

Implementing the National LLW Strategy

LLW Repository Ltd.

March 2010



Background

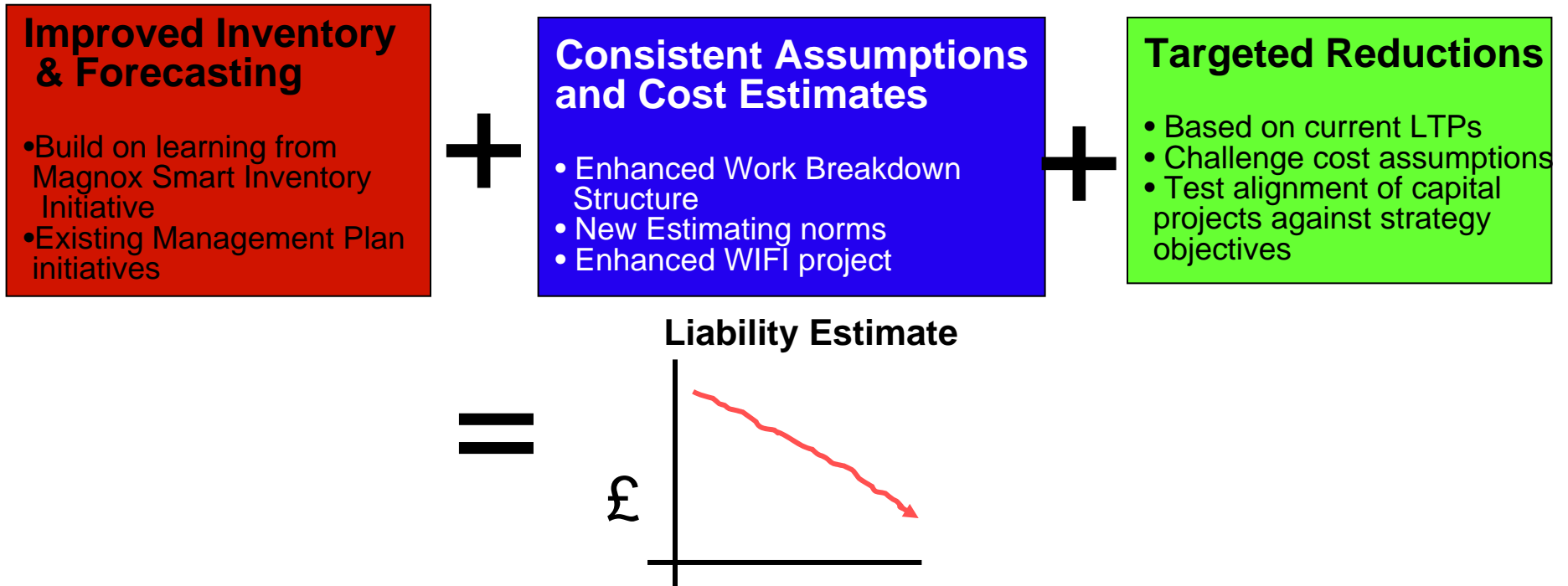
- LLW baseline LTP08 Rev A total = £9.8bn
- Preliminary LTP reviews indicate significant baseline increase
- Current Programme WBS and LTP data make it difficult to understand how estimates have been constructed
- Not clear what has driven the increase, but probably due to:
 - Alternative routes not fully proven
 - Conservative inventory assumptions
 - Plans assume high degree of 'self-sufficiency'
- Site baselines predate the LLW Strategy and are not aligned
- Opportunity to challenge current assumptions and apply a more strategically integrated approach

NDA Challenge

- Step change improvement in Inventory Definition and Forward Planning consistent with National Strategy
- Deliver effective management of the National LLW Liability
- Enhance LLWR's Integration Role with other sites

Acceleration of Element 2 Strategy (ACCELS)

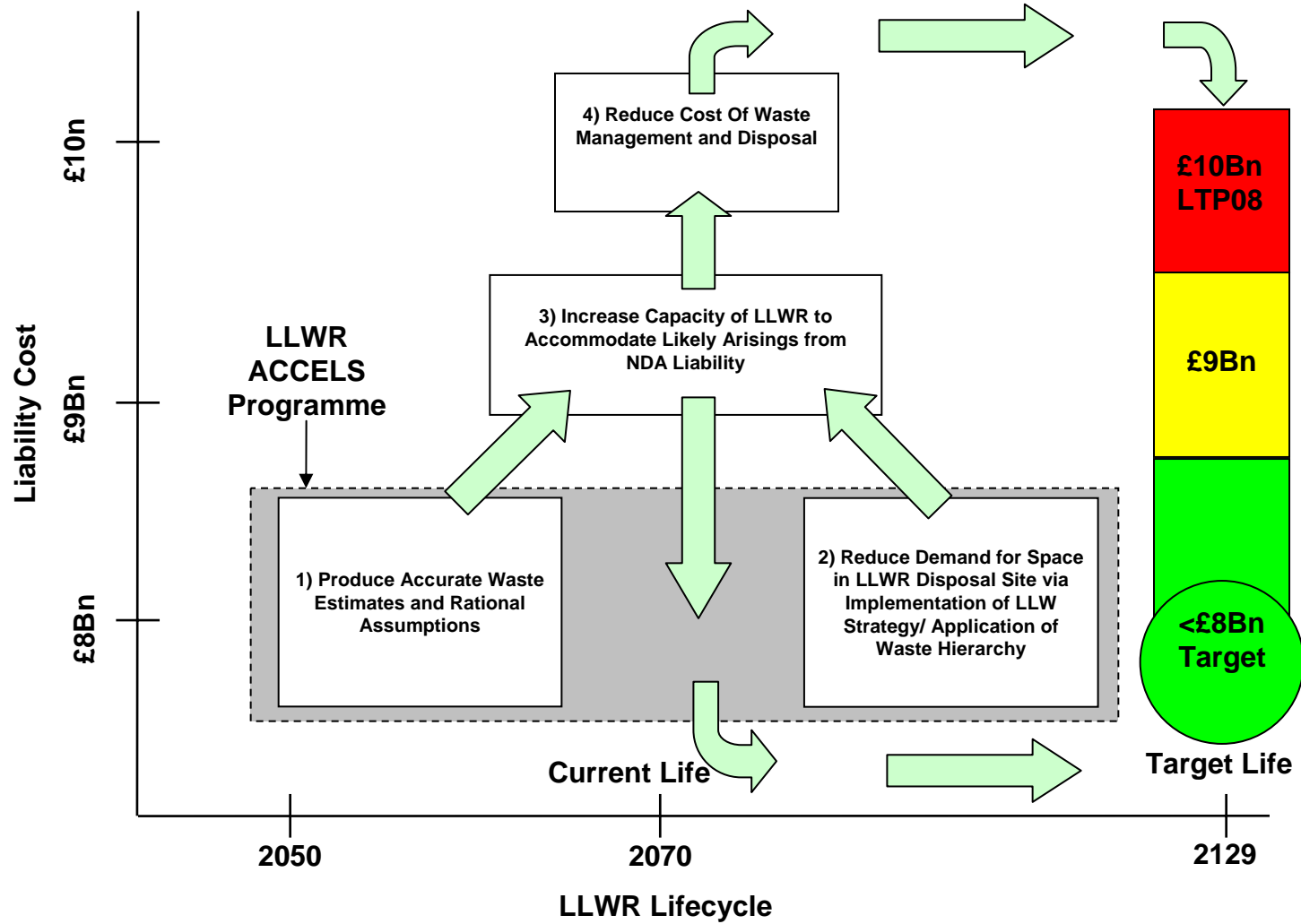
Acceleration of Element 2 Strategy (ACCELS)



Key Milestones;

- Identify targeted opportunities (across the NDA estate) by Dec 2009
- Agree a programme with NDA to realise opportunities by Mar 2010

LLW Liability Reduction Plan Overview



Opportunities to Reduce NLE

- Improved inventory and forecasting
- Use of consistent assumptions and cost estimates
- Improved efficiency and targeted reductions in capital spend, including:
 - Efficient use of on-site resources, best practices, and fit-for-purpose facilities
 - Use of supply-chain off-site treatment and disposal routes (make vs. buy)
 - Strategic approaches to maximise economies of scale

Align Plans with National LLW Strategy

ACCELS: Theme 1 - Site Management Efficiency

- Opportunities:
 - Realignment of Life Time Plans with National LLW Strategy objectives and approaches
 - Evaluation and incorporation of NLE reduction opportunities and consistent LLW cost work breakdown structure
 - Improved LLW inventory forecasting
 - Common procedures and approaches
 - Waste management integrated with Decommissioning
 - Fee alignment for effective LLW management

Integration with LLWR Initiatives

ACCELS: Theme 2 - Off-Site Focus

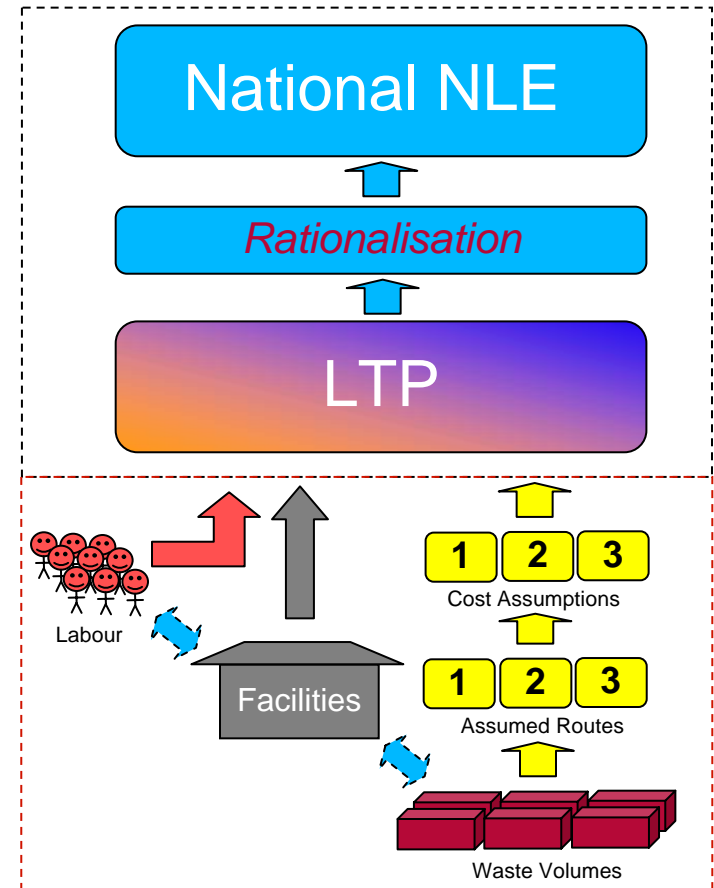
- Opportunities:
 - Focus on accelerating use of off-site routes
 - Reduce/eliminate new facility build costs
 - Only fit-for-purpose packing facilities required on-site
 - Reduce storage and management costs
 - Maximise use of cost-effective routes:
 - Metal
 - Incineration
 - Compaction
 - VLLW
 - Efficient consignment processes
 - Solutions led by optimised transport and packaging

ACCELS: Theme 3 – UK-wide Approach

- Opportunities:
 - Shared resources (equipment, labour and transport)
 - Standardisation of procedures
 - Efficient procurement of consumables (e.g. containers) and services used in LLW management
 - LLW programmes can be managed to fit spend-profile and priorities nationally
 - Ability to plan and respond to major programmes (e.g. Magnox Final Site Clearance)
 - Improved inventory management and predictability

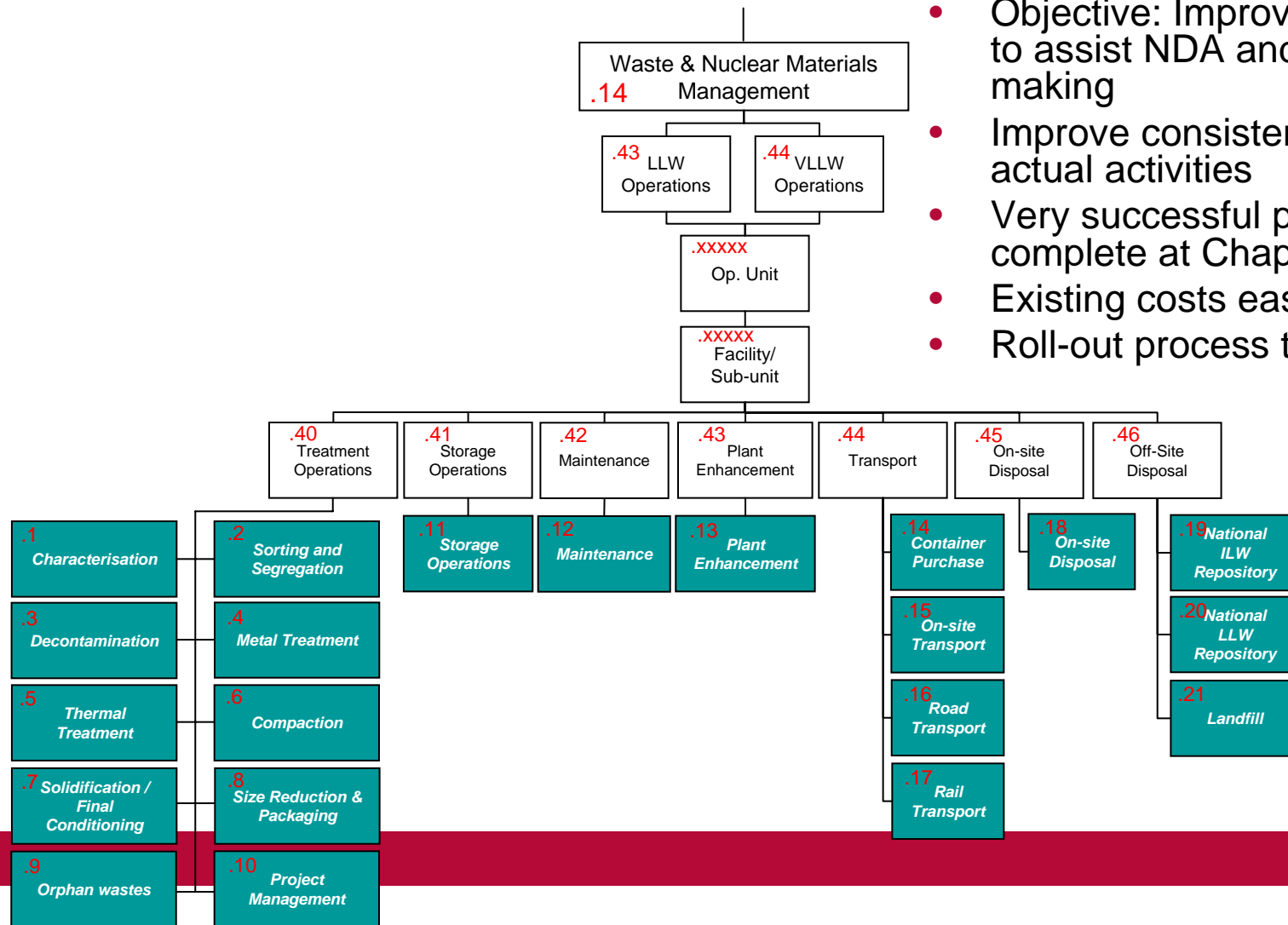
Information Requirements

- Data is already provided in various places within LTPs, but not always transparent
- SLCs require the following available info:
 - Waste volumes
 - Assumed waste routes
 - Unit cost assumptions for each route
 - Labour cost (SLC and sub-contract)
 - Capital projects / infrastructure costs
- The key is to have visibility of the way these factors inter-relate
- Data should be relatively easy to obtain from SLC underpinning estimates – hence little significant ‘new’ work



PSWBS Cost Visibility Improvement

- Objective: Improve cost visibility to assist NDA and SLC decision-making
- Improve consistency – align with actual activities
- Very successful pilot now complete at Chapelcross
- Existing costs easily 're-binned'
- Roll-out process to other SLCs



ACCELS – Progress to Date

- **Action Plan tasks are initiated and proceeding**
- **Established responsible leads for plan tasks**
- **Current focus on:**
 - National LLW Liability Estimate (NLE) and opportunities for reduction
 - LLW waste inventory improvement (WIFI and Smart Inventory Initiatives)
 - Accelerated implementation of LLWR Waste Services at Sellafield
 - LLW cost visibility improvement (Revised Work Breakdown Structure for Lower Activity Wastes)
 - Define generic LLW Performance based Incentives
- **Integrated Project Teams formed to evaluate and recommend opportunities for baseline reduction**

Progress – Phased Activities

ACCELS Focus Area	Description of Activities	Current Status	Comments
Developing and refining the National Liability Estimate (NLE) for Low Level Waste	Produce 'Methodology for Estimating the National LLW Liability'	A proposed methodology was delivered to NDA in December 2009	This methodology will be used to define the deliverables following on from Phase 1 of the ACCELS programme
	Validation of opportunities for LLW liability reduction in current baseline	Notification issued to NDA SLCs via Site Programme Managers. Integrated Project teams (NDA, LLWR, SLCs) are in progress	Integrated Project team will review cost reduction opportunities and develop a forward plan for implementation by March 2010
	Cost Visibility Improvement through consistent, detailed WBS and underpinning estimates/assumptions	Successful pilot completed at Chapelcross with intention to apply this approach at one or more projects at Sellafield and Magnox.	Next application of this approach planned by March 2010.

Progress – Phased Activities (cont.)

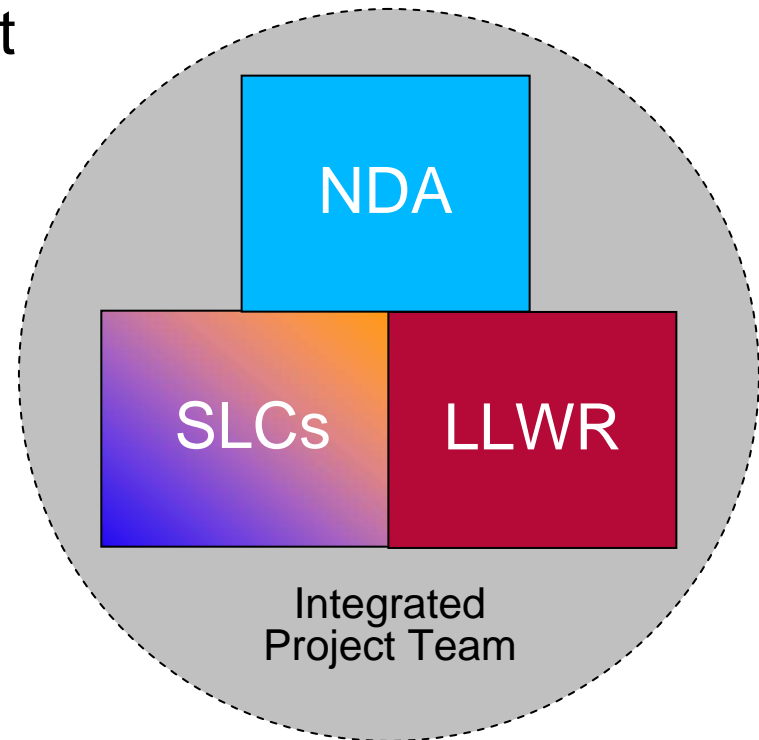
ACCELS Focus Area	Description of Activities	Current Status	Comments
Early Engagement with Magnox and Sellafield Ltd. on NLE/Inventory re-evaluation	Working with Magnox/Energy Solutions in progressing 'bottom up' reviews – feedback lessons learnt into LAWMP specification	Reviews of numerous site inventories completed to date. NLE Briefings to Sellafield and Magnox completed.	LLWR staff are participating in each site inventory review. Significant reduction in LLW arisings have been identified, but a lack of consistency in off site disposal cost estimates is apparent.
Providing better tools for identifying, forecasting and estimating Low Level Waste	Define Requirements for Lower Activity Waste Management Plan (LAWMP)	Specification for LAWMP submitted to NDA on 08 January 2010, including; <ul style="list-style-type: none"> • Common approach to reviewing site inventories • Common 'dictionary' of disposition routes and associated costs • Common reporting template (aligned with Cost Visibility approach) to enable consolidation across NDA estate 	Specification builds on current experience at Sellafield and Magnox (SMART Inventory project)
	Waste Inventory and Forecasting Improvement (WIFI) subproject	Procedures, guides and fit-for-purpose spreadsheet in final stage of development.	Aligns with requirements for UK Radwaste Inventory but more relevance for lower activity waste.

Potential Focus Areas – Top 20 LLW Costs

1.	Sellafield	Soil Decontamination Plant
2.	Sellafield	Waste Monitoring & Compaction Plant
3.	Sellafield	Clearance & Characterisation
4.	Trawsfynydd	FSC LLW Management
5.	Sellafield	LLW Sort Segregate & Size Reduction Facility
6.	Sellafield	92700 Metals Recycling
7.	Chapelcross	FSC LLW Management
8.	Hinkley Point A	FSC LLW Management
9.	Dungeness A	FSC LLW Management
10.	Hunterston A	FSC LLW Management
11.	Sizewell A	FSC LLW Management
12.	Wylfa	FSC LLW Management
13.	Sellafield	LLW Thermal Destruction Facility
14.	Sellafield	Waste Handling Facility
15.	Sellafield	Calder FSC LLW Waste Management
16.	Bradwell	FSC LLW Management
17.	Sellafield	LLW Metals Melt & Smelt Facility
18.	Berkeley	FSC LLW Management
19.	Sellafield	Waste Tasks
20.	Springfields	VLLW Disposal Operational & Decommissioning Waste

Role of the Integrated Project Teams - IPT

- Work with SLC to gather relevant information
- Evaluate SLC opportunities
- Foster a level of tri-partite 'ownership' of the opportunities
- Develop joint forward implementation plan
- **Smooth the way for implementation within own organisations**



Benefits To NDA

- Alignment With NDA LLW Strategy and Objectives
- Near-Term Reduction in LLW Management Costs
- Reduced National Liability Estimate (NLE)
- Extend LLWR life / risk of LLWR 2 Requirement Reduced
- Management Model Transferable to Other Waste Streams