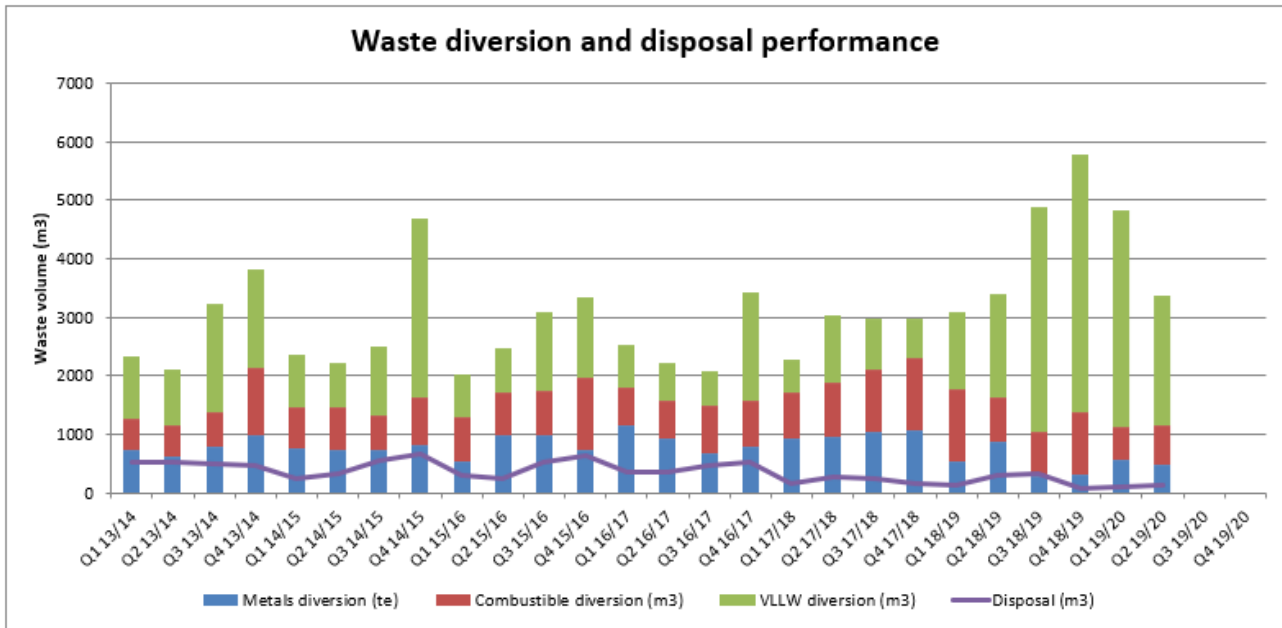
- Actual waste diversion is less than JWMP or LLW disposal exceeds JWMP
- Actual waste diversion or LLW disposal in line with JWMP.
- Actual waste diversion exceeds JWMP or LLW disposal is less than JWMP.

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	Metallic (te)	1005	0		N/A
	Combustible (m <sup>3</sup> )	9	7		
	LLW disposal (no. containers)	0	112		
LLW Repository Ltd	Metallic (te)	56	14		100%
	Combustible (m <sup>3</sup> )	60	91		
	VLLW (m <sup>3</sup> )	10	19		
	LLW disposal (no. containers)	3	0		
Magnox Ltd	Metallic (te)	146	69		99%
	Combustible (m <sup>3</sup> )	970	399		
	VLLW (m <sup>3</sup> )	6358	5462		
	LLW disposal (no. containers)	58	5		
Sellafield Ltd	Metallic (te)	1700	989		96% (Including CLESA)
	Combustible (m <sup>3</sup> )	2800	713		
	VLLW off-site (m <sup>3</sup> )	300	450		
	VLLW on-site at CLESA (m <sup>3</sup> )	2700	2004		
	LLW disposal (no. containers)	48	19		
Non-NDA estate (total)	Metallic (te)	905	70		~100%
	Combustible (m <sup>3</sup> )	376	63		
	VLLW (m <sup>3</sup> )	7559	2067		
	LLW disposal (no. containers)	32	1		
NDA estate (total)	Metallic (te)	1902	1072		98% (Excluding CLESA) 98% (Including CLESA)
	Combustible (m <sup>3</sup> )	3830	1210		
	VLLW off-site (m <sup>3</sup> )	6668	5931		
	LLW disposal (no. containers)	109	24		
UK nuclear industry (total)	Metallic (te)	2806	1142		98% (Excluding CLESA) 98% (Including CLESA)
	Combustible (m <sup>3</sup> )	4206	1273		
	VLLW (m <sup>3</sup> )	14227	7997		
	VLLW on-site (m <sup>3</sup> ) (CLESA)	2700	2004		
	LLW disposal (no. containers)	141	25		

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

Note: Dounreay is not included in the totals as these wastes are not being diverted from the LLWR.

Waste Diversion and Disposal Performance



NDA-estate waste diversion performance across the UK has been high (98%) throughout Q1 & 2 this financial year. The high levels of diversion continue to be bolstered by the volume of VLLW being disposed of by Magnox’s Harwell Liquid Effluent Treatment Plant (LETP) project—with Magnox alone having consigned over 5000m<sup>3</sup> of VLLW. Diversion is expected to slow in Q3, with embargoes in place at Sellafield, and at Magnox’s Harwell and Winfrith sites. This embargo does not apply to LETP.

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	HMNB Clyde	HMNB Devonport	HMNB Rosyth	EDF Nuclear Generation Ltd	EDS	GE Healthcare	Medical Research Council	NNL	Nuvia	Police National Centre	RRS Ltd	Rutherford Appleton Laboratory	Springfields	Cyclife	Tradebe	Tradebe Inutec	UKAEA Culham	Umicore Coating Services Ltd	UniTech Services Group Ltd	Urenco UK
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).

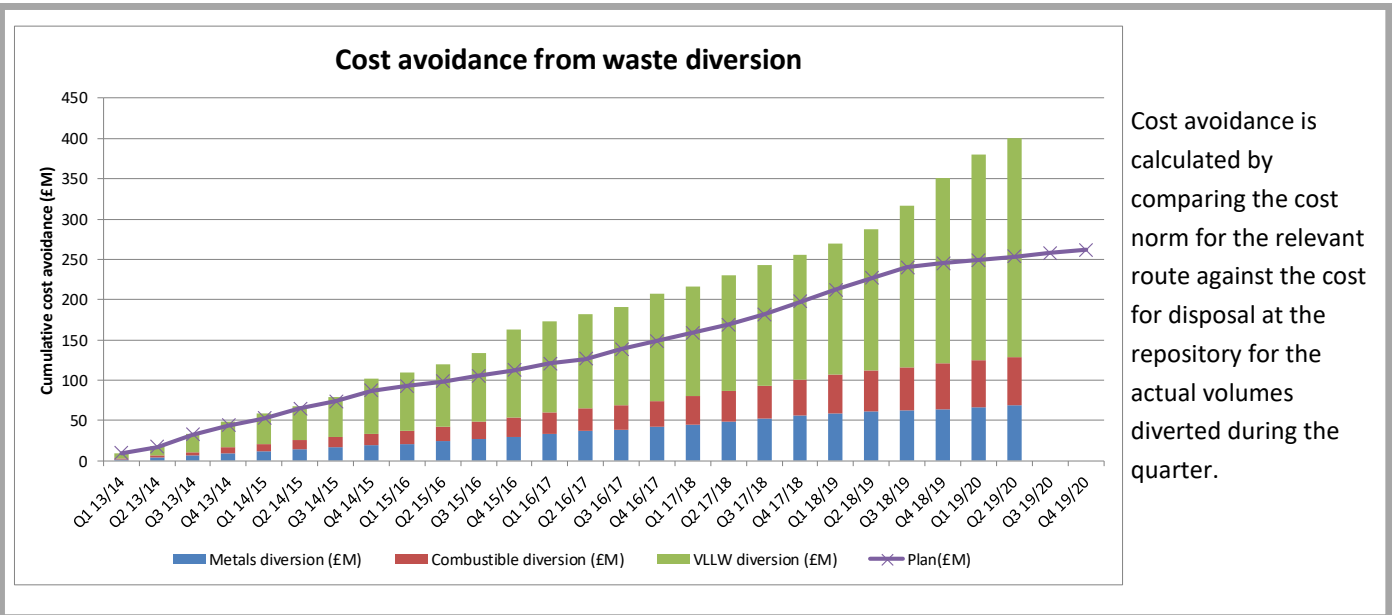
C Combustible waste management (incineration).

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



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

Waste Producer Quarterly Updates Q1



A strong programme of diversion was completed during Q1, with 98% of LLW diverted for recycling, incineration, or to landfill disposal capabilities. Existing diversion capabilities were enhanced via;

- Implementation of a route to enable disposal of hazardous metal to landfill.
- Progression of a second soft bag waste trail, to further assess approaches to optimise the volume of bagged process wastes that can be diverted for incineration.

The study to determine the best value LLW and sub-LLW approach for the next two decades was also progressed through the initial phase of governance.

Good progress was also made on a range of transformation activities;

- The first transfer of LLW material segregated from the PCM stream was consigned to LLWR for disposal. This was the culmination of a significant programme of work, including implementing enhanced assay capability, extensive technical and operational work to develop and commission the route, and an extensive programme of engagement with LLWR to establish the transfer approach and to demonstrate the robustness of the process.
- Follow-up engagement was undertaken to capture LFE, to develop the approach for the next tranche of material and to discuss a planned alpha decommissioning active demonstrator.
- Two workshops were supported to develop the case for change for the management of items that fail the Discrete Item limit.
- The data compilation and review stages of the 2019 RWI update were completed.
- Introduction of a capability to support the management of metallic materials removed from the legacy ponds was further progressed.
- The work to assess the potential to dispose of a quantity of AGR graphite to LLWR was progressed to the next stage.

 **Magneox**

At the end of Quarter 1, Magnox has diverted 99.5% of its LLW from the repository, predominantly VLLW from the Harwell LETP land remediation project. VLLW/LALLW diversion shipments are currently ahead of target, but metals combustibles and repository disposal shipments are behind forecast. Some of the JWMP16 diversion targets will now not be achieved, due to funding shortfalls which have resulted in several waste generating projects being deferred. The Sizewell & Oldbury FED disposability project continues in close collaboration with LLWR, with an initial focus on the Sizewell materials. Positive discussions have been held with EA on the revised LAW strategic BAT; this will be issued next quarter. Magnox has initiated work on a characterisation and waste management strategy for removal of the Dungeness boilers plus associated structures. A BAT and related disposability documentation is in progress for the Dungeness borderline wet wastes project, which will be finalised next quarter. Magnox and LLWR have been working closely on the proposal to direct emplace 1,068 stainless steel drums of encapsulated sludge in the gaps around the edge of vault 8; this requires NDA approval to proceed. During the quarter, Magnox initiated a Waste Improvement Programme to identify cheaper, quicker, simpler approaches.

 LLW Repository Ltd

Focus is on the final waste consignments from the Decommissioning Programme and getting ready for demolition. Also, we have carried out a review of the wastestream for the LLW Ops Area (see further comments below). Various samples and waste moves (for clean or out of scope waste) have taken place to ensure development for future site projects i.e clean up of the 'OneFM' compound, abandoned drums etc. Work also continues with the re-characterisation of the PCM Drums to enable these to be consigned through more appropriate waste routes and extending the lifespan of the EDS Stores at Sellafield.

**National Waste Programme Office Update**

The Programme Office commenced work on the Discrete Item Optioneering project in Quarter 1. The project is seeking to gather evidence to develop a case for change that would position the industry to consider next steps towards a full business case. Phase 1 of the work was the development of a long list of available options prior to submission to stakeholders for comment and review.

Work also commenced on the Waste Acceptance Criteria (WAC) Clarity project. This project seeks to help consignors and other stakeholders understand how and why the WAC enable compliance. The first task of the project is stakeholder engagement and information gathering, and has included engagement with Magnox Ltd and Tradebe Inutec; and discussion at the LLW Practitioners Forum.

The Programme Office continues to provide support to the Problematic Waste (PW) Integrated Project Team (IPT). Work continues on the Radiologically Contaminated Mercury Feasibility Study project. A shortlisting workshop was held with members of the IPT Community of Practice (CoP) to identify a credible option.

**SECTION 2: Benefit 2 — Overall waste management costs are reduced**
**Waste Producer Quarterly Updates Q2**

**Sellafield Ltd**

A strong programme of diversion was completed during Q2, with 97% of LLW diverted for recycling, incineration, or to landfill disposal capabilities.

Completed transformation work during Q2 included;

- A new contract to process ad-hoc metallic items, and improved arrangements to manage small volumes of Asbestos contaminated material.
- A study to determine the best value LLW and sub-LLW approach for the next two decades. Follow-up project scopes are being developed.
- A study to assess potential on-site locations for a replacement landfill capability. An assessment of potential off-site landfill approaches will be undertaken to underpin the way forward.

Good progress was also made on a range of transformation activities, including;

- 99% of the material from the ongoing Soft Bagged Waste Trial was successfully diverted for incineration.
- All equipment was procured for a new capability to support the management of boundary waste metallic items extracted from the high hazard facilities.
- A programme of metallic decontamination trials to be undertaken at Springfields was agreed.
- Additional information provided to LLWR to assess the suitability of the next tranche of WAGR boxes for LLWR disposal.
- Completion of initial Data Quality Objective assessment, and follow-up engagement with LLWR, to develop the characterisation approach to support assessment of the potential to dispose of a quantity of AGR graphite to LLWR.

At the end of the quarter a self-imposed off-site waste transfer embargo was put in place, following two events where waste containers were inappropriately transferred off-site. A Board of Inquiry has been convened to identify and resolve any underlying issues.


**Magnox**

- At the end of Quarter 2, Magnox has diverted 99% of its LLW from the repository, in part due to comparatively large volumes of VLLW from the Harwell LETP land remediation project. We have reset the year-end targets as JWMP17 was issued in September, so we are currently on track to meet these.
- All waste cleared from Bradwell – fully in C&M (UK first).
- The Sizewell & Oldbury FED disposability project continues - the BAT study has been completed and the document has been issued.
- Work is underway on a characterisation and waste management strategy for removal of the Dungeness boilers plus associated structures.
- A BAT and related disposability documentation is in progress for the Dungeness borderline wet wastes project, which is expected to be finalised next quarter.
- NDA ExCo endorsed the proposal to directly emplace the 1,068 stainless steel drums ('TRS' drums) of encapsulated sludge in the gaps around the edge of Vault 8 at LLWR. Phase 4 and 5 enabling scope has been sanctioned and initiated.
- The Waste Improvement Programme has been recognised as one of the key Areas of Focus by the new Magnox Executive. Additional resources are being identified to support this programme to identify cheaper, quicker, simpler approaches to waste management activities. This is a transformational change programme.

 LLW Repository Ltd

PCM decommissioning is complete in magazines 5 and 10 - these have been handed over to the demolition subcontractor. Active soft strip has been completed and demolition of the Magazine Retrieval Facility (MRF) is due to start. Magazine 3 and 9 are still undergoing decommissioning.

Minor project work is ongoing but waste generation is very small (off site borehole decommissioning, OneFM compound Waste, B726 building clearance etc).

 Dounreay  
Decommissioning excellence

Compliance: DSRL continue to implement a revised, updated LLW Management Process which includes improved processes for Characterisation and Permissioning of solid LLW arisings. This will ensure the "right first time" consignment of wastes for compliant disposal to the D3100 LLW Disposal Facility.

WRACS Supercompactor: Short outage during August to resolve an operational noise issue - now back operational. 990 drums compacted during Q2.

Grout Plant: Issues with Grout Module control system HMI screen prevented operation in July. Now back operational and an internal project to design, install and commission a new system that will be consistent with other SCADA systems on site and will future proof the facility (as best as possible) has been initiated.

### National Waste Programme Office Update

In Q2, the Programme Office continued work on a range of projects.

A Peer Learning Event was hosted in Manchester to support the Waste Consignment Practices project. The event was well attended, with 22 participants from 8 different waste producing organisations. Over the two-day event, waste producers were invited to share practices that came about as a result of misconsignment. The Programme Office has offered to coordinate future Peer Learning exercises, should waste producers seek to host one.

An options evaluation workshop for the project on management of waste failing the Discrete Item limit was held in September. LLWR, waste owners, regulators and the NDA were present, and the conclusions of the evaluation and associated discussions will be reflected in the Gate B paper, once it is completed.

The data call for the 2019 Problematic Waste Inventory has been issued to members of the CoP. The submission date of 29/11/2019 will allow the Core Team an opportunity for high level analysis, before a workshop to determine the FY20/21 Programme of Work is undertaken on December 10th.






### Non-NDA Estate
















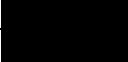
Diversion continues with non-NDA estate consignments being routine business across the portfolio of services. The Programme Office held a meeting with MOD to discuss the scope of a peer review for the Submarine Dismantling Project, to be held at Rosyth in late Q3 / early Q4 FY-19/20.

## Key Project Tracker

The NWP community agrees, 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.

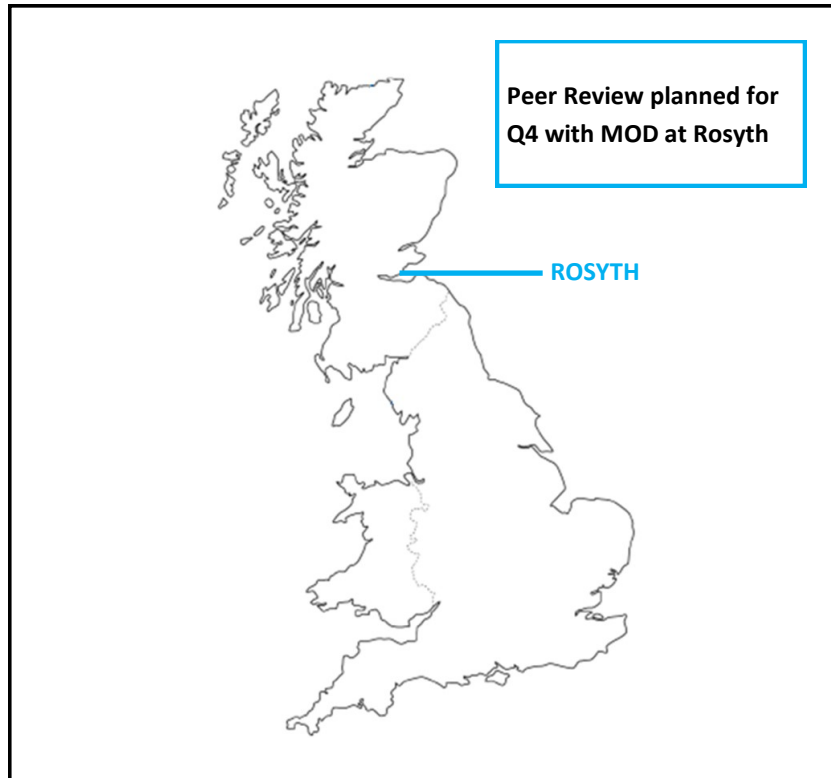
Priority Business Change	Project	Project Status
Waste management processes enable robust and effective material diversion; with streamlined characterisation, sorting, segregation, packaging and consignment.	<b>LLWR</b> - Implementation of streamlined waste services processes.	
	<b>Magnox</b> - JWMP Lifecycle Improvements.	
	<b>Magnox</b> - Support the LLWR Risk of Misconsignment Project.	
	<b>Magnox</b> - Magnox Waste Improvement Programme.	
	<b>Magnox</b> - Deliver the Magnox Waste Assurance Programme.	
	<b>Magnox</b> - Waste consignment practices and misconsignment controls.	
	<b>Magnox</b> - Dungeness A boilers removal and treatment - characterise and optimise the process for removal and treatment.	
	<b>Sellafield</b> - Develop approaches for assay of bulk materials.	
	<b>Sellafield</b> - Program to integrate POCO, decommissioning and solid waste management areas.	
	<b>Sellafield</b> - Undertake study to assess on-site options for future VLLW capability.	
	<b>Sellafield</b> - Work with LLWR to address impact diversion is having on management of material unsuitable for diversion.	
	<b>Sellafield</b> - Implement programme of work to further segregate material from the alpha stream that can be managed as LLW.	
	<b>Sellafield</b> - Undertake a review SL BAT for LA-LLW/VLLW bagged process wastes & develop programme to introduce beneficial option(s).	
	<b>Sellafield</b> - Undertake study to establish how LLW and sub-LLW systems should evolve.	
<b>Sellafield</b> - Develop and implement programme of follow-up bagged waste trials.		
<b>Sellafield</b> - Undertake review of BAT for LA-LLW / VLLW metal & develop programme to introduce beneficial option(s).		



Priority Business Change	Project	Project Status
A full understanding of the LLWR ESC assumptions and material limits is available and informs waste producer operations.	<b>Magnox</b> - Stakeholder experiences in working with the LLWR WAC, WAP and ESC.	
Appropriate and flexible packaging and transport assets are available; with increased use of rail and the ability to use mixed loads where appropriate.	<b>Sellafield</b> - Assess options to package and transport small volumes of liquid and implement a programme of work to introduce any option (s) deemed to provide a significant benefit.	
	<b>LLWR</b> - Participation in NDA Critical Enablers transport and packaging strategy development.	
	<b>LLWR</b> - Enabling work to establish transport and packaging agreements with Sellafield Ltd for transfer of profiling material for capping programme.	
Decommissioning is seen as a waste management process by waste producers and is organised from this perspective.	<b>LLWR</b> - Enabling activities for utilisation of magazine demolition rubble as profiling material for capping of Vault 8.	
	<b>LLWR</b> - Consider the implications of the updated LLWR ESC on LLWR processes and services.	
	<b>LLWR</b> - Consider and implement the outcomes from the review of the LLWR Waste Acceptance Process.	
	<b>LLWR</b> - Review and share learning on scaling up waste management practice for decommissioning.	
	<b>Sellafield</b> - Further develop decommissioning approaches using LFE from ORANO and external innovation.	
	<b>Magnox</b> - Waste management for scaled-up decommissioning.	
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.	<b>LLWR</b> - Development and implementation of integrated treatment services.	
	<b>LLWR</b> - Delivery of a programme to examine and enhance LLWR arrangements to mitigate against the risk of misconsignment of waste diversion or disposal routes.	
	<b>Magnox</b> - Risk preparedness plan developed.	

**Peer Reviews and Peer Assists**

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



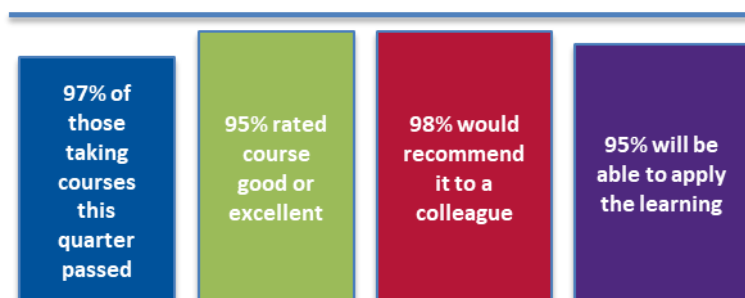
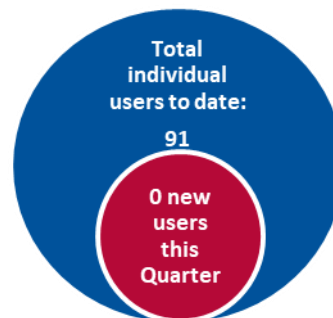
**NWP Training Framework**

**Use of training modules**

e-learning



Classroom



Looking Back Notice Board — publications, consultations and information



**EXTERNAL CONSULTATION**

**National Policy Statement for Geological Disposal Infrastructure**

This is the government response to the [BEIS Committee report](#), published in July 2018, on the draft National Policy Statement for Geological Disposal Infrastructure.

**Outcome published**



**EXTERNAL PUBLICATION**

**NDA Radioactive Waste Strategy**

The NDA has now published the final version of the Radioactive Waste Strategy which was issued for consultation in July 2018.

This updated document takes account of comments received during the 12-week consultation period, which concluded in October 2018.

**Outcome published**



**NWP REPORT**

**NWP Reporting has Relocated!**

The majority of National Waste Programme reporting is moving to the NDA's HUB platform. If you are a HUB member and interested in keeping up to date with our latest publications, or if you want to browse our back catalogue, we can be found on the HUB at LLW National Waste Programme. If you don't have a HUB account, but you would like to join the community, please send your request to [NWP@llwrsite.com](mailto:NWP@llwrsite.com)



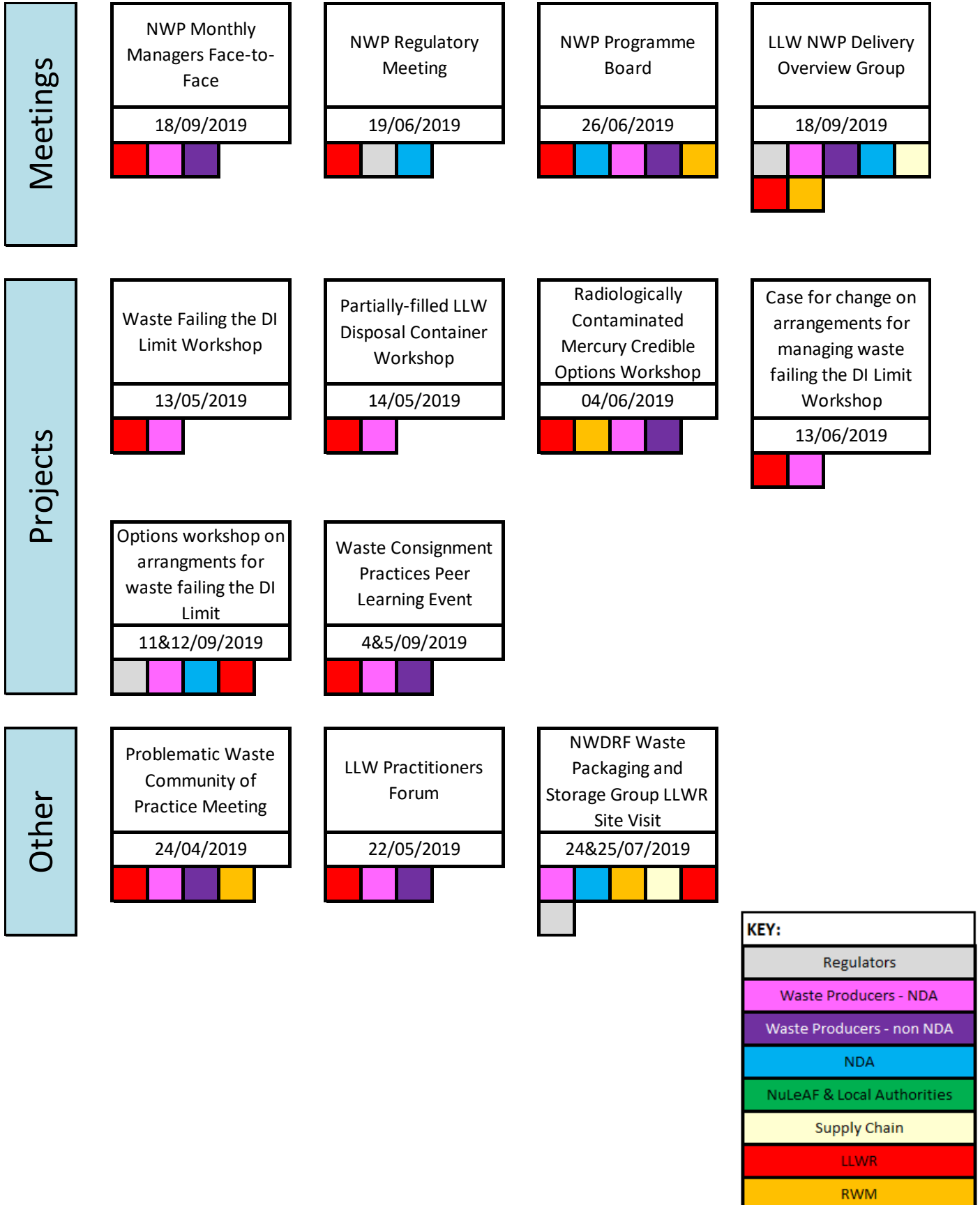
NWP Office publications, reports or training.



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







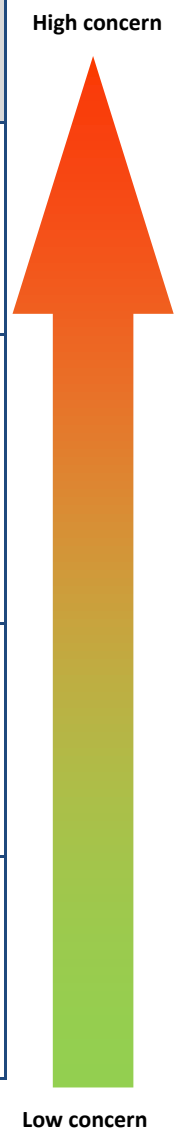
### Stakeholders' Key Issues and Concerns

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
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>
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> <li>• Work being considered for FY-19/20.</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>



**SECTION 5: Looking Forward**

**Sellafield Ltd**

- Progress the soft bagged waste trial, review findings and plan the next step.
- Complete DQO characterisation assessment to underpin the forward information requirements for progressing the AGR graphite workstream.
- Complete planned metallic decontamination trials at Springfields.
- Progress installation of the equipment to support the management of metallic boundary waste items extracted from the high hazard reduction facilities.
- Complete Board of Inquiry, and any required improvements, to enable the re-commencement of off-site waste transfers.


**Magnox**

- Progress the projects identified in the first tranche of the Waste Improvement Programme.
- Finalise and issue revised LAW Strategic BAT.
- Submit disposability documents to LLWR for the Dungeness Borderline Wet Wastes project.
- Agree plan to reduce legacy waste at Chapelcross.
- Harwell LETP land remediation waste consignments.


**Dounreay**  
Decommissioning excellence

- Commence stored LLW HHISO container voidage assessments to inform disposal BPM arguments.
- Continue review and revision of Dounreay Fingerprints.
- Progress Non-Containerised Waste diversion project Phase 2 comprising decommissioned Supercompactor and Baler units.
- Decant and disposal off site of Phase 3 LLW Solvents.


**LLW Repository Ltd**

- 1. Demolition of all four magazine MRFs anticipated to be complete by the end of the financial year.
- 2. Wood assay (drum scan alpha) anticipated to go online - this will enable all wood from all magazines to be assayed and consigned for Combustible Waste Treatment.
- 3. Consignment of LLW DGF Bay grout samples to the laboratory for analysis - will confirm that LLW Operations waste stream (2N06) is VLLW (historically all 2N06 waste has been consigned for vault disposal).

**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.

**National Waste Programme Office**

- Publish the Discrete Items Optioneering Gate B paper.
- Publish the output of Phase 1 of the Waste Consignment Practices project.
- Continue working on LLWR Disposition Models.
- Progress the report into Disposability of ILW Packaging (Containing Compliant LLW Waste) to LLWR.
- Kick off the Scale-Up of Waste Management for Decommissioning project.
- Kick off the Waste Metric Dashboard Development project.


**NWP Notice Board— looking forward**

  
**NWP Publication**

**National Strategic BAT Tool**

This software tool seeks to provide information on the legal and strategic background that underpins the National Strategic BATs, and gives practitioners access to information on specific waste material groups to inform decision making.

**Expected November**

  
**NWP Publication**  
**Case for Change**

This reports shows the results from the inactive laboratory trials using Nochar to immobilise oils and oily wastes prior to encapsulation in grout, and tests compliance of the grouted product with the LLWR WAC.

**Expected Q3 2019/20**

  
**NWP Publication**

**Problematic Waste Inventory 19 Summary Report**

This reports summarises trends and opportunities for cross-estate collaboration identified from the 2019 Problematic Waste Inventory.

**Expected Q3 2019/20**

 Publication or consultation from the NWP Office.  Publication or consultation external to the NWP Office.

**Forward Calendar**

October 2019						
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			

**17/10/19** – NWP Waste Consignment Practices Workshop (M)  
**21/10/19** – LLW NWP Monthly Managers Telecon

November 2019						
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	

**07/11/19** – LLW Practitioners Forum (BM)  
**19/10/19** – LLW NWP Blueprint Workshop (MA)  
**25/11/19** – LLW Disposition Model Gate A Optioneering (C)

December 2019						
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
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30	31					

**04/12/2019** - LLW NWP Regulatory Meeting (WA)  
**06/12/2019** – LLWR Disposition Model Gate A Optioneering (C)  
**09/12/2019** – LLW NWP Monthly Managers Meeting (T)



**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) withdraw(s) 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.</p> <p>Increased costs for waste producers.</p> <p>NDA required to invest capital in new facilities.</p> <p>Regulatory controls increase burden (operational and administrative) on consignors.</p> <p>Loss of confidence in suppliers / waste producers / industry.</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. Highlighted in NWP training modules.</p> <p>External buffer storage capability on line to manage waste flows.</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> <p>Causes delays to programmes.</p> <p>Increased waste to diversion routes impacts capacity (e.g.</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 / new fit-for-purpose disposal facility.</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>Increased cost for waste producers (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>

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> <p>Adverse impact on access to overseas treatment routes.</p> <p>Issues with secondary waste returns.</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 (reputational impact).</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> <p>Programme delays.</p>	Near term	Very Low (2)		N/A - risk tolerated.

**Strategic Opportunities**

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> <p>Reduced lifecycle cost.</p>	Medium term	Medium (8)	High (16)	<p>Ongoing collaborative work.</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 packaging 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>	Develop new and fit-for-purpose packaging. 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>	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.

Opportunity	Impacts	Proximity	Rating (current)	Rating (target)	Realisation activities
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>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>