

March 2020 Waste Metric Dashboard

Period 12 : 23rd February to 31st March FY 19/20

UK Waste Diversion

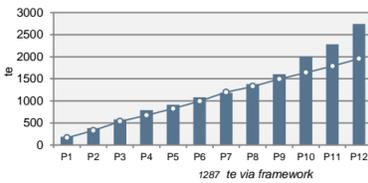
The National Waste Programme aims to communicate progress in the implementation of the Waste Hierarchy and the Nuclear Industry Strategy for Low Level Waste Management across the UK. This dashboard shows key metrics that demonstrate the successful diversion of waste away from direct disposal and the optimal use of key national assets, such as LLWR and waste treatment facilities on sites around the UK, typically based on delivery of Joint Waste Management Plans (JWMPs). The objective is to encourage transparency and communicate progress to all stakeholders.

NDA Site Summary YTD

These graphs are a summary of the cumulative progress to date against the combined JWMP targets¹. These numbers do not capture VLLW disposed of on site.

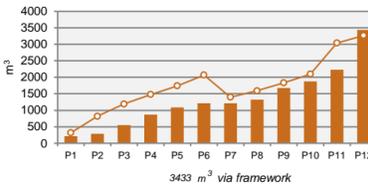
Metallic Treatment:

| | Yearly Target | Actual YTD |
|----------------|---------------|-------------|
| Sellafield Ltd | 1711 | 2518 |
| Magnox Ltd | 183 | 129 |
| LLWR Ltd | 59 | 95 |
| DSRL | 0 | 0 |
| Total: | 1953 | 2742 |



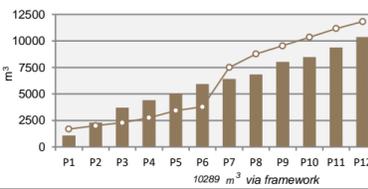
Combustible Treatment:

| | Yearly Target | Actual YTD |
|----------------|---------------|-------------|
| Sellafield Ltd | 2218 | 2472 |
| Magnox Ltd | 859 | 792 |
| LLWR Ltd | 181 | 162 |
| DSRL | 7 | 7 |
| Total: | 3265 | 3433 |



VLLW Disposal:

| | Yearly Target | Actual YTD |
|----------------|---------------|--------------|
| Sellafield Ltd | 980 | 626 |
| Magnox Ltd | 10806 | 9715 |
| LLWR Ltd | 44 | 19 |
| DSRL | N/A | N/A |
| Total: | 11830 | 10360 |

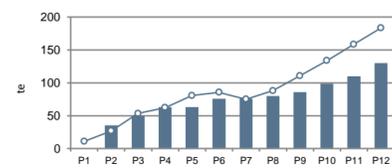


Magnox Ltd

These graphs show the cumulative actual waste diverted by Magnox Ltd against their JWMP targets in the Year to Date (YTD).

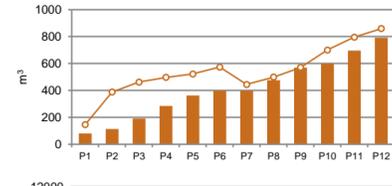
Metallic Treatment:

| | Yearly Target | Actual YTD |
|------------------|---------------|------------|
| Onsite treatment | 20 | 25 |
| Via framework | 147 | 97 |
| Out of Scope | 16 | 7 |
| Total: | 183 | 129 |



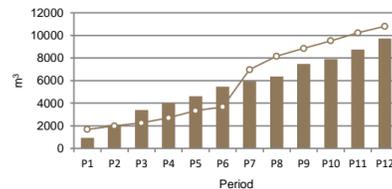
Combustible Treatment:

| | Yearly Target | Actual YTD |
|------------------|---------------|------------|
| Onsite treatment | 0 | 0 |
| Via framework | 859 | 792 |
| Out of Scope | 0 | 0 |
| Total: | 859 | 792 |



VLLW Disposal:

| | Yearly Target | Actual YTD |
|-----------------|---------------|-------------|
| Onsite disposal | 0 | 0 |
| Via framework | 10760 | 9663 |
| Out of Scope | 46 | 52 |
| Total: | 10806 | 9715 |

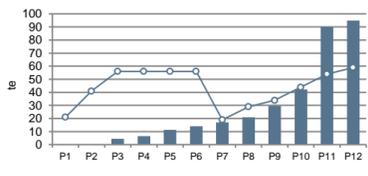


LLWR Ltd

These graphs show the cumulative actual waste diverted by Low Level Waste Repository Ltd against their JWMP targets in the YTD.

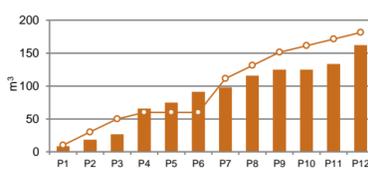
Metallic Treatment:

| | Yearly Target | Actual YTD |
|---------------|---------------|------------|
| Onsite | 0 | 0 |
| Via framework | 59 | 33 |
| Out of Scope | 0 | 62 |
| Total: | 59 | 95 |



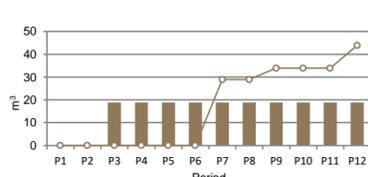
Combustible Treatment:

| | Yearly Target | Actual YTD |
|---------------|---------------|------------|
| Onsite | 0 | 0 |
| Via framework | 181 | 162 |
| Out of Scope | 0 | 0 |
| Total: | 181 | 162 |



VLLW Disposal:

| | Yearly Target | Actual YTD |
|---------------|---------------|------------|
| Onsite | 0 | 0 |
| Via framework | 25 | 0 |
| Out of Scope | 19 | 19 |
| Total: | 44 | 19 |

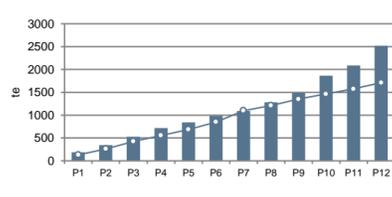


Sellafield Ltd

These graphs show the cumulative actual waste diverted by Sellafield Ltd against their JWMP targets in the YTD.

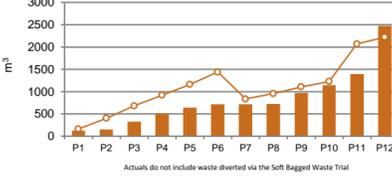
Metallic Treatment:

| | Yearly Target | Actual YTD |
|------------------|---------------|-------------|
| Onsite treatment | 0 | 0 |
| Via framework | 796 | 1157 |
| Out of Scope | 915 | 1360 |
| Total: | 1711 | 2518 |



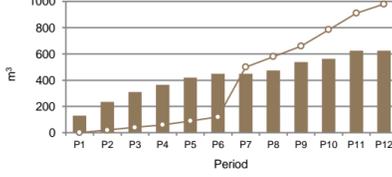
Combustible Treatment:

| | Yearly Target | Actual YTD |
|------------------|---------------|-------------|
| Onsite treatment | 0 | 0 |
| Via framework | 2218 | 2472 |
| Out of Scope | 0 | 0 |
| Total: | 2218 | 2472 |



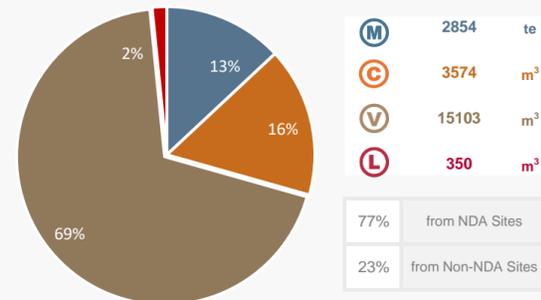
VLLW Disposal:

| | Yearly Target | Actual YTD |
|-----------------|---------------|------------|
| Onsite disposal | 3098 | 2453 |
| Via framework | 980 | 626 |
| Out of Scope | 0 | 0 |
| Total: | 980 | 626 |



¹ Actuals/Target YTD only applies to VLLW via the framework

Diversion and Disposal Totals YTD based on Raw Waste⁵

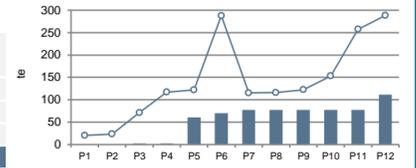


Non-NDA Site Summary YTD

These graphs are a summary of the cumulative diversions to date from Non NDA sites.

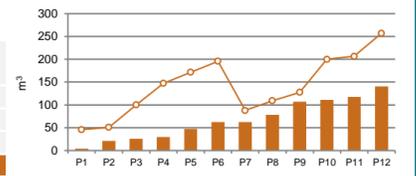
Metallic Treatment:

| | Yearly Forecast | Actual YTD |
|------------------|-----------------|------------|
| Onsite treatment | N/A | 0 |
| Via framework | N/A | 112 |
| Out of Scope | N/A | 0 |
| Total: | N/A | 112 |



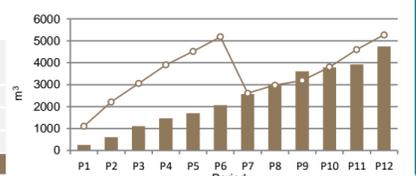
Combustible Treatment:

| | Yearly Forecast | Actual YTD |
|------------------|-----------------|------------|
| Onsite treatment | N/A | 0 |
| Via framework | N/A | 127 |
| Out of Scope | N/A | 0 |
| Total: | N/A | 127 |



VLLW Disposal:

| | Yearly Forecast | Actual YTD |
|-----------------|-----------------|-------------|
| Onsite disposal | N/A | 0 |
| Via framework | N/A | 4743 |
| Out of Scope | N/A | 0 |
| Total: | N/A | 4743 |



Non-NDA Sites (YTD)³

This table shows the cumulative actual waste diverted*** by non-NDA sites in the YTD

| Non-NDA Sites | M (te) | C (m ³) | V (m ³) |
|----------------------------|--------|---------------------|---------------------|
| Cyclife ² | 0 | 0 | 740 |
| AWE Aldermaston | 112 | 27 | 512 |
| EDF Energy | 0 | 0 | 0 |
| URENCO UK | 0 | 0 | 345 |
| Tradebe Inutec Ltd | 0 | 0 | 551 |
| URENCO Nuclear Stewardship | 0 | 13 | 2130 |
| Unilech | 0 | 0 | 0 |
| Other | 0 | 100 | 465 |



ILW → LLW Re-Classification

This table shows the actual volume of waste re-classified from ILW to LLW in the YTD.

| SLC | Actual Volume Re-Classified YTD (m ³) |
|--------------------|---|
| Magnox Ltd | - |
| Sellafield Ltd | - |
| LLW Repository Ltd | - |
| DSRL | - |
| Non-NDA | - |
| Total | 0 |

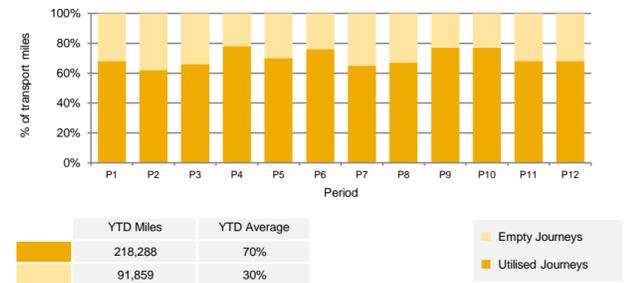
Values above include material diverted through direct contracts.

Key: ■ Cumulative Actual Waste diverted, ○ Target / Forecast

Transport and Packaging

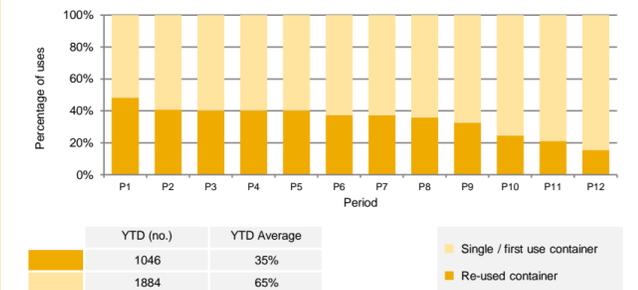
Utilisation of Transport Fleet

This graph gives the relative percentage for empty miles (miles transporting empty containers) and utilised miles (miles transporting containers holding waste). A high utilisation % shows transport assets being used effectively.



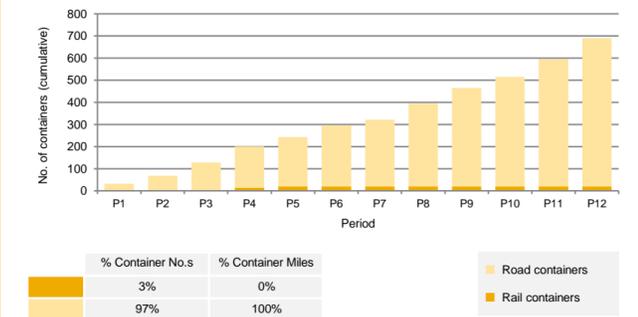
Package Re-use

This graph shows, of the total number of containers transported, the percentage of packages that were a re-used container. A high re-use % shows transport assets being used effectively.



Road vs. Rail Transports

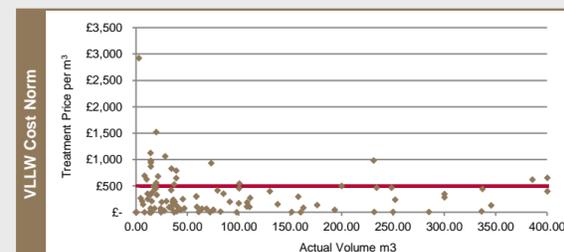
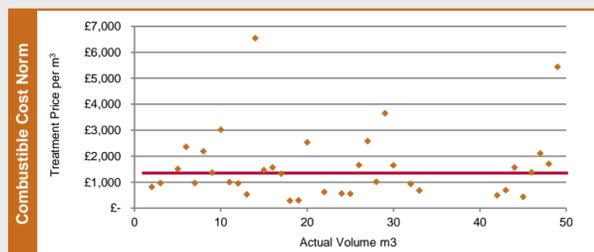
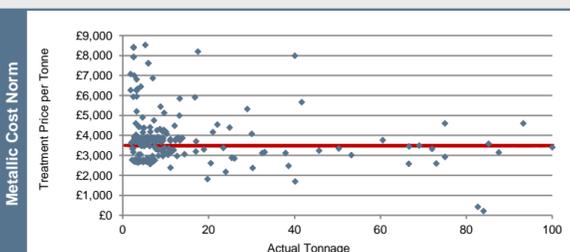
This graph shows of the total number of containers transported, which were by rail and which were by road. This includes rail shipments from Sellafield to LLWR.



Cost Norms

The three graphs below show the cost norms with the actual price per contract for comparison.

Key: — Cost Norm ♦♦ Actual Price



LLW Disposals and LLWR Vault Capacity

LLW Disposals

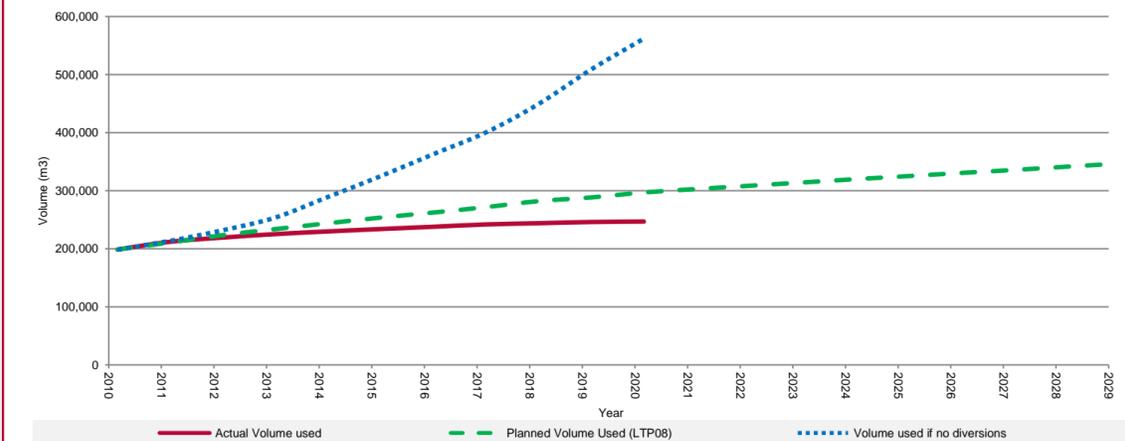
This table gives the number of LLW containers disposed of as LLW in the YTD.

| Site(s) | No. of Containers sent for LLWR Disposal in the YTD | | | | | | | | | | | | Total |
|----------------------------|---|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|
| | Period 1 | Period 2 | Period 3 | Period 4 | Period 5 | Period 6 | Period 7 | Period 8 | Period 9 | Period 10 | Period 11 | Period 12 | |
| NDA | | | | | | | | | | | | | |
| Sellafield Ltd | 0 | 4 | 5 | 2 | 2 | 6 | 0 | 0 | 3 | 0 | 0 | 4 | 26 |
| Magnox Ltd | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 8 |
| LLWR Ltd | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cyclife | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AWE Aldermaston | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EDF Energy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Urenco UK | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tradebe Inutec Ltd | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Urenco Nuclear Stewardship | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unitech | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Others | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 1 | 4 | 6 | 3 | 4 | 7 | 0 | 0 | 3 | 0 | 3 | 4 | 35 |

| Dounreay Vaults | No. of Containers disposed of at Dounreay in the YTD | | | | | | | | | | | | Total |
|-----------------------------|--|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-------|
| | Period 1 | Period 2 | Period 3 | Period 4 | Period 5 | Period 6 | Period 7 | Period 8 | Period 9 | Period 10 | Period 11 | Period 12 | |
| Dounreay - Main Vault | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 2 | 4 | 0 | 2 | 8 | 21 |
| Dounreay - Demolition Vault | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Total Impact of Diversions on LLWR Site

This graph compares the actual site capacity used, against the planned capacity according to Life Time Plan (LTP) 08, and the capacity that would have been used if no treatment options were utilised. Actual disposals are based on the number of containers received by LLWR per year. To convert between raw volume and container number it has been assumed that one container takes up 22.8m³ of vault space. For metallic wastes it has been assumed that 10te is contained within a HHISO. This graph starts in April 2010 when the new LLWR waste services contract was introduced. Up to this point 266,180m³ of waste had been consigned to LLWR for disposal. For the purpose of this graph these values assume no secondary waste is received by LLWR from treatment providers.



Total volume saved by diversions: **315,050 m³** Total no. of equivalent HHISO containers saved by diversion: **13,818**

Usage of Waste Routes

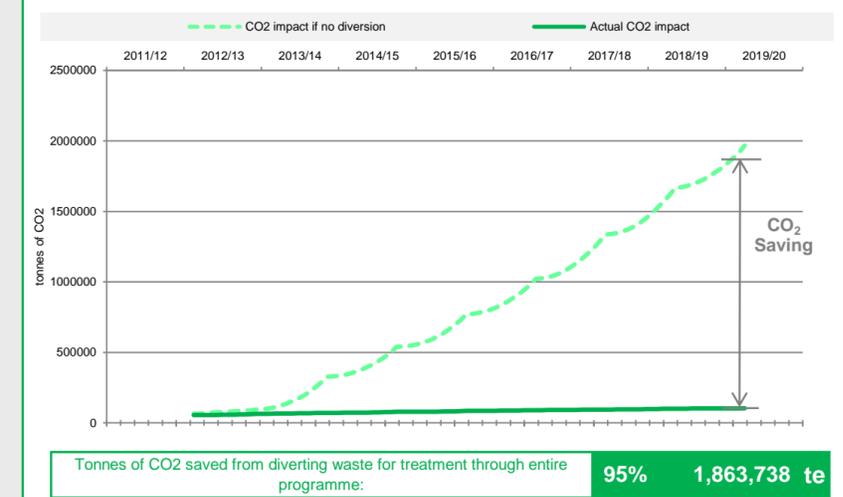
Route Status

This table shows the routes available to each of the sites, which have been utilised and which are yet to be utilised. This date is reflective of waste route usage from 2008 to the YTD.

| SLC | Site | M | C | V | L |
|----------------------------|----------------------------------|---|---|---|---|
| LLWR | LLWR | ● | ● | ● | ● |
| DSRL | Dounreay | ● | ● | ● | ● |
| Sellafield Ltd | Sellafield | ● | ● | ● | ● |
| Magnox Ltd | Berkeley | ● | ● | ● | ● |
| | Bradwell | ● | ● | ● | ● |
| | Chapelcross | ● | ● | ● | ● |
| | Dungeness A | ● | ● | ● | ● |
| | Hinkley Point A | ● | ● | ● | ● |
| | Hunterston A | ● | ● | ● | ● |
| | Oldbury | ● | ● | ● | ● |
| MoD Sites | Sizewell A | ● | ● | ● | ● |
| | Trawsfynydd | ● | ● | ● | ● |
| | Wylfa | ● | ● | ● | ● |
| | Harwell | ● | ● | ● | ● |
| Winfrith | ● | ● | ● | ● | |
| Urenco UK Ltd | Urenco Nuclear Stewardship (UNS) | ● | ● | ● | ● |
| GE Healthcare Ltd Amersham | UKAEA Culham JET Site | ● | ● | ● | ● |
| Medical Research Council | Medical Research Council | ● | ● | ● | ● |

Environment

Environmental Impact



Dashboard Commentary:

Coding error at P6 resulting in Non-NDA Combustible being reported incorrectly as Onsite Treatment and not Via Framework. Total quantities processed through the framework corrected P8.

Notes:

- 1 - Diversion totals from Non-NDA include framework and non framework consignments.
- 2 - Metallic Waste (te) to (m³) Conversion: 1.00 te/m³ (assuming 10te per HHISO)
- 3 - for Non-NDA sites, "zero" diversion may either reflect no diversion or diversion via direct contracts or onsite treatment which is not reported to LLWR at this time
- 4 - Non-NDA Combustible table does not include consignments treated via direct contracts
- 5 - The 15 LLW Disposal containers received since August 2018 from Sellafield Ltd were WAGR Boxes, rather than standard HHISOs. These contain 40% less waste volume than a HHISO, and this is represented in the Diversion / Disposal data Pie Chart. These containers are also detailed in the LLW disposals table and ILW-LLW reclassification table.
- 6 - Actuals/Target YTD only applies to VLLW via the framework
- 7 - Caveat - P12 Sellafield final waste actual form - unavailability of resource during the Covid-19 pandemic, final figured will be approved in due course.