

## ARE YOU LOOKING TO PROTECT YOUR SITE FROM POTENTIAL FUTURE OR HISTORIC CONTAMINATION?

Our team of environmental consultants provide expert technical advice to assess potential risks to human health and the environment thus enabling projects to proceed.

Utilising our knowledge of regulatory requirements, we can provide bespoke investigation services specialising in the identification and characterisation of contamination in soil, surface waters and groundwater.



**We have provided geo-environmental services to support linear infrastructure, critical infrastructure, forestry and renewable energy projects.**

We can provide the following services:

### SITE INVESTIGATION

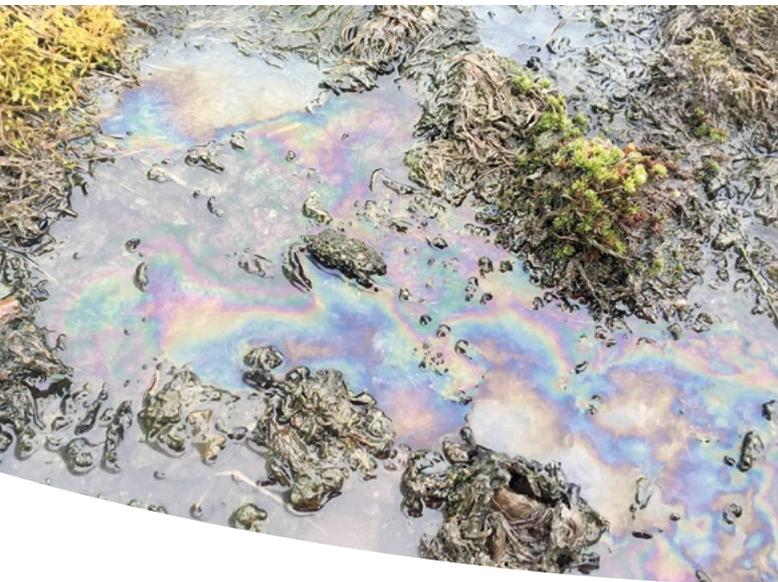
- Phase 1 geo-environmental risk assessments and initial walkover surveys
- Phase 2 Intrusive geo-environmental risk assessments (exploratory and main phase)
- Bespoke investigation services including site walkovers and reconnaissance visits

### MANAGEMENT, MONITORING AND REMEDIATION

- Soil, watercourse and groundwater sampling/monitoring
- Ground gas monitoring
- Chemical spill consultancy
- Remediation advice and options appraisal

### CONCEPTUALISATION AND MODELLING

- Hydrogeological impact assessment
- Groundwater flow and contaminant modelling
- Groundwater risk assessment (GQRA and DQRA)
- Site specific soil assessment and human health modelling (DQRA)



**// we take an innovative approach, maintaining compliance with regulatory standards, in providing clients with geo-environmental services to protect their assets and projects from contamination.**



**CHRIS PENDLEBURY**  
DIRECTOR OF PLANNING AND ENVIRONMENT

## DUE DILIGENCE SERVICES - OPERATIONAL WIND FARM

**01** Natural Power recently assisted a client that was in the process of purchasing operational control of a wind farm. As part of the wider due diligence exercise a specific assessment was commissioned that aimed to identify the potential presence (and extent) of any contamination resulting from the site's operation since the late 1990s. Documents associated with the current and previous land uses at the site were reviewed alongside online resources to determine environmental setting, enabling a targeted strategy to be formulated for the key areas of concern. This involved assessing all possible contamination sources, migration pathways and receptors with the collected lines of evidence including air quality, soil and water samples all completed by our experienced consultancy team. Targeting the investigation in this manner ensured the >350 ha site could be surveyed more efficiently, saving time as well as cost and meaning the initial results could be discussed with the previous operator prior to handover.

## HYDRO-GEOLOGICAL ASSESSMENT - PLANNING APPLICATION

**02** As part of a wider planning development application in Wales, a condition was imposed by the local planning authority and environmental regulator with regards to the excavation of temporary quarries, where stone would be won for construction materials. The condition was associated with the potential disruption to downstream surface water recharge areas as a result of excavation of these 'borrow pits' and required an investigation to be undertaken to identify the level of impact. Natural Power quickly established a scope of works which comprised of interpretation of existing site investigation data along with the collection of hydrogeological data from installed monitoring wells. This information was processed and presented as part of an impact assessment which conceptualised and modelled the hydrogeological conditions at the borrow pit locations. The assessment identified that through flow was likely to be extremely limited on account of the low permeability of the underlying bedrock and superficial overburden. The investigation adhered to required regulatory standard and enabled the successful discharge of the imposed planning condition.

## BESPOKE CONSULTANCY SERVICES - SPILL RESPONSE CONSULTANCY

**03** Natural Power has a legacy of working in unique and remote settings across the UK. A recent example of where this experience benefited one of our clients was following a spill of hydrocarbons on a grid construction project. From our experience of working in remote, peat dominated, upland environments, we were able to provide advice to the client and a specialist spill contractor to quickly establish the vulnerable receptors and implemented proportionate containment of the spilled hydrocarbons. Following the identification of a nearby burn, hot spot removal of contaminants were undertaken to remediate any grossly impacted zones, with the remaining hydrocarbons left in-situ for monitored natural attenuation. Soil samples collected following remediation confirmed soil contaminant levels were below human health generic assessment criteria. The regular provision of progress updates and rapid turn-around of the remedial work ensured the satisfaction of SEPA therefore maintaining the client's high environmental quality standards.

## PHASE 1 GEO-ENVIRONMENTAL RISK ASSESSMENT - CRITICAL INFRASTRUCTURE

**04** As part of a wider consent related to an offshore development proposal in the Moray Firth, Natural Power provided the client with Phase 1 site investigation services to discharge planning conditions associated with the Moray East and New Deer substations. The team conducted a review of all of the available published information about the site including geo-environmental descriptors including bedrock geology and surrounding ecological designations, as well as consideration of previous land use through the review of aerial photography and historical mapping. This information was then verified through a site reconnaissance visit enabling the formulation of a conceptual model for the site determining all potential contamination sources, pathways and receptors in line with the prescribed regulatory approach (CLR 11).



FOR MORE INFORMATION CONTACT:

**FIONA STRYJEWSKI**

ACCOUNT MANAGER

[fionas@naturalpower.com](mailto:fionas@naturalpower.com)

FOR FULL DETAILS ON OUR ISO AND  
OTHER CERTIFICATIONS, PLEASE VISIT:  
[naturalpower.com/company](https://www.naturalpower.com/company)

[naturalpower.com](https://www.naturalpower.com)

[sayhello@naturalpower.com](mailto:sayhello@naturalpower.com)

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