



What is the Timescale for the GDF Programme?

GDF Explained

Timescales and Next Steps

This factsheet provides an overview of the GDF programme, with a focus on activities over the next few years to deliver deep borehole investigations – also called “site characterisation”.



We anticipate that the majority of new sub-surface information from techniques such as seismic surveys, shallow and deep boreholes, down-hole testing and sampling etc., will be generated during the site characterisation work that we will undertake.

Site Characterisation is a critical step for the GDF programme because the information obtained from the deep borehole drilling work will enable NWS to further design and develop the necessary safety cases for a GDF in that location.



What is a Development Consent Order?

Within the GDF programme, the drilling of deep boreholes, and any subsequent development of the GDF itself, are separate Nationally Significant Infrastructure Projects. Each requires a separate Development Consent Order (DCO) as well as environmental permits.

A Development Consent Order (DCO) is the planning consent required to progress developments categorised as Nationally Significant Infrastructure Projects, defined in the Planning Act 2008. DCOs are examined by the Planning Inspectorate and granted by the Secretary of State.

Environmental permits establish conditions which projects must meet in order to protect the environment. Permits are granted and regulated by the Environment Agency in England.

For the GDF itself, we will also require a nuclear site licence. The regulatory powers which come with 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.

NWS has started preparatory work on DCO applications for the drilling of deep boreholes in the areas engaged in the siting process, although the decision on which areas to take forward will be subject to approval by the Secretary of State.

NWS will engage and consult widely on the evolving information which will support its DCO applications. Even once a DCO application has been submitted, there are multiple opportunities for the public to continue to participate in the process – both in writing and also in person at hearings. It's important that everyone involved and interested is able to see the information on NWS's proposals, ask questions and have an opportunity to have their say during development of the proposals.

In parallel to preparing and submitting its DCO applications, NWS will work with the Environment Agency to prepare and submit its application for the environmental permit which is also required before drilling deep boreholes can begin. The Environment Agency will consult with the public on applications for environmental permits.

Only once NWS has all the necessary consents can site characterisation work begin. The site characterisation stage is a long period of time, and it may result in NWS finding reasons why an area is not suitable and withdrawing from that community.

After the site characterisation work is completed, NWS will move to the next major phase of selecting a site and seeking approvals for the GDF itself. Before NWS can seek the regulatory approvals required for the GDF, (including a new DCO and environmental permit, as well as a nuclear site licence) there must first have been a positive Test of Public Support in the relevant community.

The current planning assumption is that a GDF will be available for intermediate level waste emplacement in the 2050s and high-level waste and spent fuel from 2075. Construction, operation and closure of a GDF is expected to take around 150 years and will run into the next century.

Site Suitability Phase:

Evaluating the suitability of an area to safely host a GDF

Desk-based studies, ground surveys, environmental assessment, consultation and engagement leading to DCO and Environmental Permit applications for borehole and other investigations that we need to develop our GDF design and safety case.

Approximately 10yrs of Site Characterisation works to enable development of our safety case and a potential GDF design.

It is possible that during this phase we could find reasons why an area wouldn't work and take it out of the process.

GDF Development Phase

If an area is considered suitable to safely host a GDF, we would progress our design proposals for the surface facilities, accessways and a disposal area within the Area of Focus.

Development of the GDF design would include desk-based studies, ground surveys, environmental assessment, consultation and engagement to DCO, Environmental Permit and Nuclear Site Licence applications.

WORKING GROUPS/
COMMUNITY PARTNERSHIPS

→ Identification of Search Area

SITE EVALUATION

→ **2025**
Area(s) of Focus identified

→ **~ 2026**
Government approval to proceed to deep borehole investigations

SITE CHARACTERISATION

→ **~ 2030**
All permissions in place from regulators to begin Site Characterisation

DESIGN

→ **~ late 2030s**
NWS decision submitted to Government on GDF location following Test of Public Support



CONSTRUCTION

→ **~ early 2040**
All consents in place from Government and regulators to enable construction to start

OPERATION

→ **~ 2050s**
First waste packages arrive at a GDF

CLOSURE

~ Indicative dates, subject to change

What happens next?

(The following dates are indicative and subject to change)

● Ongoing

Ongoing assessment of area of focus – there will be a range of desktop studies and on-the-ground surveys as well as engagement with landowners to collectively ensure we fully understand the potential of an area to host a GDF.

● December 2025 - Spring 2026

We expect to submit a decision on the communities to take forward in the process to deep boreholes to enable more detailed investigations to DESNZ in December 2025, to enable Secretary of State approval, which is expected in Spring 2026.

● Autumn/Winter 2028

Where relevant, we expect to move from multiple Areas of Focus (for example, where we may be looking at two separate potential surface areas) in a community to identification of a single Area of Focus. This decision is expected to be taken in accordance with our Decision-Making Framework process – date Autumn/Winter 2028

● Spring 2025 - Spring 2028

Preparation of consents to enable the delivery of site characterisation – while the exact location of the site characterisation works is not yet known, they will be both inshore (within territorial waters) and onshore (on land). It will take a number of years to prepare the applications to obtain the various consents; we will be publishing more information including opportunities for public engagement next year on this programme of activity – date Spring 2025 – Spring 2028

● Spring/Summer 2028

Current estimated date for submission of consents for site characterisation – once we have prepared the applications, they are submitted for approval to regulators – date Spring/Summer 2028

● 2030

Current estimate for commencement of site characterisation – assuming the required consents are granted, this is when we would commence characterisation activities, both at sea and on land to supplement our understanding of an area's potential to host a GDF – date 2030