

Ecological Land Co-operative

**EFFECT OF THE PROPOSED  
SCHEME ON THE ASHDOWN  
FOREST SAC**

Field to the south of Copyhold Cottages,  
formerly part of Wilbees Farm,  
Arlington, Hailsham, BN26 6RU

MARCH 2017

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*For a Living, Working Countryside*

This document has been written by the Ecological Land Co-operative. It is written to be read in conjunction with the planning application, plans and other documents accompanying the application, a full list of which can be found within the Cover Letter.

The Ecological Land Co-operative (**ELC**) is a social enterprise and not-for-profit community benefit society set up in 2009 to address the lack of opportunities for new entrants to ecological farming and horticulture. The ELC provide a route into farming by creating affordable residential smallholdings. Our work is set out in the Planning Statement and Business Plan 2015-2020, both submitted with this application.

In September 2016, the ELC purchased the freehold of 7.5 hectares of land in the south Wealden with the intention of creating our second cluster of three affordable smallholdings. We are seeking from Wealden District Council (**WDC**) a 5-year temporary permission.

After we submitted our application for planning consent (ref: WD/2017/0340/F) to WDC but before our application had been validated, we were invited by WDC to withdraw our application. The planning officer explained that there is evidence that emissions from vehicles travelling through the Ashdown Forest Special Area of Conservation (**SAC**) are placing protected heathland at risk, and without evidence of the origin of these vehicles, they could be attributed to our proposed smallholding enterprises. In order to ensure the protection of the heathlands, WDC has said it can now only permit new applications for planning where it can be evidenced that development will not generate any new emissions through the Ashdown Forest<sup>1</sup>.

This statement is provided in response to this and in addition to the planning documentation already submitted. It sets out our evidence that due to the characteristics of low-impact ecological smallholdings, and the location of the proposed Scheme, there would be no or negligible increase in traffic through the Ashdown Forest which is, at its nearest point, 25km from the site.

Data collected from a similar ELC scheme of three smallholdings in Devon (Greenham Reach<sup>2</sup>) provide useful data. Data on vehicle trips collected daily at Greenham Reach, evaluated alongside the locations of major roads, services, markets, the railway station, etc. in relation to the proposed Scheme shows that the

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<sup>1</sup> Email from Judith James, South Team Leader, Wealden District Council, March 7 2017

<sup>2</sup> Appeal decisions APP/Y1138/A/12/2181808, 2181821 & 2181807

only trips that have any probability of travelling through the Ashdown Forest are from deliveries and service providers, but that these would be at a rate of just 0.69 *per year*. This presents no increase on the trips arising from the existing conventional maize production. This evidence to support these figures is set out in below.

The Scheme, by virtue of replacing conventional maize with ecological mixed holdings producing largely vegetable crops for local consumption, will also *remove* atmospheric emissions of nitrogen compounds and other greenhouse gases which both form part of the group of activities currently threatening the lowland heathland within the Ashdown Forest SAC.

If this Scheme is successful, it would deliver three (agriculturally-tied) housing units and contribute to the quota of housing needed in the south Wealden, but with traffic *far lower* than any other residential development could deliver.

As at Greenham Reach, the proposed site Management Plan and Section 106 Agreement (**S106**) – proposed by the ELC - limit the numbers of vehicle movements from and to the site and the number of vehicles owned by residents. The Plan for this Scheme would also place requirements on ELC staff and smallholders to prevent travel through the Ashdown Forest through their own journey planning, when ordering supplies and when directing guests and visitors. As at Greenham Reach, WDC would receive annual reports including on traffic as part of obligations under the proposed S106.

This application is unusual and unique, in that it provides housing, employment, local food production and education while at the same time resulting in: reduced greenhouse gas emissions (**GHG**) from agricultural production; reduced household GHG emissions, traffic and waste; soil improvements; biodiversity gains; improved food resilience; and more. The Inspector in deciding our application for Greenham Reach (**Appendix 1**) described our model as having “significant sustainability credentials” (para 34). Considering the requirement for WDC to ensure the delivery of both housing and employment, we invite WDC to consider our model, and work with us as necessary to tailor it to the Wealden District Council’s particular needs.

This report has been prepared by ELC director and staff member Zoe Wangler. Miss Wangler was a consultant to the International Institute of Environment and Development advising the Department for International Development on climate change impacts of horticulture in 2006. This included the impacts of transportation.

At the time of writing, the new evidence base to which WDC referred had not been made public and has not been considered herein.

### **EVIDENCE ON TRAFFIC GENERATED BY THE PROPOSED SCHEME**

This proposed Scheme is very specific and unusual. There are no examples of it contained in the transport database TRICS which is used for validating assumptions about transport impacts of new development.

The Scheme would constitute the employment use for residents of the site and would also be a Low Impact Development<sup>3</sup> (**LID**); the Scheme would not generate traffic from commuting in the same way as typical private residential developments, and would not generate traffic from household, farm business or visitor trips in the same way as either a typical residential development or farm business. This assertion is supported both by our own daily vehicle data collected from Greenham Reach, and by data from other LIDs<sup>4</sup>.

Greenham Reach is home to three families each operating an ecological farm business from their holding. Both a S106 and the farm business tenancies place limits on smallholders' vehicle movements and vehicle numbers. The site has a traffic monitor installed at the site entrance which reports daily vehicle movements and the ELC reports these figures annually to the local planning authority.

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<sup>3</sup> LID is described as "a radical approach to housing, livelihoods and everyday living [employing] approaches that dramatically reduce humans' impact upon the environment, demonstrating that human settlements and livelihoods, when done appropriately, can enhance, rather than diminish ecological diversity" Maxey, L and Pickerill, J (2009) [Geographies of Sustainability](#), Geography Compass

<sup>4</sup> [Appendix G: Additional Information Traffic & Safety, application 12/00107/MFUL, Mid Devon District Council \(2012\); Annual Monitoring Reports for Tir y Gafel Ecovillage, 2010, 2011, 2012, 2013, 2014, 2015, and 2016; ELC Annual Monitoring Reports, 2015, 2016, 2017.](#)

Greenham Reach has generated an average of 9.5 vehicle movements per day since permission was granted in April 2013. Now that the three families have settled on the site the average daily movements is 12. This figure includes all traffic: deliveries; visitors, including Open Days and school visits; services; etc.

As proposed with this Scheme, and typical to LIDs, Greenham Reach has: off-grid electricity generation; no mains gas; rainwater harvesting and filtration; compost toilets; and on-site household and agricultural composting.

The farm businesses at Greenham Reach are mixed, largely horticultural businesses, employing a rate of labour per hectare significantly higher than average, with almost no mechanisation. The holdings are non-certified organic, and do not use synthetic fertilisers and pesticides, making use of locally sourced manure and municipal compost. Other farm business supplies are small in quantity and largely sourced locally. Value-adding produce processing (e.g. salad bag packing and herb drying) happens on site. Produce is sold direct to local residents and businesses. All services provided by the freeholder (ELC) are provided by ELC staff who follow our co-operative's requirement to limit vehicle use. Because of these features, the holdings generate far less traffic than both conventional farming and typical residential developments. Traffic at Greenham Reach breaks down as follows:

**Table 1: Vehicle Journeys made at Greenham Reach, by primary reason for trip** (this is the total for the three smallholdings, not per household)

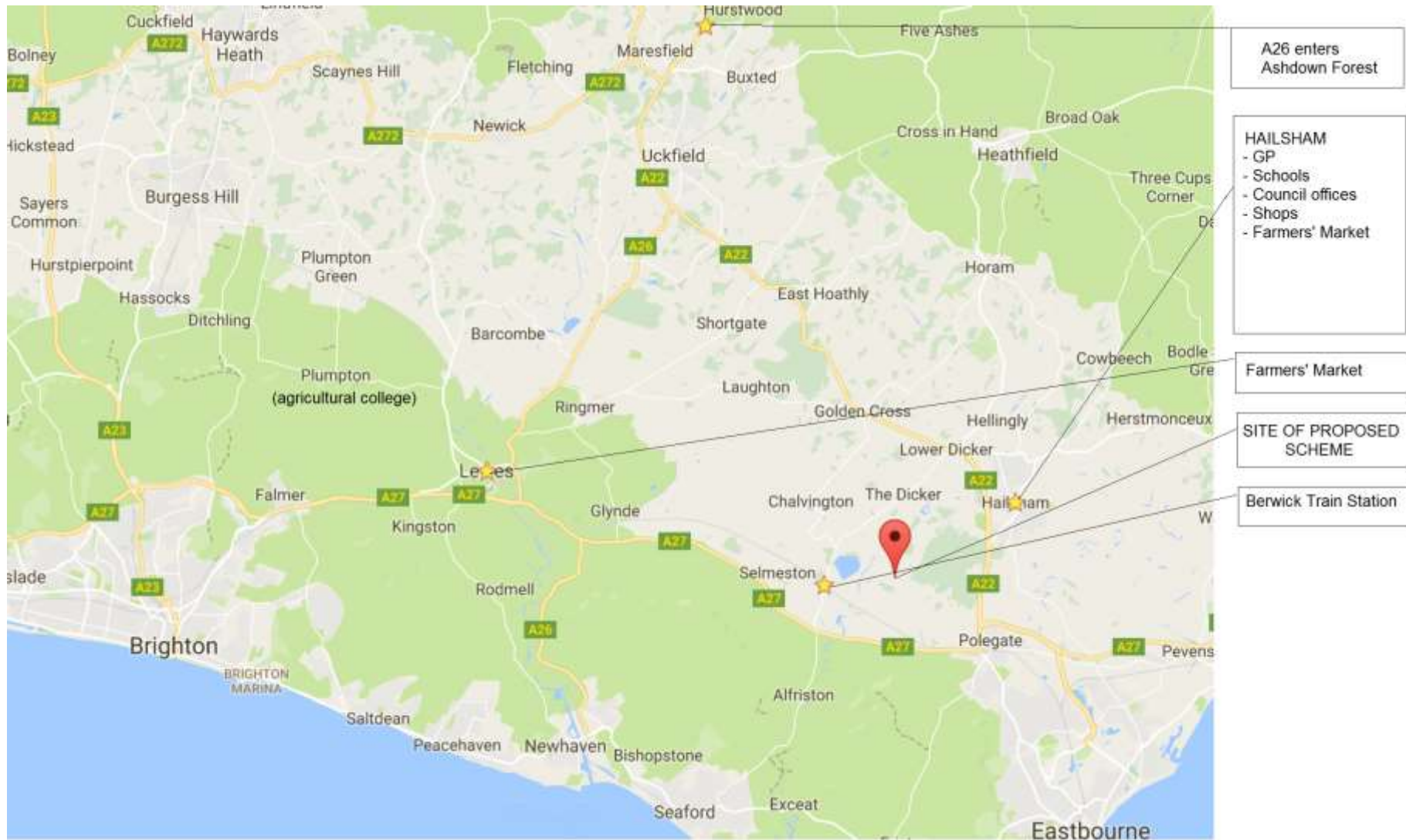
<b>Reason for Trip</b>	<b>Average Daily Single Trips</b>
Local personal and business trips	3.48
Non-local personal and business trips	0.04
Produce sales	1.46
School 'run'	4.27
Day workers and volunteers	1.36
Local deliveries (e.g. mature) & neighbour's tractor	0.10
Non-local deliveries	0.26
Local visitors	0.29
Non-local visitors	0.04

## Arlington Smallholdings: Effect on the Ashdown Forest SAC

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Workshop, Educational Days, Volunteer Days	0.30
Open Days	0.13
School visits	0.05
Freeholder visits	0.04
Council visits	0.03
Services	0.02

## Arlington Smallholdings: Effect on the Ashdown Forest SAC



Map showing location of the site of the proposed Scheme in relation to local services and nearest main route through the Forest

### **Projected Changes in Traffic for ‘Arlington Smallholdings’**

The site of the proposed Scheme is geographically well located with regard to avoiding harm to the SAC from vehicle emissions which is 25km to the north:

- The A27 is the closest major road and is 3.3km to the *south* of the site. The A27 links the site to Gatwick, London, Lewes, Brighton, Polegate, Eastbourne and Seaford;
- WDC is considering further improving the A27 for the purpose of making it a more attractive route than through the Ashdown Forest;
- The nearest railway station, Berwick, is 3.6km to the *south-west*;
- Secondary and primary schools and a GP surgery are all within 7km of the site to the *north-west*;
- Between Lewes and Hailsham, there are three weekly Farmers’ Markets;
- Food retailers who have expressed an interest in our smallholders’ future produce either lie within 4km of the site, or lie to the *west*, *south-west* and *south*;
- The site lies to the immediate south of a village (Arlington) which has within walking distance: St. Pancras Church; the village hall; tea rooms; a pub; farm shop and Arlington Bluebell Walk;
- Volunteers from Plumpton College who volunteer at local farms travel to Berwick Station and then on by bicycle, or are collected by car; and
- The freeholder’s office (ELC) is located in Brighton, connected by the rail and bus network and in any event to the *west* of the site.

The site has, in recent history, been rented by a local farmer for conventional maize production. The production of maize generates traffic, as would have the freeholder business in its responsibility to manage the land. The production of maize requires inputs from outside of the district: commercial seed, manufactured soil improvers (nitrogen, potash, phosphate), and manufactured sprays. The crop, depending on its use, unless used directly locally, would also have to be transported to a processor and then onto a buyer, quite possibly through a distributor. As figures for traffic generated would be specific to the farmer (for example whether he co-ordinates



purchasing supplies) and the maize's final use, we have not attempted to quantify traffic. However, it is reasonable to assume that the traffic impact on the Ashdown Forest from the existing use would be of the order, or greater than predicted for the proposed Scheme, i.e. 0.69 total trips per year.

The proposed Scheme will have the same features as Greenham Reach: it would provide a location for three ecological and off-grid farm businesses. The farm business tenancies and proposed S106 would limit vehicle movements and numbers. As at Greenham Reach, there would also be a requirement on the ELC to:

*Select Stewards [smallholders] who have an evidenced awareness of the environmental and social harm from vehicle use and evidenced commitment to minimalizing vehicle use.*

The Inspector when deciding our appeals for Greenham Reach noted our careful selection of smallholders (para 25).

We have added the following requirements within the proposed Management Plan to avoid wherever possible generating journeys through the Ashdown Forest as follows. The Plan is binding on the ELC and the smallholders by way of the proposed S106:

- ELC staff when visiting the site for any reason will make use of public transport and/or cycle. If this is not possible due to health, safety, or logistical reasons, then ELC's motor vehicles, unless they are electric, will not journey through the Ashdown Forest when visiting the site.
- For regular deliveries within Stewards' control, ascertain the driver route directly from the business and only use this supplier if they can confirm that the delivery route does not include the Ashdown Forest or can confirm they employ electric vehicles.
- Visitors, including WWOOFERS are to be made aware of the threat from vehicle emissions to the heathland in the Ashdown Forest and are to be advised not to travel in a vehicle through the Forest unless it is an electric vehicle.

Considering its location, and using Greenham Reach as a template, we can reasonably expect that 0.67 of the 12 daily single trips *could* result in a journey through the Ashdown Forest. However, this would be reduced still further as only 0.28 of these are beyond our or our smallholders' control.

**Table 2: Projected Journeys for the Proposed Scheme** (this is the total for the three smallholdings, not per household)

Reason for Trip	Average Daily Single Trips	Projected Journey Points
Local personal and business trips	3.48	Berwick (train); local villages; Halisham; Polegate
Produce sales	1.46	Lewes; Halisham; Upper Dicker; Brighton
School 'run'	4.27	Halisham
Day workers and volunteers	1.36	Berwick (train); Plumpton
Local deliveries (e.g. mature) & contractor tractor	0.10	Local farms
Non-local deliveries	0.26	SEE BELOW
Local visitors	0.29	Local villages
Non-local visitors	0.04	Directed to avoid the Forest
Workshop, Educational Days, Volunteer Days	0.30	Directed and co-ordinated to avoid the Forest
Open Days	0.13	Local villages
School visits	0.05	Halisham, Lewes
Freeholder visits	0.04	Brighton
Council visits	0.03	Halisham
Services	0.02	SEE BELOW

#### Calculating the Impact of Deliveries and Servicing on the Ashdown Forest

We have no reason to assume Arlington will generate a greater or lesser number of visits from service providers or deliveries. Following our experience at Greenham Reach, we would therefore expect the Scheme to generate 0.28 daily traffic movements from these two sources (Table 2).

Deliveries to Greenham Reach, other than for one-off deliveries in the set-up of the site, are for on-line purchases. An average delivery round for items such as those purchased on-line has been determined by the Logistics Research Centre<sup>5</sup>. Typically, a van-based delivery round consists of 120 drops on a 50-mile round. Taking the data from Greenham Reach of 96 single trips for deliveries per year, the Scheme would be responsible for generating c. 0.8 delivery trips per year. However, the principle distribution hub for deliveries for Arlington is Gatwick, with Department for Transport data showing the A23/A27 route a faster and more popular route for light goods vehicles in and out of Gatwick to the A264 by a factor of 5:2. This reduces the projected delivery trips associated with the Scheme to 0.23 per year.

The number of servicing vehicles expected at our smallholdings is very low: the sites are off-grid and the smallholders do not have many services, just a telephone. The freeholder is the ELC and we are located in Brighton to the west. The ELC is also committed to making use of public transport whenever possible.

Using data from Greenham Reach, we have projected the average number of service visits to be 8 per year. This figure needs to be adjusted to reflect that service professionals visit more than 1 site per day, and again adjusted to reflect that the site lies just 3km from the A27 which is at any rate, a more popular route. For the purpose of this calculation, we have assumed that a service provider visits 5 sites per day, and that the preferred route is the A27 over the roads through the Forest at a ratio of 5:2. This reduces the projected service trips associated with the Scheme to 0.46 per year.

This provides a total figure of 0.69 trips per year which could travel through the Ashdown Forest.

### **Other Considerations**

We have considered traffic from the proposed Scheme against the field's current use of maize production. However, if this Scheme is successful, it would deliver three

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<sup>5</sup> Edwards, J B and McKinnon, A C (2009) Shopping trip or home delivery: which has the smaller carbon footprint? *Focus*, July, CILT, pp 20-24

(agriculturally-tied) housing units and contribute to the quota of housing needed in the south Wealden, but with emissions *far lower* than any other residential development could deliver. It follows therefore that it is possible that this Scheme could reduce overall traffic emissions in the Forest when compared with the granting of permission for standard residential development. Further, the Scheme is an example of, and promotes LID. The Open Days disseminate LID and thereby support the transition to a low carbon economy beyond the Scheme.

It is widely acknowledged that the UK has become increasingly dependent on imported horticultural produce (Planning Statement, para 7.18). Imported produce is associated with longer supply chains. Conversely, local produce sold directly to a local outlet or directly to local residents reduce the number of longer journeys.

Food production causes pollutant emissions: ammonia from farm animal units, and both ammonia and nitrous oxide from intensive fertiliser use. These pollutants also contribute to nitrogen enrichment of the Ashdown Forest's heathlands. Ecological farming reduces emissions of nitrogen compounds from agriculture:

*“ecological practices avoid ammonium nitrate fertiliser the production of which emits GHGs, it encourages carbon sequestration, and livestock emissions are lower if the livestock are fed on legume pasture rather than feed concentrates.”*

Dr Wright, Deputy Director, Centre for Agroecology and Food Security<sup>6</sup>

As evidenced by Dr Wright<sup>7</sup>, the ELC demonstrates such practice.

This Scheme, if allowed, would cause no material harm on the Ashdown Forest.

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<sup>6</sup> Dr Wright, Proof of Evidence, Greenham Reach appeals APP/Y1138/A/12/2181808, 2181821 & 2181807 <http://ecologicaland.coop/sites/ecologicaland.coop/files/JWProof.pdf>

<sup>7</sup> Ibid, paragraph 6.8