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National Waste Programme

WCSSG – LLWR Sub-Committee

National Inventory Update

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UKRWI 2010 Background

- UKRWI is the UK's reference dataset on radioactive waste
- Updated usually on a 3 yearly cycle
- NDA currently manage the process on behalf of DECC
- Information collated from UK's major radioactive waste producers
 - existing stocks, and
 - forecast arisings
- 2010 UKRWI, stock date 1 April 2010
- Reports published in March 2011

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Inventory Outputs

Information on website

Suite of reports

The screenshot shows the website's header with the title "UK Radioactive Waste Inventory as at 1 April 2010" and navigation links for "Home", "The Inventory", and "Radioactive Waste Management". The main content area features the NDA logo and the Department of Energy & Climate Change logo. A paragraph states: "The UK Radioactive Waste Inventory is provided by the Department of Energy and Climate Change (DECC) and the Nuclear Decommissioning Authority (NDA). Its publication is one facet of the continuing commitment of UK Government and the organisations responsible for radioactive wastes to openness and transparency in matters relating to the management of these wastes." Below this, there are two columns: "2010 Inventory" and "UK Sites". The "2010 Inventory" section includes a paragraph: "The 2010 Radioactive Waste Inventory is the latest public record of information on radioactive waste present in the UK. It describes the sources, quantities and properties of radioactive waste that existed at 1 April 2010 in the UK and that was forecast to arise in the future." and a list of links: "radioactive waste in the UK", "radioactive waste in England", "radioactive waste in Scotland", and "radioactive waste in Wales". The "UK Sites" section includes a paragraph: "Radioactive waste is managed on 36 sites in England, Scotland and Wales. They include research facilities, defence activities and power stations." and a link: "Find out more about specific sites in the UK."

The stack of reports includes:

- Radioactive Waste Inventory - A Summary of Information for International Reporting (300Kb)**
- The 2010 UK Radioactive Waste Inventory - A Summary of Information for International Reporting (500Kb)**
- The 2010 UK Radioactive Waste Inventory - Main Report**
- Radioactive Materials Not Reported in the 2010 UK Radioactive Waste Inventory**

Total Volumes

Table A1.1: All wastes
Volume at 1 April 2010 and estimated for future arisings (m³)

	HLW	ILW	LLW	Total
Total	1,020	287,000	4,430,000	4,720,000
At 1.4.2010	1,620	94,300	66,000	162,000
Future arisings	-601	192,000	4,360,000	4,550,000
Arisings 2010	-96	2,340	47,100	49,400
Arisings 2011-2014	-331	7,700	147,000	155,000
Arisings 2015-2019	-226	9,760	202,000	211,000
Arisings 2020-2029	51.8	17,400	305,000	323,000
Arisings 2030-2039	0	21,600	220,000	241,000
Arisings 2040-2059	0	40,500	893,000	934,000
Arisings 2060-2099	0	65,200	1,490,000	1,560,000
Arisings post 2100	0	27,800	1,060,000	1,080,000

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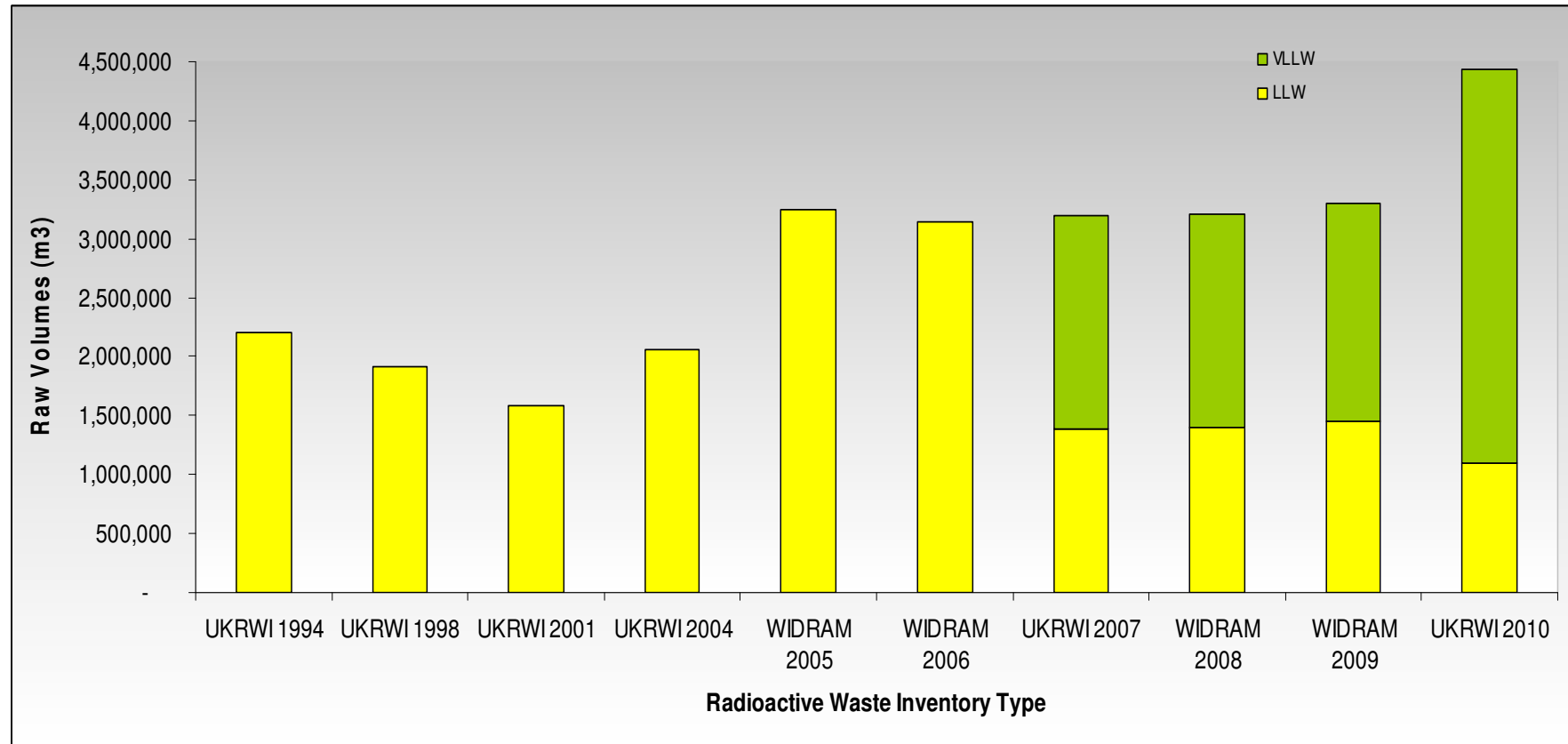
LLW Strategic Review

- 2008 LLW Strategic Review was a critical milestone for NDA & LLWR
 - Underpinned LLW baseline established
 - Opportunities identified for several £billion savings
- Key Baseline Components:
 - LLW Management Strategies
 - LLW Inventory (RWI 2007 and 2008 WATs for NDA sites = WIDRAM 2008)
 - Costs and liabilities associated with LLW management
 - Assets and infrastructure (existing and planned)
- Informed development of the LLW Strategy
- Strategic Review has now been updated to include RWI 2010 inventory



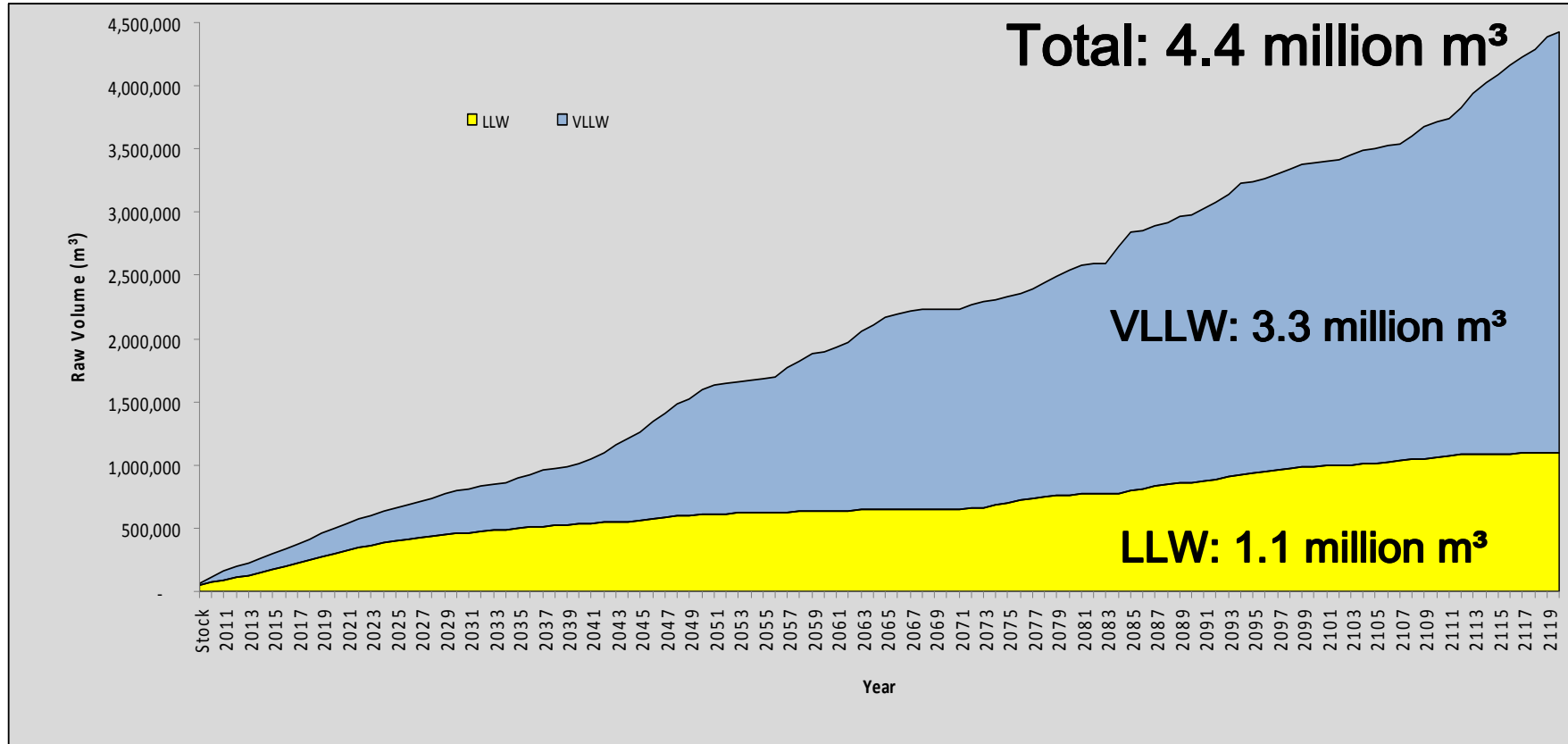
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Trends in Radioactive Waste Inventories since 1994



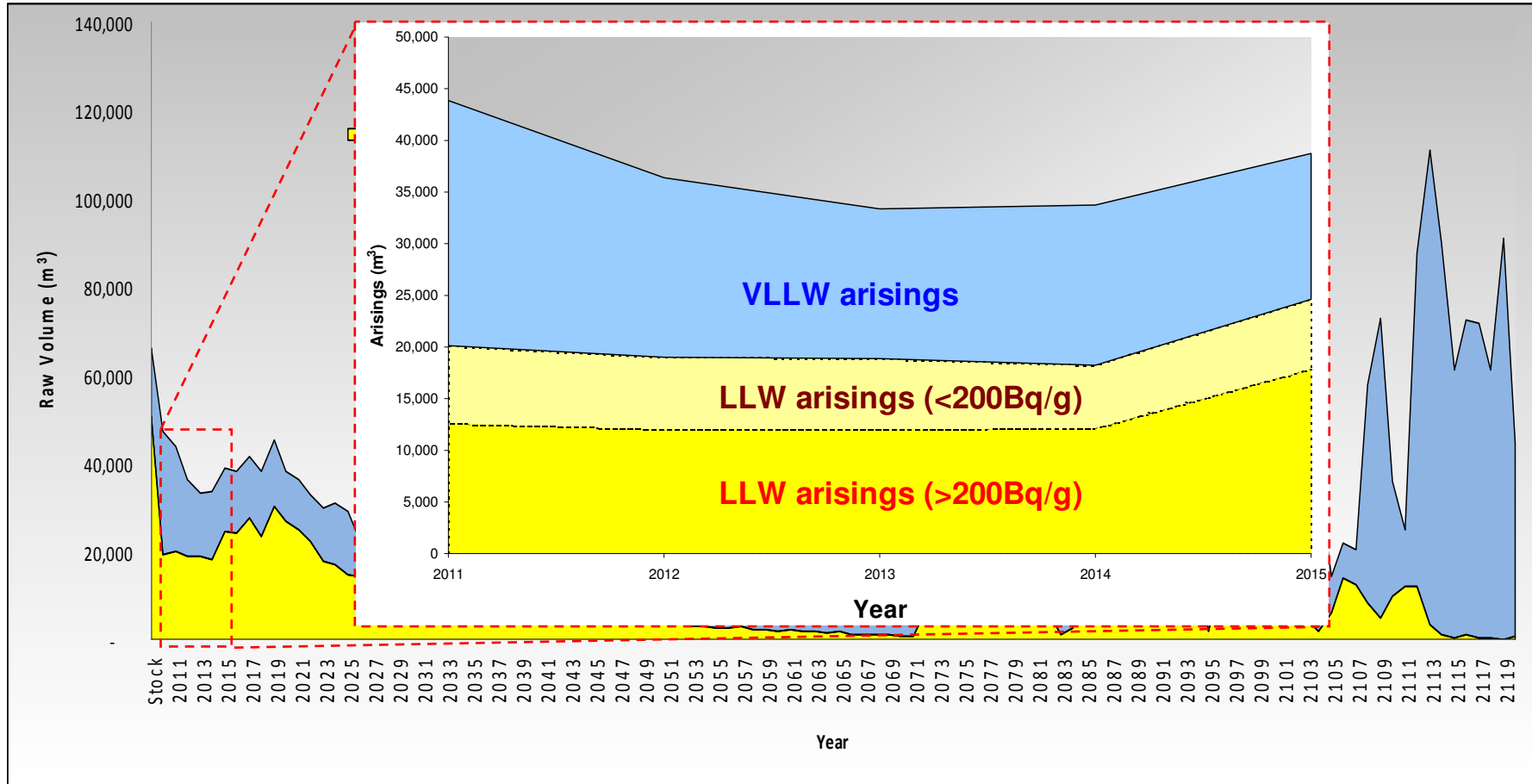
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Cumulative Forecast Raw Arisings of UK LLW and VLLW



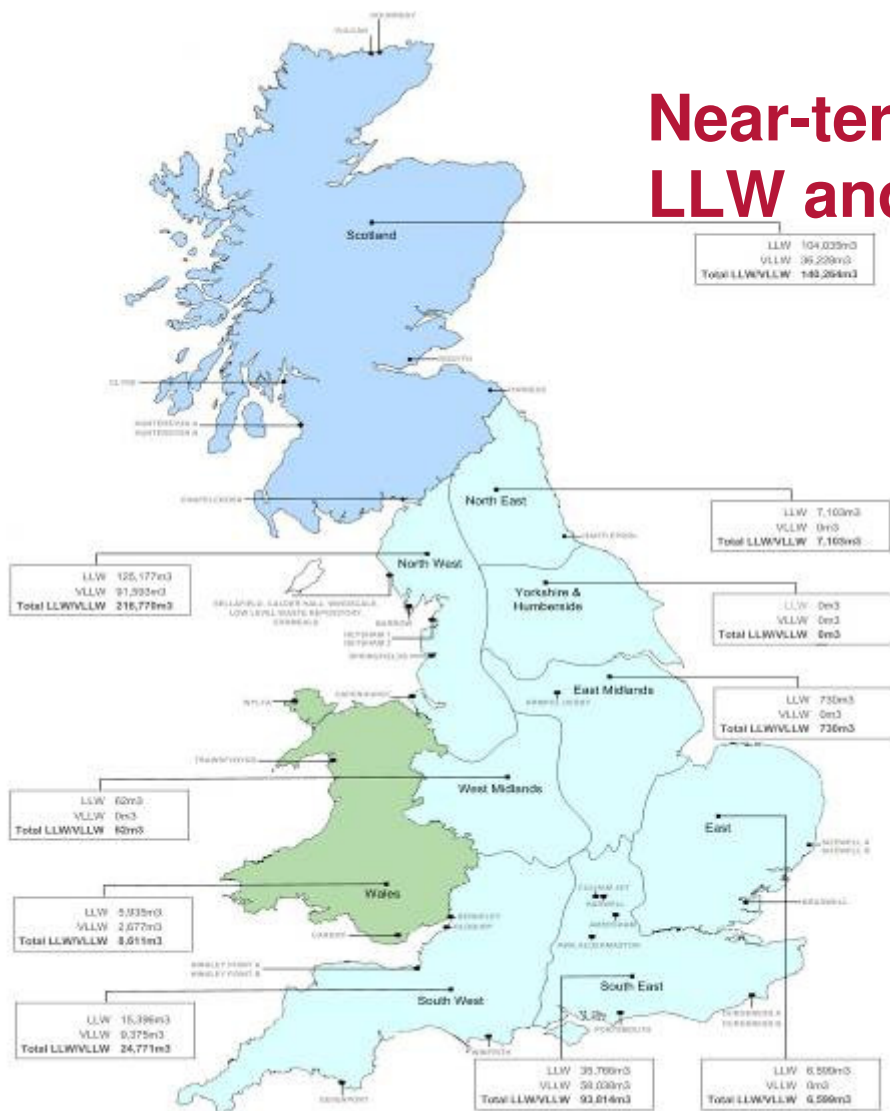
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Annual Raw Arisings of UK LLW and VLLW



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Near-term Regional Distribution of Raw LLW and VLLW (2010 - 2020)

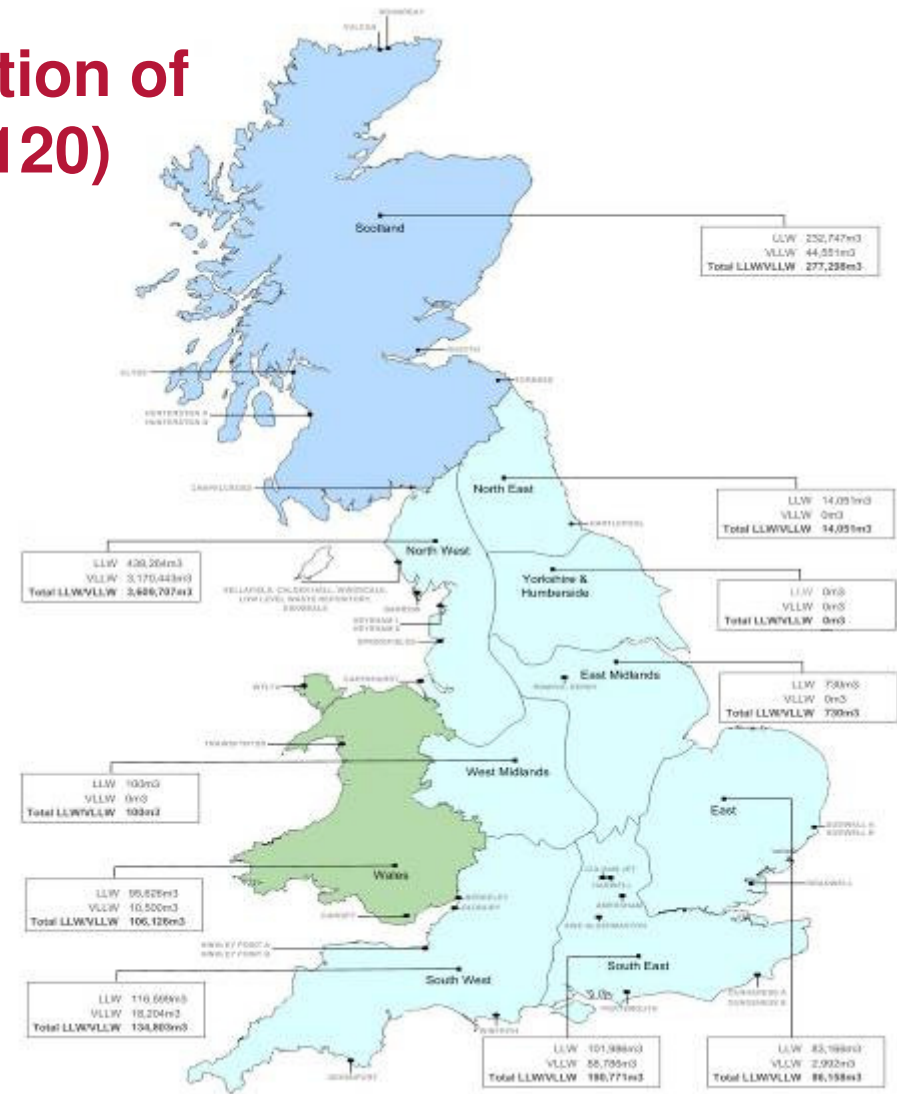


UK Region	Volume (m ³)	%
North West	216,770	43.3
Scotland	140,263	28.0
South East	93,804	18.7
South West	24,771	5.0
Wales	8,612	1.7
North East	7,103	1.4
East	6,599	1.3
Other	1,675	0.3
East Midlands	730	0.1
West Midlands	62	0.0
TOTAL	500,389	100

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Lifetime UK Regional Distribution of Raw LLW and VLLW (2010 - 2120)

UK Region	Volume (m ³)	%
North West	3,609,707	81.5
Scotland	277,298	6.3
South East	190,772	4.3
South West	134,803	3.0
Wales	106,126	2.4
East	86,158	1.9
North East	14,051	0.3
Other	7,841	0.2
East Midlands	730	0.0
West Midlands	100	0.0
TOTAL	4,427,586	100



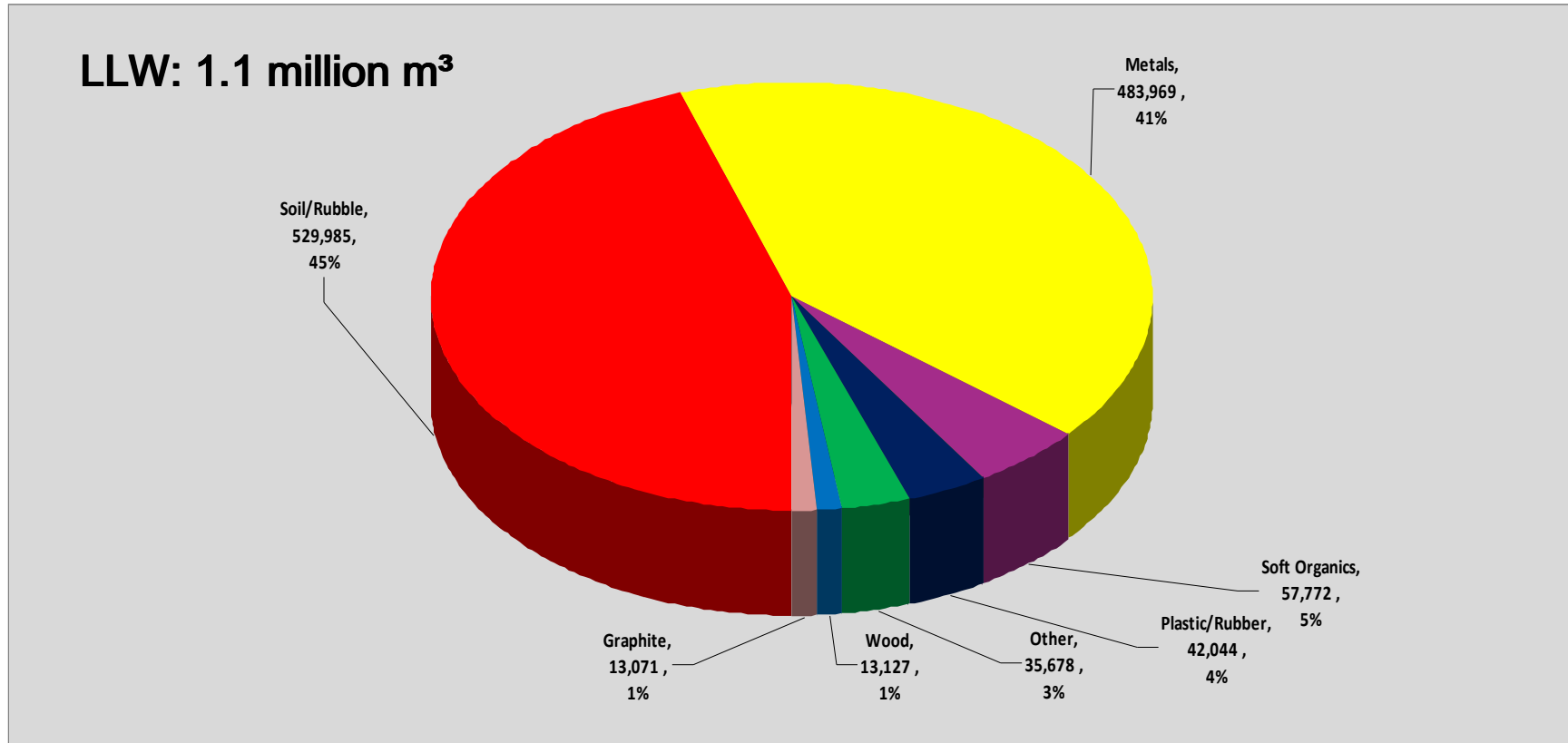
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What is LLW?



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Material Proportions in Raw LLW arisings

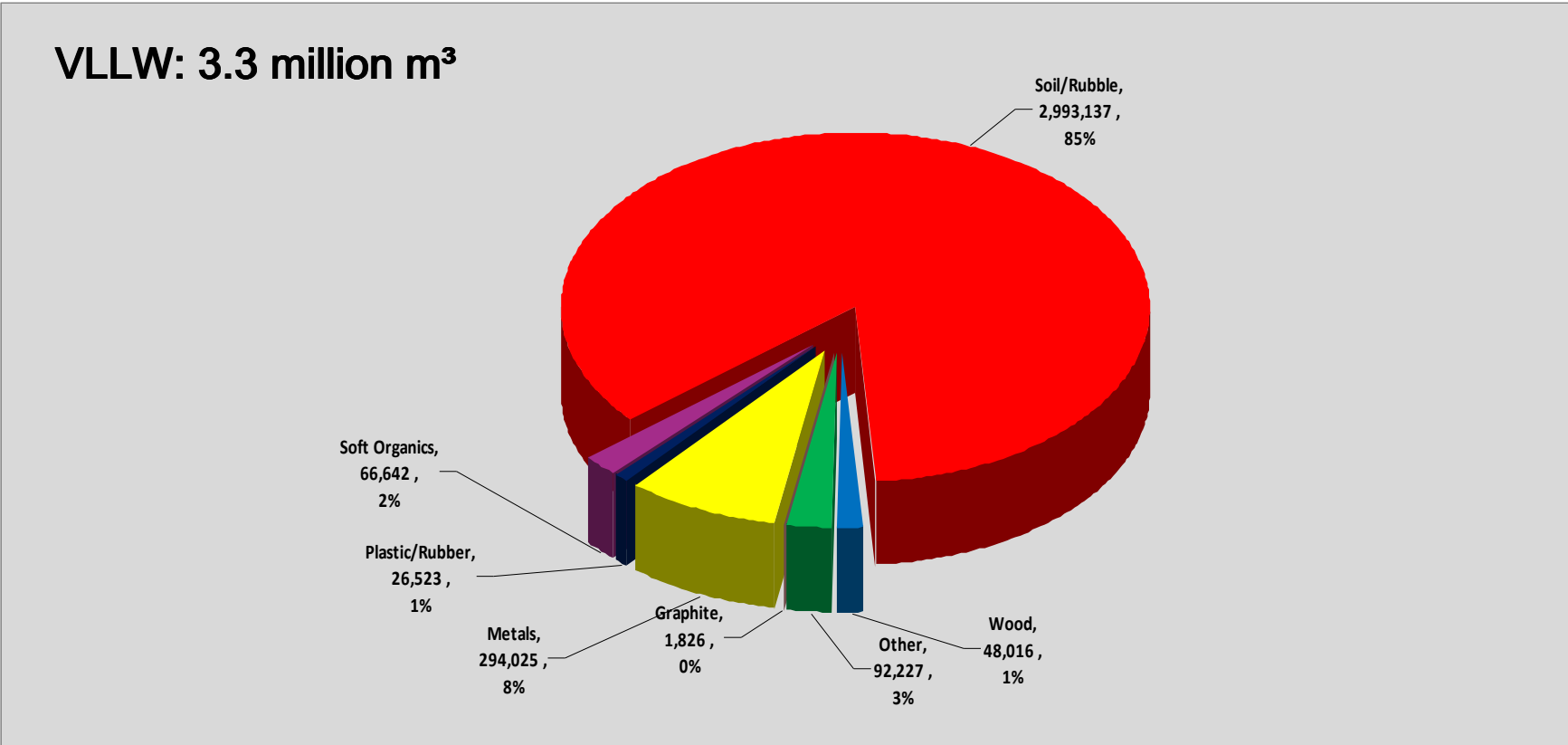


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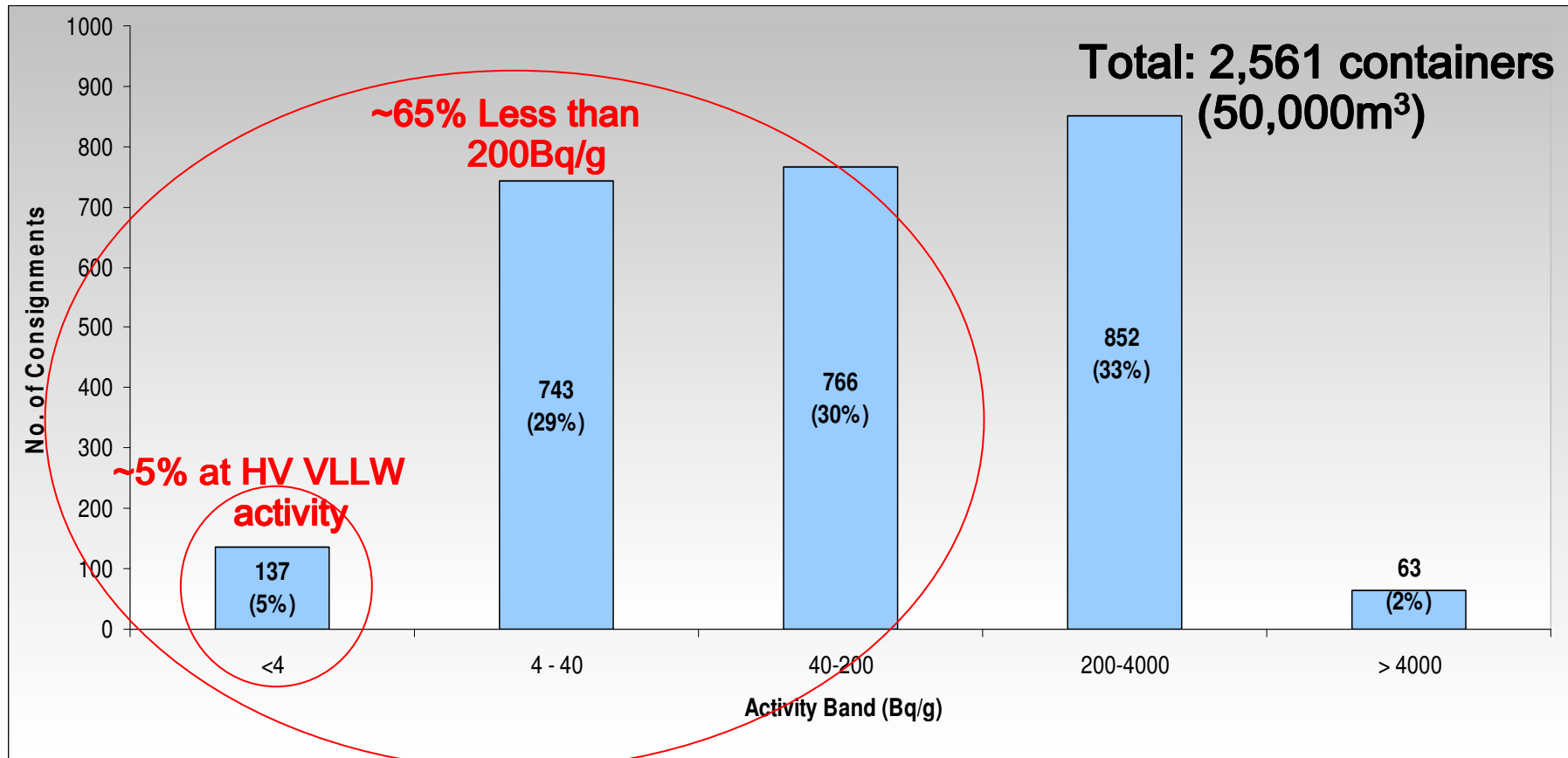
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Material Proportions in Raw VLLW arisings



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Activity Distribution of Historic Vault Disposals (2005-2010)

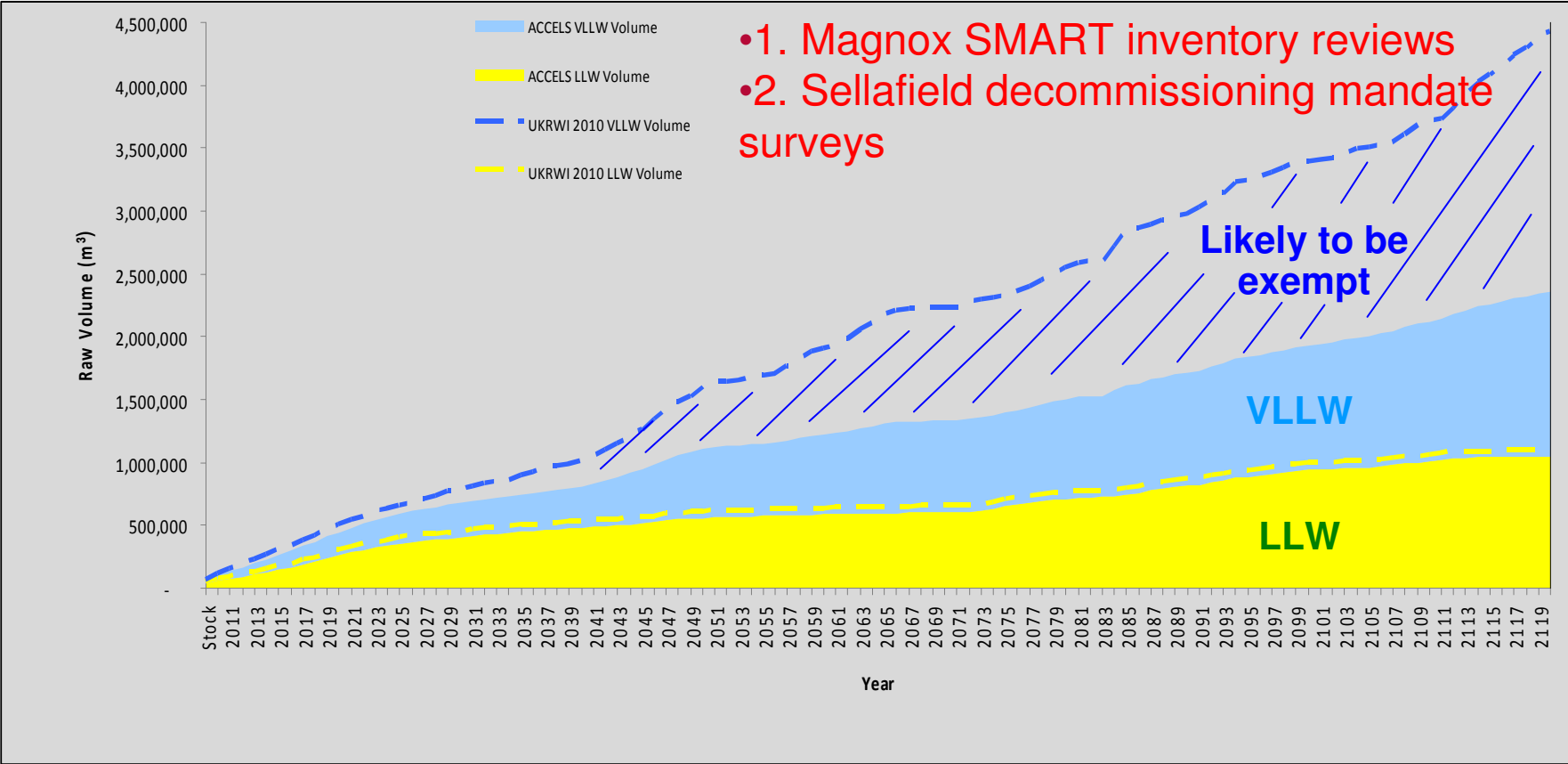


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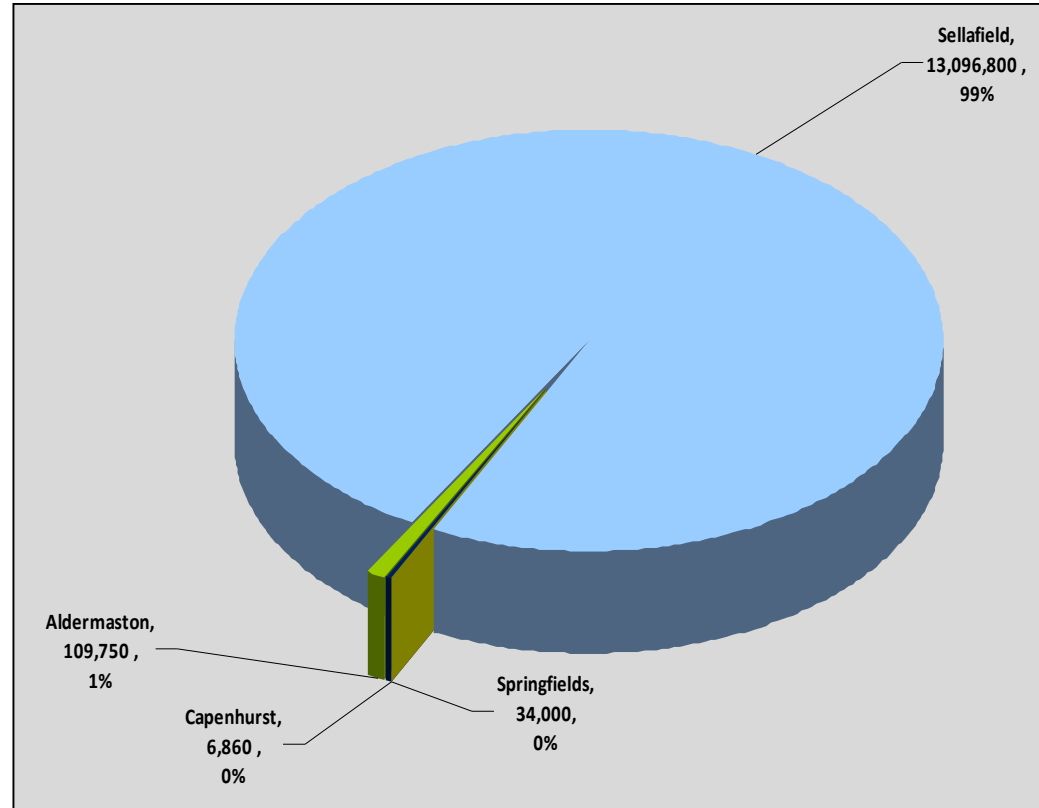
Work ongoing to refine LLW inventory estimates



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Potentially Contaminated Land Currently not in the LLW Inventory

- Total potential volume: 13.2 Million m³
- Still large uncertainty in these volumes
- Work ongoing to revise inventory estimates
- NDA Land Quality Management Strategy under development
- Preference is for 'in-situ' management where possible
- Key interfaces with LLW strategy



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Summary

- 2010 UKRWI, stock date 1 April 2010
- Total LLW – 1.1million m³ (0.3million m³ in next 10 years)
- Total VLLW – 3.3million m³ (0.2million m³ in next 10 years)
- Full LLW inventory analysis available in LLW Strategic Review published in May 2011
- LLWR continue to work with waste producers to improve the accuracy of estimates
- More information: www.llwrsite.com/llw-strategy