

Thames Estuary Growth Commission 'Call for Ideas'

Response from SE Essex Action Group Alliance
8th September 2016

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1. Introduction and Aims

This document is SE Essex Action Group Alliance (SEEAGA) response to the Thames Estuary Growth Commission 'Call for Ideas'.

SEEAGA is an association of 13 local groups seeking to protect Green Belt and other open spaces, as well as seeking to protect SE Essex as a whole from over-development.

Over-development means different things to different people and can be a subjective and personal term. There is also an objective economic sense of the term, a point reached when demand on infrastructure exceeds its capacity or potential capacity. Such an outcome has a damaging economic impact on the area affected.

Our view is that protection of the Green Belt and the prevention of over-development are complementary aims. One of the original reasons for the creation of the Green Belt was that Patrick Abercrombie and others recognised that London's commuter infrastructure was in danger of being overwhelmed by growth at and around the city's periphery, a problem that would damage the capital's economy.

The aim was to channel growth away from the periphery to central areas and areas far away from the city – locations where spare capacity existed or which had potential to be affordably increased.

The situation has evolved since then, but the overall rationale is as strong and relevant as ever.

SE Essex is a commuter economy, heavily dependent on its peak-time commuter links to London. This document aims to show in simple evidence-based terms that the railways are the fragile cornerstone of SE Essex's prosperity.

Freight requirements, and the area's commuter road links, namely the A127 and A13 are a further constraint upon the area, for instance the former is as busy as some motorways and can only be significantly improved by a multi-billion pound widening upgrade.

None the less, the focus of this document remains the railways, as capacity and demand projections can be precisely expressed - and more important still because even if these roads are widened, the dependence on the railways will remain largely undiminished.

By examining potential rail capacity, projected demand and housing growth plans we will make the case that SE Essex will become overdeveloped. SE Essex is the sole focus of this document; London and NE Kent are not within its scope.

2. Housing Growth in SE Essex

A Strategic Housing Market Analysis has been prepared for the five Thames Gateway South Essex (TGSE) local authorities, which recommends a minimum of 3272-3744 houses be built per year over the next twenty years a minimum of 65-75,000 in total. This is in addition to the 6000 proposed for Brentwood.

The numbers were developed on a rationale of accelerating migration to the areas to promote business through the availability of a much enlarged pool of labour. It's worth noting that these figures assume the same proportion of newcomers, and of the local population as a whole, will continue to commute and so place additional pressures on the transport infrastructure.

The table below illustrates the recommendations and also includes:

- Figure on Local Need (aka Natural Change)
SE Essex could probably meet Local Need without Green Belt loss.
- The now revoked, and by comparison modest figures (RSS), imposed by central government when trying to channel growth into the TGSE area.

The RSS figures are particularly relevant as they were almost certainly used by National Rail (NR were unable to confirm) when factoring housing growth into their rail demand projections; which are described in Section 3.

	Local Need ¹	RSS (2008)	Lower end OAN	Upper end OAN
Basildon	482	535	763	837
Castle Point	2	200	326	410
Rochford	58	230	312	392
Southend	311	325	953	1132
Thurrock	554	925	919	973
Total	1407	2215	3272	3744

If these minimums are met then the population of this already densely populated area will grow by 25-30% over 20 years (the recommended Local Plan duration) and significantly more over the 30 year horizon used in the rail demand projections.

Two of the five authorities have advanced draft Local Plans under development and they take very different approaches:

- Basildon is has chosen the lower end OAN and proposes to meet it in full, however the policies within the plan mean the actual number of homes built will exceed the upper end OAN by a very large margin.
- Castle Point by contrast, does not intend to meet OAN, choosing to build 105pa with only token Green Belt loss.

Castle Point's proposals comfortably exceed their Local Need and as the following section aims to show, their approach does more to protect its prosperity than Basildon's approach.

¹ Greater Essex Demographic Forecasts Phase 7 (Edge Analytics for Essex Planning Officers Association, 2015) – using blended 2011 and 2012 assumptions\data.

3. Commuter Rail Infrastructure

SE Essex is a commuter economy, strongly shaped by its proximity to London.

Like many areas close to London, that is to say Green Belt areas, the commuter infrastructure is very strained.

At least 15-25%² of the TGSE HMA employed workforce commute by rail to London.

Whatever the exact current figures, a very significant proportion of local workers commute by train to London and the jobs held there typically pay far better than local equivalents.

The importance of the high incomes brought to the area from London goes far beyond the families themselves to the many businesses – and their employees - which depend on the high metropolitan wages earned by a large proportion of our residents.

The railways from Southend to London are therefore of vital importance to the continued economic wellbeing of the area.

This section describes the kind of expensive and radical solutions that might deliver sufficient capacity to SE Essex, but does not go so far as recommending them. Central government must weigh up the costs and benefits of schemes benefitting SE Essex with those benefitting other areas of the country.

3.1. Greater Anglia: Liverpool Street to Southend Victoria Line

The Great Eastern section (branches via Shenfield) of the Greater Anglia Franchise is acknowledged to be at capacity.

3.1.1. Demand

Demand is expected to grow 26% in 2013-23 and 67% in 2013-43³ and these predictions were based on lower housing targets than currently proposed for SE Essex. Network Rail were unable to tell us which housing growth figure they used, but it is likely to be the RSS targets (see section 2), or possibly an iteration of the DCLG projections, which are also far lower than proposed in the recent SHMA

Analysis of the official footfall data at Billericay and Wickford stations for the first two years of projection period show that those stations are ahead of the growth trajectory – despite very few houses have been built in that time.

3.1.2. Potential capacity

All peak time trains from Southend Victoria are their maximum length of 12 cars and Abellio do not believe it is feasible to ever run longer trains.

There is an exception in that a very small number of 8 car services originating on the Southminster branch. These can currently go no longer due to platform sizes on that branch, a branch which is most unlikely to create the return on investment necessary to justify such expensive platform lengthening works.

The Southend Victoria branch – running 6 tph merges with the branch running via Chelmsford at Shenfield, and the combined route from there to Liverpool Street has 22

² The figure for SE Essex as a whole is based on various secondary sources. The 2011 census, taken during a recession and so lower than current figures, gives widely varying figures - for instance 16.6% of Basildon Borough's workforce commute by train but in some towns in the region the figure is over 25% - almost all of these commuting to London.

³ Anglia Route Study 2014

trains per hour (tph) on this crowded stretch, the most that can be reliably run at this time.

However, an indirect benefit of Crossrail is that an anticipated future £100m piece of work remodelling Bow Junction would allow Great Eastern trains to make better use of the spare capacity of the metro tracks between the Crossrail portal at Stratford and the platforms at Liverpool Street that have been made available by the fact that most of the Metro trains will now take the Crossrail tunnel.

This potential remodelling raises the prospect of the current 22tph being raised to 24tph, though there would be a trade-off of reduced reliability. Abellio consider that this is the most frequent service that could ever be reliably operated⁴ and this is unlikely to be delivered before the mid-2020s.

It is hoped that both of these services would go to Southend Victoria increasing capacity by 33% and this would take us to the theoretical capacity limit, barring minor increases from tinkering – such as removing First Class compartments and removing seats to increase standing and hence the overall number that can fit into a carriage.

However these services could instead go to one of the many branches beyond Chelmsford, and the proposals for two new towns in north Essex and the potential for growth in Suffolk and Norfolk mean that the Department for Transport may be tempted to allow these potential services away from the Southend branch in order to support development elsewhere.

3.1.3. Future shocks

- The anticipated growth in demand described in the Anglia Route Study cannot foresee every eventuality and since it was produced a reason to re-assess the predictions upwards has become apparent.

HMRC is bringing several regional offices together to form a major hub at Stratford, this will cause the office at Southend to be shut and most of the 1200 staff to be transferred to Stratford.

Some staff will lose their jobs but the majority will stay and can be expected to travel to the Stratford on the Southend Victoria branch, this could easily increase demand by 5-10% and this does not include the impact of people travelling to the many thousands of other jobs moved to/created at Stratford.

It's worth noting that the HMRC move will also add extra demand to the C2C line.

- The growth of London's population and the importance of London as the best and most sustainable place to meet its own housing needs are likely to mean that services within London are likely to be prioritised, often at the expense of services beyond the capital. We have already seen the impact of this with the C2C timetable change in January 2016 (see 3.2).

With regard to Southend Victoria, these impacts are likely to surround the need to relieve Crossrail, where demand is expected to quickly outstrip supply.

- The metro tracks carrying slow trains (Crossrail and TFL Rail from Shenfield to Liverpool Street) can run many more trains than they currently do - and than they will when Crossrail begins operation in 2019. Extra TFL Rail services may be commissioned to take this on and this would reduce resilience on Great Eastern services by limiting and possibly ultimately removing the potential for track sharing.

⁴ Correspondence from Abellio to SEEAGA researcher – 11/09/2015

The services are generally segregated but share tracks at times of planned or unscheduled service disruption.

- Another potential problem is that the desire to relieve Crossrail will mean more Great Eastern services will stop at Romford, a move that would significantly increase demand.

A similar London need was behind the changes to the C2C timetable which increased demand on the line by 20% overnight.

3.1.4. Note on the Elizabeth Line (Crossrail)

Draft Local plans suggest that Crossrail may offer direct relief to the Southend Victoria line, but this is wrong. In short, a Southend Victoria line commuter is no more likely to change at Shenfield for an all stations Crossrail train, than a Shoeburyness line commuter is to change at Upminster for a District line train.

Similarly Shenfield passengers heading to the City will continue to use the fast Abellio trains, and those heading to the West End can be expected to take the fast train to Stratford – as they do now – and then change to an Elizabeth or Central line train.

3.1.5. Very long term potential solution

The National Infrastructure Commissions recent report argued that there was 'currency' in the idea of a future Crossrail\Thameslink type rail link on a Canary Wharf\Stratford axis, possibly linking to Brighton in the south and linking to the Lea Valley (West Anglia) lines in the north.

If the northern section of such a route were instead to feature a new line heading up the Roding Valley to provide an alternative route to the Gt Eastern line at Chelmsford - it would allow some services from beyond Chelmsford to take the new route. The slack created could be taken up by services from both the mainline and the Southend branch.

Such a scheme, if it went ahead would be unlikely to be available till at least the 2040's.

3.2. Essex Thames-side: Fenchurch Street to Shoeburyness Line

The Basildon draft Local Plan described this line as close to capacity, but that assessment was made obsolete by C2C's (the franchisee) January 2016 introduction of a new timetable aimed at rebalancing the services of the line in favour of London stations.

The changes meant that almost all trains would stop at all London stations. Demand increased by 20% overnight⁵.

3.2.1. Demand

The Essex Thameside line is now over-capacity, and worse still, this demand was expected to grow 14% in 2013-23 and 47% in 2013-43⁶ with that estimate based on lower housing targets than currently proposed.

The January 2016 timetable change was an unforeseeable shock that has made these projections a hopeless underestimate; 20% was added to the base figure and the projected growth demand must be calibrated to take into effect the rebalancing of the services to focus more on London stops which will experience far higher population growth than the rest of the line.

Even ignoring the essential recalibration of the demand projections, it can be conservatively estimated that the shock of the timetable change will mean demand grows 36% in 2013-23 and 76% in 2013-43.

⁵ See Q13 - <http://www.c2c-online.co.uk/travel-information/timetables-trains/your-questions-on-the-new-timetable-answered/>

⁶ Anglia Route Study 2014

3.2.2. Potential capacity

We understand that it is probably not feasible to reliably run more frequent trains on C2C, the challenge of running more regular services is with timings and positioning of carriages at the turn around point at Fenchurch Street, which in the busiest parts of the peak has train departing every three minutes making it one of the busiest London Terminals in terms of frequency of departures.

The maximum train length is 12 carriages; some trains are this long but most trains are 8 carriages with a few running 4 carriages.

So there is potential for extra carriages to increase capacity to a probable maximum of around 50%.

3.2.3. Future Shocks

Barking is a major transport hub and it is reasonable to hope that expected growth in demand on connecting services including the upcoming extension to the Gospel Oak and Barking Line (GOBLin) to Barking Riverside is already factored in to anticipated growth on the C2C line.

However the proposed extension of GOBLin over the river to south London will not be included. The proposal, backed by the Mayor of London, is to connect Barking with existing Overground services south of the river to form the 'Zone 3 Orbital' or 'R25' line.

Connecting Barking with a whole new catchment in south London is likely to increase demand on C2C as south Londoners become able to change at Barking to take the C2C line to Fenchurch Street.

3.2.4. Very long term potential solution

The proposed Crossrail 2 railway would, if built, be delivered in 2033 at the earliest. There are also proposals that if built, an eastern branch via Hackney Central be subsequently added. One of the options is for such a branch to extend to Barking and then link to one of the C2C branches.

If the trains on this route were diverted onto Crossrail 2, then this would free up paths into Fenchurch Street which could then be allocated to additional new services.

3.3. What will Rail Failure look like?

Passengers will go from wondering whether they'll get a seat to wondering if they'll be able to squeeze on a train or be forced to wait for the 2nd or 3rd etc train, a problem only normally experienced at times of service disruption.

This would have a significant impact on reliability of the network as scheduled 'dwell times' at stations would be exceeded, affecting every train on the railway at that time and causing ever more frequent service delays.

Commuting to London would become less tolerable, especially for the physically weak. People would be less willing to work in London, less able to get to work on time and less likely to tolerate additional connecting services within London, reducing the physical area in which holding jobs is viable.

As well as the quality of life issue, these problems will reduce opportunities for earning and career progression, it will also reduce the level of wages brought back to the borough by its commuting workforce.

Building 65k+ houses will worsen the outlook for the railways and therefore harm the SE Essex economy.

3.4. Railways – Tipping Point

The two railways run parallel and even at their widest separation from each other – in Basildon borough – people often feel they have a viable choice and may switch between lines depending on factors such as cost, overcrowding, connecting services etc.

With both services at capacity, with demand expected to soar, with best case scenario capacity unable to keep up, a crisis point will surely be reached by first one railway and then the other.

It's not possible to say which line will crack first, but when conditions on one become intolerable a large number of commuters will transfer to the other line, and that may be the tipping point, that may bring the second line to 'breaking point' soon after the first.

4. Conclusion and Recommendation

The national housing shortage must be addressed, and most of this need can be met within the major cities, but it may be necessary for a degree of 'overspill' development outside the cities.

These developments, in the form of new towns or urban extensions should occur in economically sustainable areas; a key criteria being where commuter infrastructure capacity exists or can be affordably created.

Large scale building in non-sustainable areas is over-development, and will damage the economies of those areas.

SE Essex, like many areas close to London, is a commuter economy, heavily dependent on its rail links to the capital. These two rail links are acknowledged to be at capacity.

Potential capacity improvements do not come close to matching the projected increase in demand – projections which there are strong reasons to view as under-estimates:

- Liverpool Street to Southend Victoria:
 - 26% increase in demand 2013-23
 - 67% increase in demand 2013-43
 - Potential capacity improvements might deliver a capacity increase of approximately one third.

- Fenchurch Street to Shoeburyness:
 - 36% increase in demand 2013-23
 - 76% increase in demand 2013-43
 - Potential capacity improvements would deliver a capacity increase of approximately one half.

SE Essex will become over-developed even without the large scale development anticipated, and the local economy will be damaged as a result. SE Essex is therefore an unsuitable location for significant housing growth.

The SEEAGA view is that the solution is in the hands of Local Authorities in the area, who should therefore exercise their option to use Green Belt as a constraint to meeting OAN.

Our recommendation to the Commission is that it explicitly acknowledges that rail capacity forms a constraint to economically sustainable housing growth in SE Essex. We hope that this would provide a degree of guidance to Local Authorities when preparing Local Plans. Such a statement may also assist central government in any work they do looking at influencing or directing future housing growth.