Environmental Protection Act 1990, Section 78H(6) (the 1990 Act)

The Contaminated Land (England) Regulations 2006 (SI 2006 No. 1380)

Remediation Declaration prepared by the Environment Agency

The Environment Agency (the Agency) has prepared this Remediation Declaration in relation to contaminated land identified by Cheltenham Borough Council under section 78B of the 1990 Act, and designated as a Special Site under section 78C of the 1990 Act.

The location and extent of the contaminated land to which this Remediation Declaration relates (the Land) are set out in Schedule 1.

The Agency, as enforcing authority in relation to the Land, is precluded by section 78E(4) or (5) of the 1990 Act from serving a Remediation Notice and has therefore prepared this Remediation Declaration in accordance with section 78H(6).

The remediation and the reasons why the Agency would have specified those things to be done by way of remediation are set out in Schedule 2. The grounds on which the Agency is satisfied that it is precluded from specifying each such thing in a Remediation Notice are also set out in Schedule 2.

Particulars of the substances and pollution of controlled waters by reason of which the Land is contaminated land are set out in Schedule 3.

The current use of the Land includes public open space and private sporting facilities comprising of;

a) Part of the Marle Hill Approach Golf Course, Pittville Park.
b) Part of the Prince of Wales Stadium and adjoining Playing Field.
c) The Prince of Wales Stadium Car Park.

The Agency's address and other contact details for the purposes of this Remediation Declaration are stated below.

Signed: ……

Position: Area manager

Date: ……

The Agency's address for the purposes of this Remediation Declaration is:
Riversmeet House
Newtown Industrial Estate
Ashchurch
Tewkesbury
Gloucestershire
GL20 8JG

The contact name for the purposes of this Remediation Declaration is:
Helen Pickering
Technical Officer, Groundwater and Contaminated Land
Contact number 01684 864310

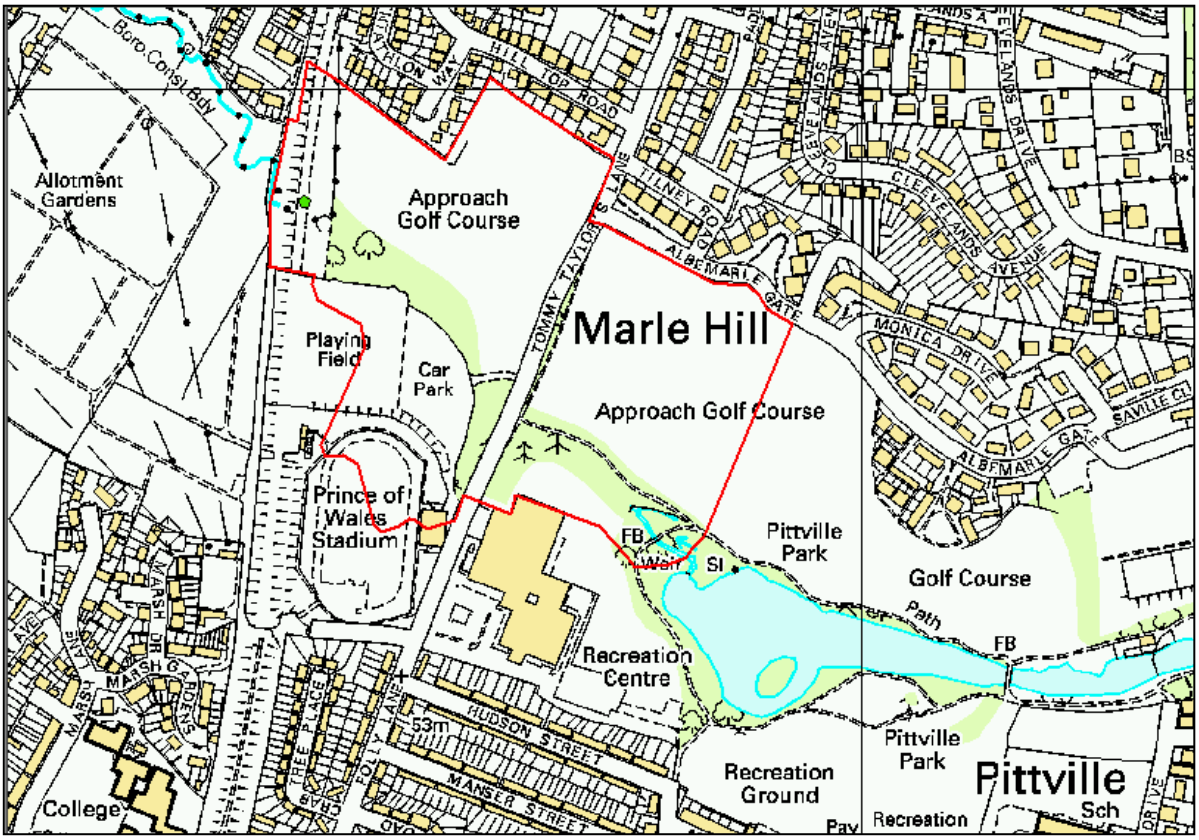
Schedule 1– Location and extent of contaminated land

The contaminated land, referred to as Marle Hill, to which this Remediation Declaration relates is shown on Figure 1. The national grid reference for the centre of the site is SO 94712 23786.

The area of land bounded by the Red line on the attached map includes;

a) *Part of the Marle Hill Approach Golf Course, Pittville Park.*
b) *Part of the Prince of Wales Stadium and adjoining Playing Field.*
c) *The Prince of Wales Stadium Car Park.*

Grid Reference: 394712 223786



Schedule 2
Remediation requirements (Section 78H(6)

SPL: H1 and H2

Remedial actions that would have been required: Options appraisal of measures to prevent build up of gas in residential property.

Why this action is not required: An assessment action was carried out to provide further information to assess the risk from landfill gas migration to residents and residential property adjacent to the former landfill.

Recent monitoring results indicate that soil gas beneath residential properties is unlikely to build up in sufficient concentrations within those properties to represent an unacceptable risk to human health or property. The risk from ground gas to human health and property receptors has been assessed to be minimal and as such does not justify any form of further assessment actions or mitigation measures.

SPL: S1, S2, S3

Remedial actions that would have been required: Options appraisal to select appropriate scheme to prevent entry of ammonia, nitrite and nitrate into the Wymans Brook and mitigate the effect of pollution by these substances on water quality.

Why these actions are not required: An additional assessment action was carried out to assess the significance of the impacts of the site on Wymans Brook. Twelve months of water quality monitoring, a fish survey, and 2 ecological surveys, demonstrated that:

- The natural oxidisation of the nitrogenous compounds is likely to be occurring rapidly downstream, resulting in any significant adverse impacts on water quality being localised in extent.

- In addition, the high levels of nitrite recorded upstream from the landfill culvert indicate that there are some additional effects on the pollutant load in the brook.

- Pollution is having an impact on the brook's ability to support a diverse ecology, however, it is considered that other environmental factors are also having an influence - the surrounding urban environment, heavy shading, and the input of nitrogen from other sources.

The outcomes of this detailed assessment conclude that in terms of seriousness of harm and the extent of the impact, no remedial treatment actions would be reasonably justified having regard to the cost and to the seriousness of pollution.

Schedule 3

Particulars of pollution of controlled waters on which the land was originally determined are shown in the table below. The significant pollutant linkage (SPL) numbers are taken from the original determination.

ID	Source	Pathway	Receptor
S1*	Ammonia (N as $^{+}NH_4$) dissolved within landfill leachate	Direct mixing of landfill leachate discharges into surface water. Leaching into groundwater, presence in baseflow.	Surface water – Wyman's Brook culvert
S2	Nitrite (N as $N0_2$) dissolved within landfill leachate	Direct mixing of landfill leachate discharges into surface water. Leaching into groundwater, presence in baseflow.	Surface water – Wyman's Brook culvert
S3	Nitrate (N as NO_3) dissolved within landfill leachate	Direct mixing of landfill leachate discharges into surface water. Leaching into groundwater, presence in baseflow.	Surface water – Wyman's Brook culvert
S4	Copper (Cu) dissolved within landfill leachate	Direct mixing of landfill leachate discharges into surface water. Leaching into groundwater, presence in baseflow.	Surface water – Wyman's Brook culvert
S5	Iron (Fe) dissolved within landfill leachate	Direct mixing of landfill leachate discharges into surface water. Leaching into groundwater, presence in baseflow.	Surface water – Wyman's Brook culvert
S6	Lead (Pb) dissolved within landfill leachate	Direct mixing of landfill leachate discharges into surface water. Leaching into groundwater, presence in baseflow.	Surface water – Wyman's Brook culvert
S7	Zinc (Zn) dissolved within landfill leachate	Direct mixing of landfill leachate discharges into surface water. Leaching into groundwater, presence in baseflow.	Surface water – Wyman's Brook culvert
ID	Source (in unsaturated zone)	Pathway	Receptor
G1	Chlorides (Cl-) dissolved within landfill leachate	Leaching into groundwater, presence in baseflow.	Groundwater contained within Lower Lias Clay
G2	Fluorides(F-) dissolved within landfill leachate	Leaching into groundwater, presence in baseflow.	Groundwater contained within Lower Lias Clay
G3	Sulphate (S as SO_4^{-}) dissolved within landfill leachate	Leaching into groundwater, presence in baseflow.	Groundwater contained within Lower Lias Clay
G4	Calcium(Ca) dissolved within landfill leachate	Leaching into groundwater, presence in baseflow.	Groundwater contained within Lower Lias Clay
G5	Chromium(Cr) dissolved within landfill leachate	Leaching into groundwater, presence in baseflow.	Groundwater contained within Lower Lias Clay
G6	Nickel (Ni) dissolved within landfill leachate	Leaching into groundwater, presence in baseflow.	Groundwater contained within Lower Lias Clay
G7	Sodium (Na) dissolved within landfill leachate	Leaching into groundwater, presence in baseflow.	Groundwater contained within Lower Lias Clay
ID	Source (in unsaturated zone)	Pathway	Receptor
H1	Carbon Dioxide (asphyxiant)	Migration through granular fill materials, inhalation in confined spaces	Offsite occupants, Residential Property
H2	Methane (flammable/explosive)	Migration through granular fill materials, accumulation in confined spaces	Offsite occupants Residential Property

KEY

S1 * : Caused failure of relevant water quality standard
S2 – S7 : Pollutants found in Wyman's Brook
G1 – G7: Pollutants found in Groundwater
H1 & H2: Gases present in on and off-site boreholes