



Crime Rigg Quarry SSSI Durham

***Notifications under sections 28A, 28B and 28D
of the Wildlife and Countryside Act 1981***

Issued by Natural England's Northumbria Team on **18 October 2019**

Contact points and further information

This notification document is issued by Natural England's Northumbria Team. Our address for correspondence is:

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Your contact point for enquiries relating to this notification is Jenny Loring

A second document (*Crime Rigg Quarry SSSI - supporting information*) is available on request from the address above. This contains information and extracts from relevant documents that have been used in the decision to modify the notification of this SSSI.

The date of the modifications to the notification of Crime Rigg Quarry SSSI is 18 October 2019

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1. Summary

- 1.1 Crime Rigg and Sherburn Hill Quarries was last notified as a Site of Special Scientific Interest (SSSI) on 19 December 1990. This document explains why:
- the SSSI has been extended to include additional land (see section 5, below);
 - Natural England is of the opinion that part of the previously notified SSSI is not of special interest and is therefore proposed for de-notification (see section 6, below); and
 - the matters specified in the 19 December 1990 notification are being varied by Natural England (see section 7, below).
- 1.2 Crime Rigg Quarry is a nationally important site for its geological features, namely its outstanding importance for interpreting the geological history of the Permian Period in Great Britain. The working quarry exposes a key reference section through the Permian Yellow Sands Formation and its relationship with the overlying Marl Slate and Raisby Formations. The features of special interest have not changed from those specified in the 19 December 1990 notification.
- 1.3 The annexes to this document comprise the legal papers that detail the site's interest and the management required to maintain that interest. You have a right to make representations or objections to the notice of variation, the notification of additional land and the proposed de-notification of parts of the SSSI. Specifically:
- extension of the SSSI boundary to include an additional area of land considered to be of special interest;
 - the proposed de-notification of an area of land that is not considered to be of special interest;
 - re-naming of the SSSI to reflect the current operating name of the quarry and the Geological Conservation Review (GCR) site name.
 - re-presentation of the features of special interest described in the citation;
 - inclusion of one additional operation requiring Natural England's consent and amendment of the previously listed operations, and the application of the list to the additional land; and
 - re-presentation of the statement of Natural England's views about the management of the SSSI and its application to the additional land. The management principles have not changed from those specified in the statement issued on 7 January 2004.

Part 3 of this document explains how to make representations or objections.

- 1.4 Natural England's consent is required by owners and occupiers before any of the operations listed in *Annex 3* can be carried out. We will work closely with owners and managers, as well as other bodies, to ensure that existing operations and new works that are not considered likely to damage the special features of the SSSI can be carried out.

2. The legal background

- 2.1 The matters specified in the 19 December 1990 notification of Crime Rigg and Sherburn Hill Quarries SSSI (and Natural England's views about the management of the SSSI, issued on 7 January 2004) are varied under Section 28A of the Wildlife and Countryside Act 1981 and the site is now known as Crime Rigg Quarry SSSI. The varied legal documents take effect from the date of this notice.
- 2.2 Crime Rigg Quarry SSSI (as last notified on 19 December 1990) is also extended by the notification of additional land under Section 28B of the Wildlife and Countryside Act 1981. The notification of the additional land takes effect from the date of this notice.

- 2.3 Part of Crime Rigg Quarry SSSI is proposed for de-notification under Section 28D of the Wildlife and Countryside Act 1981. The proposed denotification does not take effect unless and until it is confirmed under Section 28D(5) of the Wildlife and Countryside Act 1981, within nine months of the date of this notice.
- 2.4 The annexes to this document contain the following legal documents, as required by Sections 28A, 28B and 28D of the Wildlife and Countryside Act 1981:
- a citation detailing the reasons for notification of the SSSI, as varied by the notice under section 28A (*Annex 1*);
 - a statement of Natural England's views on the management of the SSSI, as varied by the notice under section 28A (*Annex 2*);
 - a list of operations requiring Natural England's consent, as varied by the notice under section 28A (*Annex 3*); and
 - maps identifying the land subject to the notifications under sections 28B and 28D (*Annex 4*).
- 2.5 The 19 December 1990 notification, as modified by the notifications under sections 28A and 28B, continues to have effect. The key effects of that notification can be summarised as follows:
- owners and occupiers must give Natural England notice before carrying out, causing or permitting to be carried out any of the activities in the list of operations at *Annex 3*;
 - owners of land included in the SSSI have a legal obligation to notify Natural England within 28 days if the ownership or occupancy of the land changes;
 - it is an offence for any person intentionally or recklessly to destroy or damage the special features of the SSSI; and
 - other public bodies must consult Natural England before carrying out or authorising any works that may damage the SSSI.
- 2.6 The notification under section 28D of part of the site which in the opinion of Natural England is not of special interest has several effects. The key ones can be summarised as follows:
- it provides the opportunity for you to make representations or objections to the notification of these parts as not being of special interest;
 - it does not take effect until confirmed by Natural England (with or without modification), and until such time these parts of the site remain subject to the effects of the notification as set out in 2.5 above; and
 - if confirmed (with or without modification) that part of the site subject to the section 28D notification shall no longer be part of the Crime Rigg Quarry SSSI and therefore no longer be subject to the effects of the notification as set out in 2.5 above.
- 2.7 If you require any further information or advice on how this notification affects you, please do not hesitate to contact Natural England at the address shown at the beginning of this notification document.

3. Making representations

- 3.1 You have a legal right to make objections and representations about these notifications. Any representations, including those supporting the notifications, or objections should be made in writing to Natural England's Northumbria Team by **18 February 2020**. Representations can be sent by post, e-mail or online to the addresses shown on page 2. You may wish to seek legal or independent advice and your representative may wish to write to us on your behalf.
- 3.2 The Northumbria Team will consider your objections or representations and will try to resolve them. If there are no unresolved objections, approval to confirm the notifications

will be considered by an appropriate Natural England Director within nine months of this notification.

- 3.3 Any unresolved objections or representations will be considered by the Board of Natural England within nine months of these notifications. If there are unresolved objections, confirmation of these notifications is likely to be considered at the Board meeting provisionally scheduled for June 2020. Please note that the desirability of the notifications (for instance, for socio-economic reasons) will not form part of the Board's decision. Following consideration of objections and representations, the Board of Natural England may confirm or withdraw all or part of these notifications. In reaching its decision the Board will consider whether, in light of the objections and representations received, Natural England remains of the opinion that the site is of special scientific interest. If you wish to emphasise any of your objections or representations to the Board in person, you should tell us when you write to us. You will then be advised of the date and location of the Board meeting.
- 3.4 Natural England will accept correspondence relating to unresolved objections up to seven days prior to the Board meeting at which the confirmation is due to be considered. Correspondence received after this date will only be presented to the Board in very exceptional circumstances and you will be expected to provide justification as to why there has been a delay in providing the information. The decision whether this information will be submitted to the Board is entirely at Natural England's discretion. The reason that there is a seven day cut off is to allow Board members sufficient opportunity to consider all of the issues and read all the relevant paperwork before they meet to take their decision.
- 3.5 Natural England has a policy of openness, which reflects our obligations under the Environmental Information Regulations 2004 and the Freedom of Information Act 2000. This legislation provides a legal right of access to information held by public bodies. This means that we will provide information on how we make our decisions on SSSIs to any person on request. This includes details of objections and representations received. We will assume, therefore, that your representation or objection can be made publicly available unless you indicate with clear and valid reasons which (if any) part(s) of these you wish to be excluded from this arrangement. However, you should be aware that the requirements of the legislation may mean that we cannot comply with your request that this information be withheld. We do, however, respect people's privacy and will take all reasonable steps to consult you before reaching a decision on disclosure of the information.
- 3.6 As an individual with an interest in Crime Rigg Quarry SSSI, your information will be stored and processed on a computer database that will be operated within the General Data Protection Regulation and the Data Protection Act 2018. For the purposes of the Data Protection Act, the data controller is Natural England, Foss House, Kings Pool, 1-2 Peasholme Green, York YO1 7PX. For more information, please see the *SSSI notifications privacy notice* at <https://www.gov.uk/government/publications/natural-england-privacy-notices/site-of-special-scientific-interest-notification-privacy-notice> or request a copy from the address on page 2 of this document.

4. Reasons for notification

- 4.1 The reasons for notification of Crime Rigg Quarry SSSI are unaffected by this notice and the site continues to be of special interest for the following feature:

- **Geology**

Crime Rigg Quarry is a key reference section for the Permian Yellow Sands Formation: extensive exposures through the Yellow Sands Formation and overlying Marl Slate and Raisby Formation are present. The Yellow Sands Formation is interpreted as a linear (Seif) desert dune system and the relationship with the overlying marine Marl Slate and Raisby Formations marks the onset of the Upper Permian Zechstein transgression (sea

level rise). This exposure of the Permian Yellow Sands formation is nationally important and forms part of the Permian and Triassic Red Beds network of sites.

5. Reasons for the notification of additional land under section 28B

- 5.1 A viable section adjacent to the previously notified area and exhibiting the same features of interest was identified by a Natural England geology specialist in 2017.
- 5.2 The area of additional land is to be incorporated into a restoration scheme, a condition of the Minerals Planning Consent, which will offer protection and sustainability to the SSSI by allowing exposures of rock to be maintained.
- 5.3 The boundary of the additional land has been determined to encompass the features of interest and allow sufficient area for the study and management of the interest feature.

6. Reasons for the notification under section 28D (proposed de-notification)

- 6.1 The part of the previously notified SSSI which, in the opinion of Natural England, is not of special interest covers part of the western area of the site. This area was formerly a void but is now infilled following sand, limestone and marl slate extraction under pre-existing Minerals Planning Consent. The quarrying activities have lawfully destroyed the features of special interest in this location.
- 6.2 It is therefore considered that this area is not of special interest and it is proposed for de-notification.

7. Reasons for the notification under section 28A (variation)

- 7.1 The SSSI citation has been re-presented to more clearly identify the reasons for notification, offer a more detailed description of the site's features and includes an updated area measurement for the SSSI incorporating the additional land.
- 7.2 The list of operations requiring Natural England's consent and statement of Natural England's views about the management of the SSSI have been re-presented to follow the current standard format.
- 7.3 The list of operations has been modified by the addition of one operation and amendments to the wording of the previously listed operations to better provide for the site's management and protection needs, including after active quarrying has ceased.

8. Site boundaries and relationships with other SSSIs

- 8.1 The boundaries have been drawn to include all of the land supporting the features of special interest. The site boundary follows or crosses land within the 2018 Minerals Planning Consent boundary. Where possible site boundaries follow identifiable features on the ground such as the quarry site boundary or other boundary features. In other places the boundary links points which are not associated with any above ground features. In such cases the boundary has been defined by co-ordinates for use with a Global Positioning System (GPS).
- 8.2 Further clarification of the precise location of the boundaries (including the GPS coordinates) is provided on the map at *Annex 4* to this document and more details can be obtained from Natural England's Northumbria Team at the address shown on page 2 of this document.
- 8.3 There are no other SSSIs in England notified for exposures that provide an extensive vertical and lateral exposure of the Permian Yellow Sands Formation and its relationship with the overlying Marl Slate and Raisby Formation.

9. Management of the SSSI

- 9.1 This document includes at *Annex 2* a statement of the management that Natural England considers is needed to conserve and enhance the features of special interest. This statement was issued on 7 January 2004 and has now been re-presented to follow the current standard format. Different management may be appropriate in different parts of the site and this statement is not intended to detail the exact requirements at specific locations. The statement is intended to explain how we can work with and support owners and managers in continuing to achieve positive management of the SSSI.
- 9.2 This document also includes a list of the operations requiring Natural England's consent at *Annex 3*. The list has been varied to include operation 15, not previously specified in the 19 December 1990 notification. The remaining operations (7, 12, 14, 20, 21, 22, 23, 24a and 24b) were all specified in the 19 December 1990 notification and have been amended. In addition, the list of operations has been re-presented to follow the current standard format. Some of the operations may already be taking place and where they do not cause any damage they will be given consent. We will work with landowners and managers to agree lists of such existing and planned activities, which can be approved.
- 9.3 Where an operation has been granted a consent, licence or permission from another public body a separate consent will not generally be required from Natural England. However, other public bodies are required to consult Natural England before such consents, licences or permissions are issued.
- 9.4 In particular, we recognise the important roles of the owners and managers of the land in managing this site. We will work with them to develop means to secure the sustainable management of Crime Rigg Quarry SSSI.

10. Supporting information

- 10.1 The detailed information, which has been used to assess the importance of this SSSI, is available on request from the address on page 2 of this paper.

11. Legal documents

- 11.1 Attached at *Annexes 1 - 4* are the legal documents, which are required by sections 28A, 28B and 28D of the Wildlife and Countryside Act 1981.

Annex 1

Citation

This is a legal document on which you have a right to make objections or representations, with respect to the re-presentation of the reasons for notification and their application to the additional land, as explained in part 3 of this document

Site name: Crime Rigg Quarry

Unitary Authority: Durham

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981, and subsequently varied under Section 28A of the Wildlife and Countryside Act 1981. Additional land notified under Section 28B of the Wildlife and Countryside Act 1981.

Local Planning Authority: Durham County Council

National Grid reference: NZ 348416

Area: 37.81 ha

Ordnance Survey Sheet 1:50,000: 88

Date notified: 19 December 1990

Date of variation: 18 October 2019

Date additional land notified: 18 October 2019

Reasons for notification

Crime Rigg Quarry is a key reference section for the Permian Yellow Sands Formation: extensive exposures through the Yellow Sands Formation, with overlying Marl Slate and Raisby Formations, are present. The Yellow Sands Formation is interpreted as a linear (Seif) desert dune system and the relationship with the overlying marine Marl Slate and Raisby Formations marks the onset of the Upper Permian Zechstein transgression (sea level rise). This site has been identified as of national importance in the Geological Conservation Review.

General description:

Crime Rigg Quarry exposes an extensive vertical and lateral section through the Permian Yellow Sands Formation and its relationship with the overlying Marl Slate and Raisby Formations.

The Yellow Sands here reach approximately 30 metres in thickness, thinning eastwards. They exhibit complex large scale cross-bedding with typically well rounded (and often frosted) sand grains characteristic of an aeolian (desert) environment. The Yellow Sands have been interpreted as a linear (Seif) dune system (examples of which are found in the present day Sahara) made up of a series of elongate ridges or 'draa' (up to 20 metres thick, 1.5 to 3.5 km wide, and 13 km long) that migrated across the area at the end of the Middle Permian, approximately 290 million years ago.

The overlying marine Marl Slate (up to 4 metres thick) infills hollows in the upper surface of the Yellow Sands. It represents the rapid inundation and rise in sea level of the Upper Permian Zechstein Sea and is followed by the deposition of the Magnesian Limestone of the Raisby Formation, about 255 million years ago.

Crime Rigg Quarry provides a cross-section through part of one of the Seif ridges. The Yellow Sands thin towards the east as they approach the outer edge of the dune ridge, and the thickness of the overlying Marl Slate and, particularly, the Raisby Formation increases. Crime Rigg enables a detailed (and three dimensional) understanding of the mechanism of dune formation (both lateral migration and vertical accretion) and the subsequent sea level rise that marked a significant environmental change from a desert to marine environment.

Annex 2

Views about Management

This is a legal document on which you have a right to make objections or representations, with respect to the re-presentation and application to the additional land (see sections 7.2 and 9.1 for details), as explained in part 3 of this document.



Views About Management

Wildlife and Countryside Act 1981 Section 28(4) as inserted
by Schedule 9 to the Countryside and Rights of Way Act 2000

A statement of Natural England's views about the management of Crime Rigg Quarry Site of Special Scientific Interest (SSSI).

This statement represents Natural England's views about the management of the SSSI for nature conservation. This statement sets out, in principle, our views on how the site's special conservation interest can be conserved and enhanced. Natural England has a duty to notify the owners and occupiers of the SSSI of its views about the management of the land.

Not all of the management principles will be equally appropriate to all parts of the SSSI. Also, there may be other management activities, additional to our current views, which can be beneficial to the conservation and enhancement of the features of interest.

This statement does not constitute consent for any of the 'operations requiring Natural England's consent'. The written consent of Natural England is required before carrying out any of those operations. Natural England welcomes consultation with owners, occupiers and users of the SSSI to ensure that the management of this site conserves and enhances the features of interest, and to ensure that all necessary prior consents are obtained.

Management Principles

Active quarries form a very important part of the geological resource of England for two reasons. Firstly, many of these sites are in areas where natural geological exposures are rare or absent. Secondly, these sites often provide much better exposure of geological features than comparable natural exposures, because quarrying has revealed vertical rock sections not visible in natural outcrops.

There are two main management principles for active quarries. The first is to maintain exposure of the geological features during the working life of the quarry. The second is to ensure that representative sections of exposure are retained once works have ceased. Exposure is usually maintained when the quarry is active as a natural consequence of the extraction process. However, positive management during the working life of the quarry may be required to ensure that important sections are not concealed by, for example, quarry waste or buildings.

In planning restoration and after-use of the quarry, it is important to consider geological conservation at an early stage. After-use should include the maintenance of exposures which are sufficiently extensive to demonstrate the important geological interest.

It is desirable for scientific researchers to have access to important geological exposures during the working life of the quarry, where health and safety considerations allow safe access. This is particularly important on sites where scientifically interesting fossil or mineral material is being extracted and which would be permanently lost if not examined and collected.

Date issued: 7 January 2004

Date varied: 18 October 2019

Annex 3

List of operations requiring Natural England's consent

This is a legal document on which you have a right to make objections or representations, with respect to the addition of one operation not previously specified and amendment of the other nine operations (see sections 7.2, 7.3 and 9.2 for details), as well as the application of this list to the additional land, as explained in part 3 of this document.

Operations requiring Natural England's consent

Wildlife and Countryside Act 1981 Section 28 (4)(b) substituted by Schedule 9 to the Countryside and Rights of Way Act 2000

The operations listed below may damage the features of interest of Crime Rigg Quarry SSSI. Before any of these operations are undertaken you must consult Natural England, and may require our consent.

It is usually possible to carry out some of these operations in certain ways, or at specific times of year, or on certain parts of the SSSI, without damaging the features of interest. If you wish to carry out any of these activities please contact your Natural England Area Team who will give you advice and where appropriate issue a consent. Please help us by using the 'notice form' (provided at notification and available on request) to ask us for consent to carry out these operations.

In certain circumstances it will not be possible to consent these operations, because they would damage the features of interest. Where possible the Area Team will suggest alternative ways in which you may proceed, which would enable a consent to be issued. To proceed without Natural England's consent may constitute an offence. If consent is refused, or conditions attached to it, which are not acceptable to you, you will be provided with details of how you may appeal to the Secretary of State.

Standard Ref No. Type of operation

- | | |
|------|---|
| 7. | Dumping, spreading or discharging of any materials on or against geological exposures of importance in the quarry wall or floor. |
| 12. | Tree and/or woodland management and alterations to tree and/or woodland management (including planting, felling, pruning and tree surgery, thinning, coppicing, changes in species composition and removal of fallen timber). |
| 14. | Alterations to water levels and tables and water utilisation (including irrigation, water storage in disused quarries and abstraction from existing water bodies and through boreholes). Also the modification of current drainage operations (such as the installation or removal of pumps). |
| 15. | Infilling, creation or digging of ditches, drains, ponds, pools, marshes or pits. |
| 20. | Extraction of minerals including hard rock, sand, gravel, limestone and spoil. |
| 21. | Destruction, construction, removal, rerouting, or regrading of roads, tracks, quarry floor, walls, fences, hardstands, banks, ditches or other earthworks, including soil and soft rock exposures or the laying, maintenance or removal of pipelines and cables, above or below ground. |
| 22. | Storage of materials on or against rock faces, outcrops and quarry floor. |
| 23. | Erection, removal or destruction of permanent or temporary structures, or the undertaking of engineering works, including drilling. |
| 24a. | Modification of natural or man-made features and clearance of boulders, large stones, loose rock or spoil. |
| 24b. | Battering, buttressing, grading or seeding of geological exposures and cuttings (rock faces, spoil and soil) and infilling of pits and quarries. |

Notes

- i. This is a list of operations appearing to Natural England to be likely to damage the special features of the SSSI, as required under section 28 (4) (b) of the Wildlife and Countryside Act 1981 substituted by Schedule 9 to the Countryside and Rights of Way Act 2000.
- ii. Where an operation has been granted a consent, licence or permission from another authority separate consent will not be required from Natural England. However, other

authorities are required to consult Natural England before such consents, licences or permissions are issued.

Date notified: 19 December 1990

Date varied: 18 October 2019

National Grid reference: NZ348416

Annex 4

Map showing the land notified

This is a legal document on which you have a legal right to make objections or representations with respect to the notification of additional land and the proposed de-notification of part of the SSSI, as explained in part 3 of this document.

Insert map here