



Open Report on behalf of Andy Gutherson, Executive Director - Place

Report to:	Environment and Economy Scrutiny Committee
Date:	24 October 2023
Subject:	Theddlethorpe Geological Disposal Facility Working Group – 6 Monthly Update

Summary:

This paper is the regular update to councillors on the proposals for a Geological Disposal Facility at Theddlethorpe. It recognises that since the previous meeting there have been three main developments: proposal of a public test by 2027; further shaping of the work of the Community Partnership; commencement of site evaluation studies which will inform decisions over the site.

Actions Required:

Members of the Environment and Economy Scrutiny Committee are invited to note the progress of the scheme, to explore the potential of a geological disposal facility at Theddlethorpe.

1. Background

Geological disposal facility

At its meeting in November 2021 the Executive of the Council agreed to three recommendations in a paper concerning a geological disposal facility. These were that the Executive:

- 1) Approves acceptance by the Council of the invitation from Radioactive Waste Management (RWM) to join a Working Group to explore the potential for a geological disposal facility in eastern Lincolnshire;
- 2) Approves the Council taking up membership of any subsequent Community Partnership that may be formed; and,
- 3) Identified a Councillor to represent the Council on the Working Group and, if it is formed, the Community Partnership. Councillor Martin Hill OBE was identified as the Councillor to represent Lincolnshire County Council (LCC).

The Environment and Economy Scrutiny is asked to remember two critical points regarding Geological Disposal Facilities (GDF):

- Firstly – joining the working group does not mean that LCC supports the concept of a geological disposal facility.
- Secondly – the working group is not where any decision about locating a geological disposal facility would be taken. It is the local community, through a Public Test of Support, who would determine whether a geological disposal facility should be located in the area.

LCC's involvement in a working group and subsequent community partnership has been concerned with communication of the facts relating to geological disposal facilities, their impact on the local community, and the investment that they may be able to lever.

The Community Partnership has now been formed, the interim chair is Jon Collins who chaired its predecessor, the working group. Cllr Martin Hill OBE is also a member of the community partnership.

Public test by 2027

In early August the leaders of Lincolnshire County Council and East Lindsey District Council issued a statement to NWS calling for a public vote on the suitability of Theddlethorpe as a site for a geological disposal facility to be held in 2027. This was to avoid continued uncertainty whilst at the same time ensuring that a fully informed vote takes place.

In response, Nuclear Waste Services (NWS) have commented *"We welcome LCC /ELDC¹'s commitment to the GDF Siting process and look forward to continuing our work with them, the Theddlethorpe Community Partnership and people who live and work in the Search Area local community.*

A Test of Public Support is how a community demonstrates if it is willing to host a GDF and could take the form of a local referendum, consultation, or polling. Principal Local Authorities on a Community Partnership will have the final say on when to take this and all relevant local authorities must agree for it to go ahead.

We're really keen to understand what is important to the area, and whether or not a GDF would help achieve that local vision. Our locally based team will continue to answer questions, explain what a GDF is and how it would operate safely and securely, so that the community can make an informed decision when it comes to the Test of Public Support."

It should also be noted that NWS have decided not to take their explorations of Allerdale, Cumbria, forward due to limited suitable geology.

¹ East Lindsey District Council

Community Partnership

The Community Partnership continues to meet monthly, and to sponsor a series of community engagement events including meetings with Parish Councils and “Big Picture” events which were held in villages within and adjacent to the search area. The events continue to be relatively well attended.

Two new members have been recruited to the community partnership which means that the partnership now has coverage from the private, voluntary, and public sectors along with representatives of the local community. LCC has done some work into ensuring that, as Relevant Principal Local Authority, our own contribution to the community partnership is focused on helping the partnership to understand the specific implications of hosting a geological disposal facility. Shortly, LCC intends to support the community partnership in preparing its community vision which would lead to the area being able to explain to government what significant additional infrastructure needs to be put in place if the geological disposal facility were to go ahead.

Site Evaluation

Members will note that the process to evaluate the site could take 15 years.

The evaluation process will cover security, community, environment, engineering feasibility, transport, and value for money aspects. NWS have now set out a high-level timetable of how and when they will carry out studies, and these are described in the diagram and tables that follow on the next pages:

Studies being undertaken to support Site Evaluation			2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Siting Factor	Feasibility Topic to be studied	Status												
Safety & Security	Site Descriptive Model v 0.0	Shared with supporting consultants												
	Site Descriptive Model v 0.1 / Geological Context	Scoping												
	Post Closure Study	Work in Progress												
	Security and Safeguards Study	Work in Progress												
Community	Local Skills Pathway	Initial findings shared												
	Visitor Economy	Work in Progress												
	Economic Baseline Study	Work in Progress												
	Political and civil society Study	Work in Progress												
	Health Baseline Study	Work in Progress												
	Wellbeing Baseline Study	Work in Progress												
	Social Baseline study	Work in Progress												
	Community Context Report	Work In Progress												
Environment	Flood Scoping Report	Undergoing Governance												
	Landscape Desk Based Report	Work in Progress												
	Biodiversity Desk Based Report	Work in Progress												
	Environmental Context Report	Work in Progress												
Engineering Feasibility	Ability to Characterise	Work in Progress												
	Accessways Study Report	Work in Progress												
	Subsurface Study Report	Work in Progress												
	Power Study	Work in Progress												
	Surface Study report	Work in Progress												
	Excavated Material Report	Work in Progress												
	Water Management Report	Work in Progress												
Transport	Initial Transport Study / Transport Context Report	Work in Progress												
VFM	Estimate Lifetime Cost & Value / Waste Receipt Schedule	Work in Progress												
Site Evaluation Report	Potential Site Characterisation Area Report	Start Preparing in Q3 - 2024												

Siting Factor	Activity	Status	Scope
Safety & Security	Site Descriptive Model V0.1 /Geological Context Report	Scoping	Collate all available legacy geological data for East Lindsey and adjacent inshore area. Interpretation of legacy data to identify information gaps and highlight the future activities required to understand the geological environment to support other work streams. The geological context report will summarise the collated information.
	Post Closure Study	Work in Progress	Utilising existing information, consider how the characteristics of the host geological environment will influence GDF post-closure safety. This includes understanding the expected evolution of the geological environment in the long-term following closure of the GDF and the ability to prepare an Environmental Safety Case (ESC). Identification of future work (including R&D) that would be required to support a future ESC.
Community	Local Skills Pathway	Report undergoing governance	Initial study of local skills development in the Search Area to understand opportunities to develop relevant skills to establish a local GDF workforce.
	Visitor Economy	Work in Progress	Characterise the visitor economy in the Search Area, understand how the GDF programme could impact on the sector and identify short term actions that NWS can take to support the sector locally. The work is being guided by a steering group of local stakeholders who will inform the development of the scope and provide local insight to ensure the findings are relevant to the sector in the Search Area.
	Economic Baseline Study	Work in Progress	Develop a methodology to determine potential local socio-economic and social value impacts of the GDF programme in a potential host community. This study will establish the Economic Baseline of the community within the Search Area, including; local economy, economic activity, labour market, personal finance and econometric modelling.
	Political and Civil Society Study	Work in Progress	Characterise the political and civil society baseline of the community within the Search Area, including; local government, levels of civic pride, local development plans, neighbourhood/ parish plans.
	Health Baseline Study	Work in Progress	Develop a health baseline within the Search Area. This will include access to health services and facilities, general health and lifestyle.
	Community Context Report	Work in Progress	Provides a high-level community profile of the Search Area. This report will be updated as new information is made available from the various work streams as they are progressed.
	Wellbeing Baseline Study	Work in Progress	Develop a wellbeing baseline within the Search Area including personal satisfaction, relationships, how time is spent, cohesiveness, governance and environment.

Siting Factor	Activity	Status	Scope
Community	Social Baseline Study	Work in Progress	Develop a social baseline within the Search Area and wider East Lindsey district including demographics, qualification, distribution, crime, education & youth, housing, deprivation, attitudinal surveys and community dynamics.
Environmental	Landscape Desk Based Report	Work in Progress	Landscape and Visual Desk based study to support further understanding of the local landscape environment - summary of the landscape and visual baseline within the Search Area including a high-level identification of the landscape and visual receptors - identification of potential mitigation and enhancement opportunities.
	Biodiversity Desk Based Report	Work in Progress	Biodiversity Desk based study to support the development of the biodiversity evidence base and the development of a proposed programme for long term monitoring, data acquisition and consultation requirements to satisfy relevant terrestrial and marine environments.
	Flooding Scoping Report	Undergoing Governance	To determine the feasibility of delivery a GDF at the Theddlethorpe Gas Terminal site from a flooding perspective. Study considered the following: policy, constraints, permissions, technical feasibility, safety (nuclear and non-nuclear), environmental protection, business continuity, asset protection, reputation, and cost. The study was based on existing readily available data and developed scenarios to determine possible flood protection measures for a selection of return period events and climate change scenarios.
	Environmental Context Report	Work in Progress	Collation of environmental baseline data for the Search Area; Development of an understanding of feasibility of delivering a GDF from an environmental perspective. This report will be updated on a regular basis as work progresses and more information becomes available.
Engineering Feasibility	Ability To Characterise	Work in Progress	Develop understanding of the implications of undertaking activities within the inshore area. This will include considering health, safety & environmental considerations, sustainability, legislation to be considered, good practice and associated methodologies.
	Accessways Study Report	Work in Progress	Review considerations and known information associated with the GDF underground accessways, to help inform whether this topic is expected to have a key impact on the feasibility of developing a GDF.
	Sub Surface – Study Report	Work in Progress	To determine the high-level feasibility, cost and schedule to build and operate the GDF sub surface facilities. This takes into account the factors to be considered to facilitate the construction and operation of a GDF including; the disposal concepts, accessways, sub surface design and the prevailing geological, hydrogeological, geochemical and geotechnical conditions.
	Power Study	Work in Progress	To determine the high-level feasibility, cost and schedule to provide an electricity connection to the GDF. To determine whether there is sufficient capacity within the existing power distribution network to facilitate the construction and operation of a GDF; and if not, what works would be required to upgrade or reinforce the networks.

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Members will recognise that the scope of some of the surveys is similar to the information that county councils and other authorities would already hold, and officers are working with NWS to ensure consistency of information between existing studies and the ones being commissioned for Theddlethorpe.

Fusion – West Burton, Nottinghamshire

Members will be aware that the UK Atomic Energy Authority are delivering a prototype fusion energy plant in Nottinghamshire, close to the Lincolnshire border. LCC officers and UKAEA are now engaging closely over matters such as transport and environmental planning and are part of a consortium that is working with UKAEA to take a local strategic approach to skills and employment.

Officers are also keen - working in partnership with University of Lincoln’s “The Bridge” advanced manufacturing facility - to promote supply chain opportunities to the Lincolnshire business community. Given that the technology being developed by UKAEA could be commercialised globally, working on this initiative will add to export promotion in Lincolnshire.

2. Conclusion

In summary, work continues on the geological disposal facility and LCC continues to work with both NWS and the community partnership to make sure that clear information is made available to local communities.

3. Consultation

a) Risks and Impact Analysis

Not applicable.

4. Background Papers

No background papers within Section 100D of the Local Government Act 1972 were used in the preparation of this report.

This report was written by Justin Brown, Assistant Director – Growth, who can be contacted by email at justin.brown@lincolnshire.gov.uk.

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