

## The Ironstone Gulleets

### Introduction

- 13.1 The Ironstone Gulleets provide an outstanding environmental resource in North Lincolnshire. The gulleets afford a major opportunity for nature conservation, water based recreation and form a significant element in the strategy for the enhancement of the landscape and setting of the countryside surrounding Scunthorpe. These former mineral workings also provide a rich habitat which supports a diverse range of plants and animals, and yield a geological and palaeontological resource of international scientific and educational significance.
- 13.2 The Ironstone Gulleets form a series of large excavations created by the open cast extraction of ironstone from the Frodingham Ironfield which supplied the iron and steel industry at Scunthorpe. The gulleets extend for around 11.8 kilometres (7.3 miles) running north-south along the Lincoln Edge and directly north and east of Scunthorpe and around 7 kilometres (4.4 miles) east-west. The Frodingham Ironfield extends further south and east of the gulleets but is presently considered uneconomic to extract. The gulleets vary in size ranging from the Yarborough Gullet which is around 2,700 metres in length (1.7 miles) and 500 metres (0.3 miles) in width to small scale workings at Dragonby. The depth of the gulleets varies according to the amount of overburden which covers the ore bed. The ore is present at surface level to depths of over 40 metres (130 feet).
- 13.3 The extraction of ironstone commenced soon after its discovery in 1859 and ceased in 1989. As a result, many of the earlier worked out gulleets particularly in the northern

area, have naturally regenerated and flooded providing attractive water features and a diverse habitat for wildlife. A number of the gulleets have planning consent for waste tipping and further areas remain operational by British Steel plc. Oil is also extracted from Crosby Warren and significant areas within the gulleets are susceptible to instability and subsidence mainly due to underground mining in the past. The gulleets are used by the public on an informal basis, for walking, fishing, swimming, diving, sail boarding, motorcycle scrambling, geology and education and a number of other recreational and outdoor pursuit activities.

- 13.4 An Advisory Ironstone Restoration Study Group was established in 1986 to review future reclamation and uses of the gulleets. This included representatives from the Department of Environment, British Steel plc, the Ministry of Agriculture and the former local planning authorities. This group considered various land use proposals for the Ironstone Gulleets and this Local Plan seeks to review those proposals and formulate a co-ordinated strategy which realises their potential.

### Environment and Landscape

- 13.5 The Ironstone Gulleets have created a valuable habitat for nature conservation and wildlife. In particular, Thealby Gullet, Yorkshire East Gullet, Winterton Lagoon, part of Crosby Warren, Silkstone Pond and the Dragonby Ponds have been worked out for some time and have not been the subject of restoration. These gulleets are flooded and have naturally regenerated and are of considerable ecological importance. The landscape surrounding the gulleets is of equal habitat and ecological

value. Risby Warren is a designated Site of Special Scientific Interest (SSSI) and is the largest relic inland sand dune system in Britain. A further SSSI is designated at part of the Yorkshire East Gullet and it is important that sensitive areas within the gulleets together with attractive landscapes are protected. These are protected by policies in the Landscape and Conservation chapter.

- 13.6 Seven local nature reserves are proposed. These are: Silkstone Pond, Dragonby Ponds, Sheffields Hill, Thealby Gullet, Yorkshire East Gullet (north) and Sawcliffe.
- 13.7 The Ironstone Gulleets create a significant opportunity for a number of other uses, principally for leisure and recreation and nature conservation. It is however, important to ensure that plants and animals and their natural habitats, geological and physiographic features, are conserved and enhanced where they are considered to be important. The gulleets contain numerous rare and protected species including great crested newts, grayling butterflies and Red Data Species such as the scarce vapourer moth. Other important plants and animals include bearded fescue grass, wood horsetail, bee orchid, spotted orchid and southern marsh orchid. The importance of the gulleets' habitats are reflected in the fact that many species occur nowhere else in the South Humber area.

### **IG1 - Ironstone Gulleets - Management Schemes**

**In order to protect and enhance areas of nature conservation value, the Council will enter into management schemes, planning obligations and other agreements with landowners.**

### **IG2 - Environmental Enhancement and Habitat Restoration**

**Environmental enhancement, tree planting and habitat restoration schemes are proposed at:**

- 1) Dragonby Ponds/Berkeley East**
- 2) Sawcliffe Community Woodland**
- 3) Conesby Quarry**

13.8 *The Ironstone Gulleets area prior to mineral extraction was a significant coversands heath habitat. Whilst many gulleets have naturally regenerated, those areas which have been worked out more recently are still despoiled. Although some of these sites continue to be operational, there are significant areas which are suitable for environmental enhancement and the creation of new landscape habitats as well as the restoration of the coversands heathland. Such habitat creation is important to local and national bio diversity strategies, given the scarcity of coversands heaths. The Council will, in conjunction with other public and private bodies, promote and enhance the landscape of the Ironstone Gulleets for nature conservation and as an integral part of the strategy for 'greening' the landscape and improving the environment of the Scunthorpe and Bottesford Urban Area.*

13.9 *The Council will seek to enter into management schemes, planning obligations and/or other agreements with landowners in order to protect and enhance areas of nature conservation value.*

### Leisure and Recreation

#### IG3 - Water Based Motor Sports

**Bagmoor Gullet is proposed for motorised and active water based leisure and recreational development.**

13.10 *The extraction of ironstone has created a tremendous opportunity for water based recreation. The size and scale of some of the less environmentally sensitive gullets afford potential for a major water sports facility. Bagmoor Gullet would be especially suited for such uses and is located immediately east of Normanby Hall Country Park which includes 160 hectares (395 acres) of gardens and parkland. It also contains a deer park, farming museum and 18 hole golf course, and attracted around 160,000 visitors in 1996.*

#### IG4 - Informal Recreation

**The following gullets are proposed for water based recreation (fishing, non-motorised boating) and informal recreation:**

- 1) **Thealby Gullet**
- 2) **Winterton Lagoon**
- 3) **Yorkshire East (north)**

#### IG5 - Footpaths and Cycleways

**The former North Lindsey Light Railway Line will be safeguarded for the construction of a linear footpath, bridleway and cycleway.**

13.11 *The nature conservation and environmental value of the more mature gullets which have substantially regenerated precludes their use for active water based leisure pursuits.*

*These gullets are, however, under-used as a recreational and tourism resource and are capable of sustaining recreational activities including fishing, walking, swimming, cycling (including off-road cycling in less sensitive areas), canoeing and general relaxation. The Council aims to promote greater recreational use of the gullets where this does not cause conflict with nature conservation.*

13.12 *The Council will seek to provide on-site information and interpretative facilities and the creation of picnic sites and parking facilities on the edge of the gullets area to promote their enjoyment. The sense of remoteness within the gullets will be preserved with more sensitive forms of access into the gullets such as footpaths and cycleways, being developed. In particular, the North Lindsey Light Railway, which is used for the transportation of waste, provides direct access from Scunthorpe into the gullets system. On completion of waste tipping, in areas accessible by this railway, it is intended that the line will be converted into a linear walkway and cycle path system.*

#### IG6 - Motorised Recreation

**The eastern part of the former Tarmac site (south of Conesby Quarry) is proposed for motorcross and other motorised recreational activities.**

13.13 *The Scunthorpe and Bottesford Urban Area has no facilities for motorcross or for motorcycle training. In the past this has resulted in the unauthorised and inappropriate use of amenity spaces and Local Nature Reserves. In response to a clear need, a motorcycle training scheme has been in operation for some time and future motorcycle activities are to be permitted at land south of Conesby Quarry (part of the former Tarmac site) on the urban fringe of Scunthorpe. This site which is adjacent to the existing highway*

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## The Ironstone Gulleets

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*network, and located some distance from residential areas is of little nature conservation importance.*

### Geology

13.14 The Frodingham Ironfield is an outstanding stratigraphic and palaeogeographic area. Mineral extraction has yielded internationally important ammonite species and the Ironstone Gulleets provide a significant teaching locality for European academic and scientific research. Conesby Quarry is perhaps the most significant gullet but as a result of waste tipping is incapable of being preserved for future research. Opportunities for the establishment of a safe store of fossil-rich ironstone will be sought in order to provide access to fossil collecting by local schools and amateur palaeontologists who may otherwise have limited access to such material.

### IG7 - Geological Research

**The mineral face of the Yorkshire East Gullet (south) will be conserved for geological research.**

13.15 *The Yorkshire East Gullet is of significant scientific value and it is proposed that part of the ironstone face is conserved for future research where this does not conflict with its designation as a Site of Special Scientific Interest. The Council will also endeavour to enter into management agreements with landowners in the future in order to gain access and secure, where possible, other sites of geological importance in neighbouring gulleets.*

### Waste Tipping

13.16 Many former workings have been restored in accordance with the Town and Country Planning Act 1990 (as

amended). More recently planning consent has been obtained in certain gulleets for the tipping of both domestic and commercial waste as a means of landfill restoration, particularly where gulleets created problems of land subsidence. Planning consents have been approved at Conesby Quarry, Crosby Warren (part), Roxby Gullet, Winterton Gullet and Yarborough Gullet. There is also further substantial tipping capacity at both Santon and Dragonby underground mines which may prevent further land instability in the area. The infilling of a small open cast area immediately south of Dragonby village is necessary in order to protect the settlement from land subsidence.

13.17 Existing landfill sites within the Ironstone Gulleets area provides more than 28 million cubic metres of infill capacity, with most gulleets containing between 20 and 40 years' capacity, see Table 11. North Lincolnshire has a substantial over-supply of existing infill sites in both the short and long term and much of the present waste is imported from both outside and from elsewhere within the region.

**Table 11** Ironstone Gulleets - Committed Landfill Capacity January 1996

Site Location	Total Landfill Capacity
Conesby Gullet	2,300,000 m <sup>3</sup>
Crosby Warren (south)	700,000 m <sup>3</sup>
Roxby Gullet	5,000,000 m <sup>3</sup>
Winterton Gullet	13,000,000 m <sup>3</sup>
Yarborough Gullet	7,250,000 m <sup>3</sup>

### IG8 - Future Waste Tipping

**The following sites in the ironstone gulleets area are proposed for new waste tipping:**

- 1) Dragonby North - inert non domestic waste**

### 2) **Dragonby and Santon underground mines - inert non domestic waste**

13.18 Government guidance in PPG23 places greater emphasis on the reduction, re-use and recovery of waste rather than simple disposal without recovery. Guidance also promotes the 'proximity principle' which aims to ensure that the majority of waste is disposed of within the region of generation. Given the outstanding nature conservation, recreational and leisure potential of both the naturally regenerated and existing despoiled gullets and also the existing capacity of gullets with waste tipping planning consents, no further consents will be granted except for that area required to stabilise Dragonby Village and those areas required by British Steel plc for the disposal of works waste.

13.19 Planning consent will only be granted for the tipping of waste, particularly in underground mines, following consultation with Anglian Water and the Environment Agency to ensure that tipping does not result in the contamination of aquifers and other water sources.

### **Mineral Extraction**

13.20 The Ironstone Gullets area contains existing reserves of both ironstone and oil.

### **IG9 - Ironstone Extraction**

**The area to the east of Yarborough Gullet will be safeguarded from development which would result in the sterilisation of the ironstone reserves**

13.21 While no ironstone is being extracted at present, working in the long term could recommence should international ore market conditions change. The substantial remaining ore reserves,

although largely located below agricultural land, will need to be safeguarded from any future potentially sterilising development.

### **IG10 - Oil Extraction**

**Proposals for oil extraction at Crosby Warren (part) will be permitted provided that there will be no adverse impact on the surrounding landscape.**

13.22 Oil is extracted in part of the Crosby Warren area and three boreholes have been sunk and are currently in commercial production. It is important that any future boreholes do not have an unacceptable impact on the surrounding landscape of the gullets area and are located in the least environmentally sensitive areas. Where planning consent is granted for future exploratory boreholes or oil production facilities the Council will seek to ensure that planning conditions are implemented to mitigate any adverse effects upon the landscape and ecology of the area.

### **Unstable Land**

13.23 The open cast extraction of ironstone in some gullets has in the past created problems of agricultural land subsidence immediately adjacent to the affected open cast area. Planning consent for the tipping of waste into these gullets has previously been approved in order to alleviate this problem. However, with the exception of the small area at Dragonby Ponds, those gullets susceptible to significant land subsidence are operational as waste tips and infilling of other gullets is not necessary.

13.24 The cessation of underground ironstone extraction at Dragonby and Santon mines has caused land subsidence problems in the form of crown holes occurring at the surface.

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## The Ironstone Gulleets

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This has resulted in the need for minor roads and bridleways in the open countryside to be diverted. The requirement for the area around crown holes to be physically enclosed prevents the land being farmed but does provide opportunities to enhance the landscape with woodland cover. The Council will seek agreement with landowners to implement tree planting schemes in order to improve the environment and landscape which has lost many woodland areas in the past as a consequence of agricultural intensification.

### **Agriculture**

- 13.25 The Ironstone Gulleets area includes significant areas of agricultural land which contain either existing ironstone mineral reserves, are susceptible to subsidence as a result of ironstone mining or forms part of the intrinsic landscape character of the gulleets. It is intended that this land will remain in agricultural use and for development purposes will be considered as part of the open countryside.