OBJECTING TO THE ORDER

Open Spaces Society

(Please note that Nicholas Whitsun-Jones is no longer local correspondent for the Open Spaces Society. Lucy McKean is the point of contact for this order objection)

OTHER REPRESENTATIONS (No objection)

BT Openreach

Environment Agency

Southern Gas Networks

Wessex Water

The Ramblers

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Ms Carol McKay
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Your ref: CAM RW/P226

By e-mail only: carol.mckay@dorset.gov.uk

Date: 31 October 2023

Dear Ms Mckay

Dorset Council (Part of Footpath 79, Beaminster at Chantry Farm)
Public Path Extinguishment Order 2023
Section 118 Highways Act 1980

OBJECTION by the Open Spaces Society ('OSS') to the above Order made on 29th September 2023.

Grounds for Objection

1. There is no evidence to show that the current route of FP79 (including that proposed for extinguishment) is not needed for public use. Were it unobstructed the public would use it. Currently the way is obstructed preventing such use, a situation that the Council and landowners have long known about and done nothing.

2. The effect of the extinguishment will be the loss of a footpath with no like for like replacement. The proposed diversion of BW80 will lead to horse riders and pedestrians sharing the same way, which will inevitably be inconvenient to pedestrian users in terms of the physical condition of the way, especially in wet conditions. Horses and pedestrians (particularly those disabled) do not easily and conveniently share the same way. The upgrading of the existing footpath to bridleway status would thus be detrimental to such pedestrian use.

Dorset Council (Part of Bridleway 80, Beaminster at Chantry Farm)
Public Path Diversion Order 2023
Section 119 Highways Act 1980 (the '1980 Act')

OBJECTION by the Open Spaces Society ('OSS') to the above Order made on 29th September 2023.

Grounds for Objection

1. In terms of the statutory tests to be applied under section 119(6) 1980 Act, the OSS submits as follows:
   (a) 'Not substantially less convenient'): as reiterated below, the proposed diversion of BW80 is only more convenient than the existing route because the current way is in an obstructed, boggy etc state, which is solely due to the unlawful obstructions on the way and the Council failing in its statutory duties to keep the way clear of obstruction and in repair;
   (b) 'Public enjoyment of the path or way as a whole': again as further reiterated below, the closure of the existing route of BW80 to public access will be a major loss to the public of their right to enjoy the way, including the holloway.

2. The reason for the proposed diversion of BW80 is because (to quote the Council) "the current bridleway is obstructed by vegetation and impassable due to wet and boggy ground". Not mentioned by the Council are the other physical obstructions to BW80 including barbed wire and fencing, all of which have previously been reported to the Council with no action or no meaningful action being taken.

3. There has been a combined failure by both successive landowners and the Council (and the former County Council) to discharge their legal obligations over BW80, including (but not limited to) the Council's express mandatory duty under section 130 1980 Act. This unlawful failure has led to the current condition of BW80; had the way been properly maintained these proposals would not have been thought necessary, save perhaps by the landowner. In this regard the words of Phillips J in *R v. Secretary of State for the Environment ex p. Barry Stewart (1980)* (dealing with 'temporary circumstances' in section 118 1980 Act) are particularly apposite to this case:
   "It seems to me that it would be quite intolerable in the case of an admitted highway in the form of a public path for it to be accepted as a good ground for stopping up that encroachments and obstructions had made it difficult to say precisely to within a yard or so where it ran. *It seems to me the objections are those which I have mentioned earlier, that is to say, that to allow such a ground would be an encouragement to those who improperly obstruct the highways* ..." [italicised emphasis added]. In our view these comments are equally applicable to a section 119 1980 Act diversion order as they are to a section 118 1980 Act extinguishment order because the 'temporary circumstances' criterion in section 118 can be read into section 119. The current state of BW80 is just such a 'temporary circumstance' that the Council and landowner should have

addressed. Diversion is a wholly excessive and disproportionate response when the Council has and had other available statutory powers.

4. Note also the advice of PINS in Advice Note No. 9:
"Whereas section 118(6) provides that, for the purposes of deciding whether a right of way should be stopped up, any temporary circumstances preventing or diminishing its use by the public shall be disregarded, section 119 contains no equivalent provision. However, [it is the Inspectorate's view] that, when considering orders made under section 119(6), whether the right of way will be/ will not be substantially less convenient to the public in consequence of the diversion, an equitable comparison between the existing and proposed routes can only be made by similarly disregarding any temporary circumstances preventing or diminishing the use of the existing route by the public. Therefore, in all cases where this test is to be applied, the convenience of the existing route is to be assessed as if the way were unobstructed and maintained to a standard suitable for those users who have the right to use it."

5. BW80 commences at C on the Order map at the point where the public adopted highway ceases. Even if the proposed diversion was effected, the public would still have a right to use the adopted highway to point C, whether by vehicle or otherwise. There is no proposal on the table to close that part of the adopted highway. Traffic of all types will still have a right to pass and repass the landowner's house and buildings.

6. For a large part of its length and as agreed by the Council, BW80 constitutes a holloway or sunken lane (the terms are interchangeable), meeting the expert definition of such ways opined by, for example, Professor Emeritus John Boardman of Oxford University in his paper Sunken lanes in southern England: a review (Proceedings of the Geologists' Association, Volume 133, Issue 6, December 2022, Pages 481-490, copy attached). BW80 is thus of historical and environmental/ecological interest; the OSS and the Council agree on this. However, such interest is not currently protected by any statutory or local designation, nor has any ecological and/or archaeological evidence of any weight been produced by the Council to justify its failure to reinstate BW80 to a usable condition - even if such evidence was relevant, which the OSS do not concede (see 7 below). There has been conjecture but little if anything of substance in this regard. What the Council needs to recognise is that holloways are created and maintained by human and animal use as much as by physical events such as water run off. Continued use as a way is essential for the preservation of the holloway. It will cease to be a holloway without such use because of, for example, detritus and vegetation ingress (which are naturally removed by use).

7. Although the holloway status and associated flora, fauna, geology and physiographical features of BW80 are relevant considerations to which the Council must have regard (section 29 1980 Act), in terms of evidential weight for present purposes it is submitted that such status can only be a subsidiary issue to the more important highway status of BW80 as a bridleway shown as such on the Definitive Map and the Council's legal obligations to maintain the way, which it has consistently failed to do leading to its present state and condition. This is a highway that is - or rather should be - open for all to use and enjoy, with the added bonus of its holloway status.

8. Further, and in relation to section 119 (6) 1980 Act, the closure of the existing route of BW80 to public access will be a major loss to the public of their right to enjoy the holloway and the way as a whole for the purposes of passage including the ability to view its historic and natural features. The proposed diversion does nothing to ameliorate this substantial loss.

9. The Council seem to be using the holloway as an excuse to do nothing to maintain it as an accessible bridleway. It is quite wrong to talk of the reopening of BW80 when it has not been lawfully closed in the first place.

10. It is also of note that the majority (50%+) of the proposed diversion of BW80 is onto an existing footpath, leading to a significant loss of the footpath status with consequences already mentioned above.

11. The fact that the way is in an unlawfully obstructed and unmaintained condition because of the failings of the Council in this regard is not grounds for arguing, as the Council seeks to do, that it is expedient to confirm the Order. The Council is arguing the expediency test on grounds that result from its own failings. Further, in terms of expediency, it is submitted that the wider amenity interests of the public at large in relation to the holloway are of much greater weight than the interests of the landowner in this case.

Please acknowledge receipt of this letter and our objections.

Yours sincerely

[redacted]

(Digitally signed)

Nicholas Whitsun-Jones
Local Correspondent
West Dorset

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Review paper

Sunken lanes in southern England: A review

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ABSTRACT

Sunken lanes or hollow ways are widely recognised in southern England but have rarely been considered in the geological or geomorphological literature. They occur more frequently in internet sources and guides to walking routes and Green Lanes. Archaeologists have also described hollow ways at excavated prehistoric sites. The current review suggests that they are concentrated on certain soft Mesozoic lithologies but that any survey is likely to grossly underrepresent their frequency. However, high density areas in Somerset, the Chilterns, East and West Sussex, Dorset and the Weald can be identified. The sunken lanes are important elements of the cultural landscape with a close relationship to the underlying geology. Other factors, especially a long history of usage by people, animals and the development of tracks and roads, help to explain their distribution. Their importance as sites of biodiversity, geological and historical value suggests that more should be done to investigate, protect and record the sunken lanes of southern England.

Contents

1. Introduction

Sunken lanes (SLs) or 'hollow ways' in the UK, have been recognised and named in many countries, for example, 'chemin creux' (French) and 'Hohlweg' (German). A SL is 'understood as a road deepened, compared to the adjacent land surface, by at least 0.5–1.0 m' (Zgłobicki et al., 2021). Referring to the UK, Boardman (2013) defines them as, 'roads or tracks that are incised below the general level of the surrounding country, often by several metres. They are formed by the passage of people, animals, vehicles and the action of water and gravity (mass movements)'. However, it is humbling to acknowledge that Gilbert White understood and described the SLs around Selbourne as being due to 'the traffick of ages and the fretting of water' (Letter to Thomas Pennant *ca.*, 1767 (White, 1788)); and also appreciated the impact of storms and runoff such as that of 5 June 1784: 'The hollow lane towards Alton was so torn and disordered as not to be passable till mended'

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Table 1
Sunken lanes in southern England (geology from Geology of Britain viewer BGS, n.d.).

	Site, area, geology	Comment	Reference
1	**West Sussex**	Hydrological importance: muddy flows to River Rother (pollution)	Boardman (2013)
	Midhurst, Hythe Formation, Lower Greensand, Cretaceous		
	Hungers Lane (SU 966210) Petworth, Sandgate Formation, Lower Greensand see text for details	Abandoned as road in 1790: re-routed by Capability Brown in redevelopment of Petworth Park and house	Greenfield (1976); Vine (1985)
	Halnaker Mill (SU 910083)		Meier (2014)
	Clayey gravels over Chalk		
	East Grinstead		Dr Chris Manning (pers. comm.)
	Blackwell Hollow (TQ 397384)		Henderson and Bird (1958)
	Hermitage Lane (TQ 396378)		
	West Hoathly Road (TQ 389364)		
	Ardingly Sandstone Member		
	Cretaceous		
2	**Somerset**		
	Yeovil area, Bridport Sand Formation, Lias, Jurassic	Frequent muddy flooding of Shepton Beauchamp *via* sunken lane network	Boardman (2014a); Morgan (1980)
	Montacute (ST496168)	Muddy flooding of village	Prudden (n.d.)
	Bridport Sand Formation, Lias, Jurassic		
	Nynehead hollow, Nynehead (ST 140228), near Taunton	Created by local men in winter, mid nineteenth century	https://www.geograph.org.uk/photo/1394415
	Otter sandstone, Triassic		Simon Ratsey (pers. comm.)
3	**Dorset**		
	Bridport region – valley side slopes on the Brit and Asker valleys	Vertical, well drained sides	Professor Jim Rose (pers. comm.)
	Bridport Sand Formation		
	Stonebarrow Lane (SY 378933), Charmouth, periglacial mass flow deposits consisting of chert rubble diamicton and sorted, reworked Greensand	Originated as a Roman road.	Professor Jim Rose (pers. comm.)
	North Chideock (SY 423940)	Novel: *Rogue Male* (Household, 1939) takes place partly in SL at Chideock	Macfarlane (2008)
	Eype Clay and Down Cliff Sand Member, Jurassic		
	Symondsbury (SY 444937):		Gee (2020)
	Shute's Lane connecting Symondsbury to North Chideock		
	Bridport Sand Formation, Jurassic		
	Dinah's Hollow (ST 883205), Melbury Abbas	Pre 1900, former main road north from Poole Harbour	Vallins (2015)
	Shaftsbury Sandstone Member, Cretaceous		
4	**Devon**		
	Wood Lane (SX 826453), Slapton		J.Boardman (pers. observation)
	Periglacial frost-shattered deposits, Quaternary over Meadsfoot Group, Devonian		
	Man Sands, Devon (SX 915534)		Munton (n.d.)
	Bovisands Formation, Devonian		
	Thorverton, East Devon (SX 924021)		Hoskins (1955): Plate 13 p. 68
	Thorverton Sandstone Formation, Permian		
	North Devon		Appendix 1 for SLs mentioned by Belsey (2008)
	South Devon		Appendix 1 for SLs mentioned in Belsey (2009)

5	**East Sussex**		
	Winterbourne Hollow, Lewes (TQ 406098) Upper and Middle Chalk, Cretaceous;		J Boardman (pers. observation)
	Ashcombe Hollow, Kingston (TQ 390090) Upper and Middle Chalk, Cretaceous		J Boardman (pers. observation)
6	**Surrey**		
	Surrey hills		Matthews (1911). Includes two photographs of sunken lanes
	Lower Greensand, Cretaceous		
	Hascombe to Hambleton (SU 999400) Sandgate and Hythe Formations, Lower Greensand;		Barton (1987) Figure 1
	Church Lane: Bramshott to Waggoners' Walk (SU 843331)		Barton (1987)
	Sandgate and Hythe Formations, Lower Greensand		
	Witley (SU 946397)		Wikipedia (n.d.), includes pictures
	Sandgate Formation, Lower Greensand		
7	**Wiltshire**		
	Vale of Pewsey	Speculates that SLs 200 yrs. old: 2 cm/yr gives lane 4 m deep;	Barron (1976)
	Upper Greensand, Cretaceous	diagram p. 95	
	Lane from Huish (SU 145638) to Gopher Wood, near Oare, Upper Greensand and Chalk, Cretaceous		Macfarlane (2013)
8	**Hampshire**		
	Selborne (SU 741337)		White (1788) letter V; Farrant (2002)
	Upper Greensand Formation, Cretaceous		
	Steep Marsh (SU 751269)		Steep Marsh (n.d.)
	Gault (?) and Upper Greensand, Cretaceous		
	Water Lane near Alton (SU 735375)	Possible carriage wheel marks in base	Doherty (1981) p. 9
9	**Kent**		Sevenoaks (n.d.)
	Sevenoaks		
	Seal Hollow Road (TQ 539560)		
	Lyminge (TR 148414)	Well dated and described	Bell et al. (2020)
10	**Chilterns**		
	Dunstable	Picture of SL on National Trust website	Boardman (2017)
	Chalk, Cretaceous		
	Dame Alice Farm (SU 692925) to Seymour Green;		Holloways of the Chilterns Ap 09/20, n.d.
	Turville (SU 767912) to Northend	See 'Holloway Lane' Northend	Holloways of the Chilterns Ap 09/20, n.d.
	Piddington (SU 807944) to Studley	Once old coach road to Oxford	Holloways of the Chilterns Ap 09/20, n.d.
	Piddington (SU 814942)	Considerable damage to SL gravelly surface in one storm	Oakley (1946)
11	**The Weald, East and West Sussex and Surrey**		
	SLs widespread on Lower Greensand, Lower Tunbridge Wells Sand, Upper Greensand and Chalk (all Cretaceous)		Gallois (1965)
12	**Devon/Somerset**		
	Nr Luppitt (ST 166047)		Gallois and Porter (2006)
	Mudstones and sandstones of Dunscombe Mudstone Formation, Triassic		
	Tiverton area, Devon/Somerset: Permian and Carboniferous sandstones, marls and breccias		Professor Tim Burt (pers. comm.)
13	Suffolk		
	34 'hollow ways' listed by County Council		Suffolk County Council Archaeological Service Sites and Monuments Record (2022)

Note: web links are available in the list of references.

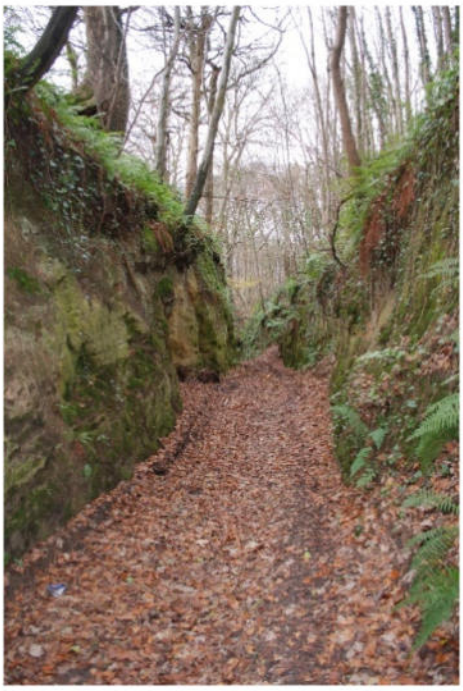

Fig. 1. Bradford Hollow, Yeovil, Somerset.

(Letter LXV1, 25 June 1787: White (1788)). The impressive SLs around Selborne are much as they were in Gilbert White's time except that many are now metalled and erosion is unlikely (Plate 1, Farrant, 2002).

A recent review of SLs in Europe suggests that they occur in all countries but that their frequency and density is varied (Zglobicki et al., 2021). By far the most detailed information is from Poland and Belgium and a comprehensive inventory of ancient tracks including SLs exists for Denmark (Bang, 2013). Surprisingly few records are from countries such as Spain, France and Italy. The interests and number of researchers in part explains the distributions. But for many, the primary explanation would be that SLs are associated with loess deposits and their frequent occurrence in Belgium and Poland would support this supposition. However, the case of Britain suggests other factors are of importance. In Britain, loess deposits are of limited extent and thickness (Catt, 1978), and yet SLs are not uncommon. There are few publications devoted to SLs in Britain (Barton, 1987; Boardman, 2013, 2014a) although others mention them *en passant*, for example, geological memoires and histories: Barron (1976); Farrant (2002); Gallois (1965); Gallois and Porter (2006); Matthews (1911); White (1788). The internet and the literature on Green Lanes is, however, a rich source of information on SLs, often in relation to walking routes *e.g.*, Belsey (2001, 2003, 2008, 2009).

The aim of this short review is to indicate the areas in southern England where SLs are frequently encountered and to explore their possible age and likely controls on formation by considering lithology, human trafficking, animal herding and proximity to archaeological features. The review cannot be comprehensive because of the paucity of publications but access to the web suggests that they have been described frequently and photographed often. The inventory of SLs (Table 1) should be regarded as an indicator of areas where these features are significant landforms and in those areas are likely to be far more common than generally acknowledged.

2. Formation of Sunken Lanes: factors

2.1. Geology

Certain lithologies are clearly susceptible to the combined action of running water, people, animals and wheeled vehicles. In the absence of loess in any substantial quantities, it is the softer formations of Triassic, Jurassic and Cretaceous ages on which SLs are most frequently developed. It is however those lithologies which under most circumstances are permeable but which also have sufficient structural integrity due to compaction, cemented layers, or intercalated hard bands, to support high gradient walls of the SLs. The Bridport Sands and the Upper Greensand are good examples of these qualities.

2.1.1. Upper Greensand: Selborne area and Vale of Pewsey

The Upper Greensand Formation (UGF) is a calcareous sandstone and siltstone. Locally it is referred to as malmstone. It is of limited extent particularly outcropping in the western Weald around Selborne (Hampshire) and around Bignor (West Sussex), at the foot of the Chilterns near Monks Risborough and in the Vale of Pewsey (Wiltshire). In the latter two areas, the BGS classify it as undifferentiated UGF and Gault Formation. Around Selborne and in the Vale of Pewsey SLs are often deeply incised and frequently encountered on the UGF.

2.1.2. Bridport Sands: Somerset and Dorset

The Bridport Sands are a fine-grained silty sand, weakly structured and friable (Prudden n.d.). It outcrops around Yeovil, Shepton Beauchamp and Montecute in Somerset and around Bridport in Dorset. Sunken Lanes are frequent in these areas with fine examples such as Bradford Hollow (Fig. 1) and Shute's Lane (Fig. 2). On the Bridport Sands arable fields are susceptible to erosion (Colborne and Staines, 1985), and muddy runoff is concentrated in SLs leading to flooding

Fig. 2. Shute's Lane, Symondsbury, Dorset.

Fig. 3. Great Lane, Shepton Beauchamp, Somerset.

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Fig. 4. East Coker, Somerset.

of Shepton Beauchamp and Montacute (Morgan, 1980; Boardman, 2014a; Prudden, n.d.) (Figs. 3 and 4).

2.1.3. Chalk, East Sussex and Chilterns

SLs are common on the Chalk of both the South Downs and the Chilterns. This may seem curious as Chalk landscapes, in general, lack surface water drainage systems. However, the early settlement of these regions (from the Neolithic onwards) and therefore continued usage in some cases for at least 6000 years may be part of the explanation. Also, it is worth considering the former cover of loess (at least 1 m thick in many places) that would have encouraged runoff and erosion (Favis-Mortlock et al., 1997). Routeways formed on the loess cover would have been superimposed onto the underlying Chalk. Similarly, in some areas, the formerly more extensive cover of Clay-with-flints would have led to routeways being superimposed onto the Chalk. However, a superficial cover is not necessary: gully incision and ancient wheel-tracks are seen in SLs developed on chalk (Martin Bell, pers. comm.), and present day gullying is not uncommon on arable fields in chalk landscapes (Boardman, 2003).

2.1.4. Lower Greensand: Surrey hills; West Sussex around Midhurst

These are 'classic' areas for SLs eroded into Lower Greensand lithologies especially Hythe and Folkestone Formations. High densities of SLs are found in the area of Surrey around Leith Hill stretching westwards to Hascombe and Hambledon, a region that Matthews (1911) rather grandly designates 'The Highlands of South-West Surrey', likewise the Lower Greensand in the Rother valley, West Sussex, has a high density of SLs (Boardman, 2013).

However, the geology of the SLs is not always straightforward. Oakley's (1946) description of a storm in the Chilterns describes the role of a SL in directing runoff and sediment to the valley bottom. He makes clear that in this chalk landscape, damage to the lanes was effected by flinty gravels and sands from the chalk, Clay-with-flints and the Reading Beds.

2.1.5. Other lithologies

Wood Lane in Slapton, south Devon, is incised into 2 m of periglacial frost-shattered slates down to Lower Devonian slates bedrock. This is typical of SLs in similar geological situations with incision slowing or halting once bedrock is reached.

Areas mentioned in the text where SLs are concentrated are shown on Figure 5.

2.2. Other factors

Apart from the role of geology, local relief plays an important part in the location and morphology of SLs. The lanes are found where trackways descend slopes or escarpments rather than on plateaux or clay vales. However, it is the interaction of geological, relief and usage factors that combine to produce the variety of SLs we find in southern England.

The movement of animals and associated products between lowlands and highlands, often seasonally, is attested by the numerous north–south patterns of tracks and roads in southern England, particularly in the Weald. These are referred to as 'cross topography routes' which linked zones with differing resources, the higher ground with river valleys and the coastal plain (*e.g.*, Bell et al., 2020). Many of these

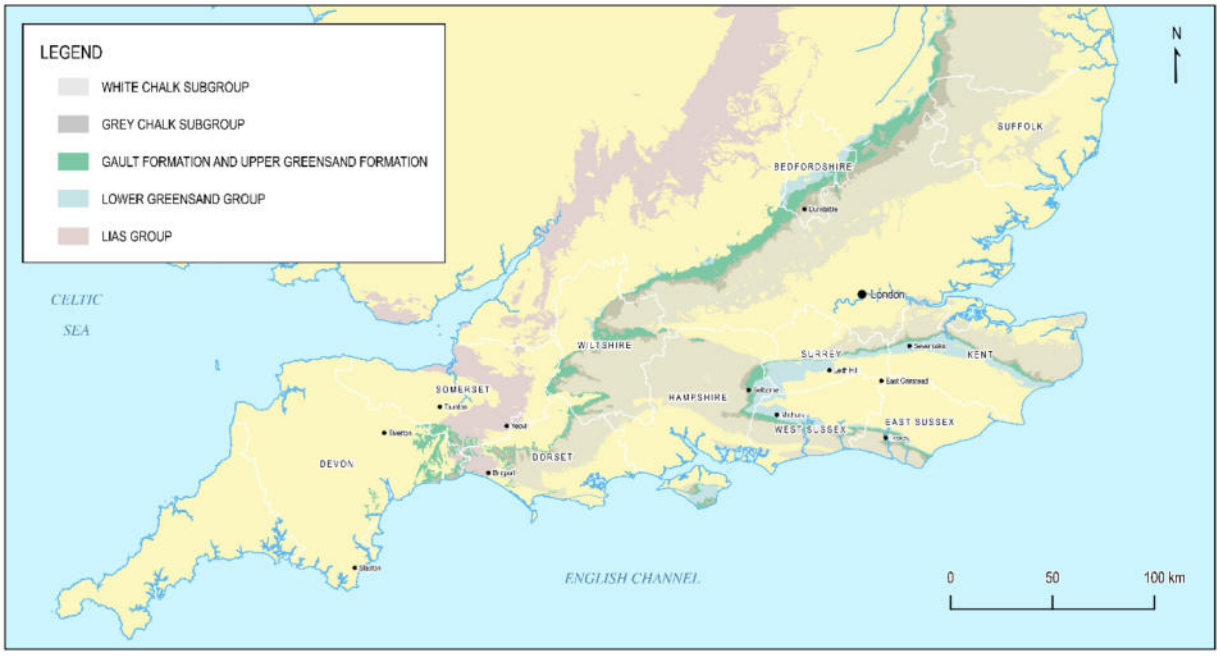

Fig. 5. Areas of southern England where sunken lanes are concentrated (see text for details). Geological data from: https://www.bgs.ac.uk/bgs-intellectual-property-rights/open-government-licence/. https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/.

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Fig. 6. Hungers Lane, near Petworth, West Sussex.

routes became sunken due to frequent use. In the High Weald the pattern is especially striking and it is suggested that the practice of pannage in which farmers from a village took their pigs to the same woodland each year to pig pastures or dens was important. Domesday records (1086) show 150,000 pigs being driven to and from woodlands in the High and Low Weald (Highweald.org, 2021). Frequent use of the routes as 'drove roads' would lead to incision. Drove roads have been described in Wales (Godwin and Coulson, 1978) and in Scotland (Haldane, 2019) and for their role as prehistoric trackways, see Bell (2020). The importance of drove roads is noted by Cobbett when he visited the fair at Wyhill near Andover (Hants.) in 1826 with 200,000 sheep brought from Wiltshire, Dorset and Somerset (quoted by Doherty, 1981). Recent work by Margetts (2021) shows the importance of cattle movement in the medieval economy of southern England.

In the Midhurst area of West Sussex, villages along the River Rother were established in Saxon times and it seems likely that north–south routes from the villages to woodland and heathland on higher ground, represent lines of stock movement since at least that time. Many of these SLs are now incised to as much as 10 m (Boardman, 2013). Animal movements between lowlands and uplands at different seasons are common to many countries and are generally known as 'transhumance'. In northern England the system endured for hundreds of years and is described in some detail by McDonnell (1988). In the south, transhumance survived locally until WW2 with summer movements of cattle and goats to Burnham Beeches and Farnham Common in Buckinghamshire (Belsey, 2001 p. 43).

In some cases in continental Europe, SLs are attributed in whole or part to excavation, that is the quarrying of rock (Zgłobicki et al., 2021). Such an origin seems uncommon in England with an exception being that at Nynehead, Somerset (Table 1) although the reason for its cutting remains unclear. Hoskins (1955, Plate 13) shows an East Devon SL which he suggests demarcates an important Anglo-Saxon boundary between estates: 'a double ditch was dug out by slave-labour, and the earth thrown up to form hedgebanks on either side'. This is an alternate form of SL.

3. Discussion

Reference is made below to the detailed mapping of SLs in East Hampshire by Hampshire County Council; this mainly in relation to their value as historic features of the cultural landscape but more specifically as sites of biological importance. Equally impressive is the database of Suffolk County council in which hollow ways and sunken lanes are recorded as features of archaeological significance. Thirty four sites with SLs largely of presumed medieval origin are listed (Suffolk County council archaeological service sites and monuments record, 2022). Detailed discussion and description of the sites in these county council documents is beyond the scope of this article. They appear to be databases that are unique in southern England

The development of SLs is an example of positive feedback. Once a depression formed, probably most frequently as a track for people, animals and vehicles, runoff will be concentrated along the depression and incision will occur. Both Rowntree (2013) and Boardman (2014b) have described the development of gullies in South Africa from initial farm tracks or waggon routeways. In some cases negative feedback will take over: as the depression deepens, passage along it becomes more difficult or uncomfortable and it is abandoned and an alternative routeways is created. This would explain the cases of multiple hollow ways, for example those descending the chalk scarp of Marlborough Downs in Wiltshire (Bell, 2020 Figure 8.5) and similarly those on the chalk scarp at Saddlescombe in East Sussex (Bell, 2020 Figure 10.7).

The long-term development of a SL may be influenced by factors such as usage, abandonment or metalling. Abandonment would in some cases be related to the decline in transhumance systems in the medieval period as independent farms and villages developed *e.g.*, in the High Weald (Martin Bell, pers. comm.). However, many SLs in England have been metalled and have effectively ceased to erode. Exceptions such as Hungers Lane (Fig. 6) continue to operate as footpaths and intermittent erosion has occurred since it was abandoned as a Turnpike Road in 1791 (Vine, 1985). Losses from the lane, over an unknown period of time, amount to around 17,400 m^3. At its southern termination some of this material is stored in a fan on the floodplain of the Rother at Rotherbridge Farm (SU 967204), but most is likely lost to the river. There seems little possibility for significant incision along its length at the present time, with the flood plain acting as base level. The SL also has a low average gradient (1 in 34 or 0.029), the lowest of those listed in Boardman (2013, Table 3). It may be that most SLs are now geomorphologically inactive having developed under conditions of usage that no longer apply and many are used now principally as footpaths. But this needs to be confirmed especially at times of rainstorm events and flash floods. Incision, of course, is not the only erosional influence: mass movements on the sides of SLs and the actions of burrowing animals also affect their morphology and supply sediment for runoff in the lanes (Fig. 7).

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Fig. 7. Landslip in sunken lane, Stedham, West Sussex.

Sunken lanes differ from conventional water-eroded gullies in that they lack 'a strong correlation between initiation slope and contributing area' (De Geeter et al., 2020 p. 1). This suggests that other factors – specifically human influences – are important controls on their location and morphology.

The morphology and details of the geomorphological location of SLs has not been widely researched. Many lanes are the result of human choices about routeways rather than preferred hydrological pathways. Those around Midhurst are strikingly aligned along dry routes avoiding the valleys (Boardman, 2013). The more general point is that southern England is essentially a periglacial landscape adjusted to high peak discharges on an unvegetated landscape and mass movement on slopes (Jim Rose, pers. comm.). The different regime of Holocene temperate conditions leads to a different set of processes and responses (*e.g.,* gullying), with the further complication of extensive agricultural influence on the landscape. It is under these conditions that SLs have developed.

The typical landscape position of SLs is described and illustrated by Poesen et al. (1996). They envisage the lane as the final element in a hydrological cascade in which runoff and sediment is transferred from fields in the upper catchment to be interrupted by, or to pass through, field boundaries (Fig. 8). In an arable landscape, rills on eroding fields and ephemeral gullies in valley-bottom locations play an important part in this process. The fields do not have to be directly adjacent to the SL but simply 'well connected' as Figure 8 makes clear. The challenge of modelling the combination of runoff processes and landscape elements (hedges etc.) has recently been addressed by Favis-Mortlock et al. (2022). Figure 8 also shows 'bank gullies' developed in the banks of SLs and representing another form of connection between the field and the lane (Poesen et al., 1996). These have not been described or mapped in southern England. They are referred to by Farres et al. (1993) as 'head cut forms'. Bank gullies occur in SLs in West Sussex *e.g.,* along Stedham Lane near Midhurst (SU 871229).

The age of the SLs has long been a problem. Across Europe the suggested ages vary with few having been securely dated (Zgłobicki et al., 2021). Those in the Meerdaal Forest of Belgium are related to Iron Age and Roman settlements and routeways (Vanwalleghem et al., 2003).

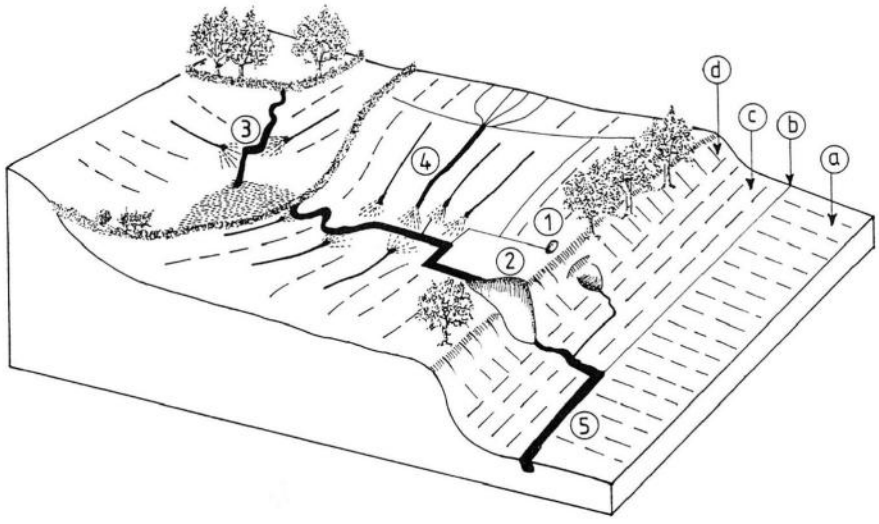

Fig. 8. Erodible landscape showing role of sunken lane (from Poesen et al., 1996). 1. Pipe inlet 2. Bank gully 3. and 4. Ephemeral gullies 5. Sunken lane; a. tillage direction b. limit of headland c. headland d. bank (lynchet).

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In southern England, there is evidence for wheeled traffic in the vicinity of Iron Age forts which implies the development of trackways for around 3000 years (Bell, 2020 p. 184). Bell reports hollow ways and wheel ruts in excavations at Cobham, Kent, dating from the Bronze Age to Iron Age and also an Iron Age/Roman hollow way at Saltwood Tunnel, Kent, both associated with excavation for HS1 (Booth et al., 2011). Belsey (2009 p.162) describes a 'deeply sunken section of Roman road' at Ideford in Devon. Rackham (1986), quoted in Ockenden and Rose (1999), points out that 'holloway', (old English 'hola weg'), frequently occurs in Anglo-Saxon chronicles. Both Belsey (2009) and Ockenden and Rose (1999) use hedge-dating approaches to suggest minimum ages for SLs – usually of several hundred years.

Bell (2020) makes it clear that the evidence for hollow ways in prehistory may be adduced by their association with datable features such as hill forts. However, many are only revealed by sometimes fortuitous excavation as the above examples show. They may be buried by later colluvial or alluvial deposition. By far the best dated example of an English SL is that at Lyminge in Kent where Bell et al. (2020) use a multiple dating approach to show a late prehistoric or Romano-British origin. They date a 3 m sequence of colluvium adjacent to the SL using OSL, uranium series, molluscs and artefacts. The possible relationship of sediments from SLs to valley-bottom alluvial sequesnces is illustrated in Bell et al. (2020 Figure 1) and exemplified at the Hungers Lane/Rotherbridge Farm site discussed above.

The rate of development of SLs has rarely been assessed in contemporary times. However, in the Polish Carpathians, Froehlich has monitored unmetalled roads which 'over several centuries of agriculture have evolved into ravines several metres deep' (Froehlich, 1991, p. 21). Recently they were used for the transport of logs and incision during flash floods of up to 60 cm and an annual average rate of 6.6 mm is recorded. In southern England, Barron (1976) suggests speculatively a rate of downcutting of 2 cm/yr to give an age of 200 years for SLs typically 4 m deep.

On the continent, SLs have been recognised as sites of value in terms of biodiversity and as of geological importance. In southern England such concerns are rare although Belsey (2001, chapter 4) is eloquent on the ecology of green lanes which include sections that are sunken. Detailed and ongoing work on SLs is that by the Hampshire Biodiversity Information Centre which has produced reports and an inventory of lanes in east Hampshire including a map. The focus here is on the botanical features and particularly the lower plants (bryophytes and lichens) which are favoured by the high humidity, microclimates and shading of the SLs. Around 70 SLs were surveyed of which 40 were on the Upper Greensand (UG), 10 on Chalk (Ch) and 20 on Lower Greensand (LG). Some were assessed as being of high biodiversity value, three of note are Cheesecombe Lane on UG (SU 747287), Warren Lane on Ch (SU 735288) and that south of Oakhanger on LG (SU 770351).

In some countries SLs have been lost to landscape reorganisation schemes and this has led to calls for their preservation as important elements of the cultural landscape. Some SLs are of historical significance: those around Hinton Ampner in Hampshire, played a role in the key Parliamentary victory of the Battle of Cheriton (SU 583286) on 29th March 1644 in the English Civil War (Battlefields Trust, 2004). The cultural and historic importance of SLs is rarely acknowledged and therefore is in danger of being neglected in landscape planning. Exceptions are the reports from Hampshire Biodiversity Information Centre and the local plan for the village of Selborne, Hampshire, which recognises the value of SLs, asks for them to be preserved, and links their importance to the writings of Gilbert White (Selborne Village Design Statement, n.d.). The threats to SLs in east Hampshire are detailed in a hard-hitting report which lists and discusses the problems of neglect, mismanagement, agricultural practices and traffic (Ockenden and Rose, 1999). The responsibility lies with landowners, farmers and local councils (highway authorities) and the lack of regulation in terms of protection for valued sites. Some protection for SLs has been instituted by Hampshire County Council with the designations of some sites as Sites of Importance For Nature Conservation (SINCs) and Road Verges of Ecological Importance (RVEIs) (Nicky Court, pers. comm.).

The importance of SLs as walking trails has also been acknowledged. Belsey's monumental works on the green lanes of Devon include many references to sunken sections. The overlap between the broadly defined Green Lanes and SLs is not surprising (Belsey, 2001, 2003, 2008, 2009). In north Devon, on 51 walking routes, 22 sunken or hollow way sections are noted in Belsey (2008) and these are listed in Appendix 1.

Sunken lanes are frequently the means by which runoff generated on slopes is transferred to valley bottoms (Fig. 8). In east Hampshire, Doherty (1981) notes the frequent diversion of field drainage into sunken lanes. If the source area of the runoff is arable fields these flows are likely to carry soil, thus the term 'muddy floods' (Boardman et al., 2006). In areas of high population density, muddy floods may impact on habitations, transport links and freshwater systems. The connection between the damage resulting from muddy flooding and SL systems is illustrated in Belgium by Evrard et al. (2007) and in

Fig. 9. Damage to sunken lane, Hammer Lane, Iping, West Sussex.

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southern England by reference to the Rother valley around Midhurst, West Sussex (Boardman, 2013) and the village of Shepton Beauchamp in Somerset (Boardman, 2014a). In the former case muddy flows along SLs affect the ecology of the river and in the latter case they cause damage to the houses in the village (Morgan, 1980). White (1788), as has been noted, described the damage associated with runoff in a SL. Even metalled roads are not immune when flints or cherts are transported along SLs as bedload and cause physical abrasion to the road surface (Fig. 9).

It is of course likely that muddy flooding associated with SLs has greatly increased due to the widespread metalling of SLs. Muddy flooding in both Shepton Beauchamp and the Midhurst area, is predominantly from metalled SLs.

Prior to metalling, the SLs were a formidable obstacle to travel: this is clear from the writings of Gilbert White. The difficulties of traversing the SLs increased the sense of isolation that those living in villages such as Selborne experienced. The writer James Mudie had described the difficulties of reaching the village in 1835 in a carriage: an alternative 'properly surfaced road' was built to Alton in 1847 (Mabey, 2006).

In view of the broad scope of this review and the lack of detailed studies of SLs in southern England, it is worth commenting on the need for future research. A more complete recording of SLs in specific areas would be welcome. The most detailed surveys are probably those by Hampshire Biodiversity Information Centre (Doherty, 1981; Ockenden and Rose, 1999). Such surveys could be done by local geological, historical, biological or walking groups. Local councils should have an interest in the preservation of SLs as historic features of the cultural landscape. Surveys should include descriptions of the geology and morphology of the mapped features. The lanes have been particularly neglected as sites of botanical value (see Ockenden and Rose, 1999). Of concern is the lack of information of the age of SLs. Many are simply referred to as 'medieval' but archaeological evidence suggest that some originate as Bronze and Iron Age trackways. A multi-disciplinary approach is needed to solving the problem of their age with a concentration on sediments emanating from, or associated with, SLs (see Bell et al., 2020).

4. Conclusions

This survey has arbitrarily covered several counties in the south of England with records of SLs. This has inevitably focused on Mesozoic rocks, relatively soft and therefore susceptible to erosion. It is likely that older, harder rocks in the north of the country also contain SLs for example, mining tracks in the Lake District. But that is not the subject of this review.

There can be no all-encompassing explanation for sunken lanes. To a large extent we are dealing with equifinality. Similar forms are the result of a combination of factors operating on very different lithologies, from loessic deposits in continental Europe, to relatively soft Mesozoic lithologies in southern England. The balance between the factors, especially the role of running water, must vary from place to place. While geology and topographic position are important factors, the role of human usage and that of the movement of livestock, is crucial to the development of SLs. The long history of many of the lanes suggests that development factors probably varied through time. Many SLs are now metalled and serve an important function as routeways for runoff connecting valleysides with river valleys.

The contribution to the study of sunken lanes and hollow ways from archaeology, especially the interest in ancient trackways, is substantial and reveals the long history of some of these features (Bell, 2020). Geology and geomorphology have a part to play in explaining the distribution, development and cultural significance of SLs.

The current review represents a first attempt at describing the main areas where SLs are commonplace and gives an indication of the geological and other reasons for their frequency. Detailed mapping and a search of documentary sources is likely to aid in unravelling their history. The recent development of LiDAR imagery has aided the mapping of SLs, for example in Denmark (Bang, 2013) and in the wooded areas of the South Downs, England (Manley, 2016). The age and therefore the rate of development of all but a few SLs in southern England remain a mystery.

Declaration of competing interest

None.

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Appendix 1. Sunken Lanes in Devon

Sunken lanes and hollow ways lanes: from Belsey (2008) *Exploring Green Lanes: north and north-west Devon.*

Route no. and area	Page	Grid reference for SL
1. Copplestone	24	SS 762060
12. Bampton	69	SS 993214 and SS 995215
12. Bampton	70	SS 975224
13. Morebath (A)	76	SS 955250
14. Morebath (B)	78	SS 950260 (Hawkridge Lane)
18. Combe Martin	96	SS 598465 (Badgaver Lane) and SS 588468 (Pentice Lane)
19. Ilfracombe	100	SS 533472
21. Bishop's Tawton	108	SS 590296
24. Croyde	120	SS 440400 (Stentaway Lane)
26. Saunton	130	SS 472385 and SS 467380
28. Great Torrington	140	SS 447195
32. Abbotsham	159	SS 422265
33. Buckland Brewer	164	SS 425160
34. Parkham	168	SS 383235
35. Hartland (A)	174	SS 250231
40. Highhampton	193	SS 502047
44. Lydford	210	SS 514845
45. Cookbury	214	SS 423072
51.Tedbury St Mary	238	SS 820955

Sunken lanes and hollow ways lanes: from Belsey (2009) *Exploring Green Lanes: south and south-east Devon.*

Route no. and area	Page	Grid reference for SL
5. Feniton	40	SY 105996
10. Uffculme	69	ST 088141
11. Ashill	74	ST 089110
12. Culmstock	78	ST 120149
17. Kilmington	104	SY 268983
21. Beer	122	SY 223896
23. Newton Popplesford	132	SY 090883 and SY 094877
27. Ottery St Mary	150	SY 115974
28. Teignmouth	155	SX 958748
30. Ideford	162	SX 884779
31. Dawlish	170	SX 962767
33. Whilborough	179	SX 875659
35. Woodland	186	SX 794701
39. Staverton	206	SX 766681
46. Modbury	242	SX 653516

The grid reference quoted is the best estimate of the location of the SL based on the text in Belsey's books.

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From: stephen.conen@openreach.co.uk
Sent: 25 October 2023 10:38
To: Carol Mckay
Subject: Dorset Council (Part of Footpath 79, Beaminster at Chantry Farm) Public Path Extinguishment Order 2023 & Dorset Council (Part of Bridleway 80, Beaminster at Chantry Farm) Public Path Diversion Order 2023
Attachments: BEAMINSTER .png

Good Morning Carol

Thank you for your letter and drawing dated 04/10/2023

Dorset Council (Part of Footpath 79, Beaminster at Chantry Farm) Public Path Extinguishment Order 2023 & Dorset Council (Part of Bridleway 80, Beaminster at Chantry Farm) Public Path Diversion Order 2023

Openreach records indicate that no apparatus exists within the area of your proposed footpath alterations.

Please note that a site survey has not been carried out at this stage, and this is just for Notification for your and Our Records recording process

Thank you again

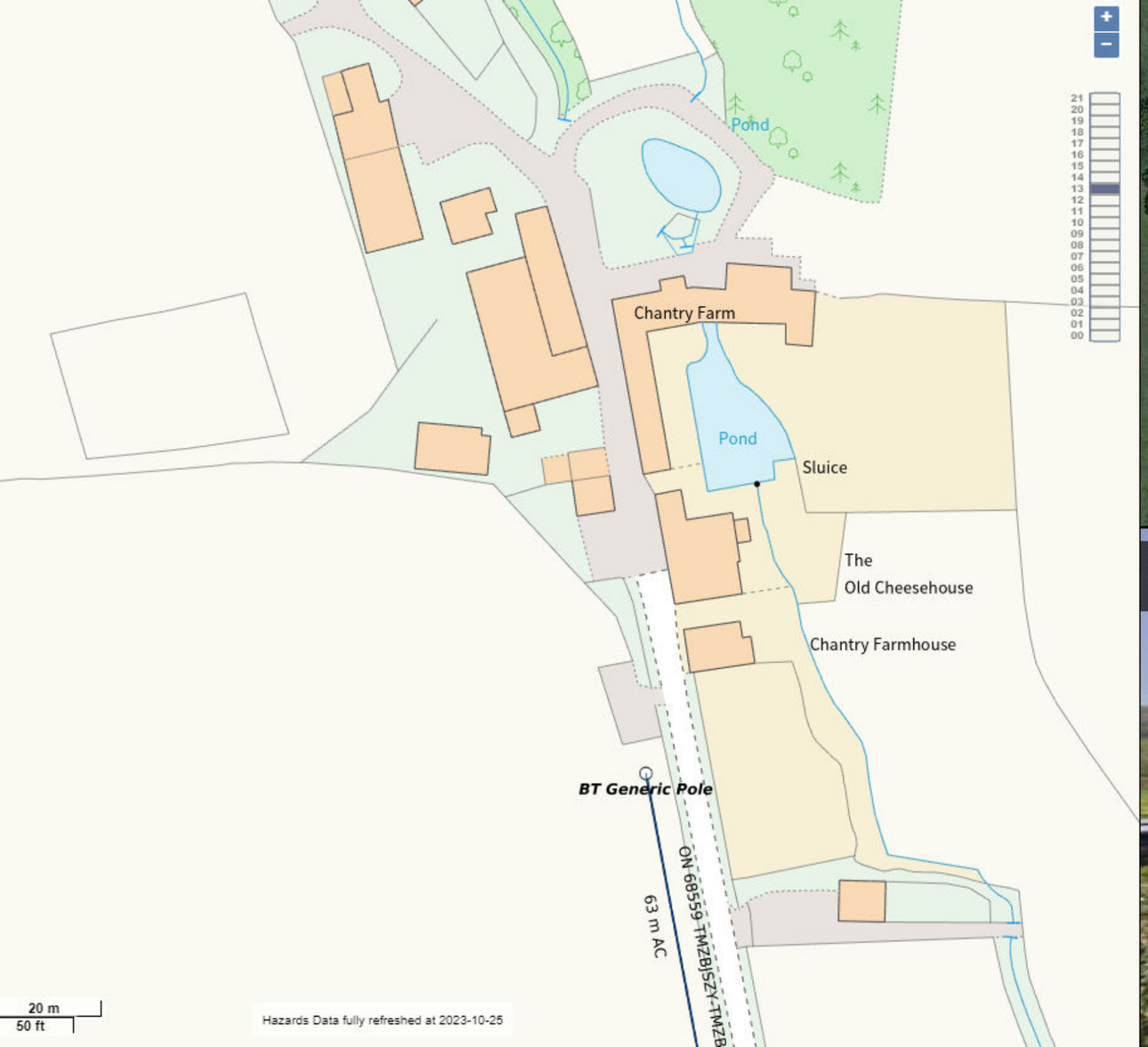
Regards

Stephen Conen

Network Rearrangement Project Engineer

Mobile: 07702313312

e-mail: stephen.conen@openreach.co.uk


Pond
Chantry Farm
Pond
Sluice
The
Old Cheesehouse
Chantry Farmhouse
BT Generic Pole
63 m AC
20 m
50 ft
Hazards Data fully refreshed at 2023-10-25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Terms
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Chantry Ln
England
View on Google Maps

From: Griffin, Daniel
Sent: 12 October 2023 12:05
To: Carol Mckay
Subject: RE: Dorset Council (Part of Footpath 79, Beaminster at Chantry Farm) Public Path Extinguishment Order 2023 & Dorset Council (Part of Bridleway 80, Beaminster at Chantry Farm) Public Path Diversion Order 2023

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Carol,

Thank for the email. As these works are not near a main river or flood defence, I have no comments or concerns.

Kind Regards,

Daniel Griffin
FCRM Officer

Partnership & Strategic Overview Team
Flood and Coastal Risk Management - Dorset and Wiltshire
Wessex Area
Environment Agency
Internal: 39299
External: 020302 59299
daniel.griffin@environment-agency.gov.uk
Rivers House, Sunrise Business Park, Higher Shaftesbury Rd., Blandford Forum, Dorset, DT11 8ST

PLEASE SEND NEW FRA PERMIT APPLICATIONS TO: Blandford.frap@environment-agency.gov.uk

Further information on the new Flood Risk Activity Permits can be found here:
https://www.gov.uk/guidance/flood-risk-activities-environmental-permits

DO YOU KNOW WHAT TO DO? FLOODS DESTROY BE PREPARED

https://www.gov.uk/floodsdestroy

From:	Gardner, Terry
Sent:	16 October 2023 10:07
To:	Carol Mckay
Subject:	RE: Dorset Council (Part of Footpath 79, Beaminster at Chantry Farm) Public Path Extinguishment Order 2023 & Dorset Council (Part of Bridleway 80, Beaminster at Chantry Farm) Public Path Diversion Order 2023
Attachments:	TG56003_20231016100233383.pdf

Hi Carol

I don't think I have replied to this yet.

SGN do not appear to be affected by this order.

Kind regards
Terry

Terry Gardner
Land Officer -Southern
Legal Services
T: +44 (0)1689 881460
M: +44 (0)7887825409
E: terry.gardner@sgn.co.uk
SGN, 2 Leesons Hill, Orpington, Kent, BR5 2TN
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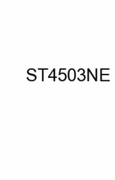
Follow us on Twitter: @SGNgas

ST4504SE	ST4604SW	ST4604SE	ST4704SW	ST4704SE	ST4804SW	ST4804SE	ST4904SW	ST4904SE	ST5004SW
ST4503NE	ST4603NW	ST4603NE	ST4703NW	ST4703NE	ST4803NW	ST4803NE	ST4903NW	ST4903NE	ST5003NW
ST4503SE	ST4603SW	ST4603SE	ST4703SW	ST4703SE	ST4803SW	ST4803SE	ST4903SW	ST4903SE	ST5003SW
ST4502NE	ST4602NW	ST4602NE	ST4702NW	ST4702NE	ST4802NW	ST4802NE	ST4902NW	ST4902NE	ST5002NW
ST4502SE	ST4602SW	ST4602SE	ST4702SW	ST4702SE	ST4802SW	ST4802SE	ST4902SW	ST4902SE	ST5002SW
ST4501NE	ST4601NW	ST4601NE	ST4701NW	ST4701NE	ST4801NW	ST4801NE	ST4901NW	ST4901NE	ST5001NW



SCALE : 1 : 11111

USER ID : TG56003

DATE : 16/10/2023

INTERNAL USE ONLY

GRID REFERENCE : E347796,N102873,ST 47 02

LP MAINS
MP MAINS
IP MAINS
LHP MAINS
HISTORY DATA
LAs
GTs
SSSIs

Some examples of Plant Items

Valve | Syphon | Depth of Cover | Diameter Change | Material Change

This plan shows the location of those pipes owned by Scotia Gas Networks (SGN) by virtue of being a licensed Gas Transporter (GT). Gas pipes owned by other GTs or third parties may also be present in this area but are not shown on this plan. Information with regard to such pipes should be obtained from the relevant owners. No warranties are given with regard to the accuracy of the information shown on this plan. Service pipes, valves, siphons, sub-connections etc are not shown but their presence should be anticipated. You should be aware that a small percentage of our pipes/assets may be undergoing review and will temporarily be highlighted in yellow. If your proposed works are close to one of these pipes, you should contact the SGN Plant Protection Team on 08450703497 for advice. No liability of any kind whatsoever is accepted by SGN or its agents, servants or sub-contractors for any error or omission contained herein. Safe digging practices, in accordance with HS (G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that plant location information is provided to all persons (whether direct labour or sub-contractors) working for you on or near gas apparatus. Information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

Intranet WebGIS 2.1

Dorset County Area

Scotia Gas Networks plc

From: Mapping
Sent: 03 October 2023 11:33
To: Carol Mckay
Subject: RE: Dorset Council (Part of Footpath 79, Beaminster at Chantry Farm) Public Path Extinguishment Order 2023 & Dorset Council (Part of Bridleway 80, Beaminster at Chantry Farm) Public Path Diversion Order 2023

Thank you for your enquiry.
The site that you require falls outside of Wessex Water's catchment area. Wessex Water are responsible for the area, however there are no public assets on the site you require. Wessex Water adopted a vast amount of the current public sewer network in 2011 as part of the S105a adoption act. With 1000's of miles of existing pipe work suddenly becoming the responsibly of Wessex Water where it was before privately owned the ability to trace locate and plot on our records has not yet been possible.
If you are finding it impossible to detect the presence of the public sewer via site investigations, such as checking for manholes on site and flushing toilets/running tabs of nearby properties to determine which way the sewer Is flowing and which properties it serves, then you can arrange a sewer trace with our operations team on **0345 600 4600** or operational.enquiries@wessexwater.co.uk
Kind Regards,
Mapping Team

From: Richard Meatyard
Sent: 03 October 2023 16:47
To: Carol Mckay
Cc: Jan Wardell
Subject: RE: Dorset Council (Part of Footpath 79, Beaminster at Chantry Farm) Public Path Extinguishment Order 2023 & Dorset Council (Part of Bridleway 80, Beaminster at Chantry Farm) Public Path Diversion Order 2023

Dear Carol,

You are going to curse me but I'm going to raise a concern about the Limitation and Conditions being incomplete.

I think in previous orders it has been the default position to state the provision in place, or to be provided at every boundary that crosses the diverted section of the path. This being the case there are two items missing from the L&Cs.

At point P, there is currently a gap, 2.7m between posts, where the new path transitions from 4m to 3m width.

Just north of point B there are the remnants of a stile in gap at the end of a bank, currently the gap between the bank and adjacent trees and bushes is under 2m but could be opened up to +3m by clearance work.

I assume these are to be gaps of 3m (width of path) but I would be happier if these gaps and widths were specified in the L&Cs.

Regards,
Richard.

From: Richard Meatyard
Sent: 17 October 2023 10:19
To: Carol Mckay
Cc: Jan Wardell
Subject: Re: Dorset Council (Part of Bridleway 80, Beaminster at Chantry Farm) Public Path Diversion Order 2023

Categories: saved and printed

Dear Carol,
Thank you, given the long and torturous history of this order and that it is one we are supporting I don't consider it appropriate to object over a technicality.

However, I would strongly urge DC to return to the practice of detailing all cross path boundaries. A few lines of text setting out the provisions explicitly greatly reduces the chance any future confusion, disputes, litigation and associated enforcement costs.

Regards,
Richard.