Haslingfield Parish Council

Draft response to EWR Consultation 2021

EWR Co's questions and statements are shown in the text boxes below. Other text is our response to the consultation.

Q1 The approach to Cambridge

Please share your views on:

Because EWR alignments closer to north Cambridge are now being considered, we have looked again at whether we were right to have favoured Route Option E and approaching Cambridge from the south as we confirmed after our last consultation. In particular, we have reviewed our previous assessment that concluded approaching from the south was the better option taking account of a Cambourne North Station outside of Route E to see if we would have made a different decision. We consider that the advantages of approaching Cambridge from the south continue to support this conclusion and that a number of challenges remain for a northern approach even with a Cambourne North station. We'd welcome your comments on our assessment.

General

Haslingfield Parish Council (HPC) strongly disagrees with your conclusion that the southern approach into Cambridge remains sound.

Below we provide detailed reasons why your conclusions presented in [1 section 4 Appendix F] are flawed but we remain concerned about the process that you have followed to present your case.

Firstly, we suggest that the question raised itself is biased. Instead of asking a straightforward question about our preference, the question presents your view of the issue without balancing it with other viewpoints.

The information about a northern approach into Cambridge is not presented as a possible viable option, as you have done for other sections of the route such as between Clapham Green and Little Eversden, but relegated the discussion to an appendix, almost as an afterthought. We find this lack of a 'hearts and mind' approach short-sighted and concerning. If there really were a strong case for a southern approach, it would be more effective and less costly for the project to present the arguments in parity and give the public a clear choice.

While some points in favour of a southern approach are described, they are dismissed out of hand as being easily overcome. Examples include the Barbastelle bats in the Wimpole SAC and the Mullard Radio Astronomy Observatory – the conclusion states that the impacts on both of these assets are predicted to be capable of mitigation, subject to detailed design. Where major decisions are taken based on such 'predictions', it would be prudent to carry out a more thorough check at this stage.

Finally, we consider that the arguments presented in [1, Appendix F] are superficial and lack supporting evidence. Assertions are made on this crucial issue often without any explanation of the process in reaching the conclusion. This is particularly true of the statement that the section of track from Milton Junction into Cambridge would need to be 4-tracked. This conclusion has been strongly

rebutted but only after finding out via a verbal discussion and a 'live chat' session that reason given in the Consultation Documents was not the real reason for the conclusion. Solutions have been presented to EWR Co demonstrating that both reasons could be readily overcome and that 4-tracking is not required.

Positive reasons for the northern approach

The wider benefits of the railway for major employment sites are currently quite balanced between the north and the south of Cambridge, however, the sites to the south of Cambridge like the Cambridge Biomedical Campus (CBC), Babraham and the Genome campus are full. The CBC can only expand into the Green Belt and the current proposals to do so will be strongly opposed by many stakeholders including AstraZeneca and local councillors. In contrast, to the north there is the north-east Cambridge site, the airport area after Marshalls relocate to Cranfield and opportunities for employment sites to grow in Northstowe and Waterbeach new town. We have come to this view from talking to local councillors on the county and district councils.

The northern approach adopting CBRR's trench and their 'under not over' strategy appears to have many advantages over a southern approach.

A prime reason is the relatively low adverse impact that it would have on local residents in terms of noise. A count of residential properties within 200m of a northern alignment shows, that for their freight route turning north from Milton and then south eastwards on a new chord near Ely, that there are over 10 times fewer for a northern route than a southern route. This route is more attractive to freight operators since it would enable a faster transit time between Cambourne North station and Newmarket without having to pass through central Cambridge.

A glance at a map of planned and proposed housing sites in the Cambridge area clearly shows that a northerly approach would link many of them together. This is in stark contrast to the southern route. It would provide people in the area with the benefit of linking affordable and more plentiful housing with employment opportunities offered by a high-quality transport system.

The Northern route is much less damaging to wildlife and landscapes, as it would cross the area already affected by the A14 upgrade, and a small part of agricultural fenland. It would not need to cross the River Cam. It should not affect any SSSIs or SACs, one or possibly two County Wildlife Sites, and no City Wildlife Sites. The habitats to the south include rare chalk grasslands and streams which support rare species of plants and animals. We find it surprising that EWR Co have not carried out a more detailed environmental comparison before discounting a northern route and urge EWR Co to rectify this. This is a breach of the avoid-mitigate-compensate hierarchy recommended in the [2, , §32]

Detailed rebuttal of EWR Co's conclusions

This section addresses each of EWR Co's conclusions for rejecting a northern alignment contained in Section 4 of [1]. EWR Co state [1, Appendix F §4.1.2] that a *'...high level qualitative comparison, sufficient for considering whether the previous decision to favour a southern approach remains sound…'.* We strongly refute this assertion that such a comparison is adequate, especially in relation to the environment and impact on residents. We will demonstrate this in the following sections.

> *The northern approach…Is very slightly longer than the southern approach by approximately 1 km and, with an additional station stop at Oakington for Northstowe, it will have a longer journey time. If the station at Oakington were to be removed, the journey times would be approximately the same.*

EWR Co accept in this statement that there is little difference in distance between a northern and southern approach. While the journey times would be similar if there were no station at Oakington, the dwell time at that station is very short and would have the significant benefits for EWR Co in additional revenue and providing a vital service for the town of Northstowe that will become the largest new town in the England since Milton Keynes.

In comparison with serving Cambridge South, the northern approach is less likely to be able to recognise many benefits from an Oakington station because much of the planned housing at that location has already been granted permission or, for those phases that are still awaiting permission, there is no requirement for the railway to be built in order to get permission.

We believe that this statement alludes to the fact that the land value uplift has already been claimed by others. If so, it misses the point that it will provide vital transportation to this town and, as with many new towns such as Crawley or Bracknell, further expected growth in that area. We should also ask at this point why the Savills report on Land Value Uplifts did not include the northern approach to Cambridge as an option and why EWR Co have never stated why they chose route E which had the lowest land value uplift of the 5 options considered (£700M lower than option C)

Northstowe is already served by public transport in the form of the guided busway. There is a stop at Oakington, very close to where the new railway station would be located. The guided bus goes from Oakington every 20 mins during the week and is timetabled to take 12 mins to get to Cambridge North station and more frequent services to the city centre. EWR services calling at Oakington for Northstowe and then Cambridge North and Cambridge would be duplicating existing public transport, not complimenting.

The guided busway is already near capacity with only about 700 of the 10,000 homes planned for Northstowe built. EWR would emphatically provide an essential service to this town by providing transport from more affordable housing into Cambridge employment sites and remove cars from the roads. It would demonstrate clearly the benefits to the general area that a southern approach into Cambridge cannot.

The Sponsor's Requirements ask for this to be a commuter service as well as an interurban one. The implication from the Consultation Materials is that improving the journey time from the largest new town in England since Milton Keynes to Cambridge station from 28 minutes on the guided bus to around 12 minutes on the EWR has no benefit. This is a very surprising conclusion, and we recommend that you check your transport modelling.

The track will need to be on viaduct for some sections between Cambourne and the WAML due to the number of roads and flood zones to cross. The ground is also known to be wet and difficult to build on (platform extensions at Waterbeach required substantial foundations to deal with the poor ground conditions). This is likely to lead to a requirement to have more substantial foundations and increased earthwork stabilisation. This would affect construction costs, maintenance costs, safety, and environmental considerations.

EWR Co have used a series of embankments and viaducts to traverse this area: CBRR proposed that the track runs in a concrete trench which uses the waterlogged ground to their benefit and avoid the foundations that EWR Co refer to. The trench would be designed to be neutrally buoyant under its own weight: as trains pass, the additional transitory weight is taken by a combination of soil strength beneath the base of the trench and the adhesion of the ground to the trench wall. The level of the walls would match maximum flood level and inverted siphons at suitable intervals would allow flood water to pass beneath the trench. 'Green' crossings would be incorporated at 500m centres to allow for roads, public rights-of-ways, wildlife crossings and agricultural access. Trench construction for railways have been used on the high-speed line between Brussels and Amsterdam and the CBRR design has been used for the HS1 near Dagenham. To match their trenching approach, CBRR also take a 'under not over' approach to crossing roads etc further reducing the impact.

The WAML sections are potentially significantly extremely complex with 39 – 84 property acquisition and demolitions (depending upon which option), a complex level crossing closure, a new bridge over the River Cam and several key road bridges to replace. The property acquisitions are of a nature that are not required for the southern approach.

We are persuaded by arguments put forward by action groups that 4-tracking is not required on this section of the WAML: this means that the property acquisition and demolitions mentioned are also not required.

EWR Co's stated reasons for 4-tracking the WAML between Milton Junction and Cambridge Station are that there would be conflicts between services travelling from Cambridge to Ely and eastbound EWR trains at Milton Junction and that there would be two additional platforms required at Cambridge Station. We further understand that there would be conflicts between services on the existing timetables unless this section of track has an additional two new lines.

We note that EWR Co have not balanced their statement about additional platforms with the fact that two additional platforms at Cambridge Station are also required for a southern approach [1, § 11.1.5]. Both points about conflicts are resolvable: the conflict at Milton Junction by a grade-separated junction and the timetable issue by a simple and modest change to the timetable (although it is highly likely that the timetable will change by the time EWR becomes operational).

Even if the 4-tracking were implemented, then the housing demolitions are only required for option 1 of the 4 options presented in [1, Appendix F]. EWR Co appear to be making a political point out of housing demolition that is not supported by convincing evidence. Furthermore, if EWR Co consider the eastern section as in the Sponsor's Requirements or even just carry forward the opportunity to extend the southern approach to directly serve Cambridge North then, by EWR Co calculations, the 4-tracking would be necessary anyway.

Every road bridge in the city that crosses the railway north of Cambridge station would require modification or demolition and rebuilding causing significantly more disruption to Cambridge and increasing the cost. The bridges affected are the A14, A1134, Coldham's Lane and Mill Road. This is in comparison to approaching from the south where only one bridge would need replacing (Long Road). These bridge works will be complex due to diversions and construction areas being more complex in built up areas.

As no 4-tracking is required (see our previous response), the bridges mentioned would not require modification or demolition. However, as EWR Co state in this conclusion, Long Road bridge would need replacement for a southern approach. This is likely to be very disruptive to traffic in Cambridge and to local residents.

A Grade 1 listed chapel may be impacted by the works to replace the A1134 road bridge and there is a risk that the setting will be impacted in a way that permission to build will be delayed or not approved. A small strip of land on Stourbridge Common will also be required. Stourbridge Common holds the status of Access Land – Combined Open Country, Registered Common Land and Section 16 Dedicated Land and is likely to require a Special Parliamentary Procedure in order to get permission to build on this land.

As no 4-tracking is required (see our earlier response on this topic), the impacts you describe on either the Leper Chapel or Stourbridge Common would not occur.

Cambridge North station will require significant infrastructure and systems modifications, including new platforms, whereas Cambridge South station will only need minimal updates in order to enable EWR services to operate. This will result in greater service disruptions at Cambridge North and compensation costs.

While it is accepted that Cambridge North station would require one new platform for the operation of a northern approach, it should be noted that some modification of Cambridge North station would be required were EWR Co serve all three Cambridge stations in the same way that a northern approach would.

Passenger trains would need to reverse out of Cambridge station in order to be able to head further east in the future – this is not an optimal operational solution due to longer dwell times at Cambridge and increased chance of delay possibilities.

All passenger trains terminating at one of the Cambridge stations will have to 'reverse'. This is normal procedure at terminus stations. The passenger trains you refer to are those that are not currently in your remit – those EWR services that may possibly link to Norwich or Ipswich in the future. These are not only likely to be infrequent, but the penalty for reversing would be only about an additional 2 minutes.

It should be noted that the northern approach does avoid the Mullard Radio Astronomy Observatory and is further away from the Wimpole SAC. However, the impacts on both of these assets are predicted to be capable of mitigation, subject to detailed design and – in the case of the SAC – assessment.

Both the MRAO site and the Wimpole SAC are important to residents of Haslingfield. We find it astonishing that EWR Co have not confirmed at this stage of the project whether such mitigation really is possible. It is now that the route alignment decisions are being made: if mitigation turns out

not to be possible in the future, or only at an exorbitant cost in both financial and visual terms, EWR Co will have wasted much valuable time and money. Avoidance of these sites are major advantages of the northern approach and we question why EWR Co are not using the 'avoid-mitigate-compensate' hierarchy specified in the [2, §32] referred to above.

Q2 The train service

Please share your views on:

- How you might use EWR services - for example for work, to visit friends and family, or to get to leisure destinations?
- Based on your experience of rail travel in the UK what do you think are the main areas that could be improved?
- If you don't currently travel by rail, what are the reasons for this? Is there anything that would persuade you to use rail services?
- Are there ways in which we could help improve your entire journey? For example:
- How and where you research your trip
- The actual rail journey itself
- Getting from your home at the start of the journey, to the point that you reach your end destination
- How could we support our net zero carbon ambitions through the delivery of services to customers? For example, through the design of stations, the trains we operate or through forms of active travel, for example cycling or walking.

We believe that it is inappropriate and unnecessary at this stage of design to respond to this question.

The basic principles of the project, such as the purpose of the railway, the anticipated demand for train services, options for alignments, whether it represents good value for money, whether it will be electrified, more detailed environmental and other impacts, have not been adequately addressed in the consultation documents presented and we believe should be the focus of our feedback to you. This consideration of relatively minor matters when critical issues about the design concept are not addressed could be seen by some as a way of diverting attention away from potential impacts of the proposal.

Q3 Station experience

Please share your views on:

- *Thinking about your experience of stations, how would you like your rail journey to link with other parts of your journey? For example, arriving or leaving the station on foot, by bike, car, or bus.*
- *How can station forecourts and approaches be designed to offer the most convenient access for walking, cycling and bus services?*
- *What sort of facilities would you like to see at stations – both those that contribute to the overall journey experience, as well as those that might serve a wider community purpose?*
- *Are there any particularly good examples, either in the UK or abroad, of stations with good facilities or facilities for changing between different transport modes?*
- *Are there specific factors that you would like us to consider that may improve safety and security at stations?*
- *How can stations be better designed to manage customer flows around the station environment?*
- *How can customers be guided through the station experience (particularly during busy periods)?*
- *How should we ensure inclusivity, for example in terms of accessibility and the broader station experience?*

Our response is the same as for Q2.

Q4 On train experience

Please share your views on:

- How can we create an engaging environment that suits the unique needs of our customers, for example, working effectively, relaxing or being entertained?
- What types of things should we put in place to create a clean, safe and secure environment for you and your belongings on your train journey?
- What facilities and services would provide the optimal train experience for customers on the EWR route?
- What types of areas/spaces would you like to see on EWR trains beyond seating and standing space?
- What on-train experience(s) might encourage customers to switch to rail from other modes of transport?
- Are there any examples, either from the UK or from abroad, of good seating layouts or on-train facilities?
- How might we consider sustainability in the on-train environment?
- How can the on-train environment support customers' wellbeing throughout their journey?

Our response is the same as for Q2.

Q5 Interaction with colleagues

Please share your views on:

- What types of attitudes and behaviours would you like to see our staff displaying to make your experience with EWR a positive one? This may relate to contact you have online, over the phone, at the station or on the train.
- How and where would you like to have access to staff members on your journey and why? Again, this may relate to virtual support or face to face contact.

Our response is the same as for Q2.

Q6 Customer information

Please share your views on:

- *What sort of information do you find most critical when you are making a train journey?*
- *What ways of communicating travel information do you think will be most effective as you arrive at the station or on the train?*
- *Are there other types of travel information, not directly relating to the train journey, that you think it would be valuable for EWR to provide before or during your journey?*
- *How could we provide better or different customer information, to help our customers be more relaxed and feel in control throughout their journey?*

Our response is the same as for Q2.

Q38 Clapham Green to The Eversdens

Please rank your preference for the proposed Clapham Green to The Eversdens alignment options.

None of these routes are acceptable to us.

Q39 Clapham Green to The Eversdens

Please tell us why you have ranked the proposed alignment options above and provide any other comments.

The presentation of the question appears not to have been thought through from a consultees point of view. We question why Haslingfield Parish Council should express a preference for route alignment options in Clapham Green north of Bedford and vice versa. We do not have the domain knowledge of their area in order to make an informed choice. We also question how can consultees

express a preference when only the "tip of the iceberg" is actually presented. If EWR is justified at all it is as part of the transformational growth associated with the Ox-Cam Arc. One million houses and 1.1 million jobs, presumably clustered around the transport infrastructure, are planned as part of this programme. Assuming that this housing would be located close to EWR stations, EWR Co are effectively setting the spatial plan for housing and employment without reference to the bodies responsible for that i.e. MHCLG and local authorities. When questioned about this, EWR Co say it is not in their remit. So, the housing plan is being set by the narrow remit given to EWR Co by the DfT. This is a very sub-optimal approach.

Q40 Harlton to Hauxton

What do you think is important to consider when developing our proposals for the Harlton to Hauxton area? In particular, what do we need to take account of:

a. In relation to building a new railway junction which would join our new railway to the Shepreth Branch Royston existing railway

b. In relation to our emerging preferred option to build a new junction which uses a bridge to connect the railways (a grade separated junction) and to extend the existing railway to connect to the new junction (using an offline construction).

1. Limited issues raised

We are surprised and dismayed that items that you particularly wish to obtain feedback on are limited to the issues mentioned. While we recognise that these are important issues, particularly for residents of Harston, there are more fundamental issues that need to be addressed. These include the basic alignment and how you have ascertained that your proposal is indeed optimal, the infrastructure, the impacts on the environment including noise, and hydrology.

2. Lack of information about proposals

We have already mentioned in our response to Q1 the lack of essential information contained in the consultation documents on which members of the public can provide meaningful responses. We believe that this is a flaw in the consultation process. This is especially relevant to the proposals for this section of the route where there are embankments and viaducts over 11m high and a cutting exceeding 17m deep. Nowhere in the extensive Consultation Materials does it mention the scale of the proposals, either texturally or visually. Despite the length of the Consultation Document, it contains just one paragraph about the 'developing plans in this area' for Section E of the route: *'New railway infrastructure south west of Cambridge including a new railway junction near Harston and Hauxton.'* Nowhere in the Consultation Materials does it mention the impact of the proposals on roads and public rights of way. This is unacceptable and misleading about the impact of the proposals.

This is the biggest proposal to (adversely) affect three sides Haslingfield in living memory and yet our village is not even mentioned. It also proposes a desecration of the surrounding countryside including historic Chapel and Money Hill, precious farmland, chalk streams and more generally the Bourne Valley celebrated in Rupert Brooke's famous poem "The Old Vicarage, Grantchester".

3. Embankments, viaducts and cuttings

It was only through detailed examination of the longitudinal sections in the documents by people with knowledge of such drawings that the true extent of the proposals could be determined. As already mentioned, this was not provided in a transparent format intelligible to most consultees. The total length of the embankments, viaducts, bridges and cutting between Cambourne North Station and Hauxton Junction would be 17.4km and the maximum individual length of embankment is shown as 6.3km (greater than 1m in height and between chainages 37+300 and 43+500 as shown on EWR Co's longitudinal sections). The combined length of viaducts between the same points would be 2.6km. The highest embankments and viaducts would have a rail level about 12m above ground, with a base width of about 82m. The cutting behind Haslingfield would be over 1.1km long and up to 17m deep. No details of the maximum width have been provided but it is expected to be over 30m wide.

With infrastructure on this scale, we must seriously question EWR Co's motive for not mentioning them in the text or by artists' impressions. It is hard to express the anger of many Haslingfield residents when the true extent of the proposals were made clear. This was exacerbated in online webinars when some representatives of EWR Co publicly denied or played down the reality of their plans. In particular some representatives stated that the plans were the "reasonable worst case scenarios". This obfuscation implies that it is unlikely to happen in reality, but we question whether it is really an unreasonable likely scenario. If the policy for over not under, then this is the result.

4. Impacts

These structures would cause irreparable long-term damage to the landscape, ecology, farmland and to local communities.

4.1 Landscape

Creating this line of infrastructure which does nothing to mute its physical presence is an affront to local residents. The land around the village is characterised by a gently rising ridge to the south and south-west and flat open country on other sides. Imposing a 17m deep cutting will leave an ugly gash on the landscape that will become the prominent feature near Haslingfield. Compounding this desecration would be an embankment up to 12m high near Harlton, dwarfing that village and the road between Haslingfield and Harlton. From the ridgeline walk between Chapel Hill towards Maypole Farm on the A603, the view will be overwhelmed by these structures. If EWR Co persist with their unpopular southern approach, which we strongly oppose, we question why they do not attempt to set the railway lower in the landscape and pass under slightly raised roads. This would minimise the intrusiveness and reduce the eye-watering volumes of imported fill required for the embankment. It would potentially reduce even further landscape-affecting measures that may be required to mitigate the impact of the railway on MRAO. A simple alternative for the cutting would be a tunnel. This would enable EWR Co to match its statements about the environment that would be demonstrably positive.

4.2 Local roads

Of the four roads into Haslingfield, two will be crossed by EWR Co's proposed route of the railway. These are the Harlton Road and Chapel Hill. Nowhere in the Consultation Materials is there any

mention of whether these roads would be blocked or whether the railway line would bridge over them.

Maintaining the existing access between Harlton and Haslingfield is vital. There are many close links between these communities with shared village activities and facilities such as schools and shops. There would be additional pollution and road congestion caused by taking children to school by car along a more circuitous route via Barton which already has heavy traffic during peak hours. The Harlton Road is used by local buses, an essential service for many parishioners. Cutting the road would probably result in a reduced service caused by the additional cost of buses taking alternative routes. If EWR Co provide pedestrian and cycle access only, such as near the level crossing on the Newton Road in Harston, there would be serious safety concerns with walking or cycling through a 70m long dark, dank tunnel.

These are matters that EWR Co should consider very seriously to ensure that the project that we are funding really does benefit the majority of people it affects. We hear EWR Co's verbal assurances during online webinars that they would do all they could to maintain access. This lack of written commitment about one of the main issues affecting the village is really inexcusable. We question how EWR Co can be so specific about many aspects of the design, but vague about issues that really matter to residents. These issues have been discussed in detail and in writing with EWR Co in a meeting with ourselves, other parishes in the Option E area and Anthony Browne MP in October 2020. But nothing was done.

4.3 Ecology

We refer EWR Co to the report commissioned for Cambridge Approaches by Kevin Hand [3], an eminent and independent ecologist. This report clearly demonstrates and concludes that a northern approach has a significant lower impact on the natural environment than the southern approach.

One of the most important impacts of a southern route on the local ecology relates to the Barbastelle bat population associated with the Wimpole and Eversden Woods Special Area of Conservation (SAC). We note that Natural England's Conservation Objectives for a SAC are to protect the whole supporting eco-system of the bats and not just the roost in the Wimpole and Eversden Woods. We find EWR Co's statement that mitigation of the impact of EWR on this site "predicted to be capable of mitigation" quite irresponsible and complacent. As already mentioned, EWR Co should be attempting to avoid the site rather than immediately jumping to mitigation. We question what EWR Co would do if there is no reliable mitigation: it is now that EWR Co needs to ensure that this is really the case. We understand from Professor William Sutherland at the Cambridge University Department of Zoology, that green bridges have not been shown to be an effective form of mitigation.

Other ecological impacts identified in [3] include those at the boundary of Haslingfield parish near Harston at the proposed crossing of the Cam where there are otters and brown trout, both of which are returning to the area after an absence of many years. Otters are a protected under the Wildlife and Countryside Act 1981

Nearby Haslingfield Pit is a County Wildlife Site, notified because of the thousands of rare orchids that grow there, in particular the Man Orchid, listed as Nationally Scarce. Other orchids include Common Twayblade, Bee Orchid and Common Spotted Orchid. Haslingfield Pit is widely used for recreation and relaxation by locals and visitors. It has the potential to expand into neighbouring areas, including the field margins nearby, which also potentially hold rare chalk flowers.

Also likely to be affected by EWR is the nearby Barrington Chalk Pit SSSI on the borders of Haslingfield parish. This is a 'Geological Conservation Review' site and is noted as the last remaining exposure of the famous Cretaceous 'Cambridge Greensand'. The site has great stratigraphical importance for studies of the Upper Cretaceous of eastern England.

The area is also noted for its wildlife interest, with protected species such as peregrine falcons and ravens nesting nearby, and many rare elms growing in the hedgerows.

4.4 Hydrology and chalk streams

The southern approach into Cambridge will have a potentially devastating impact on internationally important chalk streams. There are on 200 chalk streams in the world and five will be affected by the southern approach. These are already under severe pressure from water extraction for other new developments. Again, we question why EWR Co persist with claiming that the "southern route is preferable from an environmental perspective" [1, Appendix F 2.4.4.] in the face of clear evidence, supported by many environmental experts and organisations, to the contrary.

4.5 Farmland

The following is a summary of input from Edd Banks, a local farmer in the option E area. He is also chairman of the National Farmers Union (Cambridge branch).

The EWR proposal will have a great impact on many different parts of our community, but one part that will be hit hard is the agricultural sector. Cambridgeshire is the bread basket of England with just over 50% of the all the wheat grown in England, grown within 50 miles of Cambridge. The land is fertile with most of it being categorised as grade 2 arable land and the character of the area is one of large open fields which is what helps make it much more efficient to farm and to boost yields.

By routing the railway through these open areas, large fields can be severed resulting in several smaller odd-shaped fields that become uneconomic to farm and unmanageable for large-scale modern machinery. This means that, instead of just losing the area taken up by the railway, the farmer will effectively lose the entire field as the remainder will simply end up fallow.

Another issue often overlooked is the logistics of how the new segmented fields are farmed. If the remaining areas are still farmable, farmers may have to drive considerable distances, often through villages, just to reach the other side of a field.

Other issues include the disruption to field drainage schemes, water-logged areas of land due to shading from new embankments and viaducts and the devastation caused to crops by rabbits that will invariably take up residence in the cuttings and embankments of the new railway. Putting this is into a national perspective, the UK is currently only 60% self-sufficient in terms of food and with continued pressure on agriculture land from new developments such as EWR, this position will only worsen.

The northern approach has a fraction of the land-take of a southern approach with consequent reductions in impact on farming.

A survey of five locally affected farmers shows that the loss of agricultural land will be at least twice as much as the amount which falls under the embankments.

4.6 Property and noise

One of the great attractions of Haslingfield, and of many other villages along the proposed route, is the peace and tranquillity. The roads closest to the route, including Knapp Rise, Wells Close, The

Knapp, School Lane, Quarry Lane, Badcock Road, Lilac End, The Hemlocks, Chestnut Close and Elms Close are cul-de-sacs, with many properties backing onto open fields. The Project Wide Output Specification indicates an aspiration for 6 trains an hour or 216 passenger trains a day over an 18-hour day and potentially about 50 freight trains a day, many of which would run at night. Even with extensive mitigations, these residents will have to endure an exceptional, detrimental change in their quality of life. The impact on their physical and mental health resulting from the construction process and then the railway's operation, and the impact on the amenity and value of their properties, can be expected to be considerable. When the line is operational, there is little that EWR Co could do in practical terms to restrict freight access at night-time. Freight networks are national.

4.7 Mullard Radio Astronomy Observatory

The Mullard Radio Astronomy Observatory (MRAO) at Lord's Bridge is located to the north of Haslingfield and is particularly important to the viability of the route of the southern approach. The observatory is sensitive to vibration, electro-magnetic effects and line-of-site issues, would be particularly affected by the proposals for a southern route. We question why EWR Co chose a route corridor after the 2019 consultation that included the MRAO site unless they really did not fully understand the implications of this choice from MRAO's perspective.

The M11 motorway was built in 1980 and passes the edge of the restricted area in a trench. There are high metal shields on one side to protect the MRAO from interference. These are designed such that the telescopes are in the first zero of their edge diffraction pattern at the wavelength of interest. The proposed southern approach is well within the restricted area and mostly on high embankments. If electrified, the overhead line equipment will be 4-5 metres higher than that. It will be a much more significant source of electrical interference than vehicles on the M11. This is because the trains are closer and will have an unobstructed line of sight to the telescopes. As a nationally significant infrastructure project, the EWR does not have to respect local plans, however, the laws of physics still apply. We understand from private correspondence with the University that no solutions have yet been proposed by EWR Co. We assume that if EWR Co persist with the southern route then they will have to pay to move the site elsewhere at significant cost. However, we understand that there are no known sites surrounded by low ridges in the UK that are suitable. The other possibility would be huge shielding embankments which will further impact residents and wildlife.

EWR Co need to be clear about the MRAO mitigations. That they will apply for their proposed southern approach to Cambridge, not just say without any evidence that they are confident that the problem can be solved. This is not the message that HPC are getting from the University. A northern approach to Cambridge would avoid the problem completely. This is another case of not applying the avoid-mitigate-compensate hierarchy.

5. Mitigations

We fundamentally object to the route for many reasons as already outlined. However, if this route were to be implemented, we would insist on the following mitigations:

(1) A tunnel under Chapel and Money Hill
(2) The route should pass under the Cam, the A10 and the SBR before joining at the new Hauxton junction

(3) No freight traffic since this is not an appropriate route for freight
(4) Compensation for residents and schools during construction and while the railway operates
(5) Proactive and early compensation for property owners that have lost property value
(6) Under not over roads and the Bourne brook from Cambourne to Hauxton
(7) 45dB noise level as per WHO regulations
(8) Crossings at least every 500m to allow farm traffic to access their land
(9) Restoration of all roads and public rights of way
(10) No embankments erected to protect the MRAO greater than 2m high
(11) Mitigation for Wimpole SAC bat foraging routes shown to work by experiment
(12) Mitigation of other environmental impacts covered in the Hands Report

Q41 The Shelfords to Cambridge station

What do you think is important to consider when developing our proposals for the The Shelfords and Cambridge area? In particular, what do we need to take account of:

a. In relation to our options for the Hauxton Road level crossing

b. In relation to our proposed modifications to the Shepreth Junction

c. In relation to our emerging preferred option to increase the existing railway line between Shepreth Junction and Addenbrooke's bridge from two tracks to four tracks

d. In relation to our emerging preferred option to increase the existing railway line between Long Road Sixth Form College and Cambridge station from two/three tracks to four tracks. Anything we should consider at Cambridge station.

EWR must maintain a road link between the two sides of Little Shelford on either side of the railway line to avoid severing the community. A grade-separated junction at Shepreth Junction would be intolerable for nearby residents and extremely damaging to the narrow and important section of Green Belt between the southern edge of Cambridge and the Shelfords. This includes Nine Wells, Hobson's Park and the valuable Green Corridor leading from this part of the Green Belt into the centre of Cambridge which makes an important contribution to the character of the city. Long Road is a very busy and important thoroughfare with key education centres, and closing it for any length of time with diversions onto existing roads is likely to cause transport chaos.

References

[1] EWR Co. "Making Meaningful Connections", Technical Report

[2] National Planning Policy Framework 2018,

[3] Wildlife and Landscape Impacts of EWR's Preferred Southern Route into Cambridge versus CBRR's Northern Route