

Helios DCO

EN010140

ISH2 11-12 March 2025

Summary Note of Burn Gliding Club Submissions and Evidence

Introduction

In ISH2, the Burn Gliding Club (BGC) representatives, Mr Latimer, Mr Bellamy, Mr Bale and Ms Bartaby, emphasised the need to ensure that aviation safety is not compromised by the proposed solar scheme.

Aviation safety in respect of gliding activity at Burn is very likely be compromised by:

- The loss of open areas of land currently suitable for forced landings caused by engine failure on take-off (when a glider is towed) and / or suitable for gliders returning to the airfield but unable to land within the airfield
- Glint and glare created by the presence of solar panels adding to existing reflective surfaces and incidents
- Erratic and unpredictable thermal updrafts created by the large solar panels.

The British Gliding Association (BGA) is not aware of any solar schemes in the UK in such close proximity to a gliding site.

Burn is a very well-established Gliding Club offering a wide range of training and recreation.

Therefore, its concerns should be given great weight.

Background and Context

The presence of well-established Burn Gliding Club should have been taken into account by the prospective developer at the initial stages of the planning for, and the design of, the proposed solar development. This did not happen.

The size, nature, local and wider value of Burn Airfield has not been considered by the Applicant. This is an omission. Mr Bale's statement to the Examination, setting out the importance of the site, is at Appendix 1.

Consultation by the Applicant was inadequate and engagement with BGC occurred at a very late stage of project planning. When engagement did take place, BGC's comments were not properly or adequately addressed.

The status and importance of the Gliding Club, and the safe ongoing use of the site, were not given appropriate weight and despite late attempts to undertake more detailed assessment, it remains the case that the safe operation of BGC is under threat.

Gliding is a highly skilled sport and those skills are widely recognised throughout the world. The training and skills gained are regarded as a significant enhancement for those who

choose careers as fixed wing pilots or in other aeronautical enterprises. Gliding is a world-wide activity, with many competitions (in which the UK excels).

The British Gliding Association (BGA) has the authority to manage most aspects of gliding in the UK. Instructors and pilots are trained to BGA standards; annual inspections of gliders are done by engineers authorised by the BGA, whose qualifications are accepted by the Civil Aviation Authority, and minor accidents are investigated by the BGA alone. The comments of the BGA on this application therefore carry great weight.

The location and design of the proposed solar scheme was well advanced and designed prior to any contact being made with BGC. There has been no amendment to the scheme to take account of BGC's safety concerns.

Initial appraisals of the potential impact of the solar scheme on the gliding operation, undertaken on behalf of Helios, was 'High Level', superficial and limited in scope.

In December 2024, BGC prepared and submitted to the Examination, and the Applicant, a further, detailed, document to assist the Applicant and its consultant, Pager Power. This provided full details of gliding operations and the inadequacy of the Applicant's appreciation of the safety risks to that activity that would be generated by the proposed scheme.

At the end of 2024 and early in 2025, more detailed assessments have been carried out by the Applicant, to address issues raised by BGC. However, they do not provide adequate safeguards.

The fact that the Applicant has undertaken some studies does not prove that their conclusions are robust. In addition, the Developer has tended to compartmentalise issues whereas it should have also addressed the cumulative impact of the proposed development.

Consideration of Safety Issues

The Applicant has:

- Considered ***glint and glare***, but not examined this in detail and has not considered existing generators or weather impacts and states that this is a matter for detailed design. This does not give adequate reassurance that aviation safety will be safeguarded.
- Not properly responded to ***EFATO / launch failures / emergency landing*** with the loss of areas of farm land that are currently available. In addition, it erroneously suggests that land currently available could be developed – in fact the GDPO removes agricultural planning permitted development rights within 3km of an aerodrome. The Applicant disagreed with the BGC assertion that a glider cannot safely land on a solar panel. This is an extraordinary suggestion. Flying into a large, heavy, rigid panel, on a rigid steel frame (in a light GRP glider) would be catastrophic. A likely reaction to seeing the panels rapidly approaching would be to turn which would also be catastrophic.¹

¹ The CAA 793 states that in this situation '*...wing bank angles must be limited to 30° or less and heading changes to less than 30° either side of the aircraft's nose.*'

- Not carried out adequate work on ***thermal updraughts***. The Applicant accepts that mitigation is required but has not defined this nor demonstrated any effective mitigation.

Appropriate Approach

Attention is drawn to Section 5 of BGC's Relevant Representation as the technical detail provided about the gliding operations in that document has not been acknowledged or addressed by the Applicant in its assessment and judgements about the risks to aviation safety.

The 'Precautionary Principle' must be applied where aviation safety may be compromised by new development.

Mr Latimer for the BGA drew attention to the Civil Aviation Authority's CAP 793, '*Safe Operating Practices for Unlicensed Airfields*' chapter 1, paragraphs 1.14 and 4 which states that '*...where flying training is taking place [as at Burn] additional safety margins (and risk assessment) should be considered...*'. He also drew attention to the provisions of CAP 764 (which whilst referring to wind turbines also addresses turbulence) paragraphs 3.49 and chapter 5, paragraph 8.

In some cases, if a tow aircraft is being used for a launch, engine failure affects two aircraft simultaneously. This is a further material factor that should be taken into account.

The Civil Aviation Authority's CAP 738 (Introduction paragraph 7) makes clear that the aerodrome operator is the expert in assessing safety due to his or hers detailed knowledge of the site and its operations.

The Civil Aviation Authority's Combined Aerodrome Safeguarding Team (CAST) Guidance Note July 2023, 'Renewable energy developments: solar photovoltaic developments' states:

'In all instances, where a developer is proposing an on- or off- aerodrome solar photovoltaic (PV) development, early consultation with the aerodrome authority is recommended to understand any concerns and to collaborate as much as possible.'

It goes on to state that glint and glare is a '**key safety concern**'.

A recent planning appeal decision at Haddon: APP/H0520/W/24/3344095; *Land north of Haddon Road and land north of the A605, east of Bullock Road, Haddon PE7 3TT*, particularly paragraphs 35-51, provides an example of the weight which should be accorded to aviation safety.

This importance is also reflected in the appeal decision at Rufforth: APP/C2741/W/19/3223376 *Land to the west of Bradley Lane, Rufforth, York*. This decision

also takes particular account of the *nature* of glider flights. Attention is drawn particularly to paragraphs 32, 39-40, 54 and 56.

Gliding Activity

In Section 5 of Burn Gliding Club's Relevant Representation, as mentioned above, Mr Bellamy, the Chief Flying Instructor at BGC set out clearly the nature and complexity of and sophisticated nature of handling a glider. He also explained the breadth and depth of training to become a glider pilot as well as the issues of undertaking gliding activity in varying weather and topographic conditions.

The training includes, teaching on the ground and in the air, embracing theory, thorough knowledge of the nature of the aircraft, airborne exercises (demonstrating, teaching, taking over control).

The safe landing of a glider involves understanding and making a highly complex but speedy assessment of geography, geometry, speed, height, weather and climatic conditions.

The introduction of a large area of hard, reflective structures (in very close proximity to a busy airfield), over which the glider will inevitably travel during most flights and most landings, would be a major environmental change. The precise scale and severity of the consequence of this change is impossible to quantify but qualitatively, based on the technical knowledge and experience of the BGA and the BGC is significant and adverse.

BGC Requirements

If this application were a standard planning application, BGC would have argued very strongly that planning permission should be refused – on the grounds of aviation safety and significant adverse impact on an important recreational asset – as well as on the grounds of the cumulative impact on gliding from the large number of solar energy sites in the vicinity of Burn.

BGC is aware of the national priorities, the purposes behind the DCO process and, in particular, the proximity of Drax and its provision of grid connections.

However, EN-1 paragraph 5.5.5 makes clear that:

*'UK airspace is important for both civilian and military aviation interests. It is essential that new energy infrastructure is **developed collaboratively** alongside **aerodromes**, aircraft, air systems and airspace so that safety, operations and capabilities are not adversely affected by new energy infrastructure. Likewise, it is essential that aerodromes, aircraft, air systems and airspace operators work collaboratively with energy infrastructure developers essential for net zero. Aerodromes can have important economic and social benefits, particularly at the regional and local level, but their needs must be **balanced** with the urgent need for new energy developments, which bring about a wide range of social, economic and environmental benefits.'* (Our emphasis)

Within this context, therefore, it expects the Applicant to be required to take full and proper consideration of the impacts of its commercially driven development on an important local

sports and recreation amenity and, in particular, the obvious potential for the proposed development to create a clear negative impact on aviation safety.

Taking account of the evidence to the Examination provided by the British Gliding Association and Burn Gliding Club and in response to the ExA's request that specific proposals be put forward to assist him if he is minded to allow this draft Order to proceed, BGC would require the mitigation set out below.

These requirements are appropriate, justified and reasonable and BGC requests that the ExA impose them as binding obligations on the Applicant.

The developer should also be required to retain a budget to allow for any remedial work should the planned mitigation, as set out below, fail.

Glint and Glare

In February 2025 the Applicant submitted to the Examination a revised report '*Solar Voltaic Glint and Glare Study*' prepared by Pager Power. This proposed measures intended to reduce the risk of harmful glint and glare.

BGC accepted in principle it would agree with the fixing of a Single Access Tracker System, at an appropriate angle, with a resting angle to take account of any and all predicted glare towards the circuit paths associated with runways 01, 19, 25 and 33.

This is subject to the scope of this being determined by final detailed design, with BGC's involvement in the preparation of a Glint and Glare Mitigation Strategy, and the proposed works requiring the agreement of the BGC and BGA (such agreement not to be unreasonably withheld).

Engine Failure after Take-Off (EFATO)

The enclosed plan (taken from the Applicant's documents and headed 'Burn Gliding Club Essential EFATO Mitigation Measures') identifies by number, all of the fields currently available should they be required for an engine failure on take off (EFATO) or an emergency landing. The field that might be chosen as the safest for landing is dependent on the state of the fields, crops and the status of the crop as well as the point at which an EFATO or emergency occurs determines which field is chosen as preferable.

The BGC is prepared to accept that Field 4 as shown on the plan is acceptable. In fields 3, 5 and 6, it is necessary for aviation safety reasons to omit some of the proposed solar panels as follows (and as shown on the plan):

Field 3 – This is the most suitable field for aircraft (fixed wing glider tow or winch launched glider) taking off from Runway 07. No solar panels should be erected within a minimum 100m wide swathe on the northern edge of the field, parallel to the C330 road as shown on the attached plan and highlighted with green dashes;

Fields 5 and 6 - These are the most suitable fields for aircraft (fixed wing glider tow or winch launched glider) taking off from Runway 15. The presence of HV and EHV cables in this area

already constitutes an aviation safety risk and the presence of the solar panels would compound to this. . No solar panels should be erected within a minimum 100m wide swathe along the south-western edges of these fields as shown on the attached plan and highlighted with green dashes.

Turbulence

The Applicant has not provided any documentary support for its assertion that the solar panels would generate a constant heat source of 25 degrees C. This assertion must be tested by an Independent Assessor and reviewed, verified and approved (assuming post decision) by the Local Authority.

The evidence required in order for this restriction to be withdrawn must include measurement and recording of the temperature arising from at least 12 panels of the exact type and orientation proposed for the Application site, to be undertaken over a period of at least one month in each quarter of one year, erected in the area between Tranmoor Cottages and Primrose Hill.

In addition, Pager Power should undertake a survey on at least four existing comparable solar power generating sites in the UK to measure and report on heat source temperatures. The parameters for this survey should be agreed in advance with BGC.

Dependent upon the outcome of these assessments, Burn Gliding Club would be prepared to enter into discussions about the necessary mitigation measures.

In the absence of this clear evidence, and if the ExA is minded to approve the principle of this Application, **no** solar panels should be erected in the area between Tranmoor Cottages and Primrose Hill, **nor** on the area to the south of Hagg Bush.

The northern area is at the most critical point for BGC operations as runway 07/25 is the most heavily used runway (due to wind directions). ES Figure 7.8 showing the ZVT also identifies this as an area with higher levels of panel visibility. In addition, this area is the most likely location where an emergency landing may be needed as set out above.

The southern area is immediately at the end of runway 15 and similarly in an area with a high level of panel visibility with the added hazard of the 400kV transmission line crossing just to the south east of the airfield which eliminates possible glider landing areas

Conclusions

Burn Gliding Club and the operations on Burn Airfield are important for the sport of gliding, the wider scope of the Club's presence and activities and the complementary activities undertaken on and around Burn Airfield.

None of these matters were properly addressed by the Applicant – individually or cumulatively. The Developer continues to defend the scheme as originally planned with no proper account being taken of the safety issues raised by the BGC.

The critical gliding safety issues must be fully and professionally resolved so as to ensure the gliding activity can safely continue. This is at the core of the recreation and related use of Burn Airfield and any adverse impacts of the development on the gliding operations would create indirect adverse impacts on the related social and recreational value of Burn Airfield.

19 March 2025

Appendix 1: Size, Nature, local and wider value of Burn Gliding Club

Burn Gliding Club, established in the 1960s, is a welcoming community of aviation enthusiasts located near Selby, North Yorkshire. Burn is a well-established Gliding Club that has been operating for 60 years of which 42 years have been at Burn Airfield after moving from Doncaster in 1983; providing training and recreation, offering air experiences and encouraging young people (it is an accredited Junior Gliding Centre) and is registered as a Community Amateur Sports Club (CASC) and is an Accredited Women in Gliding Centre.

We have 80 members ranging in age from 12 to 85 years old. We are a registered business but run by entirely by volunteers. Operating year-round, the club offers flight experiences and training for individuals aged 12 and above, with solo flights permitted from age 14. The Gliding Club introduces some 200 people to the art of gliding every year, through the Air Experiences it offers, as well as offering corporate experience / team building. In addition, the Gliding Club provides subsidised flying for disabled organisations including the Charity 'Sportability' and organisations associated with past squadrons based at Burn when it was occupied by the RAF.

The site is busy with some 7,000 movements a year. We operate routinely on Thursdays and weekends but also fly on other days on an ad hoc basis throughout the year.

Burn Gliding operates from the 6 runway directions available at Burn Airfield, a former WW2 No4 Group Bomber airfield. While the runways are in a poor condition, the centre of each runway and 4 of the 6 stubs have been maintained and resurfaced to allow gliding operations to take place. We are able to operate all year round as the runways do not flood when the surrounding fields become waterlogged during periods of wet weather.

Our fleet is self-maintained to the standards set by The BGA and CAA. Burn Gliding Club is affiliated to the British Gliding Association (BGA). Burn Gliding Club is recognised by the British Gliding Association (BGA) offering training in flying gliders and some aspects of powered flying. We operate 2 seat training gliders, Touring Motor Gliders and Light aircraft used as "Tugs" for aerotow launching and private gliders owned by club members.

The range of experience at Burn Gliding Club ranges from experienced cross country glider pilots with more than 1000 hours in gliders to beginners learning to fly gliders, and age ranging from 14 to 84. All members are volunteers and the Club is run on a wholly voluntary basis. Because of the very different levels of competency across the gliding members the tolerances in flying accuracy are wide but this tolerance is also proportional to the weather conditions and the type of glider being flown.

Burn has followed best practice for General Aviation Aerodromes, lodging Safeguarding information with the local planning authorities and takes seriously the need to monitor and respond to planning issues raised.

Our response to this DCO has all been done by volunteers in their spare time against the resources of a sizeable company.

Joining our club offers several benefits, including:

Flight Experiences:

The club provides various gliding lessons:

Each session includes a safety briefing and ground instruction, followed by a dual-control flight with a qualified instructor. Participants have the opportunity to take control of the glider under supervision.

We introduce our members to gliding from a wide catchment area. Also, we provide the opportunity for advanced gliding challenges. Members tend to stay with the Club a long time and we have a waiting list of members wanting to join just now. Many of our members have gone on to become professional commercial pilots too. It provides an important facility in an attractive rural setting, serving the major conurbations in Yorkshire and draws visitors from across the country.

Facilities and Fleet

The club's fleet includes two ASK21s, an advanced trainer Janus, a single-seater Junior, and a Venture motor glider. Launch methods comprise winch and aero tow launches using a Robin tug plane.

Whether seeking an exhilarating flight experience or aiming to pursue gliding as a hobby, Burn Gliding Club offers comprehensive opportunities in the heart of Yorkshire.

Affordable Access to Gliding

- We provide lower-cost access to gliders, airfields, and instruction compared to private ownership.
- Members often share aircraft, reducing individual expenses.

Professional Training & Mentorship

- We have experienced instructors offering structured training.
- Members can progress from beginner to solo pilot and beyond in a supportive environment.

Sense of Community

- We foster camaraderie among aviation enthusiasts.
- We share knowledge, experiences, and social events with like-minded individuals.

Regular Flying Opportunities

- Club operations ensure members can fly regularly.
- We have scheduled flying days with tow planes and winches available.

Use of Club Facilities & Equipment

- Our members gain access to club gliders, launch equipment, and maintenance facilities.
- We have a clubhouse, briefing rooms, simulator and social areas.

Pathway to Competitive & Advanced Flying

- We support members in cross-country flying, aerobatics, and competitions.
- We provide opportunities to earn gliding qualifications and licenses.

Volunteer & Skill-Building Opportunities

- Our members can get involved in aircraft maintenance, launching operations, and club management.
- We develop teamwork, leadership, and technical skills.

Clubhouse Facilities:

- **Social Hub:** The clubhouse serves as a central gathering point for members and visitors, fostering a sense of community.
- **Events and Lectures:** It's utilized for training lectures, morning briefings, and social events, enhancing both the educational and communal aspects of the club.

Flight Simulation:

- **Simulator Access:** Members and visitors have access to a club simulator, offering an opportunity to practice flying skills or experience flight in a controlled environment.

Value of Burn Airfield for other recreation and leisure

Burn Gliding Club offers more than just gliding; it provides a variety of recreational benefits that cater to both aviation enthusiasts and the local community. Here are some of the main activities available:

Aviation Enthusiast Activities

- **Aircraft Spotting** – Watch gliders, powered aircraft, and sometimes vintage planes take off and land.
- **Photography** – Great opportunities for aviation and landscape photography.
- **Flight Simulation & RC Flying** – We allow remote-controlled aircraft enthusiasts to use our airfield.

Outdoor & Nature Enjoyment

- **Walking & Cycling** – The airfield supports activities such as running, walking, and cycling, providing ample space for these pursuits.
- **Wildlife Watching** – The open fields attract birds of prey, deer, and other wildlife. The airfield attracts various bird species, making it a suitable spot for bird watching and enjoying local wildlife.
- **Camping & Picnicking** – We allow members and authorised visitors to camp on-site.

Social & Community Events

- **Clubhouse Facilities** – We have a bar where people can relax and socialize.
- **BBQs & Social Nights** – We often organize events for members and guests.
- **Special Events** – We arrange aviation-related talks.

Educational & STEM Activities

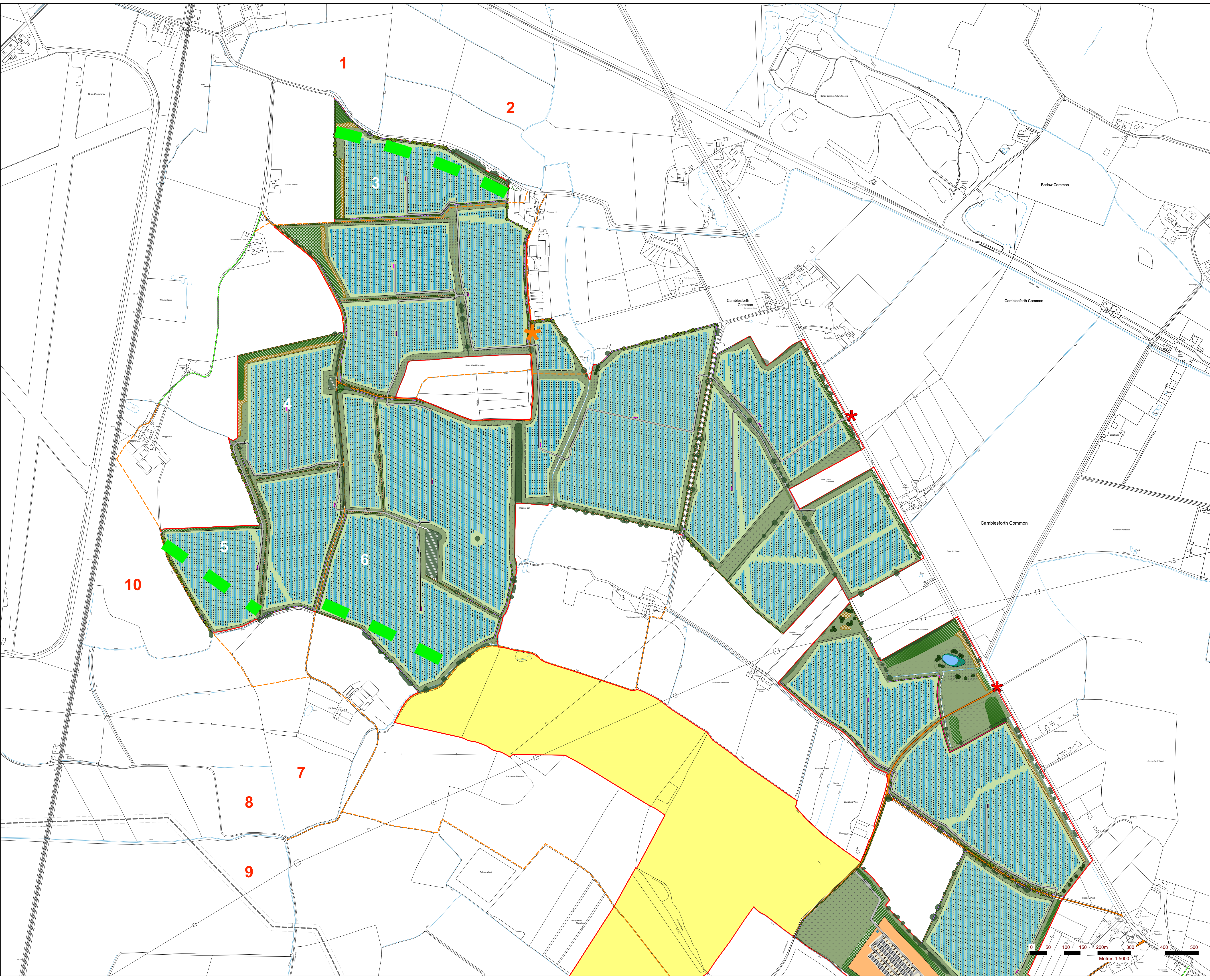
- **Aviation Learning** – We offer lectures and workshops on aerodynamics, meteorology, and aircraft maintenance.
- **Youth Engagement** – We sometimes host scouts, cadets, and aviation students.

Adventure & Sports Opportunities

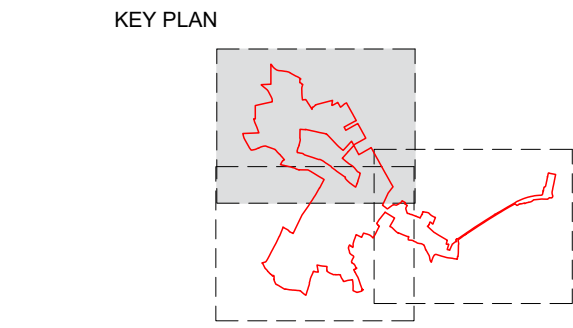
- **Drone Flying** – We may permit qualified drone enthusiasts to practice flying.
- **Horse Riding** – We are near equestrian trails.

Community Engagement:

- **Local Events:** The club often participates in or hosts events that engage the local community, promoting aviation and related activities. We often donate flight experience vouchers to local fund-raising charities. Here is a list of our community engagement activities:
 - Leeds university
 - Local scout group
 - Local schools
 - Local charities - Macmillan/charity fund raising voucher donations
 - Parish Council
 - North Yorkshire Council
 - Local Parkrun
 - Trans Pennine Trail users
 - Other Yorks Gliding Clubs - we all have reciprocal arrangements.
 - Local Airfields - we liaise constantly
 - Air League
 - Local press
 - Aero modelling Club
 - Film studios have used us as a venue
 - Visitors to watch our activity
 - Visitors for a flight experience
 - Social members
 - Locals walk a lot on the airfield
 - We have a good liaison with the farmers using the airfield



- KEY**
- Site Boundary
 - Underground Cable Corridor
 - Existing surveyed trees and vegetation
 - Existing Public Rights of Way retained
 - Existing Other Routes With Public Access
 - Physical route of ProW 18/16/1
 - Proposed Permissive Path
 - Existing gas line and buffer
 - Indicative proposed pv arrays
 - Proposed perimeter security fence (post and wire deer fence)
 - Existing woodland to be reinforced with native planting where appropriate
 - Proposed native woodland planting
 - Proposed native scrub planting
 - Proposed individual tree planting
-T1: Canopy Trees
-T2: Hedgerow Trees
 - Existing field boundary hedgerow to be reinforced
 - Historic field boundary hedgerow to be reinstated
 - Proposed hedgerow
 - Existing arable land within perimeter fence seeded with Emorsgate grazing mixture EG27 or similar (sheep grazed or mown on a regular basis)
 - Proposed grassland outside perimeter fence: Emorsgate Tussock Mixture EM10, or similar
 - Proposed wet grassland outside perimeter fence: Emorsgate Meadow Mixture for Wetlands EM8 or similar
 - Proposed wildflower grassland: Emorsgate General Purpose Meadow Mixture EM1
 - Proposed habitat ponds: Provided with native aquatic planting and 2m margin of Emorsgate Pond Edge Mixture EP1 or similar
 - Proposed habitat scrapes: Emorsgate Meadow Mixture for Wetlands EM8 or similar
 - Potential location for interpretation boards
 - Proposed access



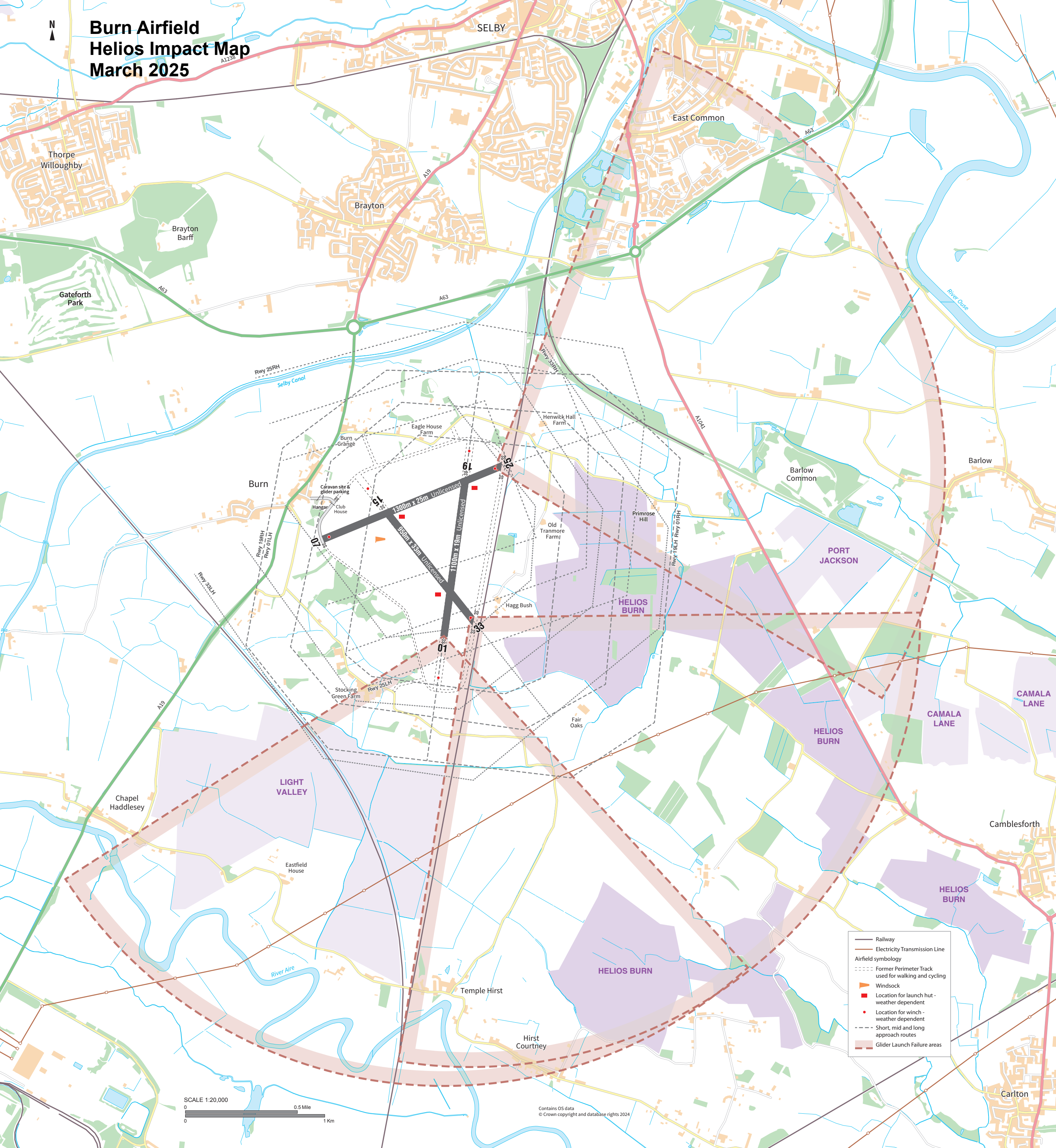
**Burn Gliding Club
Essential EFATO
Mitigation
Measures**

Project Title:
Helios Renewable Energy Project

Drawing Title:
**Landscape Strategy Plan
Sheet 1 of 3**

DRWG No: Figure 7.19	Rev: 0	Sht no: -
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