

London Airspace Consultation – NATS (National Air Traffic Services) and Gatwick Airport Ltd

Response from Kent County Council

David Brazier, Cabinet Member for Transport and Environment, Kent County Council
20 January 2014

Q1: Gatwick Airport is seeking to realign all Runway 26 departure routes below 4,000ft to help make best use of the existing runway.

Please indicate the extent to which you support or oppose this objective to realign all Runway 26 departure routes below 4,000ft to help make best use of the existing runway.

Please state the reasons why you support or oppose this objective.

Kent County Council (KCC) supports the principle of the objective to realign all of Gatwick Airport's Runway 26 departure routes below 4,000ft (aircraft taking off to the west of the airport into the westerly wind, i.e. the prevailing condition 73% of the time) to help make the best use of the existing runway as this aligns with KCC's submissions to the Airports Commission that support making better use of existing airport capacity. Therefore if realignment of all Runway 26 departure routes below 4,000ft helps to achieve better utilisation of the existing runway, KCC, with certain caveats, supports this objective.

Although the consultation makes it clear that these routes have not yet been designed, it would be logical to assume that they could be based on the new Precision Area Navigation (P-RNAV) routes consulted on by Gatwick Airport Ltd between July and November 2012. These routes were approved by the Civil Aviation Authority (CAA) on 14 August 2013. This early implementation of precision navigation was to align with the CAA Performance Based Navigation Policy as set out in the Future Airspace Strategy in order to facilitate growing demand and safe operation; and Government policy to concentrate traffic where possible to reduce the number of people over-flown. These objectives from this earlier airspace change are therefore aligned with the current airspace change proposals, and although the routes may change, i.e. not replicate as closely as possible the Standard Instrument Departures (SIDs) as with the P-RNAV routes approved in August 2013, the principles for deciding where the routes go should be similar.

P-RNAV routes (or the new terminology of RNAV1) on the SIDs applied to both Runway 26 and Runway 08 departure routes below 4,000ft. In regards to the Runway 26 departures for the purposes of the proposed changes in this consultation, KCC re-emphasises what was stated in response to Gatwick Airport Ltd's consultation on P-RNAV SIDs. P-RNAV Route 4 turns to the north and then east after take off and then heads east towards Edenbridge

and Sevenoaks, overflies the Kent Downs Area of Outstanding Natural Beauty (AONB), albeit above 4,000ft by that point. While we appreciate that the concentration of flight paths is in accordance with current Government policy of concentrating aircraft take offs along the fewest possible number of specified routes that avoid densely populated areas, there are also legal duties to have regard to the purposes of National Parks and AONB to help preserve the tranquillity of the countryside.

The CAA decision letter (dated 14 August 2013) stated that P-RNAV Route 4 must take account of the revised Department for Transport (DfT) Guidance to the CAA on Environmental Objectives Relating to the Exercise of its Air Navigation Functions, which following public consultation was published in January 2014. This guidance states that where it is practical to avoid over-flight of AONB below 7,000ft, the CAA should encourage this. KCC supports that where possible, overflying of AONB should be avoided where it is not in conflict with minimising over-flight of more densely populated areas. Aircraft noise in the countryside is often more annoying than in urban areas due to lower background noise levels.

New Runway 26 departure routes with precision navigation will be more concentrated along a single line than with the current SIDs dispersed within a 3km wide Noise Preferential Route (NPR) and therefore will result in an increase in noise disturbance for people living directly under a new precision route. Changing NPRs to take account of these new routes in terms of relocation and reduction in size from a 3km wide swathe, due to the precision technology able to concentrate flights closer to a single line; needs further consultation.

KCC would oppose any routes that unfairly burden residents in rural West Kent. As stated in the paragraph 3.6 of Part B of the consultation document, the option for redesigning the Runway 26 departures could involve using the currently little used routes that turn left from the runway, pass east of Horsham and then head east, more regularly. Although this would then result in the High Weald AONB being over-flown more often, it would provide respite for residents of Edenbridge who are regularly over-flown by departing aircraft from Runway 26 operations that turn and head east after take off. Many of these residents also have to endure the constant stream of arriving aircraft just south of Edenbridge due to the prevalence of Runway 26 arrivals (due to the prevailing westerly winds) as aircraft follow the Instrument Landing System (ILS) final approach to the east of the runway.

There needs to be agreed criteria and thresholds upon which to judge the detrimental impacts of precision routes on communities living under the new flight paths. Clearly the existing system of 'average' noise contours does not effectively represent the impact of noise on people living further away from the airport; and especially those in rural areas where there are lower background noise levels and therefore overflying aircraft are more intrusive than in urban areas. Although the methods for the measurement of noise is not part of this consultation, there still needs to be a system for monitoring the impacts of these proposed departure route changes; and the flexibility to adjust them in the

future if they are deemed to be intolerable by an appropriate method of measurement and assessment.

It must be stressed that until the new departure routes are designed, it will only then be possible to fully comment on their potential implications. KCC insists that a further stage consultation is carried out once new routes have been designed, especially if this will change NPRs, bring new populations not previously affected by aircraft noise under a new route, and concentrate flights over a precision route resulting in certain populations experiencing more noise than at present.

Q2: This proposal is considering extra routes to enable periods of respite. This would mean implementing two routes in a particular direction instead of one, with a schedule for using each route to provide periods of relative respite for people living in the area beneath the routes. While this would provide respite, it would also increase the geographic area regularly exposed to noise.

Please indicate the extent to which you support or oppose this objective of providing respite routes, given that it potentially impacts more people in order to offer respite.

Please state your reasons why you support or oppose the objective of providing respite routes.

NB a separate question is provided later to identify specific local considerations.

Kent County Council (KCC) supports the principle of the objective of providing respite routes, with certain caveats given that it potentially impacts more people regularly exposed to noise in order to offer respite.

New precision navigation routes will concentrate flight paths over a single route line rather than being distributed over a 'swathe' as is currently generally the case. This aligns with the Government policy of concentrating aircraft along the fewest number of specified routes in order to limit and, where possible, reduce the number of people significantly affected by aircraft noise. The result is that some people, albeit a fewer number, will be over-flown more of the time. The constant noise from living under a precision route could be intolerable and a counter-balance is needed in the form of predictable respite. This is acknowledged in the Aviation Policy Framework (March 2013) which states that where there is intensive use of certain routes, and following engagement with local communities, it may be appropriate to explore options for respite which share noise between communities on an equitable basis, provided that it does not lead to significant numbers of people newly affected by noise.

Given that respite for one group of people will result in noise impacts correspondingly transferred to other people, it is important that respite routes do not affect populations not previously exposed to noise, as stated in the Aviation Policy Framework. Therefore respite routes must be within the 'swathes' that are already subjected to over-flight in order to prevent new populations from being exposed to noise.

Specific local considerations for respite routes are provided in the response to the subsequent two questions. However, KCC urges that a subsequent consultation on the specific new route options for all routes, including respite routes, and the timing of alternation between respite routes, i.e. daily, weekly etc, is carried out once the route options have been designed following this initial consultation. Only at that stage can the benefits and disbenefits of the potential new routes be properly assessed.

Q3: Please indicate which, if any, place(s) or areas(s) within the consultation swathes you think require special consideration in the on-going design process.

Please describe the characteristics of these locations, stating whether they should be considered due to concerns about noise impact, visual impact and/or any other impact.

This question will be addressed for each consultation swathe.

Gatwick Airport – below 4,000ft

Runway 26 departures:

No comment – departure swathes do not affect Kent below 4,000ft.

Runway 26 arrivals:

The consultation document makes it clear that this is only applicable above 3,000ft due to the need for aircraft to line up with the runway to land, i.e. lock onto the Instrument Landing System (ILS) final approach path when they are at no less than 3,000ft. Once on the ILS final approach path at 3,000ft and below, the route into landing on the runway is fixed in a straight line.

It is therefore important that aircraft join the ILS final approach path at 3,000ft at the nearest possible point to the airport in order to minimise the area and number of people subjected to descending aircraft over-flight below 3,000ft. The single line trajectory of the ILS final approach path means that every arriving flight will pass directly over the areas under this single line once the aircraft have joined the ILS final approach path.

The point where aircraft join the final approach, i.e. turn onto the ILS final approach path, and the flight path up to that point, will be subjected to significant over-flight. In order to facilitate some form of respite, the new DfT Guidance to the CAA on the Environmental Objectives Relating to the Exercise of its Air Navigation Functions (January 2014), states that varying

the joining points provides opportunities for arrivals respite. This type of respite measure is commented on in response to the next question on respite.

Marsh Green is within the swathe of a minimum of 1,000ft, but typically 2,000ft or more, therefore is already under the ILS final approach by this point as flights are below 3,000ft. However, KCC urges that if it is not possible to join the ILS further west, then aircraft should be kept as high as possible over Marsh Green to reduce noise impact in so far as is possible at these low altitudes.

Hever, Markbeece, Chiddingstone, Chiddingstone Causeway, Leigh and parts of Hildenborough are in the swathe of a minimum of 2,000ft, but typically 3,000ft or more, therefore are on the boundary of whether at this point aircraft are already on the ILS final approach path (which they need to be on by a minimum of 3,000ft). Therefore KCC urges that aircraft should be kept as high as possible over these areas and opportunities looked at for respite routes in terms of varying where they join the final approach (see response to the next question on respite).

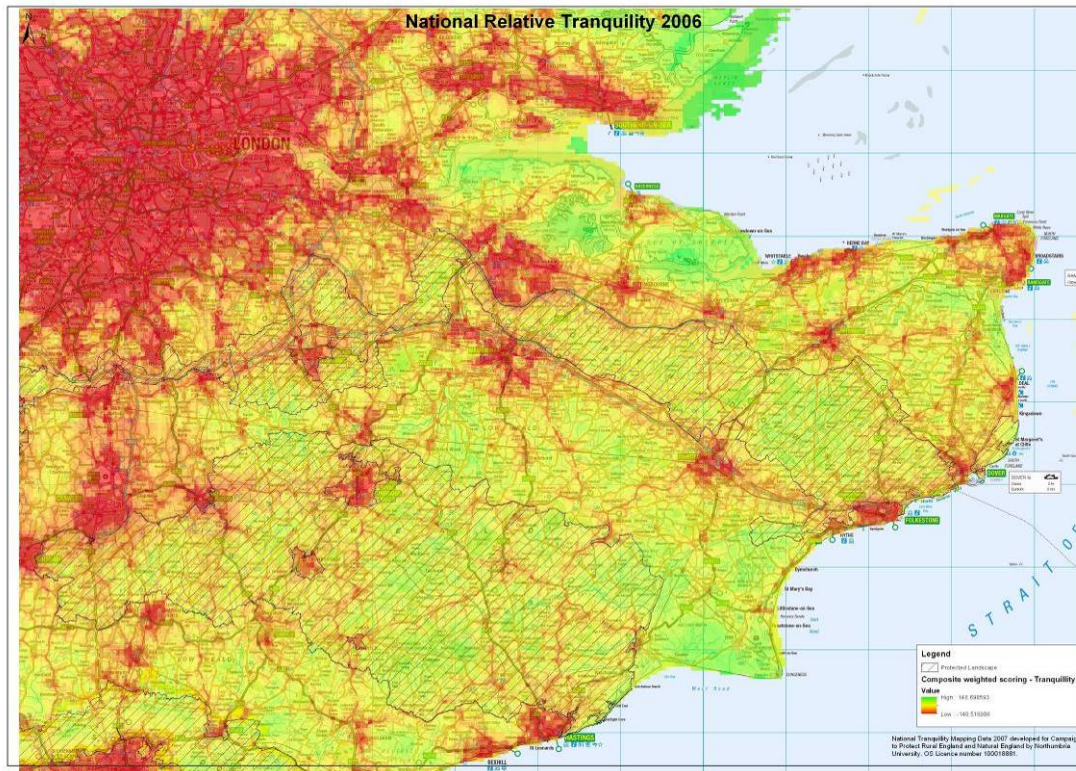
Within this area there are sites and buildings of historical and cultural significance which have important tourism value, specifically Hever Castle, Penshurst Place and Chiddingstone Castle which are being damaged due to noise and visual impact spoiling their tranquillity value as a heritage attraction. KCC urges that over-flight of these places should be avoided, or aircraft at least kept as high as possible. They would also benefit from respite in terms of varying where arriving aircraft join the final approach (see response to the next question on respite).

Other areas that are in the minimum 3,000ft, but typically 4,000ft or more swathe, include the large urban areas of Tonbridge and Tunbridge Wells, and includes the other settlements of Bidborough, Southborough, Pembury, Crockhurst Street, Speldhurst, Langton Green, Groombridge, Fordcombe, Ashurst, Blackham, Cowden and Penshurst. The new precision routes being designed within this swathe should aim to avoid over-flight of these settlements with added weight given to avoidance of the urban areas of Tonbridge and Tunbridge Wells as this aligns with Government policy to reduce the number of people affected by noise. KCC urges that if possible, aircraft should avoid flying over the urban areas of Tonbridge and Tunbridge Wells.

The rural areas surrounding Tonbridge and Tunbridge Wells are also of high tranquillity value and parts are within protected landscapes as shown on the map in Figure 1 (produced for Campaign to Protect Rural England and Natural England by Northumbria University, licensed for use by Kent County Council, in this instance, to inform responses to strategic consultations). As stated in the Aviation Policy Framework (March 2013) and the new DfT Guidance to the CAA on the Environmental Objectives Relating to the Exercise of its Air Navigation Functions (January 2014), where it is practical to avoid over-flight below 7,000ft, this should be encouraged.

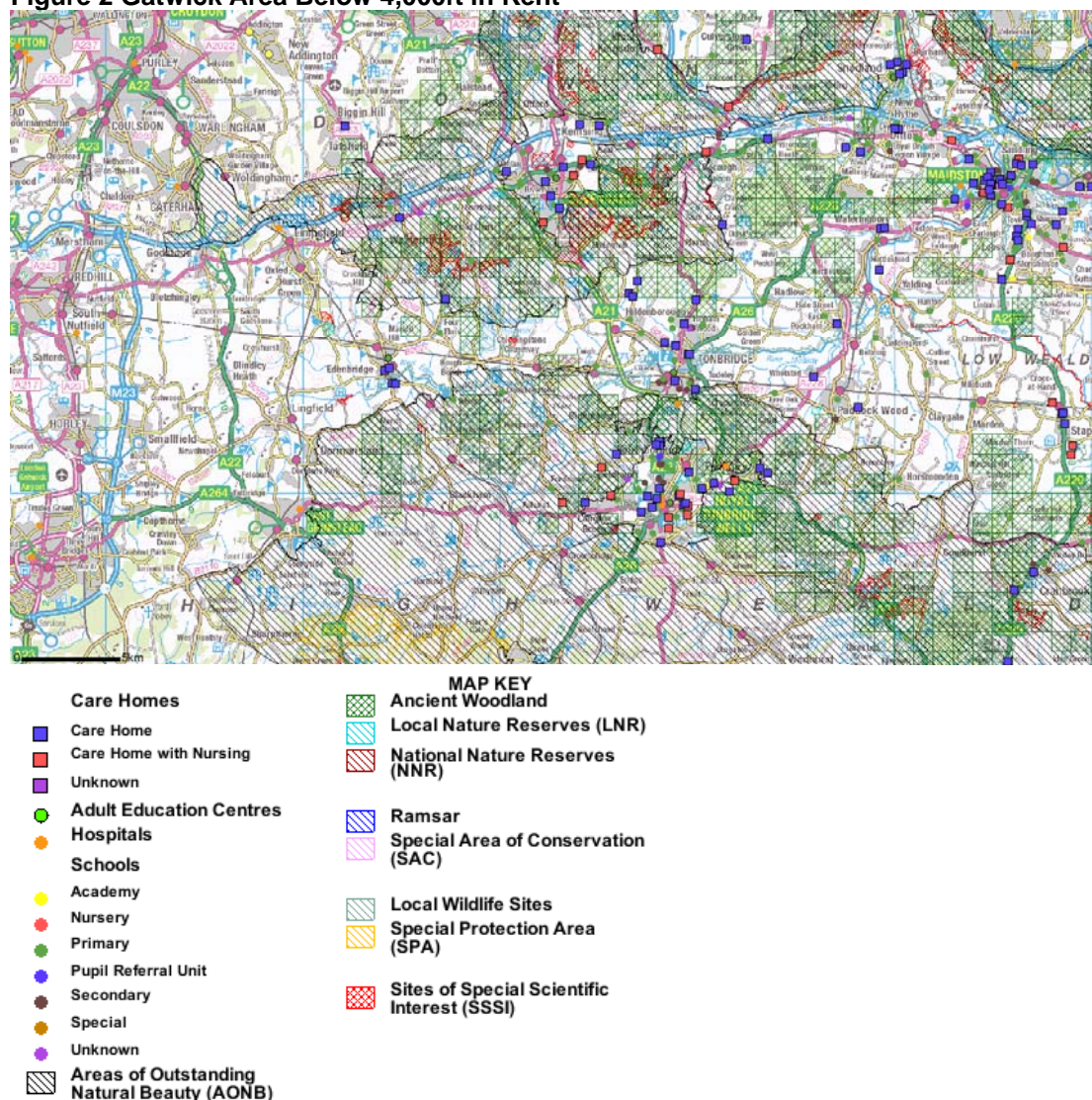
All maps in Figures 1 to 8 are also shown in the Appendix in full size and higher resolution.

Figure 1 National Relative Tranquility (2006)



The map in Figure 2 shows the West Kent area around Gatwick which is within the below 4,000ft swathe and denotes landscape designations and some noise sensitive buildings such as hospitals, care homes, schools and educational centres. Ideally over-flight of these noise sensitive receptors should be avoided where possible.

Figure 2 Gatwick Area Below 4,000ft in Kent



Runway 08 departures:

The consultation document makes it clear that this is only applicable for potential respite routes within existing Noise Preferential Routes (NPRs) as a re-deign of Runway 08 departures (take offs to the east into an easterly wind, only 27% of the time) is not being considered in this proposal.

During an easterly wind, aircraft take off and are at a minimum of 3,000ft, but typically 4,000ft or more over Marsh Green, Hever, Markbeech and Penshurst. These settlements are also all within the swathe for low flying (less than 4,000ft) arrivals. Therefore even a change of wind direction from the prevailing westerly winds (that bring arriving aircraft on Runway 26 arrivals) to easterly winds, brings departing aircraft over-flight, which although flying higher, are generally even noisier. Marsh Green is hardest hit as it is within the lowest altitude swathe for Runway 26 arrivals and is also under the departure routes for Runway 08 operations. Therefore KCC urges that the settlements of Marsh Green, Hever, Markbeech and Penshurst are avoided for Runway 08 departures with the precision route within the existing NPR.

The northern part of Edenbridge, and the settlements of Marlpit Hill, Four Elms, Toy's Hill, Ide Hill, and Crockham Hill are over-flown by aircraft at a minimum of 3,000ft, typically 4,000ft or more with Runway 08 departures within the existing NPR. This means that there is over-flight of Chartwell, a National Trust property of national importance (the former home of Sir Winston Churchill) and the Kent Downs AONB. As per the new DfT Guidance to the CAA on the Environmental Objectives Relating to the Exercise of its Air Navigation Functions (January 2014), where it is practical to avoid over-flight of these areas below 7,000ft, this should be encouraged. KCC urges that the settlements of Edenbridge, and the settlements of Marlpit Hill, Four Elms, Toy's Hill, Ide Hill, and Crockham Hill, the National Trust property of Chartwell, and where possible, the Kent Downs AONB, are avoided for Runway 08 departures with the precision route within the existing NPR.

Runway 08 arrivals:

No comment – arrival swathes do not affect Kent below 4,000ft.

Gatwick Airport – 4,000ft to 7,000ft

Runway 26 departures:

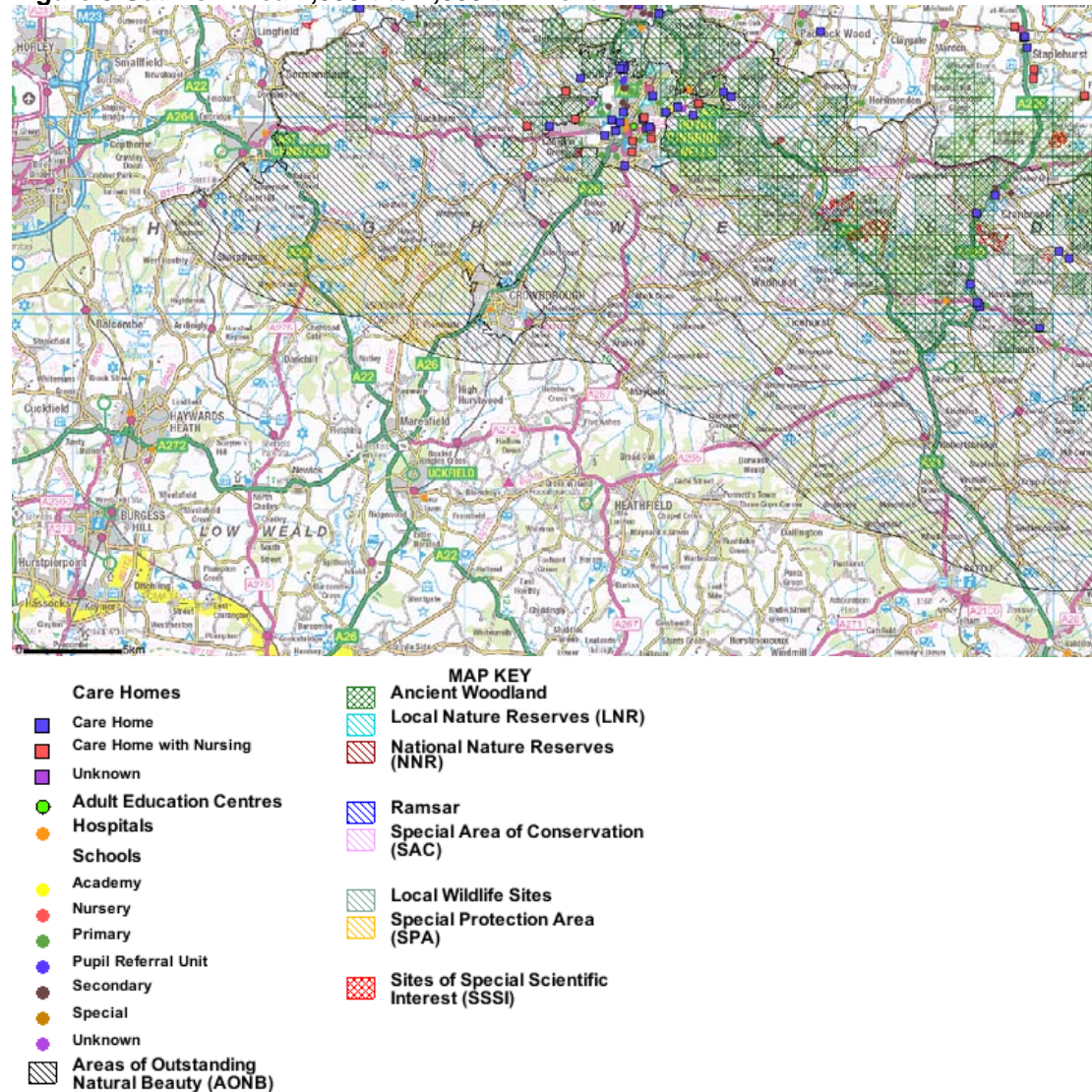
No comment – departure swathes do not affect Kent between 4,000ft and 7,000ft.

Runway 26 arrivals:

Kipling's Cross and rural areas south of Pembury / south-east of Tunbridge Wells are in the minimum 4,000ft, but typically 5,000ft or more swathe; and rural areas around Bayham Abbey and The Down to the west of Lamberhurst are in the minimum 5,000ft, but typically 6,000ft or more swathe that will potentially be over-flown by westerly (Runway 26) arrivals. These are rural areas of tranquillity within the High Weald AONB and therefore as set out in the new DfT Guidance to the CAA on the Environmental Objectives Relating to the Exercise of its Air Navigation Functions (January 2014), where it is practical to avoid over-flight of these areas below 7,000ft, this should be encouraged.

The map in Figure 3 shows the West Kent area around Gatwick which is within the between 4,000ft and 7,000ft swathe and denotes landscape designations and some noise sensitive buildings such as hospitals, care homes, schools and educational centres. Ideally over-flight of these noise sensitive receptors should be avoided where possible.

Figure 3 Gatwick Area 4,000ft to 7,000ft in Kent



Runway 08 departures:

No comment – departure swathes do not affect Kent between 4,000ft and 7,000ft.

Runway 08 arrivals:

No comment – arrival swathes do not affect Kent between 4,000ft and 7,000ft.

Gatwick Airport – above 7,000ft

Arrivals:

Parts of the Romney Marsh, including areas which are within Sites of Special Scientific Interest (SSSI) are within the minimum 8,000ft, but typically 12,000ft swathe, therefore noise and visual impacts will be relatively minimal due to the height of the over-flying aircraft. However, avoidance of over-flight would be preferred due to the tranquillity of this area; and given its close proximity to the sea, it would be sensible to direct flights over the English Channel to presumably the ideal location for the Point Merge Arc for aircraft waiting to land at Gatwick. The Point Merge Arc should be located over the sea to avoid

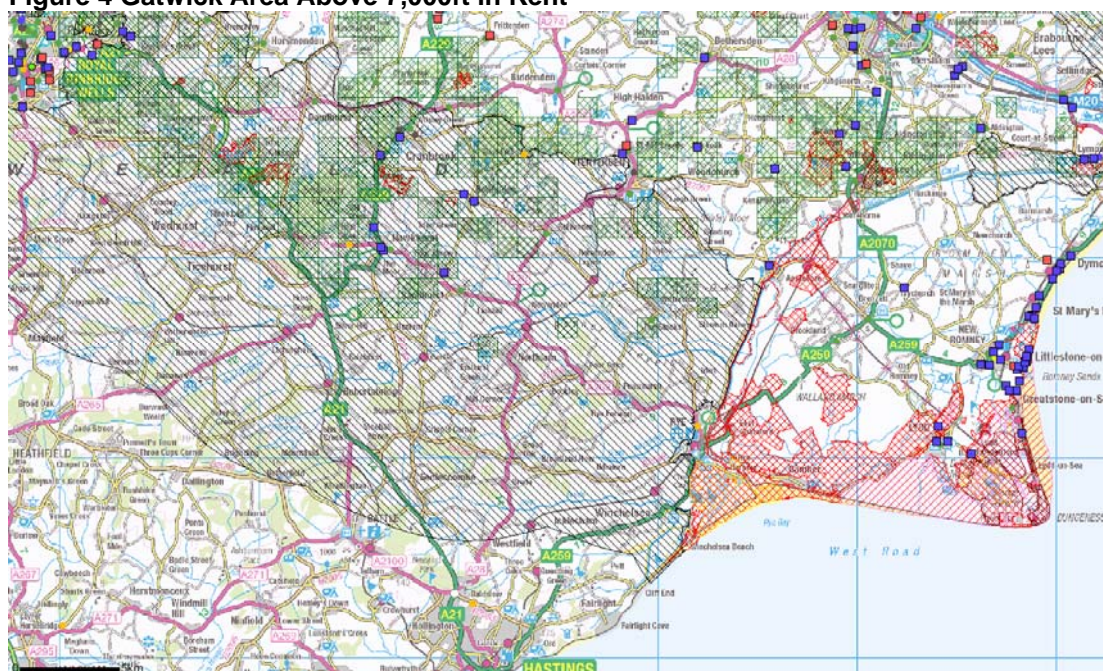
unnecessary over-flight of people and noise sensitive areas on land as explained in the subsequent response to the question on Point Merge.

It is also importance that these over-flights do not impact on the operational viability of Lydd Airport which will be operating in lower level airspace below the Gatwick arrival routes.

Along with the above 7,000ft swathe for London City Airport arrivals and departures, the majority of East Kent north of Lydd Airport between Ashford and Folkestone, including the Kent Downs AONB and Canterbury, up to between Ramsgate and Herne Bay, is within a minimum of 9,000ft, but typically 12,000ft swathe. This is below the London City Airport departures and at around the same level as the London City arrivals. At this height noise and visual impacts will be relatively minimal; however, avoidance of the Kent Downs AONB and other designated areas would be preferred to preserve their tranquillity as well as avoiding over-flying settlements if possible. As previously stated, given this area's close proximity to the coast and the assumption that the ideal location for the Point Merge Arc is over the English Channel, it would seem sensible to direct arriving aircraft over the sea to join the Point Merge Arc rather than fly over these parts of East Kent.

The map in Figure 4 shows the Kent area which is within the above 7,000ft swathe for Gatwick and denotes landscape designations and some noise sensitive buildings such as hospitals, care homes, schools and educational centres. Ideally over-flight of these noise sensitive receptors should be avoided where possible. Maps in Figures 7 and 8 for London City Airport also show the parts of east and south Kent that are also within the above 7,000ft swathe for Gatwick Airport arrivals.

Figure 4 Gatwick Area Above 7,000ft in Kent





Departures:

No comment – departure swathes do not affect Kent above 7,000ft.

London City Airport – 4,000ft to 7,000ft

Arrivals:

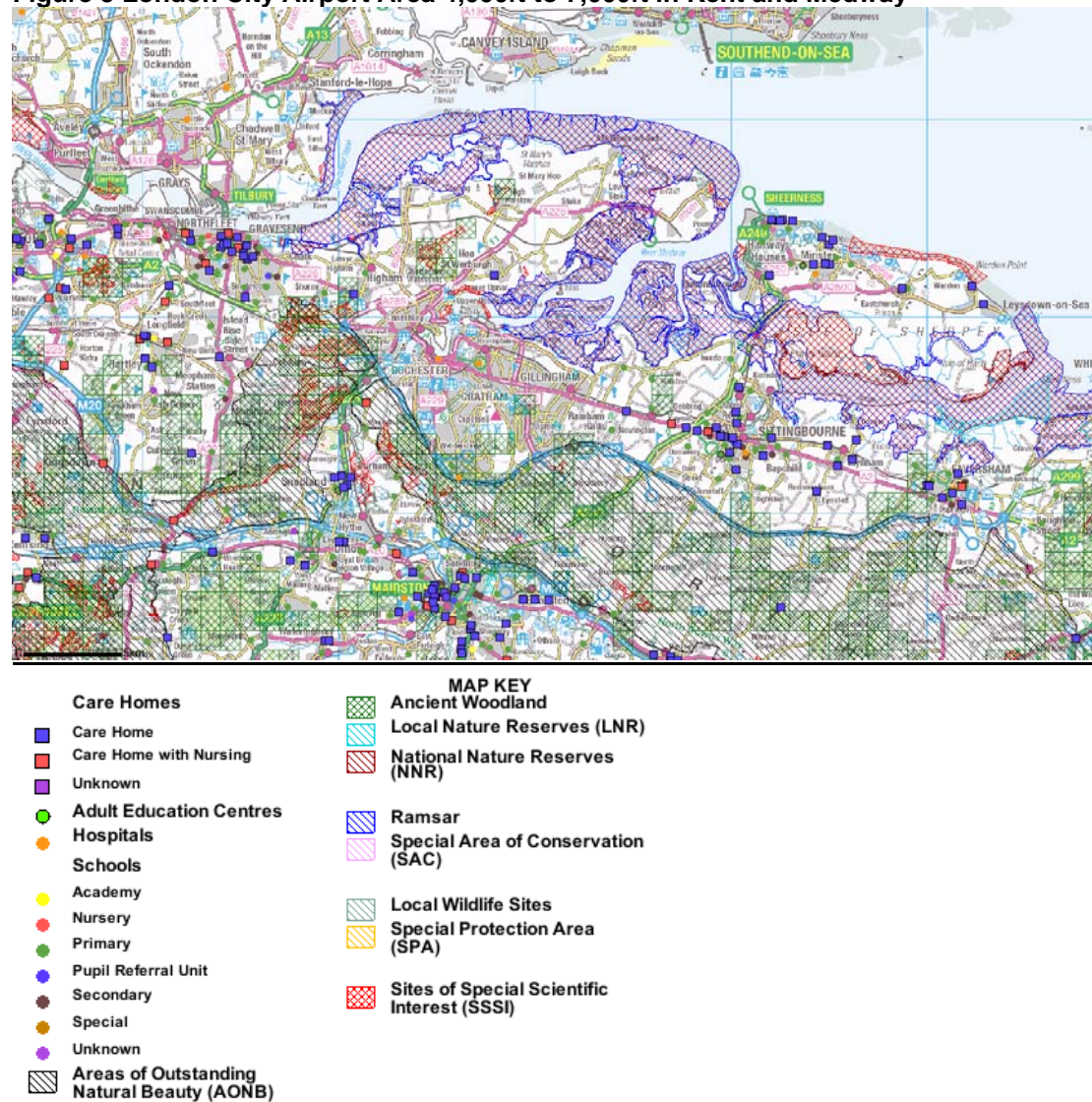
There are a number of urban areas including Faversham, Sittingbourne, Sheerness, Minster, Leysdown-on-sea and Rainham, plus numerous surrounding villages in North Kent including those on the Isle of Sheppey; and protected landscapes which are areas of high tranquillity value (see map in Figure 1), which are within the minimum 6,000ft, but typically 7,000ft or more swathe for London City Airport arrivals. The large urban area of the Medway Towns which includes Gillingham, Chatham and Rochester, along with villages and protected landscapes on the Isle of Grain are within the minimum 5,000ft, but typically 6,000ft or more swathe. Further areas of protected landscapes including the marshes on the Hoo Peninsular, the town of Strood, numerous villages including Higham, Thong, Istead Rise and Southfleet, and the large urban area of Gravesend and Northfleet are all within the minimum 4,000ft, but typically 5,000ft or more swathe. This larger urban area of Gravesend and Northfleet will also be impacted the most as aircraft continue to descend on route to landing.

Government policy states that, where possible, over-flight of densely populated areas should be avoided to minimise the number of people affected by aircraft noise; and where possible over-flight of areas of tranquillity should also be avoided. Therefore it would seem logical that the precision arrival route should follow the Thames Estuary as far as is possible to avoid flying over settlements; and as much as possible limit over-flight of protected landscape areas.

The map in Figure 5 shows the North Kent and Medway area which is within the between 4,000ft and 7,000ft swathe for London City Airport and denotes landscape designations and some noise sensitive buildings such as hospitals, care homes, schools and educational centres (note that only the landscape designations in Medway Unitary Authority area are shown). Ideally over-flight of these noise sensitive receptors should be avoided where possible.

It is also essential that London City Airport arrivals do not impact on Manston Airport's operational requirements and inhibit the potential for air traffic growth at Manston (Kent's International Airport). KCC's response to Southend Airport's consultation on their proposal to re-establish controlled airspace in the vicinity of London Southend Airport, objected to parts of their proposal that would impact on Manston's ability to direct traffic over parts of the Isle of Sheppey and around the offshore wind farm.

Figure 5 London City Airport Area 4,000ft to 7,000ft in Kent and Medway



Departures:

Designated landscapes on the Hoo Peninsular, Isle of Grain and Isle of Sheppey, plus parts of the Medway Towns (Chatham, Gillingham and Rainham), and other towns and villages in North Kent including Sittingbourne, Faversham, Shererness, Minster and Leysdown-on-sea are within the minimum 6,000ft, but typically 7,000ft or more swathe for departures. Although aircraft are ascending and are already relatively high (6,000-7,000ft) at this point (to climb above the arrivals) and therefore noise is becoming less of an issue; where possible, over-flight should avoid these areas and the precision

departure route should be over the sea. The map in Figure 5 shows specific places that should be avoided.

As stated for arrivals, it is also important that London City Airport departures do not impact on Manston Airport's operational requirements and inhibit the potential for air traffic growth at Manston (Kent's International Airport).

London City Airport – above 7,000ft

Arrivals:

The Thanet towns of Ramsgate, Broadstairs, Margate, Westgate-on-sea and Birchington, plus the coastal towns of Herne Bay, Whitstable and the surrounding villages and countryside are within the minimum 7,000ft, but typically 8,000ft swathe for arrivals. Although relatively high (7,000-8,000ft) and therefore noise is less likely to be an annoyance; where possible, these areas should avoid being over-flown. KCC urges that the Point Merge Arc is placed over the sea and therefore aircraft flying along the arc do not over-fly any of the areas of land within this swathe above 7,000ft.

As previously stated, it is important that London City arrivals do not impact on Manston Airport's operational requirements with its aircraft needing to ascend and descend in the airspace below that which is being over-flown by London City arrivals at a higher level within this swathe (7,000-8,000ft). Manston's potential for growth must not be inhibited by London City arrivals flying over it.

The whole of East Kent and also the M20 corridor as far Maidstone is within the minimum 8,000ft, but typically 12,000ft swathe. At this height, noise is unlikely to be an issue. However, if it is possible to avoid over-flying the settlements and instead fly over the sea, this would be beneficial. Over-flight of the Kent Downs AONB should also be avoided, where possible, if not just for noise but also for visual intrusion, so as not to negatively impact on this area of tranquillity (see map in Figure 1).

As stated, it is presumed that the ideal location for the Point Merge Arc is over the Thames Estuary; therefore it would be sensible that arriving aircraft are directed over the sea and around the coast to join the point Merge Arc in order to avoid over-flight of East Kent.

The maps in Figures 6, 7 and 8 show the areas of eastern Kent that are within the above 7,000ft swathe (Figures 6 and 7 also include parts of the 4,000-7,000ft swathe) and denotes landscape designations and some noise sensitive buildings such as hospitals, care homes, schools and educational centres. Ideally over-flight of these noise sensitive receptors should be avoided where possible.

Figure 6 London City Airport Area Above 7,000ft in Kent (north) and 4,000ft to 7,000ft in Kent and Medway

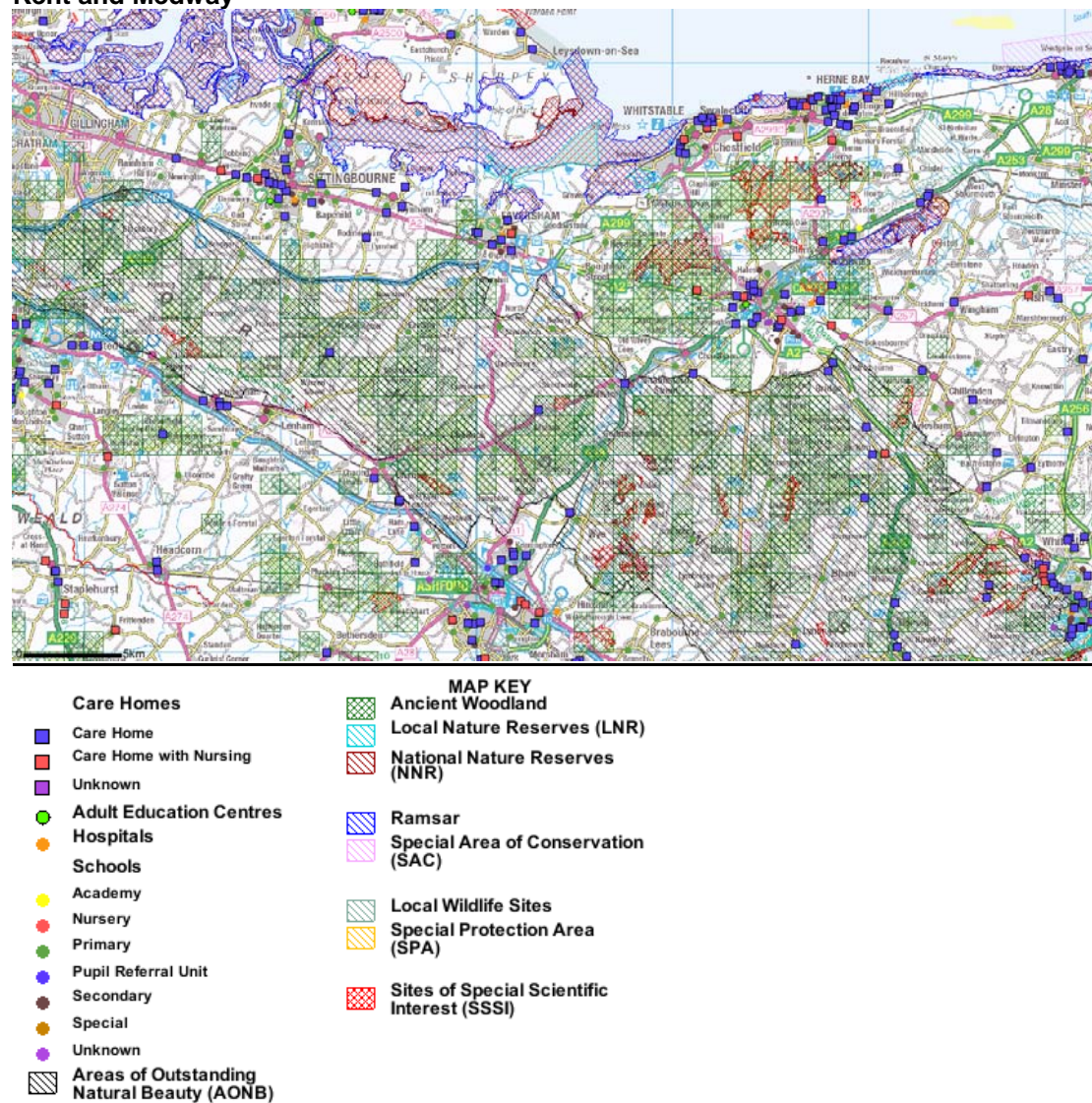


Figure 7 London City Airport Area Above 7,000ft in Kent (east) and 4,000ft to 7,000ft in Kent

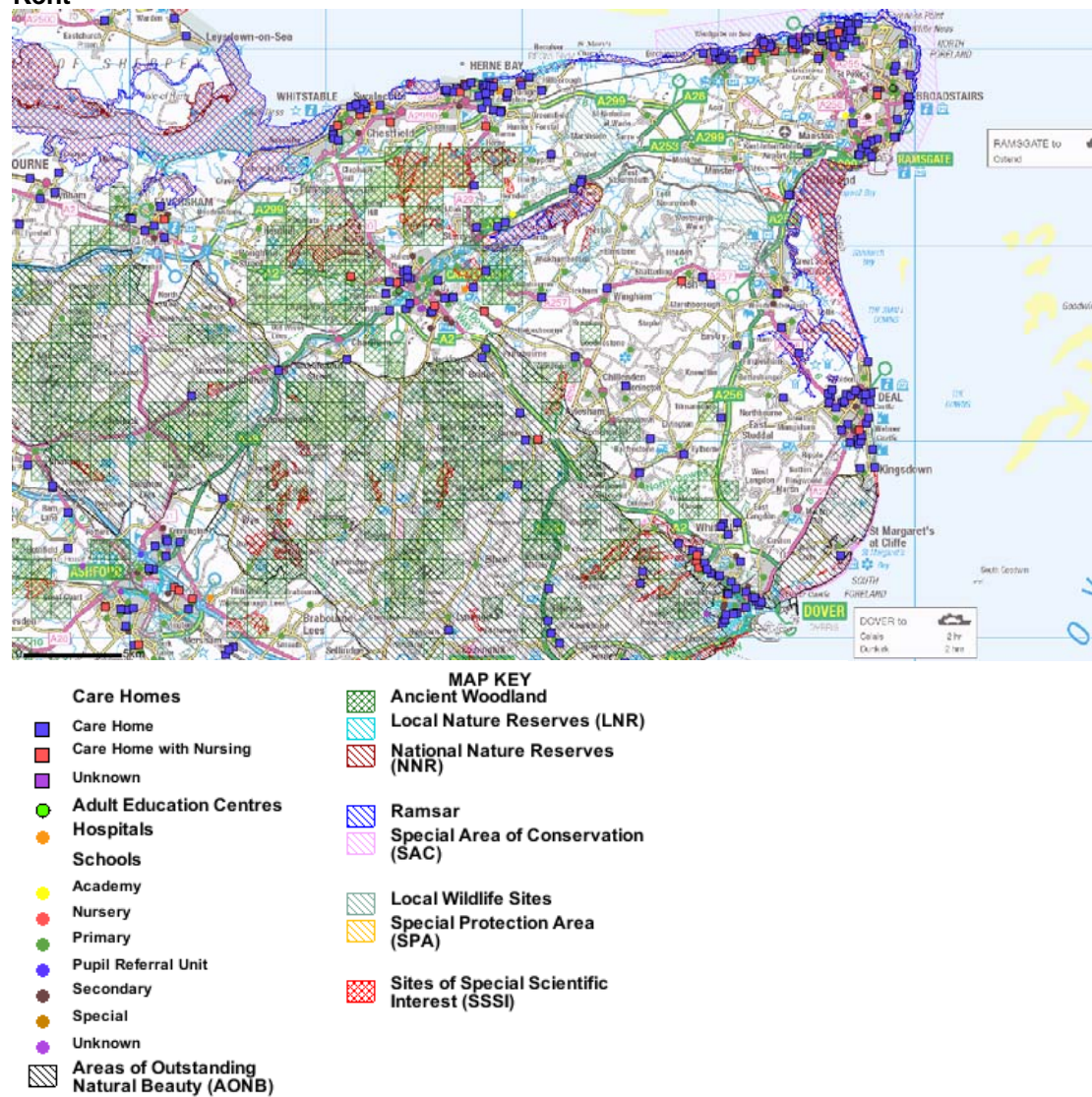
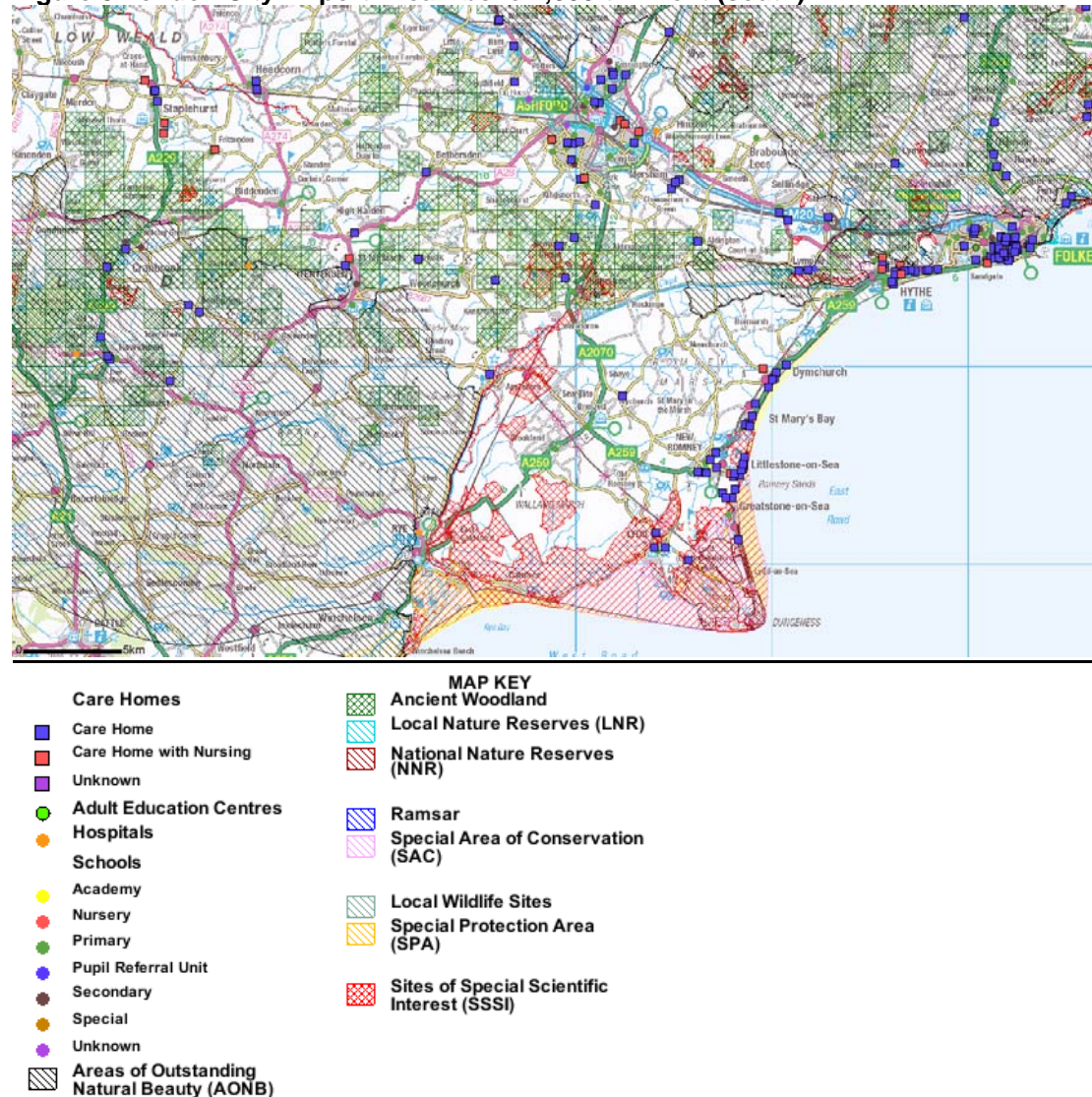


Figure 8 London City Airport Area Above 7,000ft in Kent (south)



Departures:

Significant areas of countryside from Bearsted in an arc following the edge of the M2 and A299, which includes areas of the Kent Downs AONB, is within the minimum 7,000ft, but typically 12,000ft or more swathe for departures. An outer arc from Bearsted through Charing to Canterbury and Herne Bay is in the minimum 12,000ft, but typically 15,000ft or more swathe; and the remaining parts of eastern Kent, including the Kent Downs AONB, are in the minimum 15,000ft but typically 20,000ft or more swathe. Clearly at these heights, as aircraft have climbed above the arrivals that are at lower level (see response to arrivals in text above) noise impact will be minimal; however, the visual intrusion of over-flight in areas of tranquillity (see map in Figure 1) such as the Kent Downs AONB should be avoided if possible.

The maps in Figure 6 and 7 show the areas of Kent (north and south) which are within the above 7,000ft swathe (Figure 6 also includes parts of the 4,000-7,000ft swathe) and denotes landscape designations and some noise sensitive buildings such as hospitals, care homes, schools and educational

centres. Ideally over-flight of these noise sensitive receptors should be avoided where possible.

Q4: In what, if any, geographic locations should options be considered for altering routes for respite purposes? What should the criteria be?

As stated, KCC supports the principle of respite routes. However, if technically possible, it may be that multiple respite routes are needed in order to give as many areas as possible some form of respite. This is acknowledged in the Aviation Policy Framework (March 2013) which states that where there is intensive use of certain routes, and following engagement with local communities, it may be appropriate to explore options for respite which share noise between communities on an equitable basis, provided that it does not lead to significant numbers of people newly affected by noise.

Given that the new technology allows for more precise routes to be flown, resulting in people under that precision route to be over-flown all of the time, it would seem logical that a multitude of precision respite routes would be possible. As previously stated, all routes, including respite routes, should over-fly areas that are already over-flown so as to prevent new communities not previously affected by aircraft noise from being over-flown as a result of these airspace changes.

The criteria for altering routes for respite purposes should take account of giving residential properties a break from aircraft noise, especially at night when noise disturbs sleep, and this should also be applicable to hospitals, care homes etc, with schools getting respite during the daytime. Buildings of historic and cultural significance, as well as tranquil countryside with designated landscapes, should have predictable respite during the daytime so that people can enjoy these types of attractions.

This question in terms of geographic locations and options for altering routes for respite purposes will be addressed for each consultation swathe that is being considered for respite routes.

Gatwick Airport – below 4,000ft

Runway 26 departures:

No comment – departure swathes do not affect Kent below 4,000ft.

Runway 26 arrivals:

The consultation document makes it clear that as stated with the principal arrival routes, respite routes are only applicable above 3,000ft due to the need for aircraft to line up with the runway to land, i.e. lock onto the Instrument Landing System (ILS) final approach path when they are at no less than 3,000ft. Once on the ILS final approach path at 3,000ft and below, the route into landing on the runway is fixed in a straight line.

As previously stated in regards to the principal arrival routes, it is important that aircraft join the ILS final approach path at 3,000ft at the nearest possible point to the airport in order to minimise the area and number of people subjected to descending aircraft over-flight below 3,000ft. Under the single line trajectory of the ILS final approach path, this results in every arriving flight passing directly overhead, with the only form of respite for people further out made possible by varying the point at which aircraft join the final approach.

The point where aircraft join the final approach, i.e. turn onto the ILS final approach path, and the flight path up to that point, will be subjected to significant over-flight. In order to facilitate some form of respite, the new DfT Guidance to the CAA on the Environmental Objectives Relating to the Exercise of its Air Navigation Functions (January 2014), states that varying the joining points provides opportunities for arrivals respite. KCC urges that this type of respite measure must be put into place for Runway 26 arrivals.

Hever, Markbeece, Chiddingstone, Chiddingstone Causeway, Leigh and parts of Hildenborough are in the swathe of a minimum of 2,000ft, but typically 3,000ft or more, therefore are on the boundary of whether at this point aircraft are already on the ILS final approach path (which they need to be on by a minimum of 3,000ft). Therefore KCC urges that as well as keeping aircraft as high as possible over these areas, there should be respite routes in terms of varying where they join the final approach so that these settlements are not subjected to constant low level over-flight.

Within this area there are sites and buildings of historical and cultural significance which have important tourism value, specifically Hever Castle, Penshurst Place and Chiddingstone Castle which are being damaged due to noise and visual impact spoiling their tranquillity value as a heritage attraction. As previously stated, KCC urges that over-flight of these places should be avoided or aircraft at least kept as high as possible. Also, KCC urges that they also benefit from respite in terms of varying where arriving aircraft join the final approach so that they are not over-flown all of the time. These attractions would benefit from respite during the day when they have visitors, whereas during the night when the attractions are closed, over-flight is not so much of an issue. Hever Castle often has events, e.g. summer evening outdoor theatre performances, and therefore would benefit from predictable respite so that it could plan its events to correspond with times when arriving aircraft are on a respite route that avoids directly over-flying the castle.

Other areas that are in the minimum 3,000ft, but typically 4,000ft or more swathe, include the large urban areas of Tonbridge and Tunbridge Wells, and includes the other settlements of Bidborough, Southborough, Pembury, Crockhurst Street, Speldhurst, Langton Green, Groombridge, Fordcombe, Ashurst, Blackham, Cowden and Penshurst. As previously stated, KCC urges that the new precision routes being designed within this swathe should aim to avoid over-flight of these settlements with added weight given to avoidance of the urban areas of Tonbridge and Tunbridge Wells as this aligns with Government policy to reduce the number of people affected by noise. However, if a complete ban on over-flight is not possible, these settlements

should at least benefit from predictable alternating respite so that at least some of the time they are not subjected to aircraft noise. Respite at night would be welcomed so that residents are able to get a decent night's sleep at least some of the time.

The map in Figure 2 (in answer to the previous question) shows the West Kent area around Gatwick which is within the below 4,000ft swathe and denotes landscape designations and some noise sensitive buildings such as hospitals, care homes, schools and educational centres. As previously stated, over-flight of these noise sensitive receptors should be avoided where possible, and at the very least should benefit from rotating respite.

Runway 08 departures:

As previously stated, the consultation document makes it clear that this is only applicable for potential respite routes within existing Noise Preferential Routes (NPRs) as a re-design of Runway 08 departures (take offs to the east into an easterly wind, only 27% of the time) is not being considered in this proposal.

As previously stated, during an easterly wind, aircraft take off and are at a minimum of 3,000ft, but typically 4,000ft or more over Marsh Green, Hever, Markbeece and Penshurst. These settlements are also all within the swathe for low flying (less than 4,000ft) arrivals. Therefore even a change of wind direction from the prevailing westerly winds (that brings arriving aircraft on Runway 26 arrivals) to easterly winds, brings departing aircraft over-flight, which although flying higher, are generally even noisier. Marsh Green is hardest hit as it is within the lowest altitude swathe for Runway 26 arrivals and is also under the departure routes for Runway 08 operations. As stated, KCC urges that the settlements of Marsh Green, Hever, Markbeece and Penshurst are avoided for Runway 08 departures with the precision route within the existing NPR. If this is not possible, at the very least, KCC urges that these settlements benefit from altering the route within the existing NPR to provide respite.

As previously stated, the northern parts of Edenbridge, and the settlements of Marlpit Hill, Four Elms, Toy's Hill, Ide Hill, and Crockham Hill and Chartwell, a National Trust property of national importance and the Kent Downs AONB, are over-flown by aircraft at a minimum of 3,000ft, typically 4,000ft or more with Runway 08 departures within the existing NPR. As stated, KCC urges that these places are avoided for Runway 08 departures with the precision route within the existing NPR. If this is not possible, at the very least, KCC urges that these areas benefit from altering the route within the existing NPR to provide respite.

Runway 08 arrivals:

No comment – arrival swathes do not affect Kent below 4,000ft.

Gatwick Airport – 4,000ft to 7,000ft

Runway 26 departures:

No comment – departure swathes do not affect Kent between 4,000ft and 7,000ft.

Runway 26 arrivals:

As stated, Kippling's Cross and rural areas south of Pembury / south-east of Tunbridge Wells are in the minimum 4,000ft, but typically 5,000ft or more swathe; plus rural areas around Bayham Abbey and The Down to the west of Lamberhurst are in the minimum 5,000ft, but typically 6,000ft or more swathe that will potentially be over-flown by westerly (Runway 26 arrivals). These are rural areas of tranquillity that are within the High Weald AONB and therefore as set out in the new DfT Guidance to the CAA on the Environmental Objectives Relating to the Exercise of its Air Navigation Functions (January 2014), where it is practical to avoid over-flight of these areas below 7,000ft, this should be encouraged. If it is not possible to avoid over-flight, respite routes would provide some relief from noise disturbance from over-flying aircraft.

Runway 08 departures:

No comment – departure swathes do not affect Kent between 4,000ft and 7,000ft.

Runway 08 arrivals:

No comment – arrival swathes do not affect Kent between 4,000ft and 7,000ft.

Q5: Altering routes to fly around environmentally sensitive areas rather than overhead is likely to mean more fuel burn and more CO2 emissions because the altered route would usually be longer.

In general, which should take precedence – minimising over-flight of sensitive areas by flying a longer route around them, or flying the direct route overhead the area to keep the route shorter and minimise fuel burn and CO2?

- **X - support - Flying longer routes around environmentally sensitive areas should always have greater precedence than flying overhead on shorter routes which minimise fuel burn / CO2.**
- Flying longer routes around environmentally sensitive areas should generally have greater precedence than flying overhead on shorter routes which minimise fuel burn / CO2.
- Flying longer routes around environmentally sensitive areas should be given equal weighting to flying overhead on shorter routes which minimise fuel burn / CO2.
- Flying shorter routes which minimises fuel burn / CO2 should generally have precedence over flying longer routes around environmentally sensitive areas.
- Flying shorter routes which minimise fuel burn / CO2 should always have precedence over flying longer routes around environmentally sensitive areas.

- Don't know

What, if any, factors should be taken into account when determining the appropriate balance of flying around environmentally sensitive areas versus overhead (for instance the altitude of the aircraft may be a factor, or the frequency/timing of flight)?

The new DfT Guidance to the CAA on the Environmental Objectives Relating to the Exercise of its Air Navigation Functions (January 2014) states that up to 4,000ft, the Government's environmental priority is to minimise the noise impact and the number of people on the ground significantly affected by it. Therefore in order to adhere to Government policy, all flight routes below 4,000ft should give greater precedence to flying longer routes around environmentally sensitive areas rather than flying overhead on shorter routes which minimise fuel burn / CO2.

In the airspace between 4,000ft to 7,000ft, the DfT guidance to the CAA states that the focus should continue to be minimising the impact of aviation noise but also balanced against an efficient and expeditious flow of traffic that minimises emissions. However, the guidance also states that all changes below 7,000ft should take into account local circumstances and up to this height (7,000ft) areas of tranquillity such as National Parks and AONB should be avoided where possible. Therefore in KCC's response to the consultation on this new guidance, we stressed that the noise should still take priority up to 7,000ft. In response to this consultation question we therefore support that all flight routes up to 7,000ft should still give greater precedence to flying longer routes around environmentally sensitive areas rather than flying overhead on shorter routes which minimise fuel burn / CO2.

Q6: This proposal is seeking to change the way aircraft use airspace by developing a system for managing arrivals based on Point Merge, rather than the holding stacks/vectoring currently in use.

Please indicate the extent to which you support or oppose our objective of providing a future arrival system based around point merge.

Please provide any additional information you think is relevant to our objective to redesign arrival routes around a Point Merge system.

In regards to Gatwick Airport, providing that the Point Merge Arc is located above 7,000ft and is located over the English Channel, KCC supports the objective of providing a future arrival system based around point merge as this will reduce the noise impacts experienced by the existing lower holds that are

over land. However, KCC's support is on the proviso that the routes coming from the point merge to Gatwick Airport from 7,000ft to ground level take account of the considerations that we have outlined in response to the other questions in this consultation.

Given the size of the Point Merge Arc (between 15 and 40 nautical miles long), it would be appropriate that the only place that this system can go within the 'above 7,000ft swathe' is over the English Channel so that vast areas of land are not affected by aircraft flying along the arc while they wait for a landing slot. This will improve the current situation where the two holding stacks are located over land to the south of the airport. Provided that arriving aircraft joining the arc fly at high altitude, there should be less noise impact for all in the vicinity of Gatwick Airport.

It is also essential that the Point Merge Arc is located over the sea as the point merge 'point' where the aircraft leave the arc and start their descent for landing will result in a single fixed point being over-flown by all arriving aircraft. The single fixed 'point' of the point merge needs to be over the sea otherwise it will result in an intolerable burden of constant over-flight of every arriving aircraft for those living under this point if it is over land. Even though it will be over 7,000ft, the constant stream of direct over-flight will make the noise impacts unacceptable.

This level of over-flight will also be applicable, and at ever decreasing altitude, as aircraft leave the point merge 'point' and follow a single precision arrival route from 7,000ft to the runway at ground level. The precision route should avoid all of the settlements and noise sensitive areas outlined in our response to this consultation as this would minimise the number of people subjected to aircraft noise. However, realistically this will not be possible and the result is that fewer people will be over-flown more often or more intensely. This is not an acceptable result of the introduction of these new airspace changes.

Although the introduction of an alternative respite route will provide a break from over-flight for an agreed period of time yet to be determined, it will still result in two groups of people (under the two routes) from experiencing all of the noise half of the time (assuming the use of alternate routes is split evenly). A more equitable approach would be to provide multiple routes so that respite is given more often and the burden of over-flight shared. Although Government policy favours concentration over dispersal this should not be interpreted to mean that one group of people (or two groups with respite routes) are subjected to all of the noise all of the time. Indeed, the Aviation Policy Framework also states that where there is intensive use of certain routes, and following engagement with local communities, it may be appropriate to explore options for respite which share noise between communities on an **equitable** basis, provided that it does not lead to significant numbers of people newly affected by noise.

Each route can still be precision based and therefore concentrate noise rather than spread it within a 'swathe'; and as long as the different precision routes are within areas already impacted by noise, more people and new groups of

people will not be affected by noise. Instead, with multiple precision routes different groups of people will be affected while others benefit, and vice versa depending on the alternating pattern of respite. KCC therefore urges that multiple precision routes are designed so that respite can be offered more often rather than just one route with one alternative respite route that all aircraft must take.

In regards to London City Airport, providing that the Point Merge Arc is above 7,000ft and is located over water in the Thames Estuary, KCC also supports the objective of providing a future arrival system based around point merge as this will reduce the noise impacts experienced by the existing lower holds that are over land and the complex low level (3,000-4,000ft) vectoring that currently takes place while aircraft 'queue' to land. However, this support is subject to the proviso that the routes coming from the point merge to London City Airport from 7,000ft to 4,000ft take account of the considerations that we have outlined in response to the other questions in this consultation.

Q7: Procedures for accommodating operators who are not compliant with the RNAN1 standard are yet to be finalised. Accommodating non-compliant operators will reduce overall system efficiency for the majority of the fleet which was RNAV1 approved. To what extent should non-certified aircraft be accommodated?

- Accommodated with time restrictions
- Accommodated but with restricted route availability
- Accommodated but with potential delay
- Accommodated without restriction (and therefore reducing efficiency for all)
- Should not be accommodated at all

No comment - Kent County Council is not qualified to answer this question.

What, if any, comments do you have on accommodating non-certified aircraft?

No comment - Kent County Council is not qualified to answer this question.

Q8: Should fuel for the Point Merge arcs be considered part of the contingency fuel uplift, or part of the flight plan fuel uplift?

No comment - Kent County Council is not qualified to answer this question.

Q9: This proposal seeks to reduce overall fuel burn across the fleet by as much as possible even if it means some routes may be less fuel efficient as a consequence.

Please indicate the extent to which you support or oppose this objective.

Please state your reasons.

No comment - Kent County Council is not qualified to answer this question.

Q10: This proposal is seeking to lower some areas of controlled airspace to accommodate arrival flows. To what extent would the proposed changes affect the General Aviation (GA) operations?

Would they have a large impact, a medium impact, a small impact or no impact at all? If you believe it would have an impact, please describe the operation that would potentially be affected.

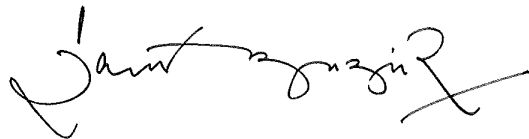
No comment - Kent County Council is not qualified to answer this question.

Q11: Please provide any other information that you feel is relevant to the on-going development of the airspace covered by this consultation.

While Kent County Council (KCC) welcomes being consulted on at an early stage in the airspace change design process in order to influence where departure and arrival routes are positioned, KCC urges that a second stage consultation is carried out on the options for different precision routes that are possible. Without a second stage consultation, new routes will be put in place without local authorities having the opportunity to influence their final positioning. It is assumed that a multitude of routes are technically possible and these options should be consulted on so that the optimum route (for a range of factors including least impact on people) can be decided.

In general, KCC supports Point Merge Arc systems provided that they are positioned over the sea or Estuary and not land. KCC also urges that although precision navigation will reduce the number of people affected by noise, which is in line with Government policy, the focusing of that noise over a single group of people under a precision route is unacceptable. The provision of a respite route will provide some relief for potentially up to half of the time, but it must be possible to provide multiple precision routes so that respite can be provided more often so that noise is shared out rather than focused on one or two groups of people. This is also in line with the Aviation Policy Framework which states that it may be appropriate to explore options for respite which share noise between communities on an **equitable** basis, provided that it does not lead to significant numbers of people newly affected by noise.

A further consultation is also required to establish the frequency and timing of the respite once the potential options for alternating between routes are known.

A handwritten signature in black ink, appearing to read 'David Brazier', with a stylized flourish at the end.

David Brazier
Cabinet Member for Transport and Environment
Kent County Council

20 January 2014

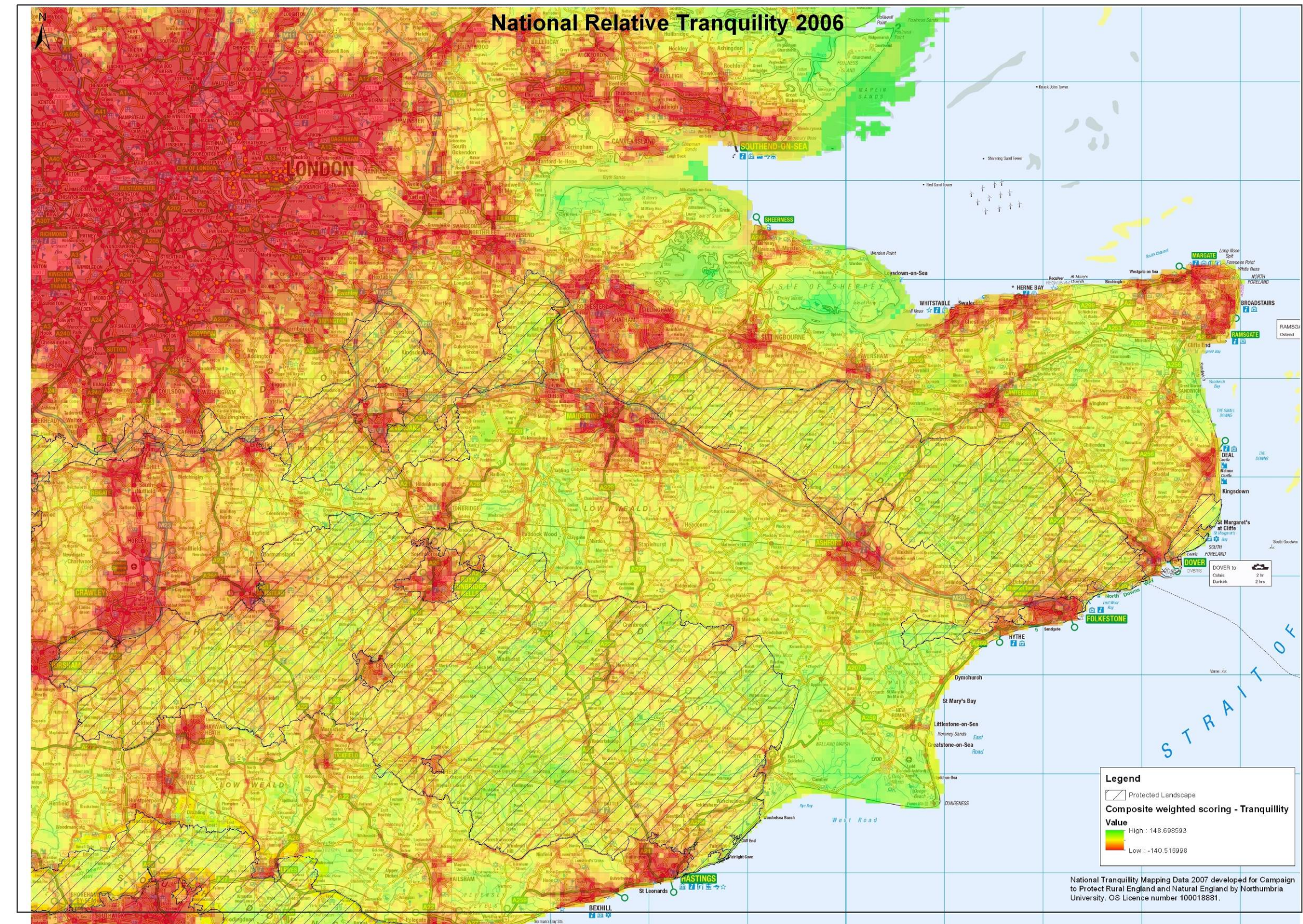
Appendix

Maps in Figures 1 to 8 reproduced in full size and resolution.

The following Key applies to Figures 2 to 8.

MAP KEY	
Care Homes	 Ancient Woodland
 Care Home	 Local Nature Reserves (LNR)
 Care Home with Nursing	 National Nature Reserves (NNR)
 Unknown	 Ramsar
 Adult Education Centres	 Special Area of Conservation (SAC)
 Hospitals	 Local Wildlife Sites
Schools	 Special Protection Area (SPA)
 Academy	 Sites of Special Scientific Interest (SSSI)
 Nursery	
 Primary	
 Pupil Referral Unit	
 Secondary	
 Special	
 Unknown	
 Areas of Outstanding Natural Beauty (AONB)	

Figure 1 National Relative Tranquility (2006)



This map illustrates the topography of the Gatwick Area in Kent, specifically focusing on the region below 4,000 feet. The map is overlaid with a grid of 1000-foot contour lines, which are color-coded: green for 1000ft, yellow for 1100ft, orange for 1200ft, red for 1300ft, and brown for 1400ft. Major roads, including the A23, A24, A25, A26, and A27, are shown in yellow. The map also displays the River Medway and the River Stour. Key locations such as Gatwick Airport, Horsham, and Brighton are marked. The map includes a scale bar indicating 5km and a north arrow.

Figure 3 Gatwick Area 4,000ft to 7,000ft in Kent

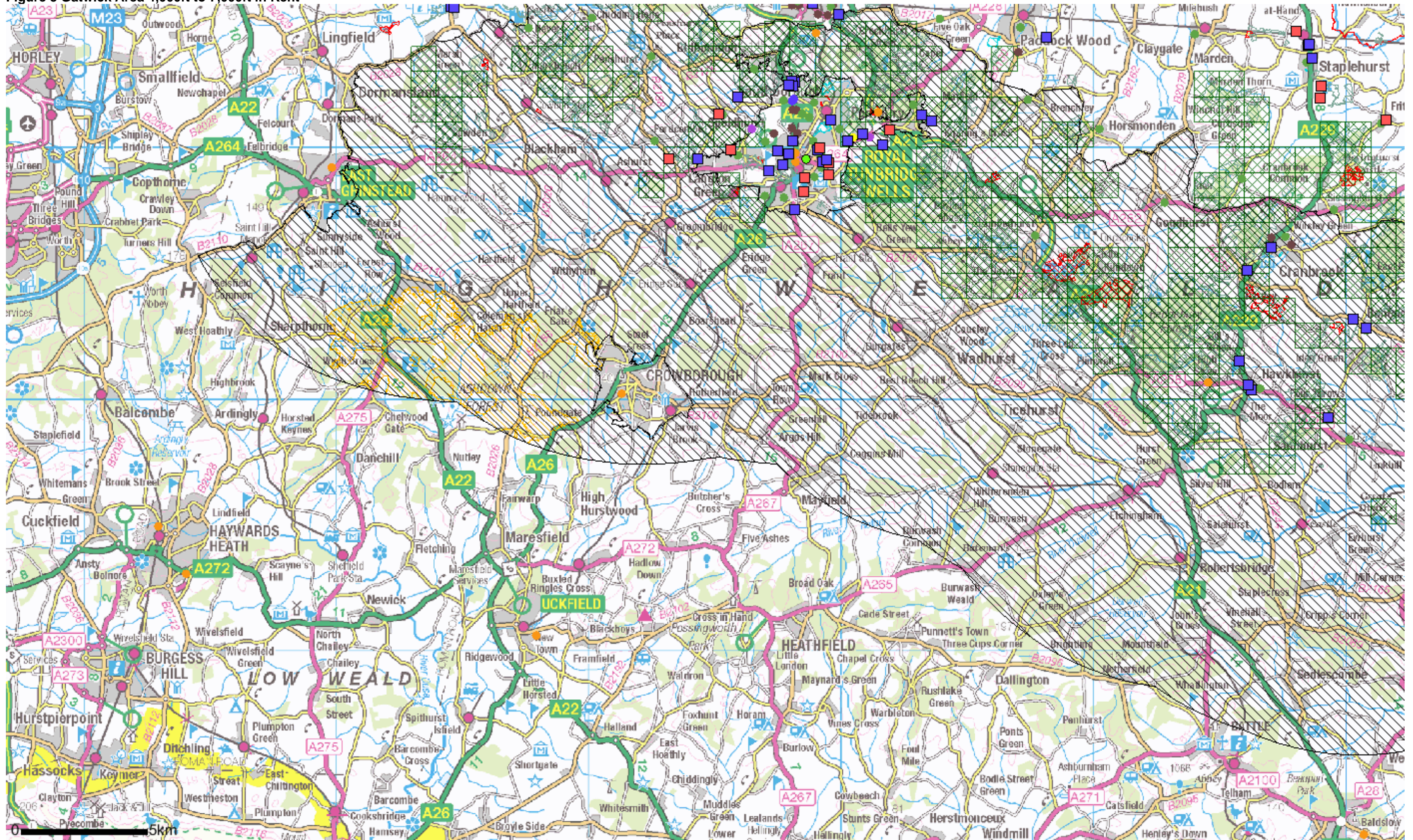


Figure 4 Gatwick Area Above 7,000ft in Kent

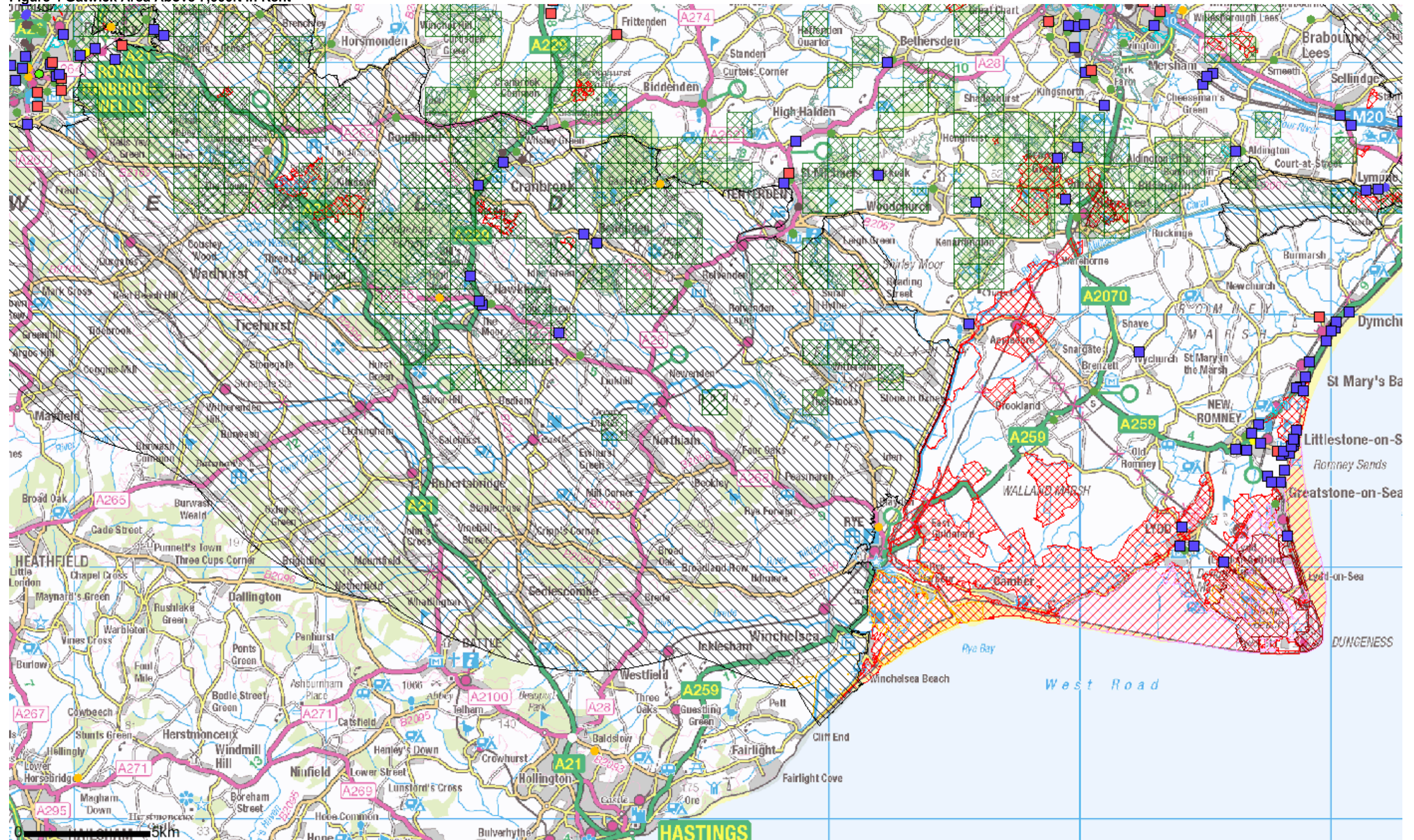


Figure 5 London City Airport Area 4,000ft to 7,000ft in Kent and Medway

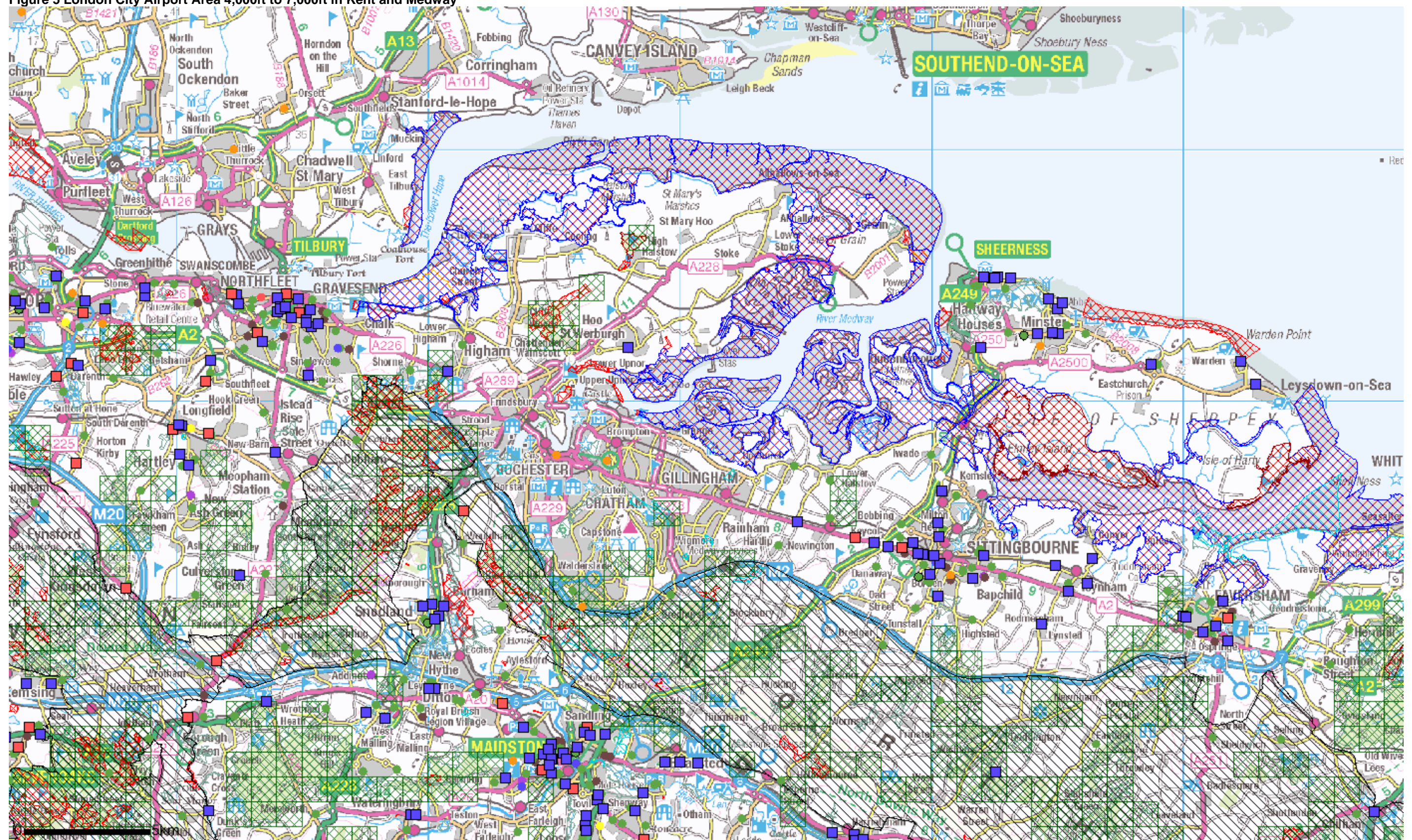


Figure 6 London City Airport Area Above 7,000ft in Kent (north) and 4,000ft to 7,000ft in Kent and Medway

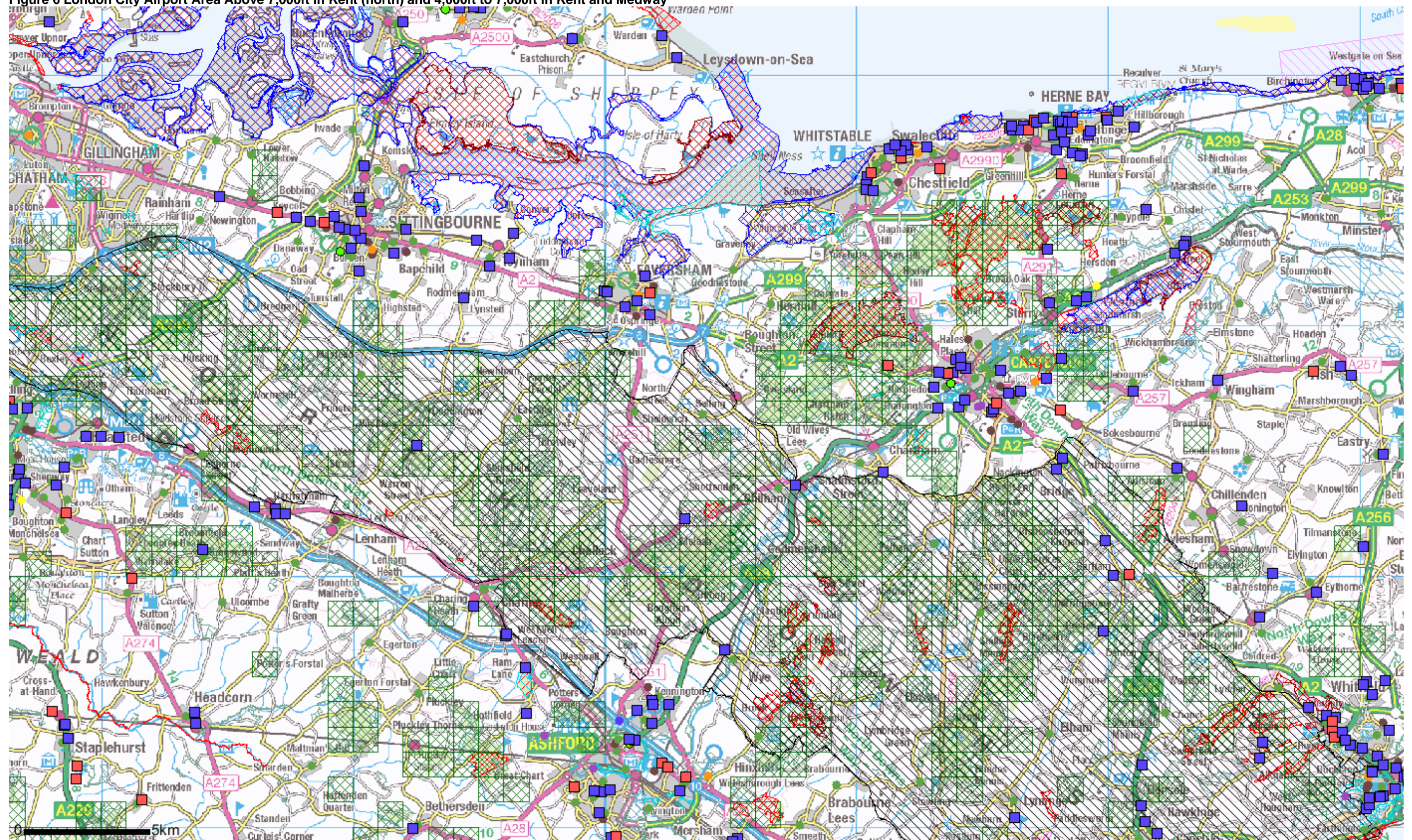


Figure 7 London City Airport Area Above 7,000ft in Kent (east) and 4,000ft to 7,000ft in Kent

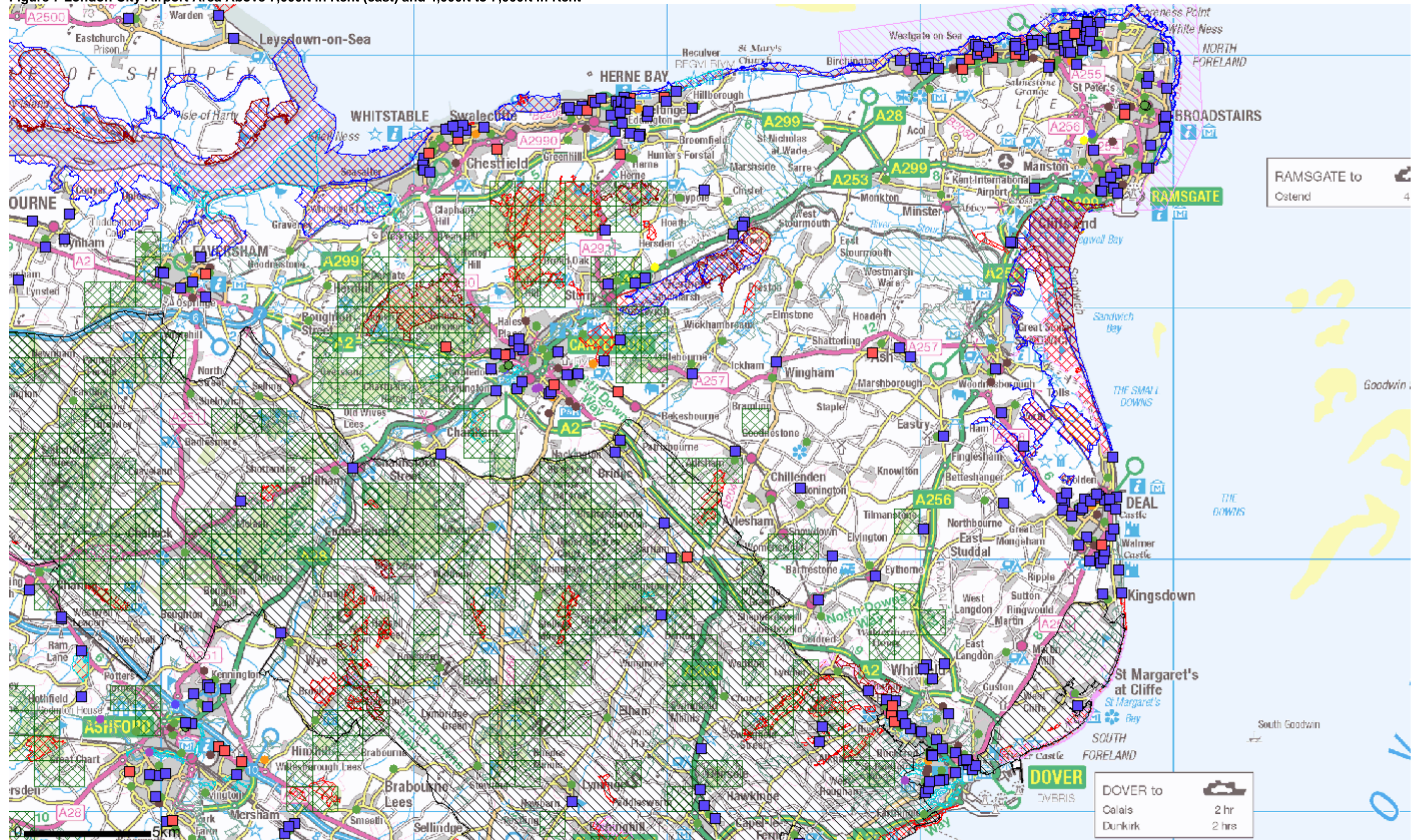


Figure 8 London City Airport Area Above 7,000ft in Kent (south)

