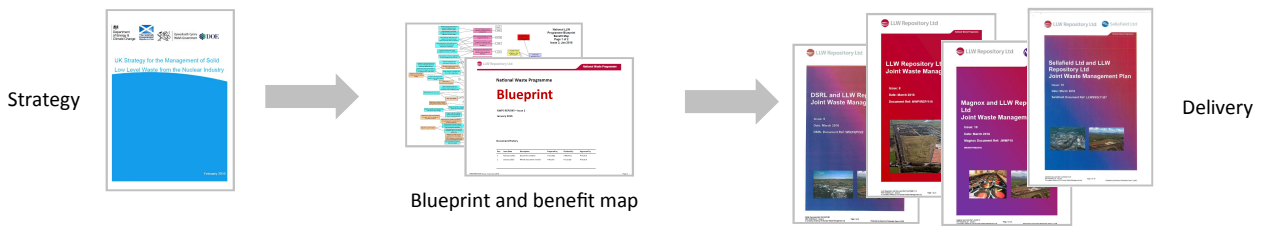


NATIONAL WASTE PROGRAMME QUARTERLY REPORT Q2 FY17/18

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 National Waste Programme 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.

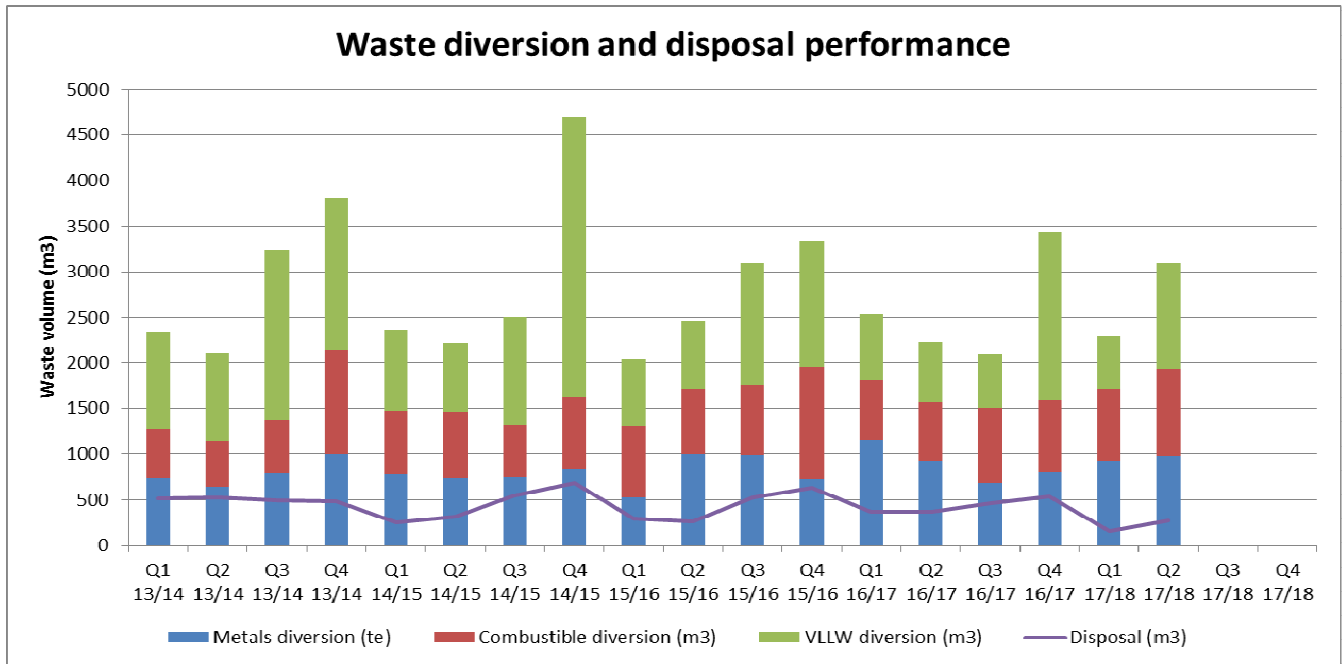
SECTION 1: Benefit 1 — The life of the LLWR is extended to 2130 & Benefit 4—Continued application of the Waste Hierarchy
Waste diversion and disposal performance
 Actual waste diversion is less than forecast or LLW waste disposal exceeds forecast.

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

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 ³)	0	0		N/A
	LLW disposal (no. containers)	0	26		
LLW Repository Ltd	Metallic (te)	0	57		100%
	Combustible (m ³)	185	97		
	VLLW (m ³)	5	2		
	LLW disposal (no. containers)	0	0		
Magnox Ltd	Metallic (te)	641	639		98%
	Combustible (m ³)	1038	688		
	VLLW (m ³)	5492	1185		
	LLW disposal (no. containers)	42	4		
Sellafield Ltd	Metallic (te)	2200	1199		93%
	Combustible (m ³)	1200	963		
	VLLW off-site (m ³)	200	547		
	VLLW on-site at CLESA (m ³)	3000	2126		
	LLW disposal (no. containers)	135	37		
Non-NDA estate (total)	Metallic (te)	57	63		100%
	Combustible (m ³)	307	159		
	VLLW (m ³)	3565	4097		
	LLW disposal (no. containers)	26	2		
NDA estate (total)	Metallic (te)	2841	1896		93% (Excluding CLESA) 95% (Including CLESA)
	Combustible (m ³)	2422	1748		
	VLLW off-site (m ³)	5697	1735		
	LLW disposal (no. containers)	177	67		
UK nuclear industry (total)	Metallic (te)	2899	1959		96% (Excluding CLESA) 96% (Including CLESA)
	Combustible (m ³)	2729	1907		
	VLLW (m ³)	9262	5832		
	VLLW on-site (m ³) (CLESA)	3000	2126		
	LLW disposal (no. containers)	203	69		

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



Waste diversion performance has remained high (>90%) during Q2 FY17/18 within the NDA and non-NDA estate. The low rate of waste disposal observed in FY16/17 has continued with a total of 27 containers in Q2. In terms of waste diversion, all waste streams are at a similar volumes.

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	Capenhurst Nuclear Services	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	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).

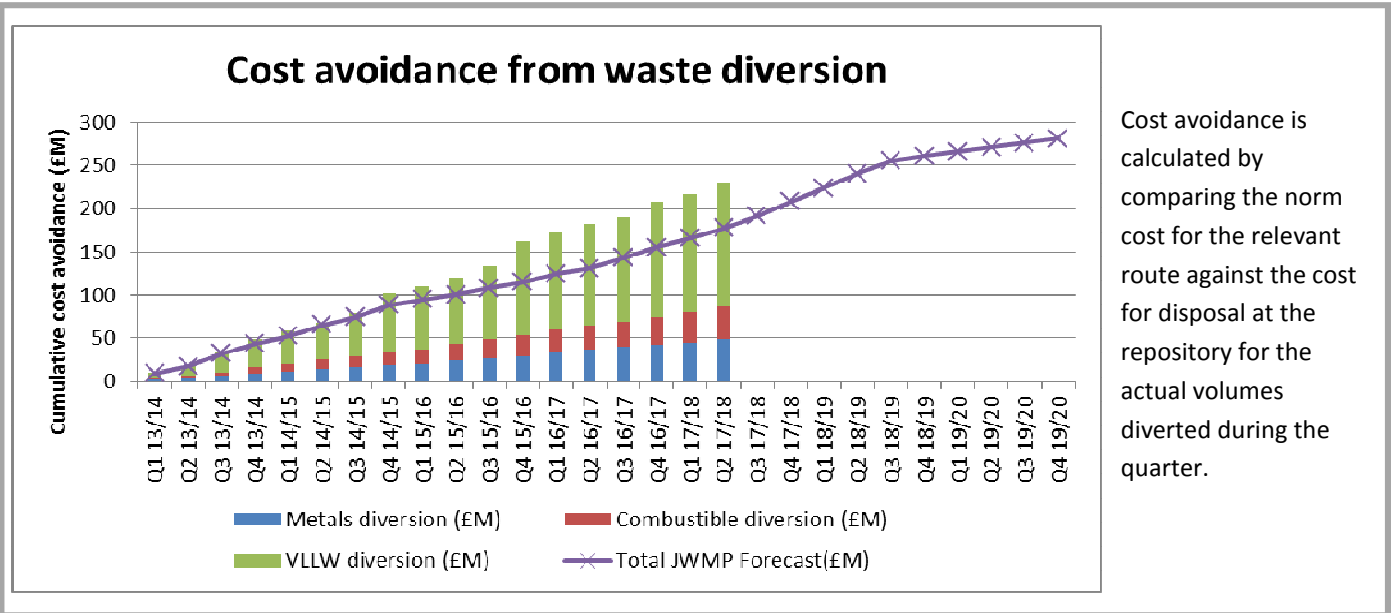
C Combustible waste management (incineration).

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



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

Waste Producer Quarterly Updates



A strong programme of diversion was completed during Q2, including; 540te of metal diverted for recycling, 1700m³ of VLLW to landfill capabilities, and 580m³ of material diverted for incineration. All JWMP12 diversions were exceeded. Based on performance to date, all Year End forecast diversions were increased in JWMP13 and the forecast disposal to LLWR further reduced.

To support extending existing LLW diversion capabilities:

- Review of non-compactable material consigned for LLW disposal has highlighted opportunities for further segregating material for alternative treatment/disposal.
- All pre-determination comments received from EA on the proposed revision to the CLESA PCRSA (which proposes increasing the disposal activity limit from 37Bq/g to 200Bq/g) addressed and response made to EA.
- Waste loading plan developed to support planned soft bagged waste trial.

The three Boundary LLW/ILW focus areas have all been progressed:

- The detailed technical documents and offline assessment tools to underpin the management of re-assayed PCM drums as LLW have all been formalised and issued.
- Detailed characterisation of the first tranche of 16 WAGR boxes has been submitted to LLWR for assessment. The associated transport plan has been developed.
- Re-measurement of 4 AGR Graphite drums indicate an activity decay rate greater than initially assumed; further supporting potential management as LLW. Samples have also been trepanned from sleeves held in the Active Handling Facility.

 **Magneox**

At the end of Quarter 1, Magnox has diverted 98% of its LLW from the Repository, predominantly as out of scope (OoS) Metal and OoS VLLW. There have been delays to the Harwell LETP remediation project, due to upstream projects, which will result in substantially less VLLW being consigned this FY than intended. However, forecasts for metals and combustibles are significantly higher than JWMP12 values. Work on the generic FED operational/nuclear and transport safety cases is progressing to schedule, and sufficient progress has been made to allow supercompaction of Bradwell FED stored at Tradebe Inutec to commence. Magnox has participated in all NWP collaborative projects and IPTs looking at decay storage, buffer storage and boundary and problematic waste. An ILW vs LLW sentencing methodology has been produced for use in assessing the business case for potential opportunities to divert boundary wastes to LLW routes. Recent events relating to fingerprint management have been shared with the NWP and improvement plans are in place.

 LLW Repository Ltd

Legacy Drum sampling continues with focus being on the taking and despatch of the second batch of samples destined for>NNL via Springfields for chemical analysis. These are due to be consigned by early July.

PCM Consignments are yet to commence due to Type B container availability; however, the Waste Delivery Team continue to prepare in readiness, working closely with Sellafield.

Work continues on the reduction of the site sources inventory with key milestones being met this quarter.

Focus continues on the disposal / treatment of the historical waste associated with the Repository Infrastructure Programme.

 **Dounreay**
Decommissioning excellence

In this Quarter, the campaign to top up HHISOs with grout in the D3100 disposal vault was completed and routine disposals have re-commenced. Routine Operations continue at the Waste Receipt Assay Characterisation and Supercompaction (WRACS) facility. The Embargo on the disposal of demolition LLW remains in place. Work is ongoing to define a revised inventory to support a new RSA Application for the D3100 Disposal facility.

Non-NDA estate

Diversion consignments continue as non-NDA estate transactions been routine throughout Q2, across the portfolio of services. These have included significant volumes of VLLW from land remediation projects at a number of sites. New Waste Enquiries have been received, and Waste Services Quotations have been issued as further competitions continue to be progressed across the diversion routes. In addition, witnessing took place of the first consignment of VLLW filter cake from Rolls-Royce for controlled burial, which had historically been consigned as LLW to the Repository.

National Waste Programme Office Update

National Waste Programme (NWP) governance activities during Q2 included the quarterly face-to-face Programme Managers Meeting which included productive discussions on the Discrete Item Decision Summaries project, the draft database of commercially available training in support of radioactive waste management, and on environmental permits. The 11th NWP Delivery Overview Group meeting took place involving over 30 stakeholders from 17 organisations; discussions focussed on stakeholder updates, problematic wastes and on an update from BEIS on BSSD implementation.

A stakeholder workshop was held for the Boundary Waste Management Study, exploring what waste producers need to do to implement alternative management approaches for boundary wastes.

The On Site Decay Storage Principles project stakeholder workshop was held in Manchester, with representation from waste producers, new build, regulators and NDA.

A Gate 0 paper on LLW Buffer Storage was finalised; it presented a case for changing the approach to LLW buffer storage.






The HAW Treatment project completed an internal review of datasheets being developed on waste management facilities. The second phase of this project will be an inventory review.









The NWP has continued to collaborate with the Problematic Waste IPT; activities included progressing project procurements, a Community of Practice meeting and a Problematic Waste IPT Board Meeting.

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.	Magnox Ltd—Produce a "Low Active Waste Strategy" Paper.	
	Sellafield Ltd—Undertake review of inorganic LLW currently disposed as LLW to determine options for further segregation.	
	Sellafield Ltd—Undertake review of BAT for LA-LLW/VLLW process wastes. Introduce beneficial option(s).	
	LLWR –Other—Undertake review of organisational capability, infrastructure and strategic direction of LLWR Customers.	
There is a flexible, sustainable supply chain infrastructure which includes enhanced options. The supply chain offers sorting, segregation, pre-treatment and conditioning infrastructure to complement the infrastructure on sites.	Sellafield Ltd—Undertake analysis to determine the best value SL/supply chain balance for the management of LLW.	
	Sellafield Ltd—Investigate opportunities to broaden the Calder Landfill extended Segregated Area Conditions for Acceptance.	
	Sellafield Ltd—Develop the next generation of waste processing capability to support POCO and Decommissioning.	
	LLW Repository Ltd—Implement WMS Service Strategy.	

Priority business change	Project	Status
Risk based disposability approaches have been developed and are being implemented.	Sellafield Ltd—Investigate the opportunities for a risk based approach to disposal.	Green
	LLW Repository Ltd—Deliver optioneering for an enhanced disposal capability.	Blue
Options for decay storage and management of short lived ILW are being implemented.	Magnox Ltd—Identify size and opportunity for decay storage.	Blue
	Sellafield Ltd—Investigate the opportunities for decay storage.	Green
	LLW Repository Ltd—Project to establish principles for executing decay storage.	Green
	LLW Repository Ltd—Deliver optioneering for an enhanced disposal capability.	Blue
A full understanding of the LLWR ESC assumptions and material limits is available and informs waste producer operations.	Magnox Ltd—Produce Magnox Guidance on Discrete Items.	Black
	Sellafield Ltd—Work with LLWR to fully understand the ESC and capacity management and identify where real benefits can be derived from changes.	Green
	LLW Repository Ltd—Develop approach for management of profiling materials on site (including VLLW).	Blue
	LLW Repository Ltd—Develop approach to communicating ESC arguments.	Green

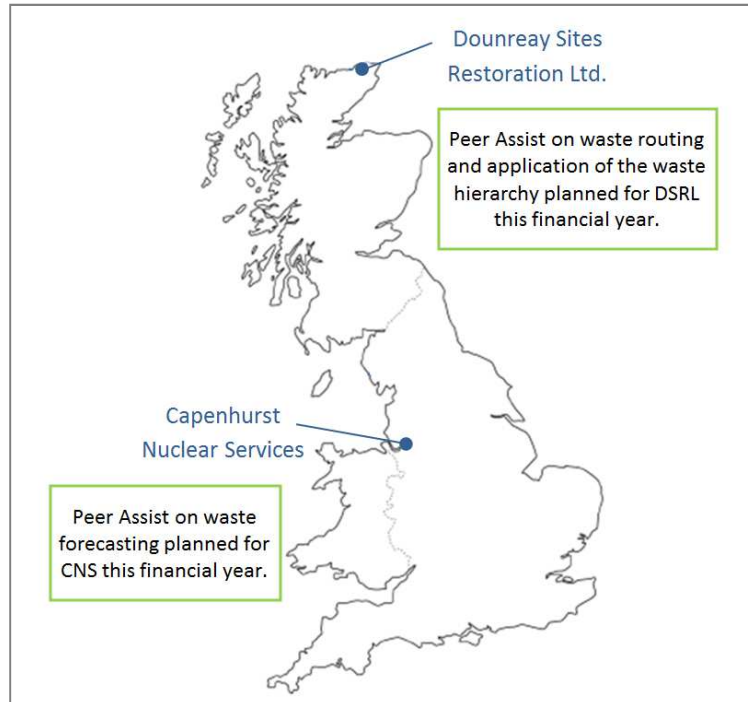
Priority business change	Project	Status
There are solutions in place for problematic LLW, including items that fall outside the LLWR ESC.	Magnox Ltd—Projects to identify what wastes fall outside the ESCs/WACs for waste routes.	Blue
	Magnox Ltd—Projects to identify solutions for those wastes outside the ESCs/WACs.	Green
	Magnox Ltd—Problematic Waste IPT.	Green
	Magnox Ltd—Cross-estate project (including RWM) to review the practical aspects and the cost-benefit of implementation of alternate approaches to disposal of short-lived ILW and LLW/ILW Boundary Waste.	Green
	LLW Repository Ltd—Produce final report on legacy drums.	Yellow
	LLW Repository Ltd—Participate in the NDA Problematic Waste Integrated Project Team (IPT).	Green
	LLW Repository Ltd (site) - Complete sampling and develop management approach for legacy drums.	Yellow
Appropriate and flexible packaging and transport assets available; with increased use of rail and ability to use mixed loads.	Magnox Ltd—Project to review standard and non-standard packaging requirements.	Green
	LLW Repository Ltd—Deliver a longer term transport solution for FED.	Green

Additional waste producer specific Priority Business Changes:

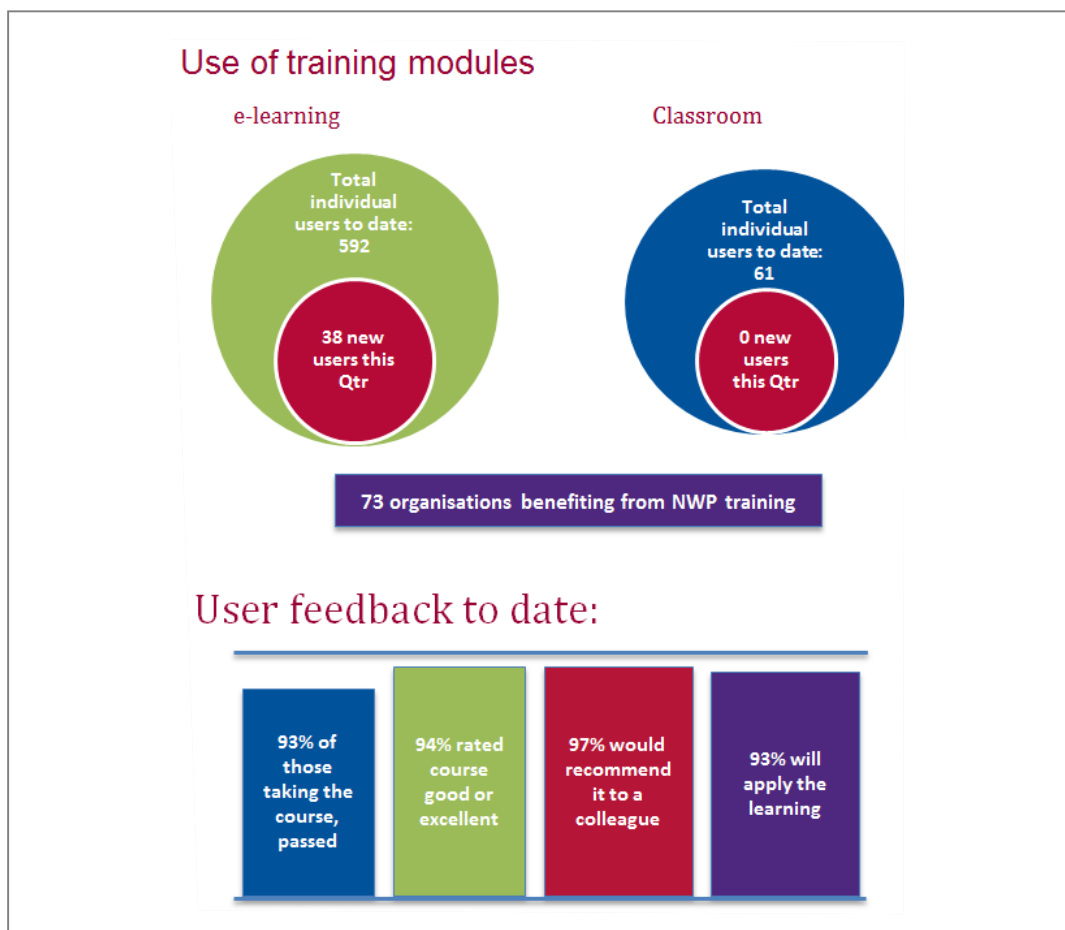
Priority business change	Project	Status
Site interim and/or end state assumptions have been developed and engagement is underway with key stakeholders.	Sellafield - Undertake development of high level site end state management options to support the determination of appropriate end-states for the Sellafield site.	Green
Options are being implemented for the management of borderline LLW/ILW wastes.	Sellafield - Work with LLWR to investigate opportunities to manage boundary ILW waste streams as LLW.	Green

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

EXTERNAL CONSULTATION

Nuclear Third Party Liability

Defining prescribed sites and transport:
Government response to consultation.

Published by BEIS August 2017

**No new publications, reports or training
available from the NWP Office.**



NWP Office publications, reports or training.

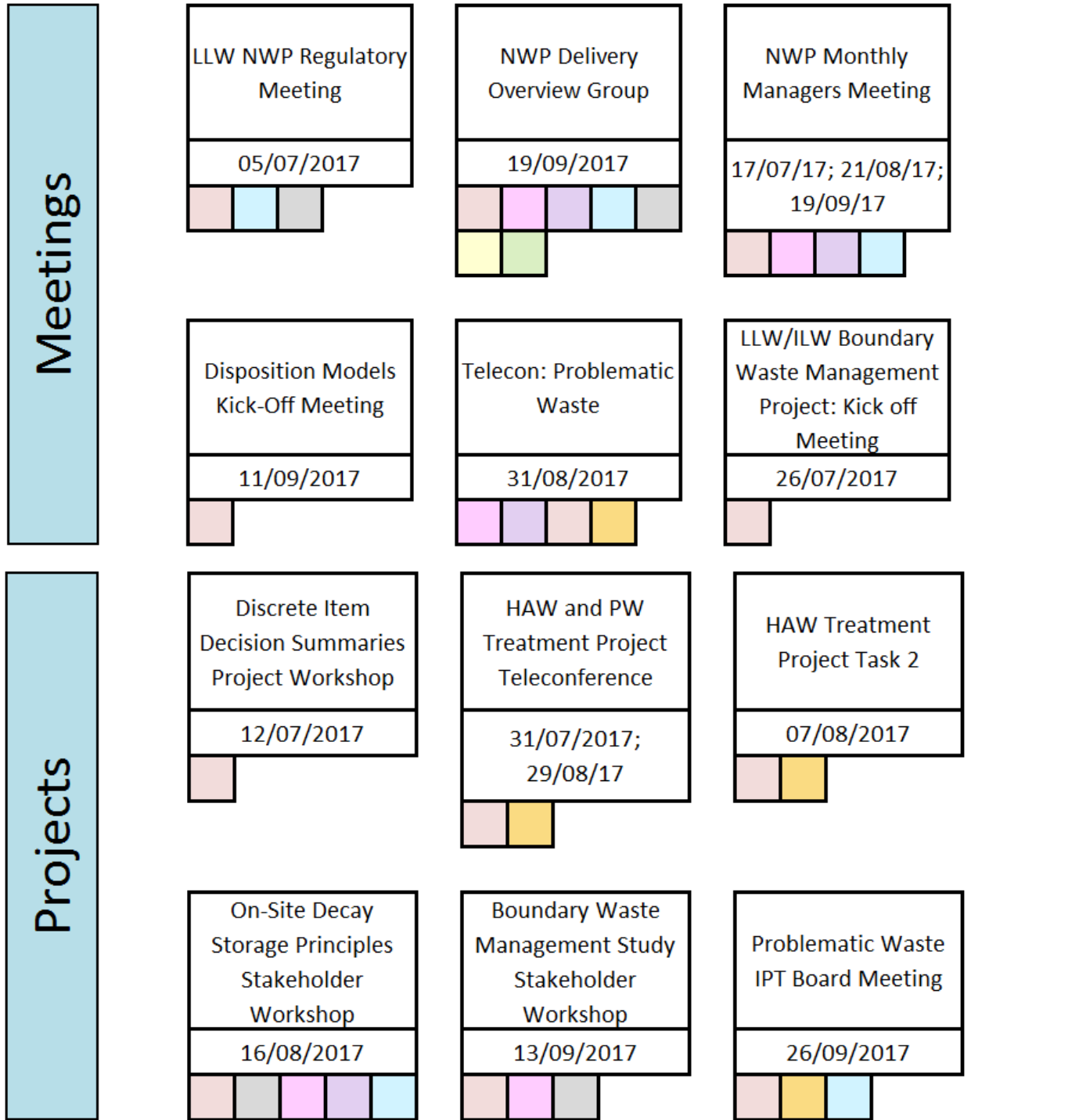


Publications or consultations external to the NWP Office.

NWP guidance, publications and information about training available via www.llwrsite.com.

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

Stakeholder interactions in the NWP during the quarter



KEY:

Regulators
Waste Producers - NDA
Waste Producers - non NDA
NDA
NuLeAF & Local Authorities
Supply Chain
LLWR
RWM

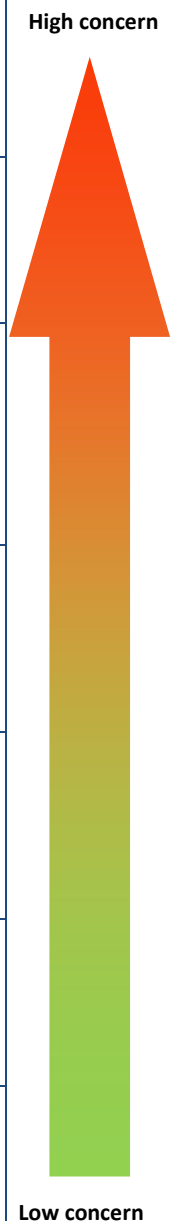
Stakeholders' Key Issues and Concerns

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"> There have been some waste mis-consignment near-misses and concerns. An LLW Repository Ltd Task Force has been set up and work has been undertaken to publish guidance and standards for waste producers to support their efforts to mitigate this threat.
Access to supercompaction facilities for non-NDA estate	↔	<ul style="list-style-type: none"> One supercompaction facility not accessible for external waste producers who wish to use it due to challenges with LLWR WAC5 information requirements compliance.
Waste packaging and transport	↔	<ul style="list-style-type: none"> Issues with Waste Loading Plans, hauliers and the range of waste containers available etc. continue to impact waste producers. TC12 licence withdrawn significantly reducing capacity of IP rated full-height ISO containers. Waste producers are having to implement alternative arrangements.
Paris-Brussels nuclear liability implementation	↔	<ul style="list-style-type: none"> Government working with NDA, LLW Repository Ltd and the supply chain to understand the changes and mitigate impacts. Implementation will be delayed as not all parties are in a position to ratify. The earliest expected date is January 2018 but uncertainty remains.
Complex projects and problematic waste management	↔	<ul style="list-style-type: none"> Greater interest and impetus in this area, with a number of complex projects being delivered. 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.
BSSD clearance level changes	↓	<ul style="list-style-type: none"> Government undertaking work to assess how BSSD should be implemented with public consultation expected Spring 2017. Early indications suggest impact of outcome may be less adverse than anticipated but uncertainty remains.
LLWR WAC5 and forms	↔	<ul style="list-style-type: none"> Implementation of WAC5 and associated forms complete. Some ongoing challenges with particular aspects of the revised arrangements (such as discrete item limits).



SECTION 5: Looking Forward

Sellafield Ltd

- Generate consignment of re-categorised PCM drums for processing through WAMAC.
- Formalise transport plan for transferring WAGR boxes to LLWR.
- Undertake further AGR graphite drum activity measurements and progress analysis of trepanned samples.
- Respond to EA determination on CLESA permit position (expected 1/12/17).
- Support Dounreay Peer Assist and LLWR disposition workshop.


Magnox

- Transition from RATS to WCASS2 contract for provision of characterisation services.
- Develop the scope and approach for Sizewell FED disposal to LLWR.
- Scope the Harwell CH-ILW drums to LLWR opportunity project and carry out optioneering.
- Complete the generic FED to LLWR safety case work (operational/ nuclear case and transport case).
- Mobilise the Harwell LETP remediation project.


Dounreay
Decommissioning excellence

- Waste Directorate re-organisation to ensure "clear blue water" through the establishment of a D3100 Waste Compliance team separate from the Site Waste Compliance team.
- LLWR Peer assist looking at waste optimisation to be undertaken in October 2017.
- Development of an On-Site LLW management Capability Business Case will continue.
- Ongoing development of revised inventory in support of RSA Application.
- Development of LLW Cost model for Dounreay.


LLW Repository Ltd

- Consignment of the remainder of the redundant sources.
- PCM Consignment commencement.
- Consignment of slabs associated with the PCM Project as VLLW.
- Consignment of soft waste associated with the Legacy Drums Project.

Non-NDA Estate

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

National Waste Programme Office

- Participation in the Dounreay Peer Assist in October.
- Completion of a project to develop a set of practical principles for on-site decay storage.
- Work to progress the Boundary Waste Management Study.
- Work to progress the LLWR Disposition Models project.
- Continued support to the Problematic Waste and Near-Surface Disposal IPTs.

NWP Notice Board— looking forward



EXTERNAL CONSULTATION

**Revised Requirements for radiological protection:
emergency preparedness and response.**

Consultation on how to transpose the emergency
preparedness elements of the Basic Standards
Safety Directive (BSSD 2013)

Joint consultation between BEIS, HSE and MOD

Consultation closes on 16 Nov



EXTERNAL CONSULTATION

**Revised Requirements for radiological protection:
regulation of public exposures and the
justification of practises**

Setting out proposals of the public exposures and
justification aspects of the 2013 Euratom BSSD

Joint consultation between BEIS, HSE and MOD

Consultation closes on 16 Nov



Publication or consultation from the NWP Office.



Publication or consultation external to the NWP Office.



Publication or report from an IPT

Forward Calendar

October 2017						
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					

16/10 – NWP Monthly Managers Meeting (T)
 16/10-20/10 DSRL Peer Assist
 23/10 – LLWR Disposition Models Internal Options Assessment (C)
 25/10 – LLW NWP Programme Board Meeting (BM)

November 2017						
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			

13/11-14/11 – Problematic Waste Community of Practice Meeting (MA)
 20/11 – NWP Monthly Managers Meeting (T)
 28/11 – Practitioners Forum (BM)

December 2017						
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

05/12 – LLWR Disposition Models Stakeholder Workshop (MA)
 18/12 – NWP Monthly Managers Face to Face (MA)
 19/12 – NWP Regulatory Meeting (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
Insufficient 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 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>	Near-term	Medium (9)	Medium (9)	<p>Working with consignors to improve short term waste forecasting.</p> <p>Developing aggregated procurement process to build more certainty into supply chain.</p> <p>Working with supply chain to increase visibility of capacity constraints etc.</p> <p>Standard services in place to give more certainty to supply chain.</p> <p>UKRWI 2016 to be published on NDA website (accessible to all).</p> <p>National Inventory Forum subgroup looking to amalgamate the UKRWI and WIF.</p> <p>Supply chain sustainability review undertaken.</p> <p>Potential (case by case) use of LLWR for buffer storage.</p> <p>Work with supply chain to encourage entrants.</p> <p>Reviews periodically undertaken of capacity supply and demand (e.g. VLLW capacity assessment).</p> <p>Trials of new commercial arrangements with supply chain.</p> <p>Problematic Waste and Near-Surface Disposal IPTs considering alternatives.</p> <p>Watching brief kept on supply chain</p>
Significant waste mis-consignment event causes all diversion/disposal to be stopped via that route.	<p>Waste route(s) closed for individual producer or whole industry.</p> <p>Closure of routes reduces supply chain sustainability (supply chain withdraws from market).</p> <p>Increased waste disposal due to loss of diversion routes.</p>	Near term	High (14)	Low (5)	<p>Waste producers reviewing and improving waste consignment practices/barriers.</p> <p>Guidance on waste consignment in development by LLWR.</p> <p>Peer Reviews and Assists conducted at some sites covering mis-consignment.</p> <p>Highlighted in NWP training modules.</p> <p>LLWR WMS procedures and waste producers procedures in place.</p> <p>Peer Reviews conducted on waste consignment practices.</p> <p>Sharing of LFE within the industry (e.g. Condition Reports, Green Briefs).</p>

Threat	Impacts	Proximity	Rating (current)	Rating (target)	Mitigation activities
Strategy for site end states means that large volumes of contaminated land are generated and have to be managed as lower activity waste.	<p>Increased volumes of waste mean inadequate capacity at LLWR; leads to requirement for new repository.</p> <p>Waste may need to be managed as HAW.</p> <p>Creates need for additional storage.</p> <p>Potential for use as profiling material for</p>	Long term	Medium (9)	Medium (9)	<p>NDA developing strategy for site end states and de-licensing criteria with regulators and stakeholders.</p> <p>Waste producers interim and end state development.</p> <p>Revised regulatory guidance on in situ disposal drafted; being trialled at three sites.</p>
Stakeholder concerns over radioactive waste management and disposal facilities constrain 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</p>	Near term	Medium (8)	Medium (8)	<p>Continued dialogue and consultation with stakeholders.</p> <p>Provision of authoritative information on forecasts.</p> <p>Work with NuLeAF on duty of care guidance.</p> <p>Waste producers work on mitigating any risk of mis-consignments.</p> <p>Implementation of NWP Stakeholder Engagement Plan.</p>

Strategic opportunities

Opportunity	Impacts	Proximity	Rating (current)	Rating (target)	Realisation activities
Improve and refine waste inventories.	<p>More realistic arisings.</p> <p>Improved supply chain confidence.</p> <p>Improved value from supply chain.</p>	Long term	High (17)	Very high (19)	<p>Look to amalgamate UKRWI & WIF.</p> <p>Prioritise and deliver inventory improvement tasks.</p>
Consistent application of waste hierarchy through change in behaviour of waste producers.	<p>Diversion is optimised.</p> <p>Use of most cost effective, optimised route.</p>	Near term	High (16)	High (18)	<p>Execute LTP 13 scope.</p> <p>Execute implementation of national strategy for non-estate.</p>
Investigate and implement alternative VLLW management solutions.	<p>Improved stakeholder perception of VLLW routes.</p> <p>Increased diversion.</p> <p>Maximise repository availability.</p> <p>Reduced the amount of clean material required for profiling and the number of transports that would be required.</p>	Near term	High (16)	High (18)	<p>Continue cap studies, develop business case and specifications for LLWR.</p> <p>Sellafield to continue with on site disposal strategy work.</p> <p>Revised regulatory guidance on in situ disposal drafted and in consultation, being trialled at sites.</p> <p>Work to be undertaken to understand potential impact on the VLLW supply chain.</p>
Improve the sustainability and health of the supply chain.	<p>Better environment for investment in capacity by supply chain.</p> <p>Continued presence for the supply chain.</p>	Near term	Medium (8)	Very high (19)	<p>Future competitions for frameworks continue to consider sustainability.</p> <p>Embed aggregating process.</p> <p>Continue inventory improvement.</p> <p>LLWR to undertake supply chain sustainability review on behalf of NDA in FY16/17.</p>

Strategic opportunities

Opportunity	Impacts	Proximity	Rating (current)	Rating (target)	Realisation activities
Opportunity to manage waste destined for GDF down the LLW route.	Reduction in storage and disposal costs for waste producers. Prompt hazard and risk reduction.	Long term	Very Low (2)	High (16)	Ongoing collaboration work. Delivery of projects FY16/17 and FY17/18 to investigate boundary waste management. Work on Near Surface Disposal IPT. Share LFE from projects to manage complex wastes.
Non-NDA estate consignors are fully engaged with the Strategy.	Diversion maximised. Waste hierarchy applied and new waste management routes being used.	Near term	Medium (8)	High (12)	Non-NDA engaged in DOG and NWP Programme Managers Meeting once a quarter. Engaged in projects/workshops. Production of Tier 3 JWMPs. Provide forecast/actuals data for metrics report.
Decay storage capabilities available.	Reduced cost for waste producer. Diversion from GDF maximised. Improved value from supply chain. Enables earlier solution for waste producer.	Near Term	Medium (8)	High (12)	Undertake work to support waste producers in implementation of decay storage.
Utilisation of methods to enable management of complex and challenging wastes.	Prompt hazard and risk reduction. Earlier solution for the management of such wastes. Cost savings across industry. Routes available for problematic waste.	Long term	Medium (8)	High (12)	Waste producers undertake work to progress opportunities (e.g. use of new metallic framework). LLWR work with suppliers to understand and promote opportunities.