

**Meeting:** Nuleaf Steering Group  
**Date:** 14<sup>th</sup> December 2023  
**Item:** 6  
**Subject:** Update on Geological Disposal Facility (GDF) siting process  
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## Introduction:

This report provides an update on recent developments related to the process for identifying a site for a Geological Disposal Facility and activities at RWM. It covers:

- Geological Disposal Facility (GDF) Siting Process;
- Nuclear Waste Services (NWS) update;
- International news; and
- CoRWM Update.

**Recommendation:** This report is for noting.

## Background information:

The UK Government's policy on **Working with Communities – implementing geological disposal** was published in December 2018<sup>1</sup>, with the equivalent policy for Wales published in January 2019<sup>2</sup>. The **National Policy Statement**, governing the planning aspects of the GDF in England, was published in July 2019<sup>3</sup>.

## 1. Geological Disposal Facility (GDF) Siting Process

1.1 On the 28<sup>th</sup> September Nuclear Waste Services (NWS) announced that they had decided not to continue with the GDF siting process in **Allerdale**<sup>4</sup>. This follows an evaluation of the information gathered which concluded that only a limited volume of suitable rock was identifiable. The geology of the area was therefore unlikely to support a post closure safety case.

<sup>1</sup> <https://www.gov.uk/government/publications/implementing-geological-disposal-working-with-communities-long-term-management-of-higher-activity-radioactive-waste>

<sup>2</sup> <https://gov.wales/docs/desh/publications/190116-geological-disposal-of-higher-activity-radioactive-waste-working-with-communities-en.pdf>

<sup>3</sup> <https://www.gov.uk/government/publications/national-policy-statement-for-geological-disposal-infrastructure>

<sup>4</sup> [NWS decides not to take Allerdale further in GDF siting process due to limited suitable geology - GOV.UK \(www.gov.uk\)](https://www.gov.uk/news/press-releases/nws-decides-not-to-take-allerdale-further-in-gdf-siting-process-due-to-limited-suitable-geology)

Corhyn Parr, CEO, commented *'After careful consideration NWS has reached a decision not to take Allerdale further in our search for a suitable site to host a GDF.....Our assessments show evidence of limited volume of suitable rock for a GDF in the Allerdale search area, including the adjacent inshore area. We wish to thank the Community Partnership and the Chair for their hard work, time, and commitment.'*

The final meeting of the **Allerdale Community Partnership** took place on the 27<sup>th</sup> November. Mary Bradley, Chair of the Partnership commented *'I'd like to thank Allerdale GDF Community Partnership and the local community for getting so involved.....£2million has been awarded to over 50 local projects and NWS will continue to support work we've already committed to across youth engagement, Community Investment Funding and development of a community vision. I'm extremely proud of the work the Partnership members have collectively delivered over the past two years.'*

The decision to withdraw leaves three communities in the process, two in Cumberland and one in Lincolnshire.

3.2 Aerial surveys off the **West Cumbria** and **Lincolnshire** coast have begun and will run until March 2024<sup>5</sup>. The aim is to capture information on the presence and numbers of birds and marine wildlife. This will be combined with other environmental surveys to provide baseline data to help assess if the areas are suitable for a GDF.

Simon Hughes, Director of Siting and Communities at Nuclear Waste Services, commented: *'These aerial surveys are an important part of gathering the data we need to understand the environment of an area. The plane will fly at a low altitude, at least 1600ft (500m) height in accordance with recognised best practice yet be high enough not to disturb the wildlife being observed. At this stage we are not looking for any specific species although the data will be used to get a better understanding of protected species using the area.'*

3.3 Members of the **Theddlethorpe Community Partnership** visited Bure in France in November. The site, operated by Andra, hosts an underground research laboratory on geological disposal and is the proposed site for the French GDF. In addition to viewing the laboratory, 500 metres underground, the group was able to meet with local community leaders.

Members of **Mid-Copeland Community Partnership** have also recently visited the Finnish GDF site at Eurajoki.

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<sup>5</sup> <https://midcopeland.workinginpartnership.org.uk/news-from-nuclear-waste-services-aerial-survey-to-take-place-off-the-coast/>

## 2. Nuclear Waste Services (NWS) Update

2.1 NWS has published its **Annual Review 2022 to 2023**<sup>6</sup>, covering the first full year of operation as an integrated waste management agency. The report notes:

- That the Low-Level Waste Repository (LLWR) operated over the year with zero major safety incidents.
- Continued progress in diverting waste away from disposal at the LLWR was achieved through characterisation and treatments. It notes that almost 1,700 tonnes of metallic waste was treated with 98% released for recycling.
- Progress was made with the GDF siting process with 3 communities currently engaged following the recent decision not to proceed further in Allerdale.

There will be an opportunity to hear more from NWS on the GDF process during this Steering Group meeting.

## 3. International news

3.1 The BBC has published an online text and video report on a visit by one of their reporters to the **Eurajoki** geological repository in Finland. This is the first repository to be developed worldwide, where they will begin deposition of spent nuclear fuel in the next few years. It can be viewed here<sup>7</sup>.

3.2 A meeting was held in Brussels on the 6<sup>th</sup> and 7<sup>th</sup> of December as part of the ongoing **EURAD** research programme on radioactive waste management. The seminar focussed on the UMAN (uncertainty management) work stream and involved waste management organisations, technical support bodies and civil society. Nuleaf is a member of the Civil Society Group and Nuleaf's Executive Director attended.

## 4. CoRWM Update

4.1 Phil Matthews attended a **Committee on Radioactive Waste Management** (CoRWM) plenary held in Edinburgh on the 28<sup>th</sup> November 2023. Among the updates provided were that:

- In October, CoRWM ran a workshop on social sciences with senior managers at NWS, part of wider work to build the social science capacity of the organisation. The workshop highlighted the work of Prof. Sarah Whitmore of Oxford

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<sup>6</sup> [NWS Annual Review 2022 to 2023 – Making nuclear waste permanently safe, sooner - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/118142/nws-annual-review-2022-to-2023.pdf)

<sup>7</sup> [The place where no humans will tread for 100,000 years - BBC Future](https://www.bbc.com/news/health-62844444)

University in empowering local communities to participate in flood risk management<sup>8</sup>; and Prof. Ash Amin of the Nuffield Foundation on communities and well-being<sup>9</sup>. Both are felt by CoRWM to offer useful lessons for GDF community engagement.

- CoRWM's position paper on Underground Rock Laboratories (URLs) is nearing completion and should be published early in 2024.
- The Committee recently visited the Trawsfynydd site in north Wales to discuss issues including storage and the disposal of waste on site.
- They are continuing to consider the implications for a GDF of the Government's commitment to 24GW of new nuclear. It was suggested that the underground footprint of a repository capable of taking all waste from a new nuclear programme on the scale, along with existing wastes, could be up to 50km<sup>2</sup>.

The meeting also heard a presentation from the Nuclear Energy Agency on their **Waste integration for Small and Advanced Reactor Designs (WISARD)** research programme. Running until 2027, this is considering the waste and decommissioning aspects of new and small reactor designs.

4.2 **CoRWM** has published its work programme for 2023 and 2024<sup>10</sup>. They identify community engagement as a priority area of focus within their general scrutiny and advice to DESNZ, Welsh Government and NWS. Other work areas will include:

- Scrutiny and advice on the management of the UK inventory of radioactive waste, spent fuel and nuclear materials, and their storage and disposal, including near surface and in situ disposal for radioactive waste and potential disposal of spent fuel and nuclear materials in a GDF should they be declared as waste.
- Reviewing the implications of the UK Government and Devolved Administrations' proposals to update nuclear decommissioning and managing radioactive substances policy.
- Advising on the nature and management of potential radioactive wastes arising from small and advanced modular reactors.

4.3 The Committee has published a paper on the **potential use of robotic systems** in a GDF<sup>11</sup>, the aim being to minimise the need for human entry. The report highlights a range of issues that will need to be considered if robotic systems are to be used.

These include the risks of damage to electronic systems by radiation, the need to design a GDF so that any remote systems can be maintained and repaired, and the importance of designing hardware and software so that these can be updated over the many decades that a GDF will operate for.

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<sup>8</sup> <https://www.geog.ox.ac.uk/impact/spotlight/clandstrom.html>

<sup>9</sup> <https://www.nuffieldfoundation.org/news/opinion/communities-and-place-matter-for-social-well-being>

<sup>10</sup> [Committee on Radioactive Waste Management \(CoRWM\): programme of work 2023 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/committee-on-radioactive-waste-management-programme-of-work-2023)

<sup>11</sup> [Potential use of robotic systems in the geological disposal facility - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/potential-use-of-robotic-systems-in-the-geological-disposal-facility)