



How NWS decides which communities progress to GDF deep borehole investigations

The decision to progress to deep boreholes

NWS must make two key siting decisions as part of the Geological Disposal Facility (GDF) programme that require Secretary of State for Energy Security and Net Zero (SoS) approval.

The first of these is a decision to identify a community or communities to progress to deep borehole investigations and the second will be to enable final site selection for the GDF.

Taking this first decision to identify a community or communities to progress to deep borehole investigations is a significant step for the GDF Programme.

Deep Borehole Investigations

A borehole is a deep, narrow hole drilled into the ground which allows us to understand the geology. As part of the Site Characterisation work, NWS would be drilling to a variety of depths, dependent on the borehole location and purpose. Some of these boreholes would be 'deep boreholes', which exceed a depth of 150m and we would submit an application for a Development Consent Order for this work.

Progressing to deep borehole investigations signals a community moving to the next phase of the GDF programme, where we would seek major permissions such as a Development Consent Order and an Environmental Permit to undertake Site Characterisation (which includes various survey works and the boreholes). The information gained during this Characterisation phase of the programme would help NWS develop concept designs and safety cases for developing a GDF.

How does NWS take key siting decisions?

NWS has developed a decision making framework which is used for the two key siting decisions that need SoS approval. The first being to identify a community or communities to progress to deep borehole investigations and the second to enable a final site selection.

Decision to progress a community to deep borehole investigations

There is no statutory or policy process for how NWS and DESNZ must reach a decision. Every community is different, so it's important to proceed only once the relevant information is available. As such, there are no specific timings established for any stage in this process. NWS will take a decision when it is confident there is sufficient information to support it.

We summarise our approach to making a decision to proceed below:

Information and data gathering

Assessing the information and data

Undertaking NWS' decision process

Putting NWS' decision to Secretary of State for approval

Post decision activities

Information and data gathering

NWS is continuously gathering data to build our understanding of key issues, risks and opportunities across our communities and Search Areas.



Site Suitability

Data gathering comes from a wide variety of sources and activities. A lot of the technical work is looking at desktop studies, ground and aerial surveys, and involves engagement with our regulators. This information is typically presented in reports such as environmental context reports and transport reports.



Community Willingness

In order to understand the community, we undertake public opinion monitoring surveys, and engage, including via the Community Partnerships, with people, businesses and other groups in the community to understand their views and concerns.



Programme Deliverability

All of this information in turn helps us understand how much it might cost to deliver the GDF programme in an area, and how long it might take. We can use this information to understand how options meet our GDF Programme Objectives.

Information and data gathering will continue throughout the whole of the siting and development process.

Other regulatory consents

In addition to Development Consent Orders for the deep boreholes, we will also require an Environmental Permit. Environmental Permits establish conditions which projects must meet in order to protect people and the environment. In England, permits are granted and regulated by the Environment Agency.

For the GDF itself, we will also require a nuclear site licence. The conditions attached to the nuclear site licence ensure the safe construction, commissioning, operation and eventual decommissioning of a nuclear site. It is granted by the Office for Nuclear Regulation. No nuclear site licence is required for the deep boreholes.

Assessing the information and data

Assessing the data gathered is at the heart of enabling NWS to make robust decisions. Our experts and business leads meet regularly to identify the key opportunities, challenges and uncertainties for each community.

Inputs from the data gathering stage are assessed under the framework of the three perspectives of **Site Suitability**, **Willing Community** and **GDF Programme Deliverability**.

A lot of the information we gather informs multiple aspects of the project under all three perspectives. For example, considering a road upgrade activity would have Site Suitability impacts (such as environmental impacts), and Programme Deliverability impacts – such as what land is needed to deliver the activity. NWS has processes in place to ensure that considerations which cut across the three perspectives can appropriately be recorded and taken into account.

The assessment of the data gathered is also used to identify any gaps in information where NWS needs to undertake further work, and ultimately to inform NWS' decision-making.

The process of gathering data and information, and then assessing it, operates as part of a feedback loop. For example, assessment of the data gathered can inform a decision to gather more underpinning information. This process works over time to build to a point where NWS is satisfied it has sufficient information to move into the decision-making.

Undertaking NWS' decision process

The NWS process for taking decisions on deep boreholes involves key NWS experts coming together to discuss the evidence and inform an NWS decision as to a community or communities to progress to deep borehole investigations. These recommendations, together with supporting information, will then be submitted into NWS' governance for approval.

Where NWS makes a decision to progress to deep borehole investigations in one or more communities, NWS will seek the endorsement of the Nuclear Decommissioning Authority (our parent organisation) before it can then be submitted to the SoS for approval.

It is possible that at this stage NWS could take a decision to not progress any of its communities to deep borehole investigations. That decision would be notified to the SoS.

Putting NWS' decision to Secretary of State for approval

Following endorsement of a decision to progress to deep borehole investigations by the NDA, NWS will submit its decision to the Secretary of State for approval. This step is set out in the Policy and there is no set time for the approval process.

Post decision activities

Following Secretary of State approval of an NWS decision to progress, communities and stakeholders will be updated. The reasons for the decision and the next steps for each community will be set out.

When NWS receives Secretary of State approval of a decision to progress a community or communities to deep borehole investigations, NWS will prepare the applications for the regulatory consents it will need to undertake deep borehole investigations and other Site Characterisation work. The key consents required include a Development Consent Order and Environmental Permit for deep boreholes to investigate the suitability of a site for the construction and use of a GDF.

There could be approximately ten years of Site Characterisation works to enable development of the safety case and a potential GDF design. It is possible that during this phase we could find reasons why an area would not work and take it out of the process.

Selecting a final site

If Site Characterisation work demonstrated deliverability, then the next step would be working with the relevant principal local authority and Community Partnership to take a Test of Public Support.

Only after a positive Test of Public Support, would NWS be able to make the second key siting decision to select a site for the GDF. That decision would also be subject to Secretary of State approval, and NWS would also require further planning, environmental, and regulatory applications to be submitted, examined, and granted in order to proceed.