

Draft Strategy

Nuclear Decommissioning Authority

Dounreay

15th September 2010

Presentation Agenda

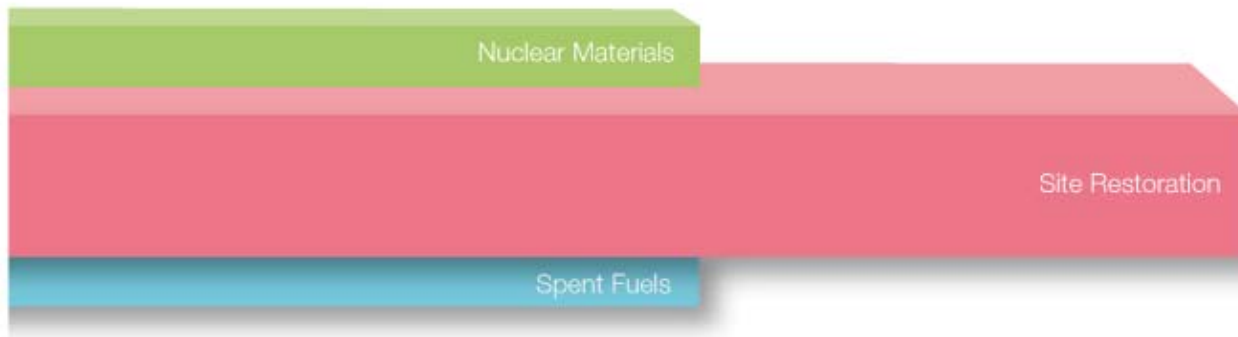
Introduction
Estate Level Strategy
Site Restoration
Spent Fuels
Nuclear Materials
Integrated Waste Management
Business Optimisation
Critical Enablers
What's next?
Questions / Discussion

Our aim is to inform your Consultation response

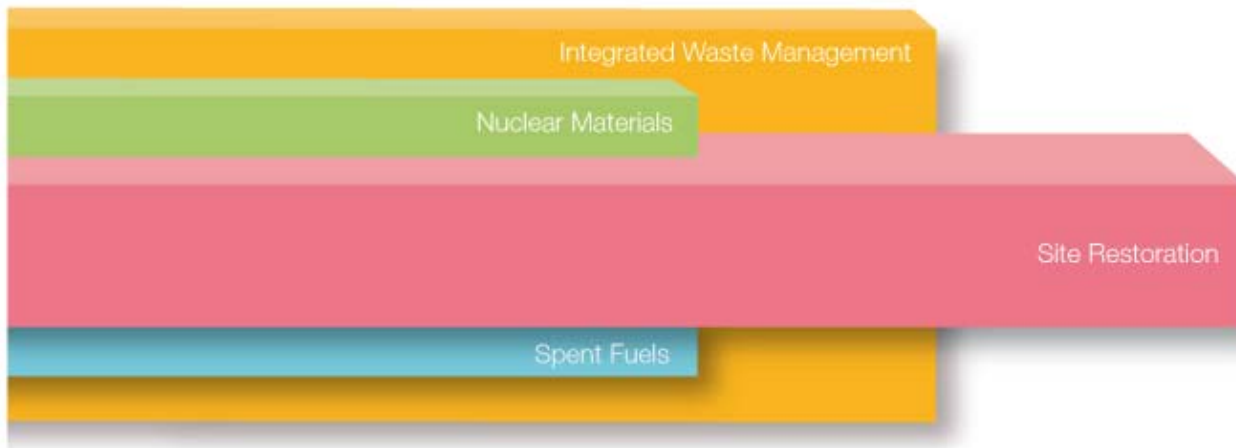
Introduction

- **Why produce a Draft Strategy now?**
- **What does / doesn't the Draft Strategy contain?**
 - Business Plan (1 year plus 2 year)
 - Annual Report & Accounts (ARAC)
- **What NDA Documents are subject to consultation?**
 - Draft Strategy
 - Non-Technical Summary of SEA
 - SEA Report
 - Strategy (2006) Commitments Register

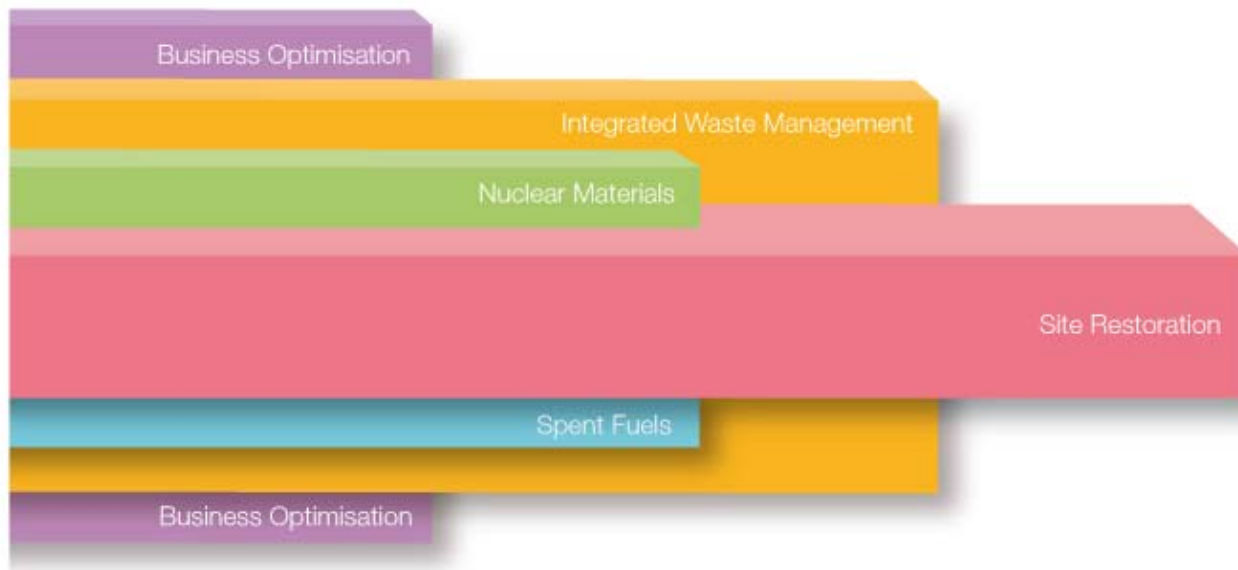
Strategic Themes



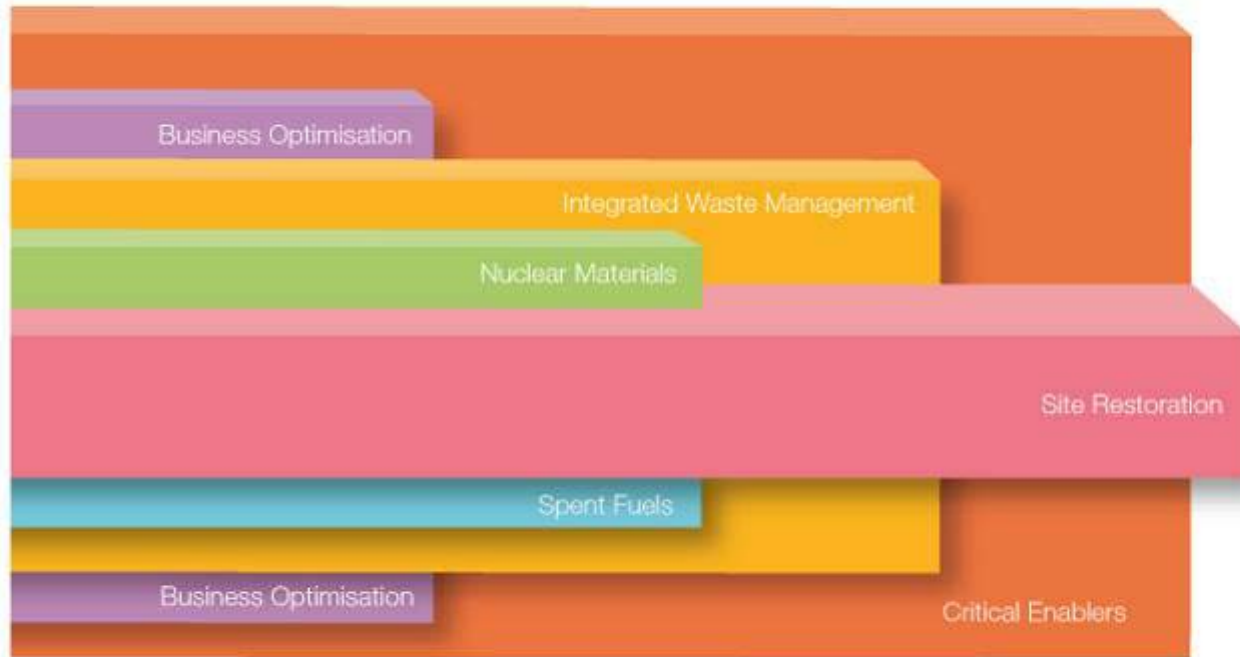
Strategic Themes



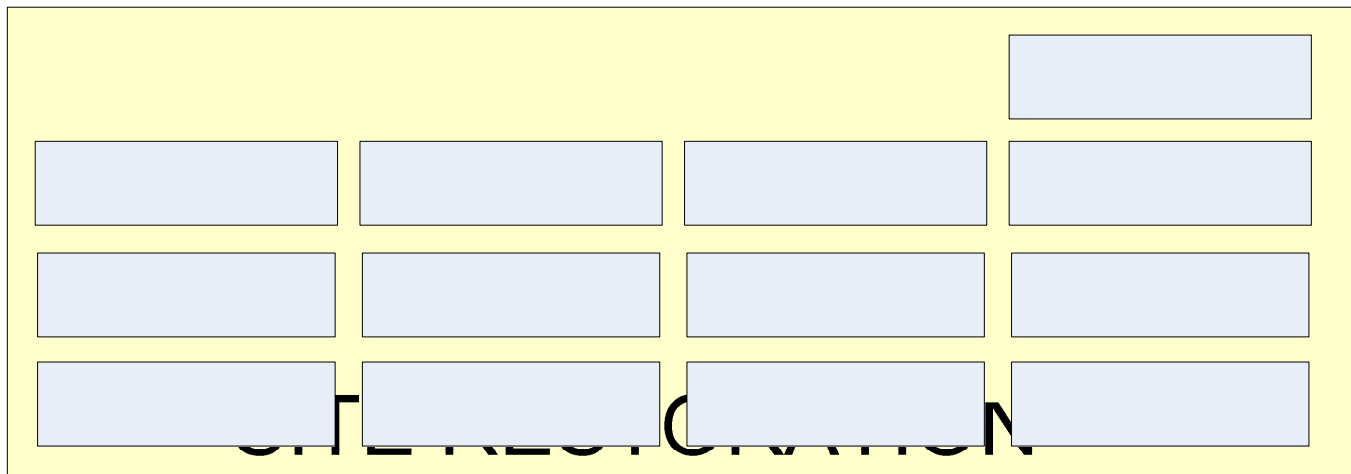
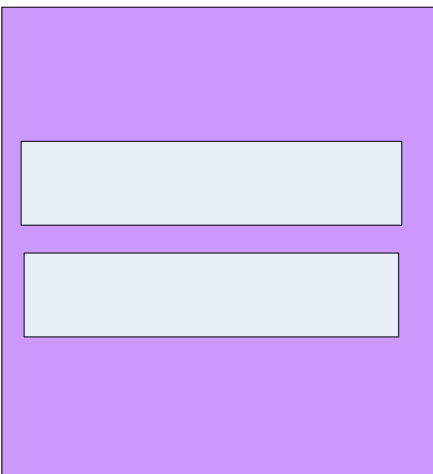
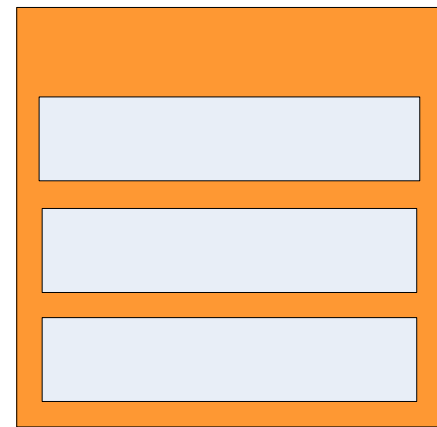
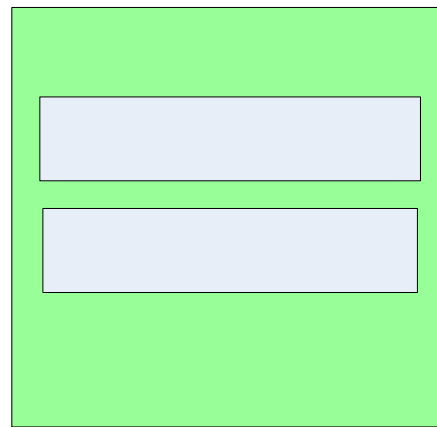
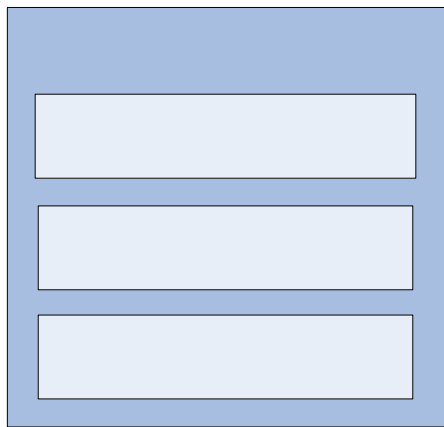
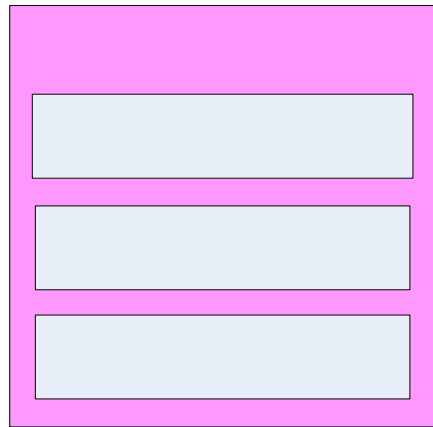
Strategic Themes



Strategic Themes



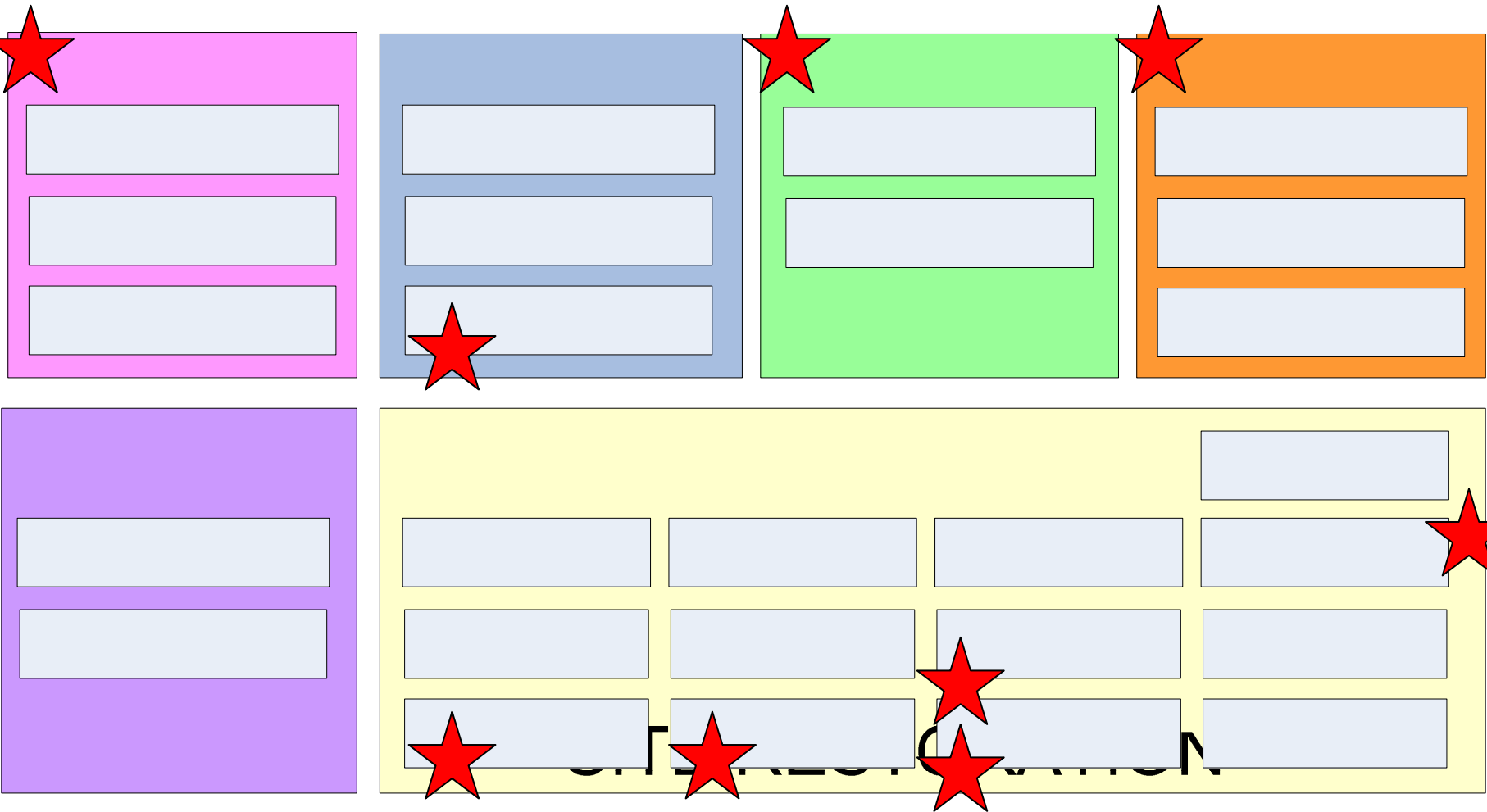
Scope of NDA Strategy



NDA

Decommissioning &

Dounreay Strategic interests



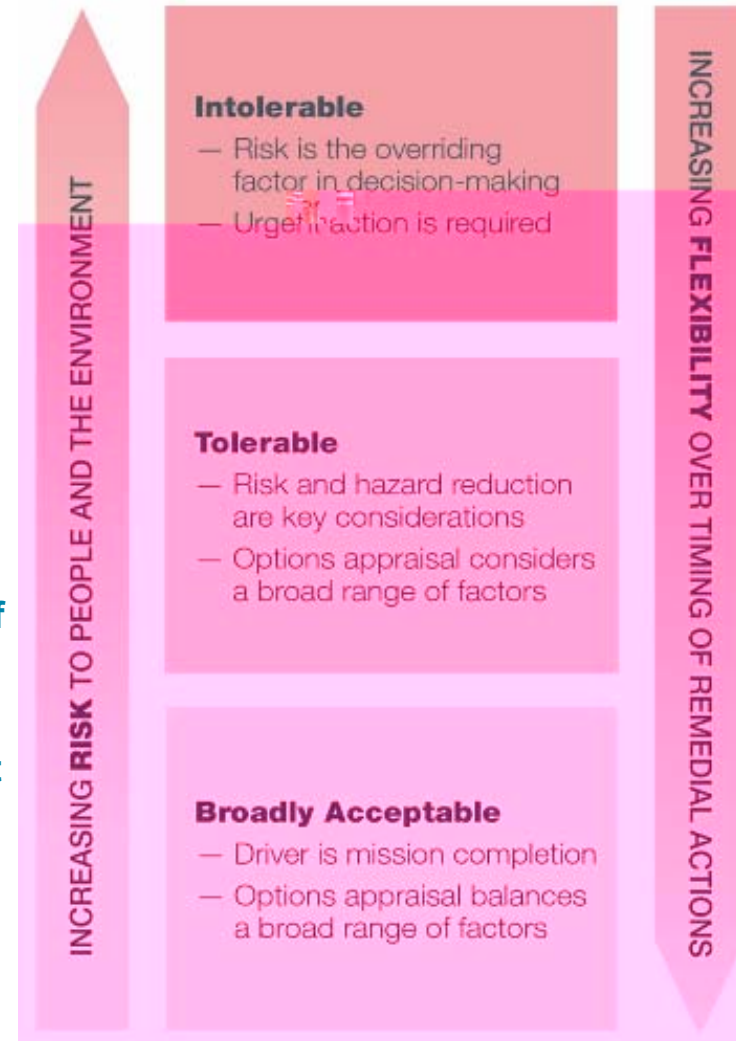
NDA

Decommissioning &

Site Restoration

Theme Objective: To restore our designated sites and release them for other uses

- Focus on reducing risks to people and the environment, while *restoring each site as soon as reasonably practicable* to a condition suitable for its *next planned use*
- Site restoration is considered on a case-specific basis, taking account of a range of relevant factors
- Where risks are *intolerable* we will take urgent action to reduce them
- Where *risk is less significant* we take greater account of other factors – environment, social, economic, etc
- We will act proportionately to ensure net level of *risk does not increase* in the long-term – Asset Management
- Consider full *lifecycle impacts* on people and the environment to avoid compromising future generations – ie. adopt sustainable solutions



Decommissioning & Clean Up

- Strategic options include *Continuous* or *Deferred* decommissioning
- Where risk is the dominant factor our priority is to *Continuously* decommission until the risk is at least tolerable
- This approach applies to LP&S – Our *top decommissioning priority*
- Sub-options – *In-situ* & *Ex-situ*

1. What are the most important factors for the NDA to consider when developing estate-wide, good practice principles for D&CU, and why?

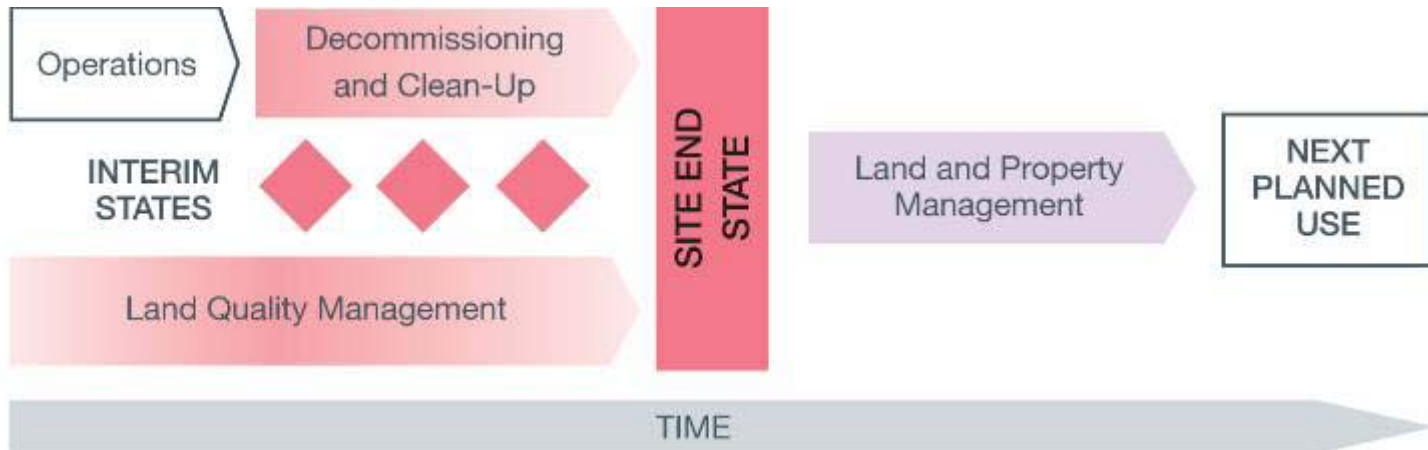
Land Quality Management

- **Prevention** is better than cure
- We must fully understand the problem through effective **characterisation** to:
 - Reduce uncertainty & predict if and how risk will change with time
 - Ensure remedial action is proportionate to risk, now and in future
- High risks – **less flexibility** in the way we manage land quality
- Lower risks – **Waste Hierarchy** has greater influence
 - maximise re-use of material
 - minimise volume being excavated and disposed of as waste
- Intervention may do more harm than good (SEA outcome)
 - **manage contamination in-situ**

2. What factors should the NDA consider when exploring opportunities for managing contamination in-situ?

Site End States

- Restore a site to a condition suitable for its **next planned use** (level of intervention and waste volumes generated appropriate for end use)
- Retain **flexible SES definitions** until planning commences for final stages of restoration
- Define **Interim States** that lead to the Site End State



Spent Fuels

Spent Magnox Fuel
Spent Oxide Fuel
Spent Exotic Fuels

Spent Fuels

Theme Objective: To ensure safe, secure and cost-effective lifecycle management of spent fuels

- To secure and implement the most appropriate management approach for Magnox and oxide fuels, and where possible *take advantage of these approaches* to manage our exotic fuels
- We will use *integrated management routes* to optimise use of facilities at Sellafield and across our estate
- Remaining fuels will continue to be *managed in a safe & secure manner* pending subsequent disposition
- For Magnox and oxide fuels - continued and extensive *use of our existing* reprocessing and storage facilities
- Reliant on ageing / vulnerable facilities - We will continue to invest in *developing contingency and alternative options*
 - to enable a fully informed investment decision in the near future
- Third party approach for spent fuel management services / advice and information to new reactor programme utilities – *for discussion with HMG*

Spent Exotic Fuels

- Ensure ***continued safe management*** of these fuels
- We will ***treat*** exotic fuels to achieve a final disposition form as soon as reasonably practicable
 - Reprocess
 - Condition
 - Immobilise
- **Disposition forms will then be stored prior to**
 - Re-use, or
 - Consign to a disposal facility
- Maximise opportunities to ***use existing facilities*** where value to UK taxpayer can be secured
- May involve ***consolidating material*** at one or more locations for storage and treatment – for reasons of security and economy

8. When evaluating options for the management of spent exotic fuels, what factors are most important for the NDA to take into account and why?

Nuclear Materials

Plutonium
Uranics

Plutonium

- Ensure Plutonium continues to be safely and securely managed [mainly at Sellafield]
- **Three options** given to HMG
 - Re-use in modern nuclear reactors
 - Immobilisation for disposal
 - Long term storage
- We will **respond to HMG** policy decision on UK owned Plutonium
- We will **transfer Plutonium stocks to Sellafield Product Residue Store (SPRS)** or any additional stores which may need to be built

Uranics

- Ensure safe & secure management of UK uranic products
- Utilise our **existing** infrastructure and contract arrangements
- Determine **preferred management option** on a group-by-group basis
 - Continued safe & secure storage
 - Conditioning to a waste form for storage, then disposal
 - Re-use (eg. following sale)
- Maximise value by **selling** in favourable market conditions
- Rather than immobilise unsold uranics, and foreclose future options, consider as a **strategic reserve**
- **Reduce hazard** associated with hex storage – we intend to start conversion to stable form by 2020, or sooner if practicable
- Continue to manage **third party material** as per contractual obligations, and repatriation of overseas customers' uranium

9. In the development of future management options for uranics, what factors are most important for the NDA to take into account and why?

Integrated Waste Management

Higher Activity Waste
Lower Activity Waste
Non-Radioactive & Hazardous Waste

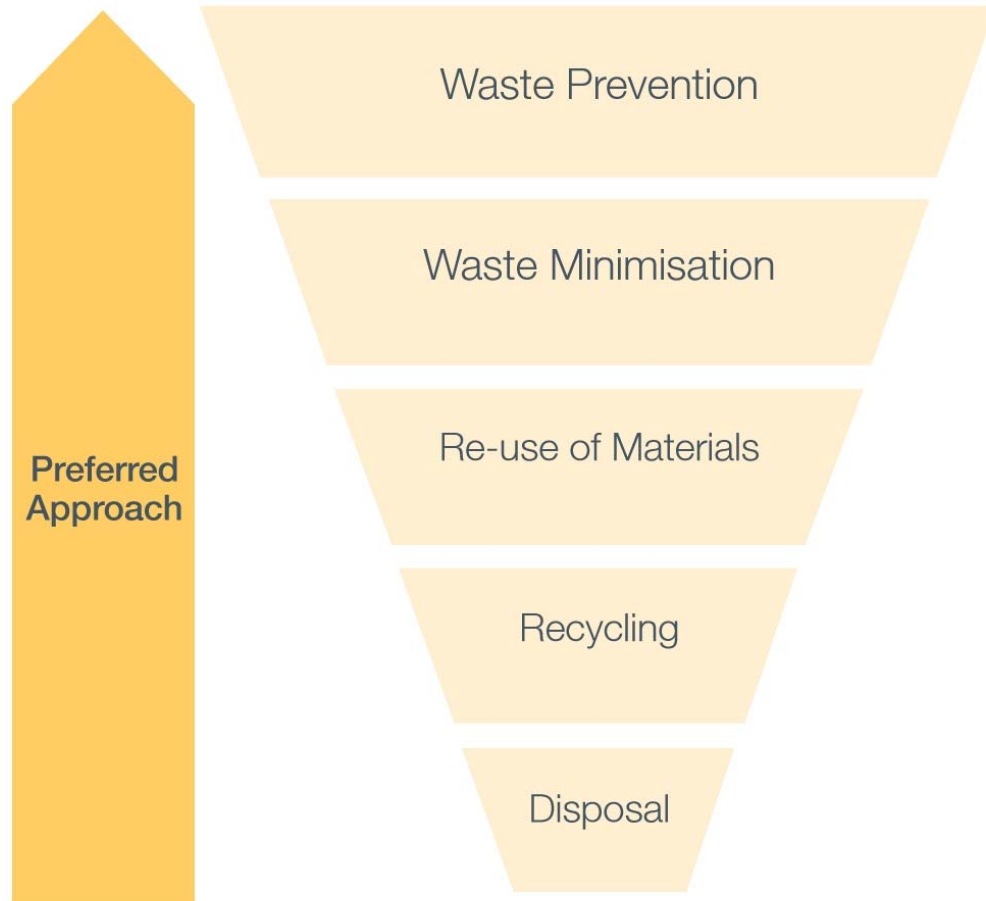
Integrated Waste Management

- Waste management is important to delivery of NDA's mission
- Recognise policy in devolved administrations – near site, near surface
- Since 2006 - new waste management responsibilities
 - geological disposal and nuclear industry LLW
- We take a UK wide and multi-site view – consolidation / co-location
- **Risk reduction** is a priority – waste held in ageing storage facilities
- Application of **Waste Hierarchy** needs to take account of VFM, ALARP, etc
- **Diverse waste management and disposal solutions** – thermal treatment
- **Shared waste management infrastructure** across the estate and with other waste producers (MoD, BE) – engage with interested parties early
- Engage with **new reactor programme** – integrate UK's approach to waste management, especially regarding LLW management

10. What are your views on the principles we describe for the management of waste on our estate?

Waste Hierarchy

Summary of the Waste Hierarchy



Revenue Optimisation

- **Revenue strategies:**
 - Electricity generation - 4 reactors remain
 - Spent fuel management - reprocessing & storage of AGR fuel for BE
 - reprocessing other fuels for overseas customers
 - Production of mixed oxide fuel - SMP
 - MoD services – storage facilities for MoD used fuels and nuclear materials
 - Marine transportation services - INS and PNTL
 - Rail transportation services - DRS
- **Asset performance and condition remain *key risks* to contract delivery and influences the consideration of potential new business opportunities**
- ***Periodically evaluate* opportunities to dispose of assets**
- **Continue to *discuss other revenue opportunities with HMG*, including new reactor programme, such as ownership and management of UK nuclear infrastructure**

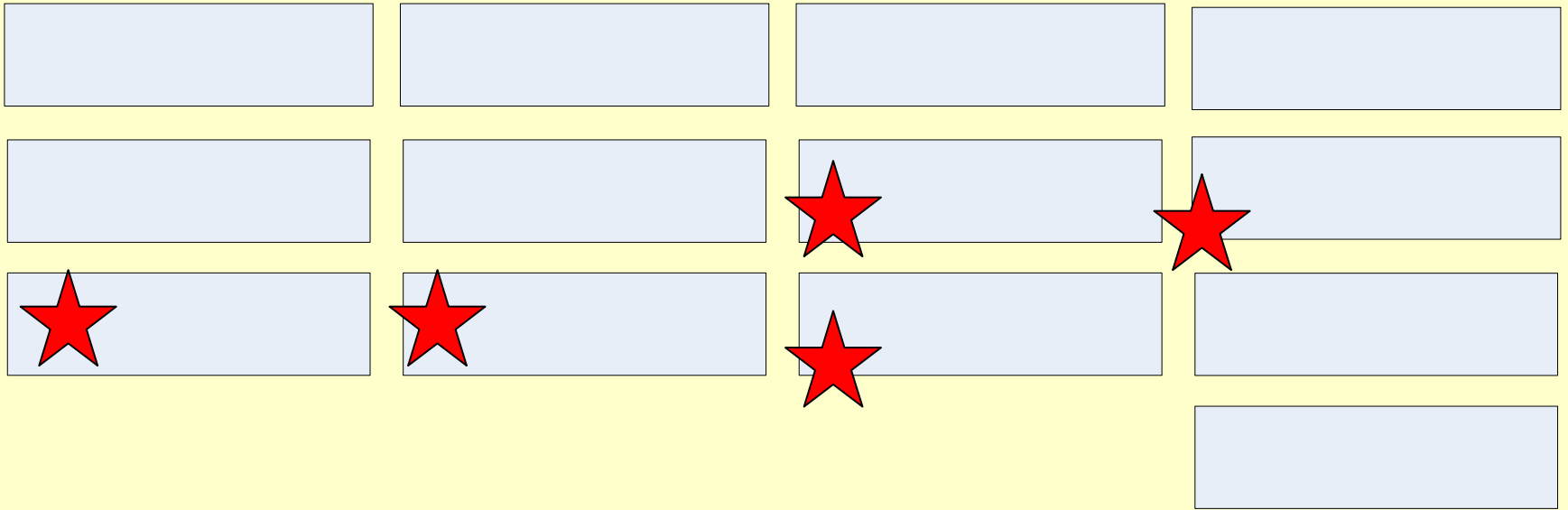
14. When evaluating the opportunities to dispose of assets or pursue additional commercial revenue, what factors are the most important for the NDA to take into account and why?

Land & Property Management

- ***Retain the minimum*** land and property assets required to complete our site restoration mission
- Otherwise, ***it will be sold*** if a commercially viable sale can be achieved
- We will continue to follow best practice guidance set out by OGC and NAO

Critical Enablers

13 Critical Enablers



Dounreay Critical Enablers

People (including Skills & Capability)

- ‘Engineering Skills Centre’ in Thurso – NDA £2m matched funding
- ‘Workforce Transition Programme’ – NDA/DSRL/Scottish Gov £2.3m

Socio-Economics

- One of our Priority Areas – Caithness and North Sutherland
- ‘Scrabster Harbour Project’ – encouraging marine energy investment

Competition

- Competition for DSRL PBO underway – use of Interim State
- PBO share transfer in spring 2012

Information and Knowledge Management

- National Nuclear Archive proposed in Caithness

Transport and Logistics

- Essential to co-location strategy

How to Respond

12 week public consultation – 1 September to 24 November

Stakeholders can respond in a number of different ways:

Online Facility

Responses to this consultation can be submitted online, via the NDA website - www.nda.gov.uk

Letter

Address to - Strategy Consultation, Nuclear Decommissioning Authority, Herdus House, Westlakes Science and Technology Park, Moor Row, Cumbria CA24 3HU

Fax

01925 802170
(Strategy Consultation)

email

strategy.consultation@nda.gov.uk

It would be helpful if you used the response form which is available on the website - www.nda.gov.uk

Strategy publication
31 March 2011

Any Questions?

