

FAO: Kate Egan
Parish Clerk
Leigh on Mendip Parish Council

parish.clerk@leigh-on-mendip.org.uk

Our Ref: T3805
30th December 2022

BY EMAIL ONLY

Dear Kate,


**RE: NEW BURIAL GROUND, ST GILES CHURCH, LEIGH ON MENDIP – TIER 1
ASSESSMENT OF GROUNDWATER POLLUTION**

PROJECT AIM

We understand that Leigh on Mendip Parish Council is looking to develop a New Burial Ground on land located west of **‘St Giles Church, Leigh on Mendip, Radstock, BA3 5QQ’** (hereafter referred to as ‘The Site’); and that an **‘Assessment of Groundwater Pollution Potential’** has been requested to inform the viability of the proposed change of land use to a burial ground.

The Environment Agency (EA) guidance on Cemetery Developments adopts a three-tiered approach to the assessment of risk; with the requirement to advance to the next tier dependant on the complexity of The Site and the potential significance of the risk(s) identified. The overall aim of the assessment process is to demonstrate that proposed developments present a low risk of pollution to groundwater.

As the proposal is to develop ground adjacent to the existing cemetery, we recommend that a **“Tier 1 Assessment of Groundwater Pollution”** be undertaken. A Tier 1 Assessment would be in accordance with current EA guidance: “Cemeteries and Burials: groundwater risk assessments” (updated 1st April 2022); “Cemeteries and Burials: prevent groundwater pollution” (updated 5th March 2020); and “The Environment Agency’s approach to Groundwater Protection: (February 2018), which includes position statements on Cemetery Developments.



[REDACTED]

This proposal has been prepared with reference to the supporting information provided; which has been treated with the strictest confidence. We propose to carry out the scope of works outlined below at the rates given in the attached Bill of Quantities.

BACKGROUND TO ASSESSMENT AND SCOPE OF WORKS

Each tier of the assessment process for cemeteries includes risk identification; identification of the consequences of the risks including their magnitude and probability; and a determination of the overall significance of the risk. An outline of each tier of assessment is provided below:

Tier 1: Assessment of Groundwater Pollution (Risk Screening)

This tier is a **Desk Study** to collate and assess published mapping and data sources together with available site derived information. The Tier 1 assessment focuses on the determination of Groundwater Vulnerability based on the location of groundwater Source Protection Zones (SPZs); the location of potable groundwater abstractions; proximity to watercourses; and depth to groundwater.

Tier 1 is a qualitative approach whereby risks are identified together with potential pathways and receptors, to form a 'Source-Pathway-Receptor' Conceptual Model detailing the environmental setting of The Site. This is the basis by which the significance of the risks is evaluated; and Groundwater Vulnerability is assessed to be 'Low, Intermediate, or High'.

Once Groundwater Vulnerability is determined, the overall risk from the development is evaluated by taking consideration of the estimated number of burials per year.

Determination of an overall Low Risk Development may mean the development would be acceptable to the EA without further detailed assessment. In such cases 'best practice' controls would be recommended to manage potential risk; for example, maintaining appropriate minimum distances from watercourses and boreholes, and ensuring no burial into standing water.

A **Site Reconnaissance** would also be undertaken to evaluate fully the environmental site setting for the Tier 1 Assessment. The Site Reconnaissance comprises a Water Features Survey; and focuses on drainage.

Tier 2: Preliminary Quantitative Risk Assessment

A Tier 2 assessment comprises a more detailed **Desk Study and a Preliminary Site Investigation**. Completion of this tier is required when an individual site is designated as

[REDACTED]

presenting an 'Intermediate Risk' to controlled waters (groundwater); or in cases where the potential risks could not be clearly defined within Tier 1.

A Tier 2 Assessment greatly extends the scope of the Tier 1 Assessment to provide a more detailed Desk Study, which includes a quantitative assessment of potential contaminant loading; and an assessment of the likely attenuation of contaminants within the potential transport pathways identified within the Tier 1 Source-Pathway-Receptor model. The Tier 2 Assessment would require a small scale Site Investigation to evaluate soil condition and groundwater elevation; and would comprise the advancement of three shallow boreholes within peripheral areas of The Site.

Subsequent to completion of the boreholes, a separate groundwater monitoring round would be undertaken to monitor groundwater elevations and retrieve groundwater samples where possible. Groundwater elevations and groundwater quality would be used to complete the Tier 2 Assessment process.

Determination of an overall Low Risk Development at Tier 2 may mean the development would be acceptable to the EA without the need for a Tier 3 detailed quantitative risk assessment. For reference, Tier 3 requires computer based modelling to determine the potential pollutant concentration at radial distances from the subject site.

For the subject site it is recommended that a 'Tier 1 Assessment' be undertaken.

The Tier 1 Assessment would include recommendations; and advise whether or not a Tier 2 Assessment would be required.

[REDACTED] as recently used this approach successfully for assessments in Cambridgeshire, Cornwall, Essex, Powys and Lancashire; and would be happy to provide references on request.

INFORMATION REQUIREMENTS

In order to assist a Tier 1 Assessment, we would appreciate the following data (*if available*);

- Detail of the proposed burial site plan and Burial Strategy (overall number and type of burial) *if available*; and
- Any information deemed helpful to the assessment; such as a Topographical Survey; and copy of any prior communication with the Local Planning Authority or the EA.



REPORTING



would provide a report detailing the assessment process; the Conceptual Model for The Site; and a determination of the risk assessment outcome. The report would be prepared on behalf of and for the exclusive use of Leigh on Mendip Parish Council and nominated Agents; and would be suitable for submission in support of a planning application. The report would be provided in digital (PDF) format only.

FEE

A Bill of Quantities for a Tier 1 Assessment is attached.

Fee: £ 895 (VAT not charged)

Our fee includes Tier 1 Assessment, Site Reconnaissance, all Client discussion and communications.

PROGRAMME

It is anticipated that following receipt of a purchase order, work would be commenced within 15 working days; which is our current availability. A Programme of Works would be agreed at the outset to suit the timeframe required.

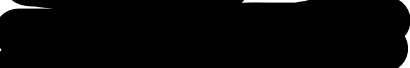
INVOICING

A single invoice would be submitted along with the report for The Site. Payment terms are strictly 21 days. VAT would not be chargeable.

This proposal is submitted in accordance with our terms and conditions of contract which are included for your information. Our proposal is valid for a period of 90 days.

We appreciate the opportunity to provide you with a proposal for this work and we trust that it is to your satisfaction. If you require any further information, please do not hesitate to contact the undersigned.

Yours sincerely



Bill of Quantities

Project: **LEIGH ON MENDIP PARISH COUNCIL
New Burial Ground.**

Date: **30/12/2022**

Tender: **T3805**

**Tier 1 Assessment of Groundwater
Pollution**

ITEM	Description	Quantity	Unit	Rate	Amount
1	TIER 1: Assessment of Groundwater Pollution. (Includes Desk Study, Site Reconnaissance, Conceptual Site Model, Qualitative Risk Assessment; recommendations and full REPORT suitable for planning).	1	per site	895.00	895.00
				TOTAL: (£)	895.00

Note: **VAT is not chargeable**