



Halewood LUF – Coal Mining Risk Desk Study

DATE:	30 August 2023	CONFIDENTIALITY:	Public
PROJECT:	Halewood LUF	AUTHOR:	Joe Flakes
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1 INTRODUCTION

1.1 AUTHORISATION

Knowsley Metropolitan Borough Council commissioned WSP UK Limited (WSP) to provide multidisciplinary design services to support the improvement of two sites in Halewood, Liverpool, as part of the Levelling Up Fund (LUF) for the local area.

1.2 LIMITATIONS

This report is addressed to and may be relied upon by the following party:

- Knowsley Metropolitan Borough Council

This report shall not be relied upon or transferred to any other or unnamed parties without the express written authorisation of WSP. No responsibility will be accepted where this report is used in its entirety or in part, by any other party.

This report summarises information provided from a number of external sources. WSP cannot offer any guarantees or warranties for the completeness or accuracy of information relied upon herein, which is taken in good faith as being accurate. WSP cannot accept liability for any deficiencies in third party information.

This report is specifically limited to an assessment of mining risks.

1.3 SITE LOCATION

The site location and red line boundary are illustrated in **Appendix A**, drawing 70098415_WSP_XX_DR_LA_003, with pertinent site details summarised in **Table 1-1**.

Table 1-1 - Site details summary

Aspect	Details
Site address	Halewood Leisure Centre: Baileys Lane, Liverpool, Knowsley L26 0TY; and, Grace Park: Leathers Lane, Liverpool L26 0TX.
National Grid Reference	The approximate National Grid Reference for Halewood Leisure Centre is 345262, 385151 and Grace Park is 344650, 385277.
Current site use	Grace Park: - Mainly comprises grassed public amenity land, with a small play area off Wood Road. - two football pitches are present in the east of the site, used by Halewood Town Junior Football Academy and accessed off Leathers Lane. Halewood Leisure Centre: - Comprises Halewood Leisure Centre and its associated facilities, including a large car park and multiples football pitches.
Topography	Both Grace Park and the area encompassing Halewood Leisure Centre are predominantly flat lying. Several earth bunds are present within the grounds of Halewood Leisure Centre and a circa 10m diameter pond is present centrally within Grace Park.
Site history	A review of freely available historical maps from the National Library of Scotland has been undertaken to identify former land uses. OS Six Inch, 1888 - 1913 – Both sites are predominantly agricultural land. Several small structures are shown in the south-western corner of the present day Grace Park. OS One Inch Sheet 100 – Liverpool – C Edition (1966) - The structures in the south-west of Grace Park are no longer shown. A new square structure is shown in the south-east corner of Grace Park, in the footprint of the current day football academy. OS One Inch Sheet 100 – Liverpool – C/*/*/* Edition (1972) - The most recent historical map reviewed and records no changes from the previous Sheet 100 – Liverpool – C Edition map, published in 1966.

1.4 PROJECT DESCRIPTION

The scheme comprises the following development on the two sites (as illustrated on the drawings presented within **Appendix A**):

Grace Park:

- Two new football pitches, and:
- New local centre facilities and retail expansion.

Halewood Leisure Centre:

- New and improved sporting facilities;
- Relocated junior football pitches, and;
- Synthetic Multi Use Games Area (MUGA).

1.5 SCOPE OF TECHNICAL NOTE

This report covers land within the proposed development red line boundary, which comprises Grace Park (to the west) and Halewood Leisure Centre (to the east), as illustrated within Appendix A, drawing 70098415_WSP_XX_DR_LA_003.

Of the two proposed developments, Halewood Leisure Centre lies within a coal mining reporting area whereas Grace Park does not. Therefore, Grace Park is not considered further as there is deemed to be no mining risk.

The purpose of this Technical Note is to:

- Present a desk-based review of readily available information on ground conditions and coal mining activity which are relevant to the scheme;
- Use that information to identify and assess the risks to the proposed scheme from the coal mining legacy, including cumulative impact of issues;
- Assess the impact of the proposed scheme works on the existing coal mining legacy risk;
- Set out appropriate mitigation measures to address any identified coal mining legacy issues affecting the site, including any necessary remedial works and / or demonstrate how coal mining issues may affect the proposed development.

1.6 SOURCES OF INFORMATION

The following sources of readily available information have been reviewed and interpreted as part of this Technical Note:

- Published geological maps:
 - British Geological Survey (BGS) geological maps 1:50,000 scale, Solid, Sheet 97 (1980);
 - No BGS 1:10,000 maps are available for this area;
- BGS 1:50,000 scale interactive map viewer;
- Coal Authority online database (interactive map viewer) accessed through <http://mapapps2.bgs.ac.uk/coalauthority/home>;
- British Geological Survey (BGS) online Geology Viewer, information and datasets (including historical borehole logs) accessed through <http://mapapps2.bgs.ac.uk/geoindex/home.html>;
- CON29M Non-Residential Mining Report, 51003369421001, July 2023

2 GEOLOGY

2.1 SUPERFICIAL AND SOLID GEOLOGY

The ground conditions beneath the Halewood Leisure Centre are mapped as comprising:

- Glacial Till underlain by the Kinnerton Sandstone Formation – sandstone. This is described by the BGS Lexicon as '*sandstone, red-brown to yellow, generally pebble-free, fine to medium-grained, cross-stratified*'.

No coal outcrops are shown within influencing distance of the site.

No artificial deposits are shown beneath either site.

2.1 RECORDED FAULTS AND FISSURES

The Croxteth Fault (downthrown to the west) daylights in Grace Park. This forms the boundary between the Etruria Formation (underlying Grace Park) and the Kinnerton Sandstone Formation (underlying Halewood Leisure Centre).

2.2 AVAILABLE GROUND INVESTIGATION DATA

BGS BOREHOLES

There are no historical boreholes available through the BGS online viewer within, or within 250 m of the boundary of Halewood Leisure Centre.

3 COAL AUTHORITY DATA

3.1 COAL AUTHORITY NON-RESIDENTIAL MINING REPORT SUMMARY

Table 3-1 summarises the findings of the Coal Authority Non-Residential Mining Report.

No Coal Authority Consultants Coal Mining Reports nor any abandonment plans have been purchased for the scheme.

Table 3-1 – Coal Authority Non-Residential Mining Report summary

Coal Authority data		51003369421001, 27 July 2023 – CON29M Non-Residential Mining Report
Section 1 – Mining activity and geology	Past underground mining	The property is not within a surface area that could be affected by past underground coal mining.
	Mine Entries	There are no recorded coal mine entries known to the Coal Authority, or within 20 metres of the boundary of the property.
	Geological faults, fissures and breaklines	The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.
	Opencast mines	The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.
Section 2 – remedial activity	Coal mining subsidence	The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary since 31st October 1994.
	Mine gas	The Coal Authority has no record of a mine gas emission requiring action.
Section 3 – Licensing and future mining activity	Future underground mining	The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods. The property is not in an area likely to be affected from any planned future underground coal mining.
	Coal mining licencing	The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.
	Court Order	The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.
	Section 46 notices (land at risk of subsidence)	No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.
	Withdrawal of support notices	The property is not in an area where a notice to withdraw support has been given.
	Payments to owners of former copyhold land	The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

4 DISCUSSION

4.1 SUMMARY OF MINING RISK ASSESSMENT

Table 4-1 provides a summary of coal mining risks specific to the scheme based on the data sources reviewed.

Table 4-1 – Mining Risk Assessment Summary

Coal Mining Issue	Yes	No	Comment
Underground coal mining (recorded at shallow depths)		X	No shallow coal mine workings are recorded by the Coal Authority.
Underground coal mining (probable at shallow depths) i.e. unrecorded workings		X	The Coal Authority does not associate Halewood Leisure Centre with any <i>probable workings</i> .
Underground mining (recorded at depth)		X	Deep workings are not recorded below the site.
Surface mining (opencast workings)		X	None recorded by the Coal Authority on site.
Mine entries (shafts / adits)		X	None recorded by the Coal Authority on, or within influencing distance of the site.

4.2 MINE WORKING MITIGATION

As the coal mining risk is considered to be negligible, no ground investigation related to coal mining risk is considered necessary.

Appendix A

DRAWINGS AND FIGURES





DO NOT SCALE

KEY

AMENITY GRASS

SCREENING VEGETATION

WILDFLOWER MEADOW

EXISTING TREES

PROPOSED TREES

EXISTING TOWN CENTRE BUILDINGS

PROPOSED FOOTPATH IMPROVEMENTS

PROPOSED CAR PARK

PROPOSED PARK FOOTPATH

ENTRANCE FEATURE PAVING

PROPOSED RAILING

PROPOSED PLAY AREA

PROPOSED CARRIAGEWAY IMPROVEMENTS

PROPOSED SIGNAGE IMPROVEMENTS

Note: See Active Route Plan
70098416_WSP_XX_00_DR_LA_002

P01	13/07/22	KK	ISSUE FOR INFORMATION	MF	MP
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: S0 - WORK IN PROGRESS

wsp

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CLIENT: KMBC

ARCHITECT:

SITE/PROJECT: Halewood LUF

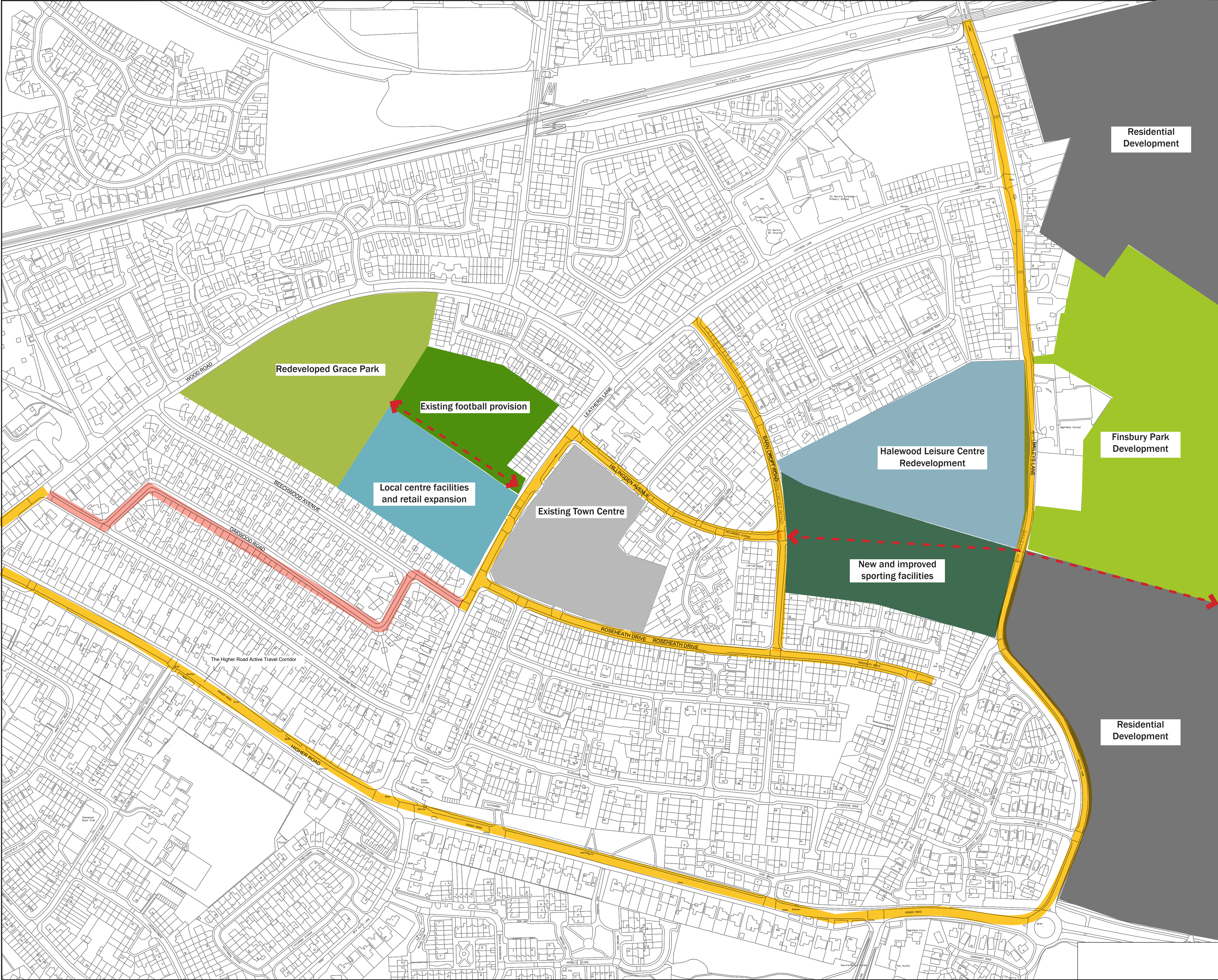
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SCALE @ A1: 1:1500	CHECKED:	APPROVED:
PROJECT NO: 70098415	DESIGNED: KK	DATE: July 22
DRAWING NO: 70098415_WSP_XX_00_DR_LA_003		REV: P01

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File name: \\UK.WSP\GROUP\COMMON\DATA\PROJECTS\70098415 - AMB\3 NO LIFE SITES\VISIONING\PA02\030 WFLA LANDSCAPE ARCHITECTURE\CAO-BIM MODEL\SHALEWOOD_VIP_200222_OVIEWING.DWG, printed on 13 July 2022 14:36:16, by Mananika, Karan

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DO NOT SCALE

- Key**
- Carriageway/cycleway/footpath Improvements
 - Cycle Infrastructure Improvements
 - Key Pedestrian/Cyclist Links

P01	11/07/22	KK	Initial Issue	MF	MP
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: S0 - WORK IN PROGRESS

CLIENT: KMBC

ARCHITECT:

SITE/PROJECT: Halewood LUF

TITLE: Landscape Overview Plan

SCALE @ A1: 1:1500	CHECKED:	APPROVED:
PROJECT NO: 70098415	DESIGNED: KK	DATE: July 22

DRAWING NO: 70098415_WSP_XX_00_DR_LA_003	REV: P01
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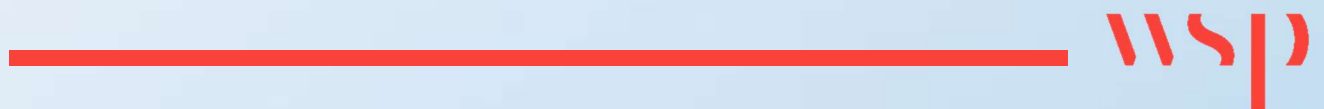
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Appendix B

COAL AUTHORITY CON29 COAL MINING REPORT





The Coal
Authority

CON29M

coal mining report

HALEWOOD SHOPPING CWNTRE, HALEWOOD SHOPPING CENTRE,
HILLINGDEN AVENUE, HALEWOOD, KNOWSLEY, LIVERPOOL, MERSEYSIDE
L26 0TX



Known or potential coal mining risks

Future underground coal mining

Page 4



Further action

No further reports from the Coal Authority are required. Further information on any next steps can be found in our Professional opinion.

For more information on our reports please visit
www.groundstability.com



Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. It is unlikely that these features will impact on the stability of the enquiry boundary.

Your reference: **314822201_1**
Our reference: **51003369421001**
Date: **27 July 2023**

Client name:
NLIS Hub

If you require any further assistance please
contact our experts on:
0345 762 6848
groundstability@coal.gov.uk



The Law
Society

Enquiry boundary

The map image is too large for this page and will be sent in a separate document

We can confirm that the location is
on the coalfield

This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.



Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Professional opinion



Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

If you are looking to develop, or undertake works, within a coal mining development high risk area your Local Authority planning department may require a Coal Mining Risk Assessment to be undertaken by a qualified mining geologist or engineer. Should you require any additional information then please contact the Coal Authority on **0345 762 6848** or email **cmra@coal.gov.uk**.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

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1 Past underground coal mining

The property is not within a surface area that could be affected by any past recorded underground coal mining.

2 Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

4 Mine entries

There are no recorded coal mine entries known to the Coal Authority within, or within 20 metres, of the boundary of the property.

5 Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

6 Past opencast coal mining

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

7 Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8 Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9 Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

10 Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11 Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures.

12 Withdrawal of support

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

13 Working facilities order

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

14 Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Statutory cover



Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.

www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form



Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call **0800 288 4242**. Further information can be found on our website: www.gov.uk/coalauthority.

Glossary



Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

mine gas - reports of alleged mine gas emissions received by the Coal Authority within the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

working facilities orders - a court order which gave permission, restricted or prevented coal mine workings

Enquiry boundary

Key

Approximate position of enquiry boundary shown



How to contact us

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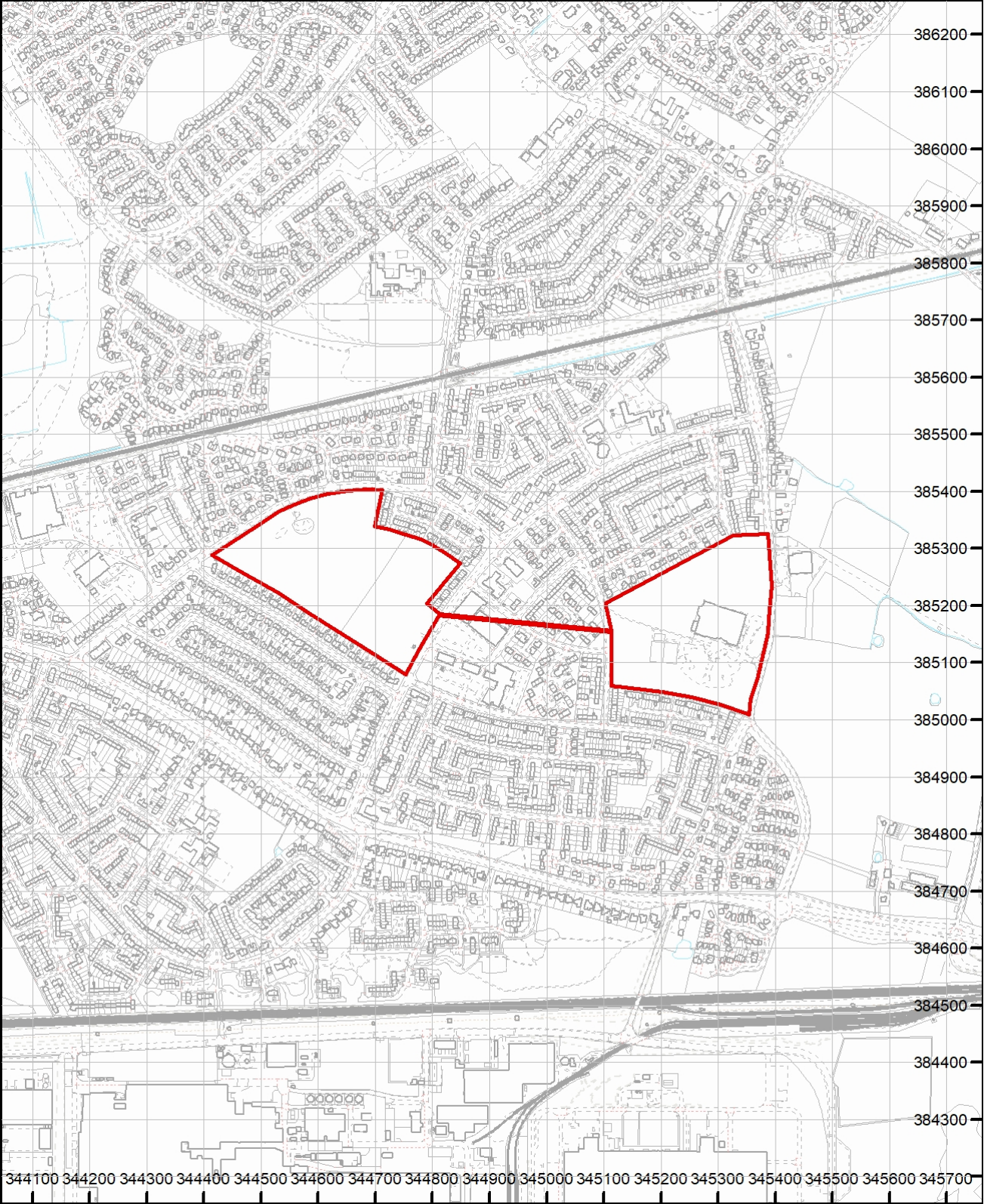
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