

# THE 2014 WHITE PAPER ON IMPLEMENTING GEOLOGICAL DISPOSAL



## Briefing Paper 17

October 2014

This Briefing Paper outlines the main elements of the recently published UK Government White Paper on Implementing Geological Disposal and also sets out NuLeAF's view on the new process.

### 1. Introduction

Following the decision of Cumbria County Council in January 2013 not to proceed to Stage 4 of the Managing Radioactive Waste Safely (MRWS) process, the UK Government has been developing a new approach to the management of Higher Activity radioactive wastes.

A 'call to evidence' on a new policy was launched in May 2013, with this being followed by a wider consultation on September 2013<sup>1</sup>. Following representations from NuLeAF and a range of other organisations a White Paper – **Implementing Geological Disposal: A Framework for the long-term management of higher activity radioactive waste** – was published in July 2014<sup>2</sup>.

The White Paper restates the Government's commitment to manage *'higher activity radioactive wastes in the long term through geological disposal which will be implemented alongside ongoing interim storage and supporting research.'* However, while the overarching objective remains the same, many elements of the new process have been altered or are to be decided following further discussion.

NuLeAF's policy statement on geological disposal is available at [Policy Statement 3 – Geological Disposal](#). This Briefing Paper sets out the main proposals contained in the White Paper and the initial view of NuLeAF on the new framework for taking forward geological disposal.

### 2. White Paper: Background and structure

The White Paper replaces the 2008 White Paper in England and Northern Ireland. Wales is not issuing the new White Paper. Its policy remains that set out in the 2008 Paper, but like in England and Northern Ireland, communities in Wales have the potential to be involved in the new Geological Disposal Facility siting process. The

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<sup>1</sup> <https://www.gov.uk/government/consultations/geological-disposal-facility-siting-process-review>

<sup>2</sup> <https://www.gov.uk/government/publications/implementing-geological-disposal>

Scottish Government has a separate policy on the management of Higher Activity Waste and Scotland is not participating in the siting process.

The new White Paper provides contextual information on the inventory for the Geological Disposal Facility, on the policy background and the technical aspects of its delivery. It establishes a number of actions that will be undertaken by the Government and the developer, Radioactive Waste Management Ltd (RWM), over the next two years, concerning:

- National geological screening;
- Establishment of the policy framework for planning decisions in England; and
- The development of a process for working with communities.

Following the completion of these actions, it is expected that the formal process of engagement with communities will begin in 2016.

### **3. Higher Activity Waste and Geological Disposal**

In 2003 **CoRWM**<sup>3</sup> undertook a detailed study of all main options for the long term management options for higher activity wastes, including indefinite storage, disposal at sea, disposal in outer space and deep geological storage.

CoRWM's conclusion was that geological disposal was the best available approach for the long term management of such wastes. A similar policy is being pursued in other countries including Sweden, Finland, Canada, the USA and Switzerland. Policy in Scotland is for long term storage in near surface facilities.

Geological disposal involves the use of multiple barriers contained within a suitable rock formation with the aim of ensuring that no harmful quantities of radiation reach the surface or affect humans and the environment. The multiple barriers are:

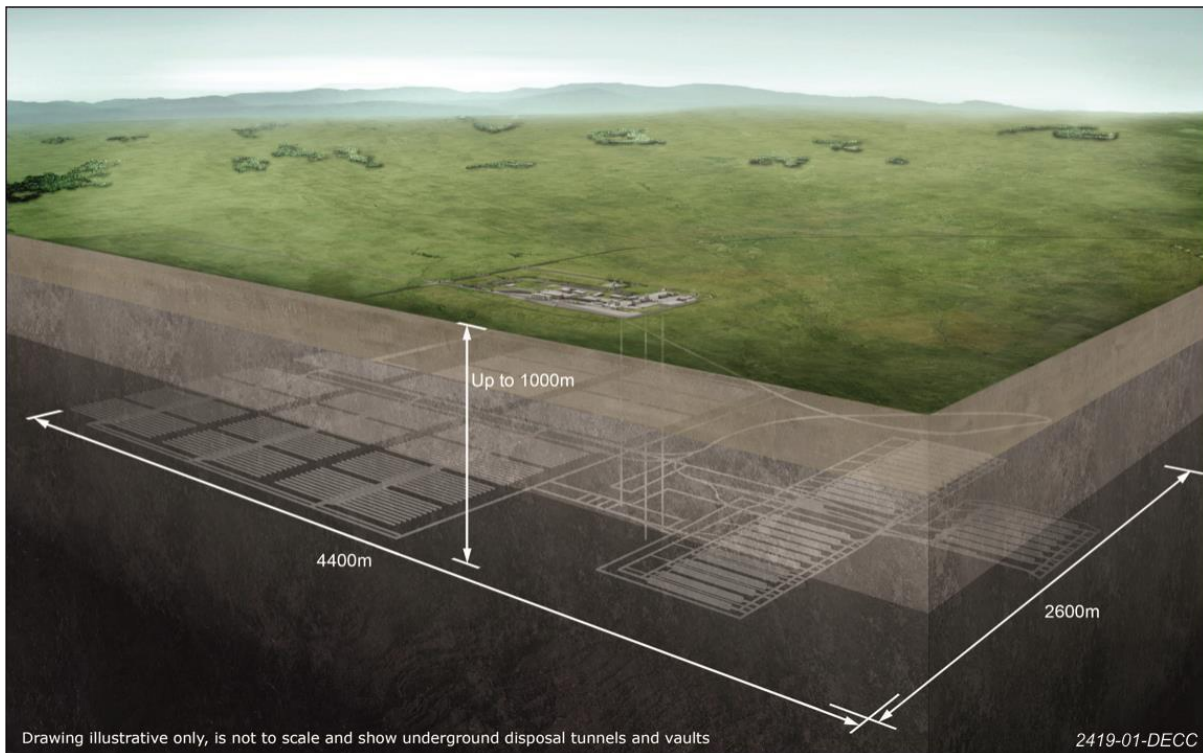
- The form of the waste itself. For example high level waste that arises as a liquid is converted into glass before storage and disposal;
- Packaging of the waste;
- Engineered barriers that protect the waste packages and limit the movement of radionuclides if they are released from the packages;
- Engineered features of the facility itself; and
- A stable geological setting.

The Geological Disposal Facility will have surface facilities covering an area of around 1 square kilometre. These would be linked to the vaults and underground facilities through access tunnels or shafts, with the underground facilities up to 1,000 metres

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<sup>3</sup> CoRWM – The Committee for Radioactive Waste Management provides independent scrutiny and advise to UK Governments on the long term management of higher activity radioactive wastes. It is an advisory non-departmental public body sponsored by the Department for Energy and Climate Change.

below the surface and potentially several kilometres from the surface access point. The total underground footprint of the site could be 10 to 20 square kilometres.



The Government has a 'strong preference' for all waste to be placed in one facility. However, development of more than one Geological Disposal Facility, with each facility accommodating part of the waste inventory, has not been ruled out.

The **Environment Agency/Natural Resource Wales** will regulate the development of the site under the **Environmental Permitting (England and Wales) Regulations 2010**, while the **Office for Nuclear Regulation (ONR)** will advise on operational safety, security and transport. ONR also has a key role in regulating the storage of Higher Activity Wastes on nuclear sites until a Geological Disposal Facility is available. A Geological Disposal Facility will be classed as a nuclear installation under the **Nuclear Installations Act 1965**.

While Government is responsible for policy, the delivery of a Geological Disposal Facility is the responsibility of the recently formed **Radioactive Waste Management (RWM) Limited**, a wholly owned subsidiary of the Nuclear Decommissioning Authority (NDA). RWM is responsible for safety, security and environmental protection for the lifetime of the Geological Disposal Facility development.

#### 4. Making it happen

The core commitment of the UK Government remains, namely that **only those communities that put themselves forward will be considered as potential**

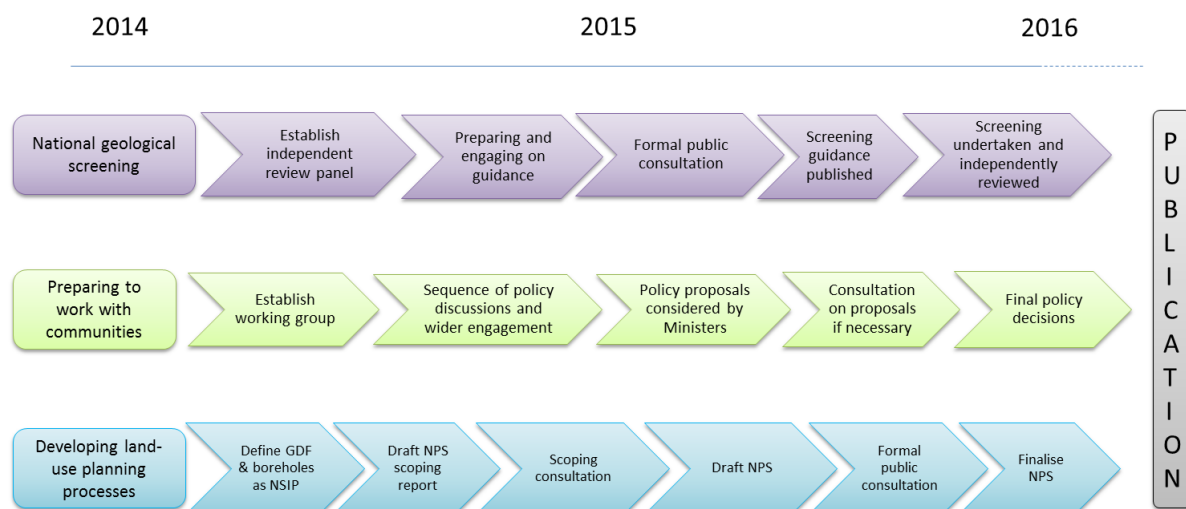
**hosts** of the Geological Disposal Facility and that there must be a **test of public support** before a site or sites for a Geological Disposal Facility are given the final go ahead. Communities are free to enter into the process and also to withdraw up to an agreed point.

However, the Paper concedes that useful lessons have been learned from the Managing Radioactive Waste Safely process and on this basis some significant changes have been made. Overall there is an acceptance that greater clarity is required on some issues from the outset, while on other issues there will now be a greater degree of flexibility with fewer formal stages and milestones.

The detail of some crucial aspects of the process will only be determined following further engagement over the next two years. Work, and engagement, will be focussed in three areas:

1. National geological screening;
2. Developing land use planning processes; and
3. Working with communities.

The timeframe for each process is set out below and more detail on the proposals in each of these areas is provided in the following sections.



Activity between now and 2016 will consist of:

- Actions the UK Government and Radioactive Waste Management Ltd will conduct to deliver clear, evidence based information at the national level that will help inform local discussions.
- The development, by the UK Government in liaison with public and national stakeholders of a process for working with communities.

These actions will be drawn together in a framework. Once this is in place formal discussions with any interested communities can begin. The anticipated timeframe for the whole siting process is summarised in the diagram below.



## 4.1 Geology

A desire for greater information on local geology emerged as a key issue during the Managing Radioactive Waste Safely process. In response it is proposed that Radioactive Waste Management Ltd conduct a high level **national geological screening exercise**.

The screening exercise will be underpinned by guidance to be developed through close work with external experts such as the British Geological Survey, and which will also draw on international learning and engagement. A draft of the guidance is expected to be issued for consultation during 2015.

It is expected that the geological screening itself will take the form of maps and commentary, and highlight the range of potentially suitable types of geology available across the UK including a range of igneous rocks, clays and evaporites (salt).

Screening is not expected to completely rule certain areas in or out and will not identify target sites for possible development. It is hoped though that it will enable more constructive discussions to take place at the local level regarding whether an area is likely to be suitable. The White Paper also suggests that further geological studies may be commissioned in local areas in the early stages of work with individual communities, in order to produce a geological report for that community.

Later in the siting process more extensive geological studies, including boreholes, will be required. Borehole drilling is only anticipated in one or two areas, due to the high cost involved.

#### **4.2 Land use planning**

In contrast to the previous Managing Radioactive Waste Safely process, the White Paper states the intention of Government as being to amend legislation to classify the Geological Disposal Facility as a **Nationally Significant Infrastructure Project (NSIP)** and also bring any borehole drilling within the NSIP process.

The amendment of the 2008 Act will be completed by 2016 when the formal process of seeking volunteer communities will begin. A **National Policy Statement (NPS)** on the Geological Disposal Facility will be prepared and consulted on once the Planning Act 2008 has been amended. The NPS will be subject to a **Statement of Sustainability** and a **Habitats Regulation Assessment** and it is anticipated that a draft NPS will be available for consultation during 2016.

The decision making processes for NSIPs are set out in the Planning Act 2008 where the **Planning Inspectorate** assesses proposals and then makes a recommendation to the Secretary of State as to whether to grant permission. There are also requirements to consult communities, statutory bodies and other interested parties as part of the NSIP process:

- Before submitting an application for development consent, the Planning Act 2008 requires that the development must be publicised, and a **'Statement of Community Consultation'** produced.
- Once the application for development consent is submitted to the Secretary of State (SoS), the Planning Inspectorate has a period of 28 days to decide if the application meets the standard required to be accepted for examination. During this period local authorities will be invited to make representations to the SoS regarding their view on whether consultation was adequate.
- If an application is accepted there will be a 3 month 'pre-examination' phase during which the public will be able to provide their views on the application. Everyone who makes a relevant representation will be invited to attend a meeting chaired by an Inspector.
- The Planning Inspectorate then has 6 months to carry out their examination of the application. Relevant local authorities will be able to submit **Local Impact Reports** and those who made representations in the 'pre-examination' phase will be able to provide more information on their views.

After the conclusion of the examination, the Planning Inspectorate has 3 months to prepare a report to the SoS which will include a recommendation as to whether to grant permission.

The process set out above applies only to England. Planning decisions related to any Geological Disposal Facility development in Wales or Northern Ireland will be subject to separate processes.

### **4.3 Communities**

The arrangements for engaging with local government, and providing community investment, are of particular importance to NuLeAF members.

There are clear commitments in the White Paper to:

The **right of any community to withdraw from the process** at any point up to a final test of public opinion that will determine whether development should go ahead (the so-called 'Community Right of Withdrawal').

A **commitment to substantial community investment** in recognition of the service to the nation that any host community will play. The investment could help fund education and training, improved recreational facilities or transport infrastructure and would be in addition to any agreement for mitigation measures such as those agreed through Section 106 of the Town and Country Planning Act 1990.

All communities entering the process will receive community investment up to £1million per annum. This would rise to £2.5 million per year for a community or communities progressing to the stage where borehole investigations were undertaken. Following final agreement, the successful community would receive much more significant investment. This is not defined in the White Paper but is expected to amount to hundreds of millions of pounds in total.

While the White Paper recognises the central role of local authorities in the new Geological Disposal Facility siting process, much of the detail is still to be decided. The Government's view is that *'if the process of community representation and engagement is going to be credible, practical and flexible enough to function over the long duration of the project, it needs to be developed over time, in an open and transparent manner.'*<sup>4</sup>

The Government has committed to developing a new approach to working with communities over the next two years, running in parallel to the commitments on planning and geology. The focus for this work will be a **Community Representation Working Group**, chaired by the Department of Energy and Climate Change and with a membership including Radioactive Waste Management Ltd, local government representatives, academics and other government departments. It will:

- Develop approaches to defining 'communities' in areas interested in learning more about a Geological Disposal Facility, and options for effective community representation;
- Define roles and responsibilities for community representatives and an understanding of how these roles could evolve alongside the Geological Disposal Facility siting process;

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<sup>4</sup> White Paper, page 43

- Develop options for ensuring all levels of local government have a voice in the Geological Disposal Facility siting process;
- Provide greater clarity as to the point at which a test of public support might be appropriate, and the method that could be used; and
- Develop options for disbursement of community investment including the management of such funds and the method by which applications for funding could be assessed.

## 5. NuLeAF's view on the White Paper

NuLeAF believes that the White Paper is stronger in a number of areas than the original consultation document. That said, there are still significant areas that lack clarity or which do not go far enough in meeting the needs of local authorities and the communities they represent.

NuLeAF hopes to assist local authorities, the Department for Energy and Climate Change (DECC), and Radioactive Waste Management Ltd (RWM) in this process as it develops; acting as a voice of local government in national discussions. NuLeAF also aims to help build the capacity of local authorities and encouraging their participation in the site selection process.

NuLeAF supports the commitment to a final **test of public support** as such a development cannot be imposed on a community. NuLeAF believes that this final test of community support should be late in the process. We will engage with the Community Representation Working Group to ensure that the method adopted is inclusive and democratic.

The identification of a suitable community or communities will require a **pro-active process of engagement** with Elected Members and officials in local authorities across England and Wales. Such engagement will need to show the scope for significant community investment and other benefits that could flow from such a scheme. It will also need to allay legitimate concerns regarding safety and security.

The process must be responsive to local needs and progress at a pace that is acceptable to individual areas, rather than impose a 'one size fits all' approach. Community engagement here should draw on the good practice lessons learned in other countries such as Sweden. DECC and RWM should recognise that meaningful stakeholder engagement must be adequately resourced and set out the terms under which this will be provided and to what level.

In relation to **geology**, NuLeAF supports the undertaking of a screening exercise and the provision of more information on geology early in the process, as well as the potential for borehole drilling in more than one site. As the Managing Radioactive Waste Safely process in Cumbria demonstrated, lack of certainty about the suitability of geology can cause a great deal of community concern. While the White Paper proposals will not provide absolute clarity as to the suitability of an area, they are a step in the right direction. It is also important that information on geology, and other



technical aspects of the proposal, is provided in a language that is understandable to the wider public.

Regarding **land use planning**, NuLeAF accepts that it makes sense to designate the project as a Nationally Significant Infrastructure Project (NSIP). It is a huge project of national importance, and it is therefore logical for it to be classified as such. Given the particular nature of the Geological Disposal Facility project, it is appropriate for the NSIP approach to be adapted so that additional community engagement, consultation and investment are undertaken.

The White paper recognises that '*local representative bodies – including **all levels of local government** – will need to have a voice in this process.*'<sup>5</sup> While NuLeAF supports this, far greater clarity is needed on the exact role that local authorities (unitary, district, borough and county) will have.

Local authorities have a democratic mandate and also a wealth of skills in relation to planning, environmental management, economic development and engagement with local communities. The new process must also recognise the likelihood of further decentralisation of power away from Westminster and towards city-regions and other grouping of local authorities as this may affect the way that DECC and RWM engage with community representatives in future. Local authorities must be at the heart of any local siting processes and NuLeAF will press for this through the Community Representation Working Group.

Developing a **workable definition of what is meant by a 'community'** is likely to prove challenging. NuLeAF looks forward to engaging in discussions on this topic, which needs to be addressed thoroughly as soon as possible. It is of central importance to a successful siting process.

The **commitment to community investment** is welcome, particularly the commitment to provide funding to every community entering into the process. In order to encourage local areas to enter, NuLeAF believes there is a need to provide greater clarity as to the scale of investment that will be available to the Geological Disposal Facility host community. We also believe that local authorities have the skills and democratic mandate required to oversee investment funds and will make the case for this through the Community Representation Working Group.

A Geological Disposal Facility is unlikely to be available until at least 2040. Waste bound for a Geological Disposal Facility will have to be stored at other sites on an interim basis for many decades, creating issues for host local authorities. NuLeAF will continue to work with Government and the NDA to find the best solutions to **interim waste management and storage**. There must be appropriate engagement with communities who host waste to determine locally acceptable approaches to storage issues.

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<sup>5</sup> White Paper, page 43