



**Greater Essex Local Aggregate Assessment 2019**  
**(Covering the Calendar Year 2018)**



Essex County Council



## EXECUTIVE SUMMARY

This is the sixth Local Aggregate Assessment (LAA) produced on behalf of the Greater Essex authorities<sup>1</sup>, reflecting the position at the end of 2018.

### ***Extraction and Processing Facilities within Greater Essex***

There were 31 sand and gravel quarries (22 were operational, with a further site specifically producing silica sand<sup>2</sup>). Of the remaining non-operational sand and gravel quarries, four are 'dormant'<sup>3</sup>. There are no hard-rock quarries, whilst brick clay and chalk are not reported on<sup>4</sup>. There were 34<sup>5</sup> processing facilities that add value to mineral products.

### ***Sand & Gravel Sales***

Sales increased between 2009 and 2018, from 3.41 million tonnes (Mt) to 3.56Mt. Within this time, the highest sales were in 2014 (4.37Mt) and lowest in 2012 (2.3Mt). The ten-year average sales (2009 to 2018) figure (3.23Mt) and the three-year sales (2016 to 2018) average (3.46Mt) are below the apportioned tonnage of 4.45 Million tonnes per annum (Mtpa) in the adopted policy documents. The last three years of sales show an increase from 3.40Mt in 2016 to 3.56Mt in 2018, which amounts to an increase of 5%.

### ***Sand and Gravel Permitted Reserves & Landbank***

Permitted reserves were 29.98Mt in December 2018. The apportionment<sup>6</sup> landbank stood at 6.74 years at the end of 2018, whilst the ten-year sales average landbank results in 9.30 years. Therefore, the landbank is sufficient in terms of the ten-year sales but is below the seven-year threshold when considering the adopted apportionment. However, as of 01 January 2019 there exists four pending permissions which would permit the working of 10.29mt of sand and gravel (equivalent to 2.31-year landbank) which, if permitted and the pending reserves are added to the 31 December 2018 landbank, would see the landbank return above 7 years.

### ***Marine-Won Sand and Gravel***

Greater Essex is served by the Thames and East Coast dredging regions, with a total of 7.0Mt of material removed from the seabed in 2018. This was an increase of 0.3Mt compared to that removed in 2017. The combined permitted reserve is currently 11.73 Mtpa, which is expected to provide for the Thames region for 34 years and the East Coast region for 15 years.

### ***Imports and Exports***

Across Greater Essex, there are ten mineral transshipment facilities<sup>7</sup>. Whilst it can be stated that over 1.1Mt of material was imported into Greater Essex during 2018, there were not enough facilities reporting on exportation to present data (commercial confidentiality).

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<sup>1</sup> Essex County Council, Southend-on-Sea Borough Council and Thurrock Council.

<sup>2</sup> Therefore, sales of this mineral are not reported due to commercial confidentiality.

<sup>3</sup> Therefore, are omitted from the landbank and permitted preserve calculations.

<sup>4</sup> For the purposes of an LAA, as they are not classed as aggregates.

<sup>5</sup> One of which is located at a transshipment facility. (Harlow Mill)

<sup>6</sup> The Apportionment figure is that used to calculate the landbank in adopted EMLP (2014) and the Thurrock Core Strategy and Policies for Management of Development (2015). The figure is 4.45Mtpa across both authorities.

<sup>7</sup> This consists of both rail and wharf transshipment facilities.

## Secondary and Recycled Aggregate

It has been assessed that 1.05Mt recycled aggregate was produced in Essex and Southend-on-Sea in 2014. There is additional CD&E waste capacity within Thurrock, which also make a contribution to the total amount of recycled aggregate available within Greater Essex. Across the whole of the Greater Essex Area a number of aggregate recycling sites are co-located with other minerals and/or waste sites and are therefore temporary in nature. Therefore, the number and location of aggregate recycling facilities, as a consequence, available capacity, fluctuates. Additional capacity will continue to be encouraged where located in accordance with relevant mineral and waste plan policies.

It is not known whether secondary aggregates are produced in any significant quantity, but the lack of heavy industry suggests there will be little.

### 2018 Headline Figures

	Performance in 2018	Comparison with 2017
Land-won sand & gravel sales <sup>8</sup> (Million tonnes (Mt))	3.56Mt (↑ 4.4%)	3.41Mt
Permitted reserves of sand and gravel at end of year (Million tonnes (Mt)) <sup>9</sup>	29.98Mt (↓ 6%)	32.0Mt
Landbank based on apportionment (years)	6.74 years (↓ 0.44)	7.18 years
Landbank based on ten-year average sales (years)	9.30 years (↓ 0.70)	9.99 years
Landbank based on three-year average sales (years)	3.46Mt (↑ 1.2%)	3.42 years
Wharf & Rail depot imports <sup>10</sup> (Hard rock)	1.12Mt (↓ 0.16%)	1.12Mt
Wharf & Rail depot Exports (Sand & Gravel)	Value cannot be provided <sup>11</sup> , but is in similar magnitude	0.14Mt

Source: Essex County Council (2019).

<sup>8</sup> Based on 2018 levels, Greater Essex accounted for 29% of the EoEAWP sales. This is the highest sales figure within the EoE AWP area.

<sup>9</sup> Based on 2018 levels, Greater Essex holds 25% of the permitted sand and gravel reserves in the East of England region.

<sup>10</sup> Due to the number of operators of wharves and rail transshipment facilities within Greater Essex, it is not possible to provide data for each separate mode of transport, due to commercial confidentiality

<sup>11</sup> Even when amalgamating exportation data for both types of transshipment facility, there remains too few sites reporting the exportation of material from Greater Essex to provide data for reasons of commercial confidentiality.

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# 1. INTRODUCTION

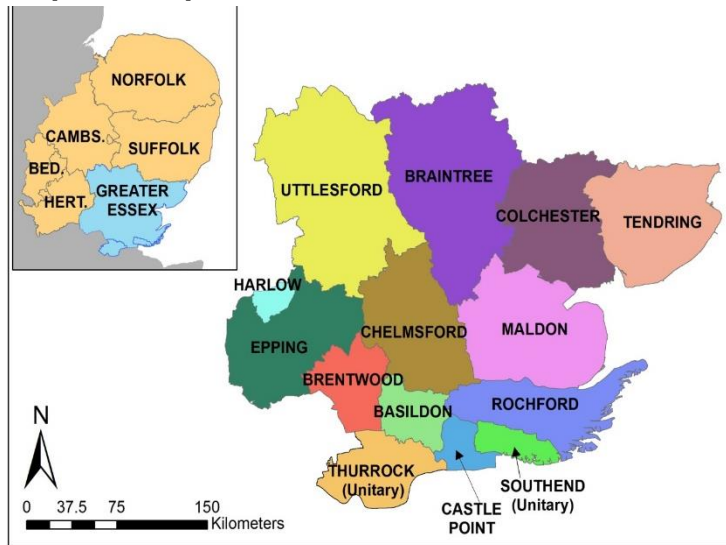
## 1.1. Background

1.1.1. Mineral Planning Authorities (MPAs) are required<sup>12</sup> to produce a Local Aggregate Assessment (LAA) annually to assist in monitoring, to ensure a steady and adequate supply of aggregates. This LAA reports on the Greater Essex<sup>13</sup> position at 31 December 2018. It is to be noted that the Plan Area pursuant to the Essex Minerals Local Plan (2014) covers the administrative area of Essex only. Southend-on-Sea and Thurrock have their own Local Plans relevant to their own administrative areas.

## 1.2. Spatial Context

1.2.1. Greater Essex is within the East of England, as identified in the map. It borders Kent and the London Boroughs of Enfield, Waltham Forest, Redbridge and Havering. Greater Essex is comprised of the administrative areas of Essex, Southend-on-Sea and Thurrock. Essex sits within a two-tier administrative system formed of the County Council and 12 Local Councils. Southend-on-Sea and Thurrock are unitary authorities who operate separately to Essex County Council and its constituent local authorities.

**Map 1: Spatial Context of Greater Essex**



## 1.3. Development Trends & Forecasts

1.3.1. The level of demand for mineral resources is a key consideration when planning to deliver sustainable growth and is dependent on the level of expected growth and delivery of enabling infrastructure.

1.3.2. The recent trends for housing completions in Essex is shown below:

**Table 1: Housing Completions**

Authority	Net Completions		Local Plan Annual Rate
	2015/16	2018/19	
Basildon	816	340	986
Braintree	523	555	716
Brentwood	111	246	413

<sup>12</sup> Required by the Revised National Planning Policy Framework (NPPF, 2019)

<sup>13</sup> Greater Essex is formed of the Authorities of Essex, Southend-on-Sea and Thurrock. These are amalgamated in statistical/data collection activities to protect commercial confidentiality.

Castle Point	123	200	352
Chelmsford	792	1256	952
Colchester	933	1165	920
Epping Forest	267	426	518
Harlow	225	676	400
Maldon	230	306	310
Rochford	148	262	362
Tendring	245	915	550
Uttlesford	554	983	641
TOTAL	4,967	7,330	7,120

Source: Essex County Council (2019)

Note: This does not include figures for Southend-on-Sea or Thurrock Council Authority Areas

- 1.3.3. The above table shows that of housing completions are only now reaching an annual rate that is predicted to continue long-term, which could potentially result in a more rapid drawdown of existing reserves than witnessed recently.
- 1.3.4. To supplement the trend information above, it has been noted that 11 of the 12 local authorities<sup>14</sup> in Essex as well as Thurrock and Southend-on-Sea are preparing new Local Plans, underpinned by an objective assessment of their housing requirement<sup>15</sup> beyond 2030. At this time, it is expected that Essex and Southend will need to build a minimum of approximately 143,000 (with an emerging Greater Essex local plan requirement of nearly 200,000<sup>16</sup>) new homes in the next 20 years. The majority of this growth is being directed in emerging plans to existing major centres, along with strategic urban extensions and proposed new Garden Communities. As local plans move towards adoption and go through statutory Duty to Cooperate, consultation and Examination Hearings, proposed strategies may change.
- 1.3.5. Compared to the previously published LAA, the 'trend' is increasing completions in general. Such levels of development will need to be supported by significant new physical and social infrastructure. These can be classed as locally important or a Nationally Significant Infrastructure Project (NSIP)<sup>17</sup>. NSIPs either planned, programmed or underway in Greater Essex and/or in adjoining authorities, include<sup>18</sup>:

- [Major Highway Projects](#);

<sup>14</sup> With the exception of Maldon District Council

<sup>15</sup> Through a Strategic Housing Market Assessment (SHMAA) and Strategic Housing Land Availability Assessment (SHLAA). See Annex H, Table 18 for further information.

<sup>16</sup> See Annex H, Table 17 for further information.

<sup>17</sup> All NSIPs in the [Eastern](#), [London](#) & [South East](#) regions can be viewed via the hyperlinks. In NSIPs plays an active role as a stakeholder

<sup>18</sup> <https://www.essex.gov.uk/major-infrastructure-projects> (Essex County Council projects)



- A120 between Braintree and the A12;
  - A127/A130 Fairglens Interchange;
  - A127 Economic Growth Corridor;
  - A127 Warley Junction Improvements;
  - A13/A130 Sadlers Farm Remedial Work;
  - A133 Colchester to Clacton Route Improvements;
  - A414 Chelmsford to Harlow Route Improvements;
  - New Junction 7a on M11.
- Lower Thames River Crossing;
  - Crossrail/Crossrail 2;
  - London Gateway (DP World);
  - Harwich International Port;
  - London Stansted Airport;
  - London Southend Airport;
  - Bradwell Nuclear Power Station;
  - New Garden Communities in South West and north Essex;
  - Harlow Expansion.
- 1.3.6. The above listed developments within Greater Essex will affect the demand for minerals so it is crucial that the Greater Essex MPAs can secure a sufficient supply of mineral to facilitate sustainable development whilst also ensuring that best use is made of finite mineral resources by preventing mineral sterilisation where this can be avoided<sup>19</sup>.

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<sup>19</sup> Mineral sterilisation occurs when permanent, non-mineral development takes place over mineral bearing land before that mineral can be extracted. The mineral is considered to be 'sterilised' as it can no longer be worked in the future.

## 2. AT A GLANCE: MINERALS IN GREATER ESSEX

### 2.1. Geology

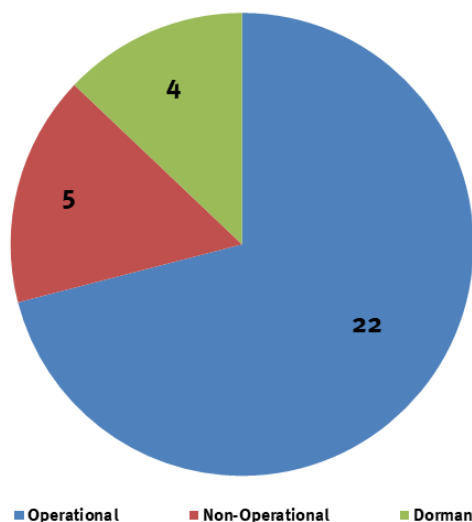
2.1.1. Geology dictates where viable mineral resources occur and consequently where extraction can take place. The predominant economic mineral is sand and gravel, but Greater Essex also contains silica sand, brick clay, brickearth and chalk. Sales figures within this report only relate to sand and gravel and imported crushed rock. Brick clay, brickearth and chalk are not classed as aggregates and are therefore not required to be reported on though the Local Aggregate Assessment. With regard to silica sand, for reasons of commercial confidentiality, it is not possible to report on sales of this resource as it is only produced from a single site within Greater Essex. Assumed sales are therefore presented, based on the production capacity of its processing plant.

### 2.2. Primary Land-won Aggregate Facilities

2.2.1. The number of permitted sand and gravel quarries operating in Greater Essex as of 31 December 2018 is presented in Figure 1. There are a further four facilities extracting other minerals within the Greater Essex area:

- One site specifically extracting silica sand;
- Two extracting brick clay;
- One extracting chalk.

**Figure 1: Sand & Gravel Quarries**



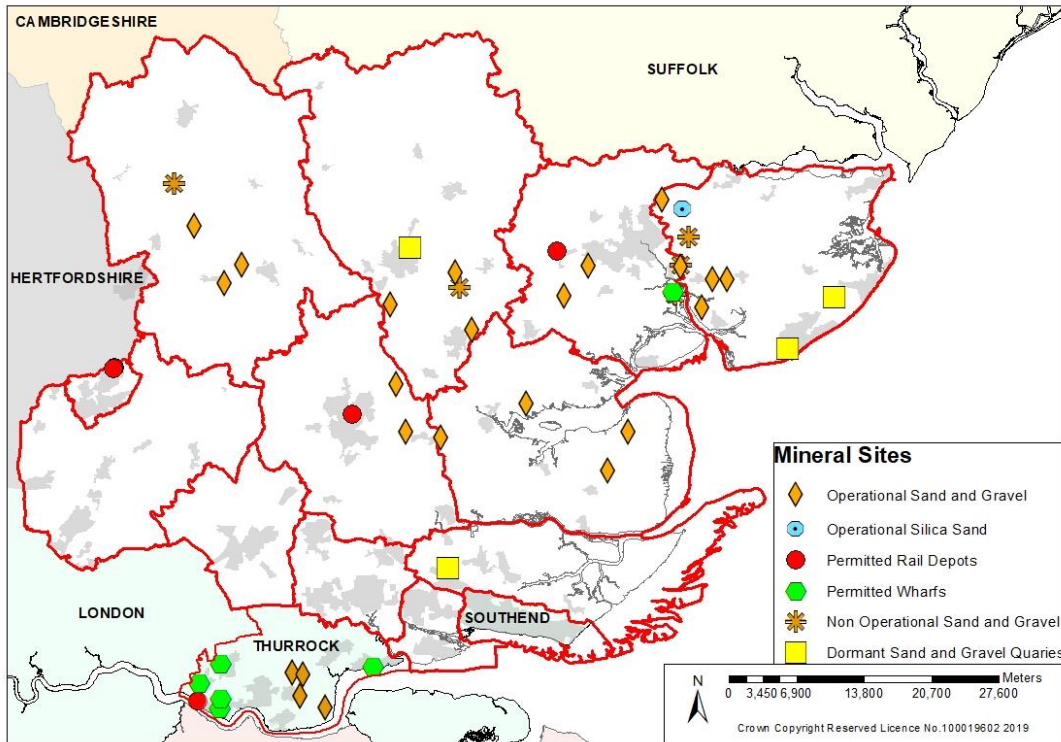
Source: Essex County Council (2019)

### 2.3. Transshipment Facilities

2.3.1. Transshipment facilities provide for the movement of minerals over long distances and are typically rail or water based. These facilities can be thought of as 'virtual quarries' as mineral can be sold and distributed from these sites. Within Greater Essex there are five rail facilities and five wharves (of which one is inactive).

2.3.2. The location of transshipment facilities in Greater Essex is shown in Map 2 below.

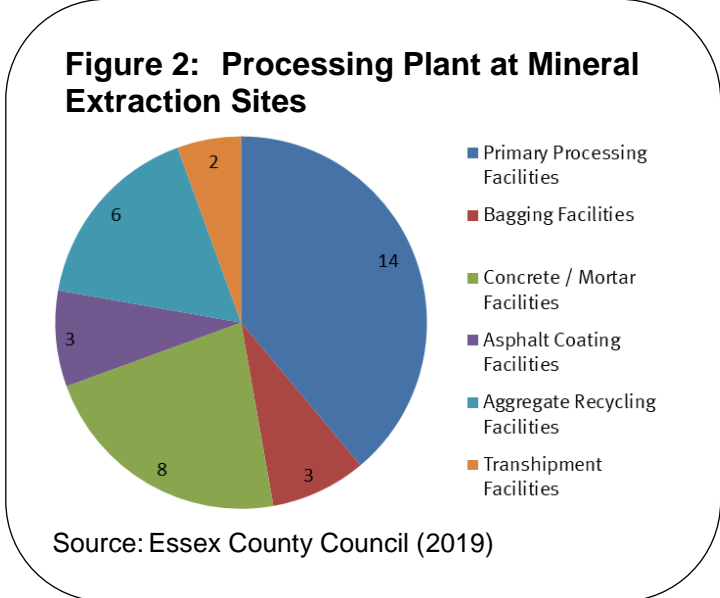
**Map 2: Mineral Extraction & Transshipment Sites (31 December 2018)**



Source: Essex County Council (2019). The data that informs this table is in Annex A.

**2.4. Processing Plants**

2.4.1. On a number of extraction sites, primary processing occurs, producing a higher quality final product as well as allowing more sustainable use of aggregate. This can take a number of different forms such as crushing, sieving, de-watering and through exploitation of physical and/or chemical properties.



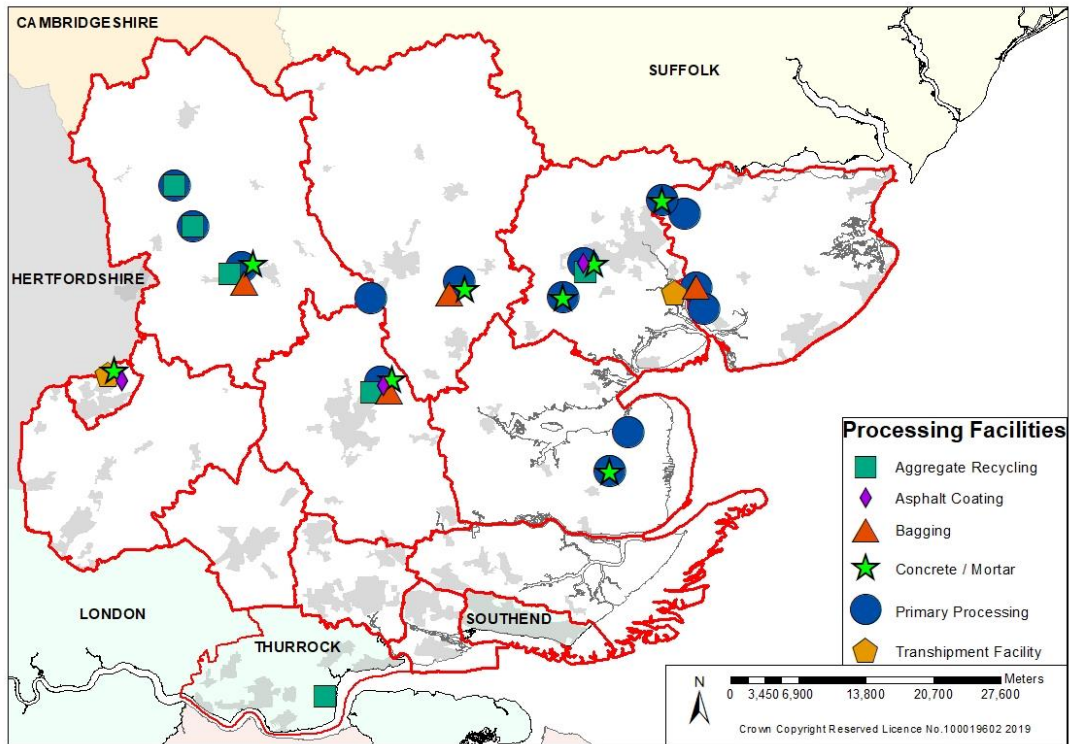
Source: Essex County Council (2019)

2.4.2. Secondary processing can also occur on extraction sites. This differs from primary processing in that it makes a higher value final product through manufacturing of the original material. Examples of secondary processing are concrete batching and coated roadstone, brick/tile/block making.

2.4.3. Any form of processing allows for a greater range of products to be produced on site and contributes to the economic viability of mineral developments. Processing also reduces mineral miles, which is the term given to the distance aggregate travels from its extraction point to its end use. The map below shows where the co-located (with primary extraction

and transhipment sites) primary and secondary aggregate processing facilities are located.

**Figure 3: Primary and Secondary Aggregate Processing Facilities**



Source: Essex County Council (2019)

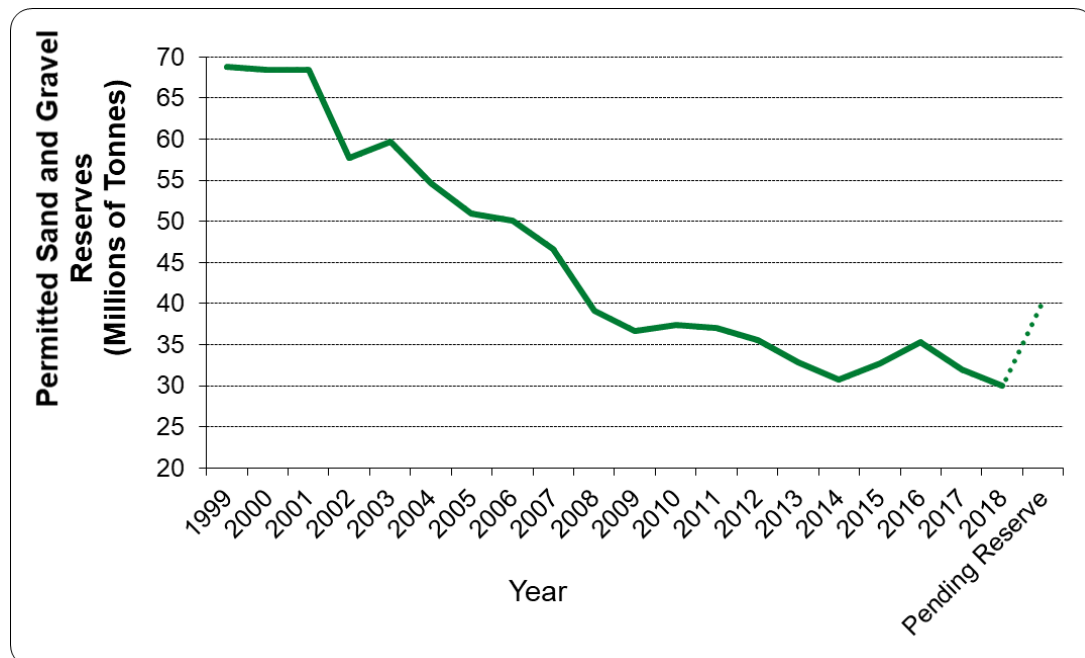
## 3. LAND-WON SAND & GRAVEL

### 3.1. Introduction

- 3.1.1. The NPPF requires that Mineral Planning Authorities (MPAs) plan for a steady and adequate supply of sand and gravel by maintaining a sand and gravel landbank of at least seven years<sup>20</sup>.
- 3.1.2. Within Greater Essex the primary method of calculating the sand and gravel landbank is via the annualised apportionment as adopted through policy, which was based on the “National and Sub-national Guidelines for Aggregates Provision in England”, (2005 – 2020), and which provided a figure of 4.45Mtpa for Greater Essex.
- 3.1.3. The NPPF however states that mineral provision should be based (*inter-alia*) on a rolling average of ten years’ sales data and other relevant local information. This is ‘sense checked’ through an average of the last three-years of sales, as advocated by the NPPG. For the purposes of this years’ edition of the LAA the ten-year average sales is calculated from 2009 to 2018. Henceforth, any reference to ten-year average sales is describing this time-period.
- 3.1.4. Both landbank calculation methods are presented later in this section, to ensure the adopted policy in the MLP is accurately reflected, whilst also acknowledging the ten-year rolling sales figure.

### 3.2. Sand & Gravel Permitted Reserves

**Figure 4: Permitted Sand & Gravel Reserves in Greater Essex (1999 to 2018)**



Source: Essex County Council (2019).

Note: Y axis not at zero. The data that informs this table is located in Annex C

<sup>20</sup> Landbanks for seven years are required for sand and gravel (NPPF Paragraph 207, f). The landbank is determined by comparing the permitted reserve and the estimate of the demand of mineral per annum.

- 3.2.1. There has been a clear reduction in the amount of mineral permitted for extraction in Greater Essex over the last 20 years. Permitted reserves were 68.76 million tonnes (Mt) in 1999, but at the end of 2018 stood at 29.98Mt. This equates to a reduction of 6% from the 2017 value (31.95Mt). This reduction in permitted reserves is the result of the rate of sales being higher than the rate of material being added to the reserve through planning permissions. This local reduction follows a national trend and is not considered to be a significant local planning issue until it results in the landbank falling below seven years.
- 3.2.2. The [EoE AWP Monitoring Report](#)<sup>21</sup> notes that in 2018, Greater Essex held 25% of the permitted reserves held in the area covered by the East of England Aggregate Working Party. This is one percent less than what was stated in the previous AMR and 9% less than the combined Authorities of Cambridgeshire and Peterborough: the area with the highest remaining reserves to be worked.
- 3.2.3. Despite determining 14 applications during 2018, none of the permissions granted in Greater Essex resulted in any increase in permitted reserves as these applications were for operational changes and/or extensions of time. However, there are a number of further applications yet to be granted permission and/or awaiting the signing of legal agreements. Should these be permitted, 10.29Mt would be added to the permitted reserve. The impact of granting permission for this additional 10.29Mt is identified in Figure 4 (above), whilst the applications themselves are identified in the table below.

**Table 2: Pending Reserve (at 31 December 2018)**

Planning Reference	Site	Pending Reserve (Mt)	Status	Allocated Site in MLP (2014)
ESS/19/17/BTE	Rayne Quarry (Braintree)	3.66	Pending Legal Agreements	Allocated Site
ESS/03/18/BTE	Bradwell Quarry (Braintree)	1.98	In Determination	Allocated Site
ESS/01/18/CHL	Land at Sheepcotes Farm (Chelmsford)	0.65	In Determination	Windfall Site
ESS/17/18/TEN	Sunnymead, Elmstead and Heath Farms (Tendring)	4.00	In Determination	Allocated Site
TOTAL PENDING RESERVE		10.29		

Source Essex County Council (2019)

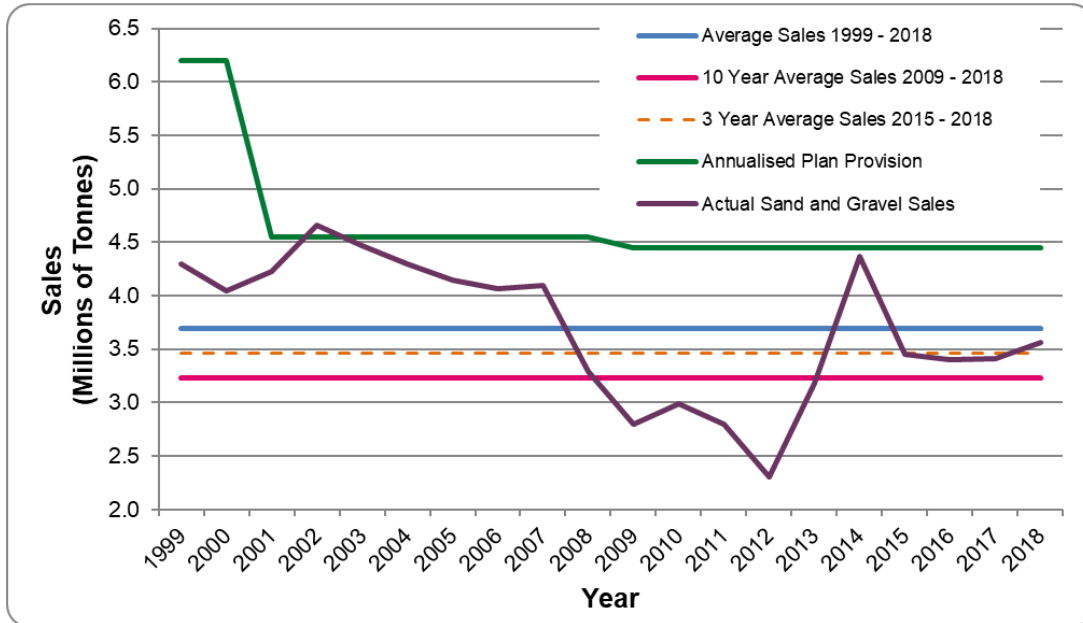
Note: Three of the above applications have had legal agreements signed/decisions issued, resulting in the pending reserve listed above being added to the permitted reserve as of 01 September 2019. The only outstanding application awaiting determination is that at Sunnymead (ref: ESS/17/18/TEN), which will be heard at the November 2019 Development and Regulation Committee.

<sup>21</sup> EoEAWP (2018) Annual Monitoring Report 2017, Figure 3, page 15

3.2.4. The table above identifies that although no new reserve was added in 2018, proposals for further sand and gravel reserves are coming forward.

### 3.3. Sales of Sand & Gravel

**Figure 5: Greater Essex Sales of Land Won Sand & Gravel (1999 to 2018, 20 years)**



Source: Annual collated mineral survey data.

Note: Y axis not at zero. The data that informs this table is located in Annex D.

3.3.1. Similarly, to the reduction seen in the amount of permitted reserves, there has been a downward trend in sand and gravel sales across the previous 20 years, although this has not been uniform. Sales in 1999 were recorded as 4.30Mt but in 2018 were 3.56Mt, which is the highest sales value since the 4.37Mt recorded in 2014 (a peak after the 2007 recession).

3.3.2. The [EoE AWP Monitoring Report](#)<sup>22</sup> notes that in 2018, Greater Essex contributed 29% of the EoEAWP sales. This is two percent higher than that which was reported last year. This is the highest sales figure within the EoE AWP area, with the area with second highest sales being Cambridgeshire and Peterborough.

#### Comparison of 'Need'

3.3.3. Table 3 below identifies the annual mineral 'need' through the differing methodologies: the annualised apportionment and the ten-year sales average, as well as a consideration of three-year average sales. It also includes the historic 20-year sales average as shown in Figure 5 for reference. It also identifies how the various MPAs contribute to the Greater Essex apportionment figure.

<sup>22</sup> EoEAWP (2019) Annual Monitoring Report 2018 Data, Figure 2, page 9

**Table 3: Comparison of Sand & Gravel Landbank Within Greater Essex**

	Annualised Plan Provision (Apportionment)	Ten Year Sales Average (2009-20018)	Three Year Sales Average (2015-2018)	Historic (20 Year) Sales Average (1999-2018)
Greater Essex	4.45Mtpa	3.23Mt (↑)	3.46Mt (↑)	3.69Mt (↓)
Essex	4.31Mtpa	3.09Mt	3.32Mt	3.55Mt
Thurrock	0.14Mtpa	0.14Mt	0.14Mt	0.14Mt
Southend-on-Sea	0Mtpa	0Mt	0Mt	0Mt

Source: Essex County Council (2019)

Note\*: (↑) indicates an increase compared to that shown in last year's LAA  
 (↓) indicates a decrease compared to that shown in last year's LAA  
 (-) indicates no change compared to that shown in last year's LAA

- 3.3.4. When comparing actual 2018 sales (3.56Mt, as noted above) with the values from Table 3, it can be seen that the current level of sales is between the historic sales average (20 year, 1999-2018) of 3.69Mt and three-year average sales figure (2016 – 2018) of 3.46Mt. Sales peaked in 2014 at a level just below the annual apportionment as set out in current Guidelines. The ten-year average sales figure increased slightly (0.8%) from the average of 3.20Mt recorded over the previously reported ten-year period (2008 – 2017).
- 3.3.5. The annualised plan provision apportionment value is 27.52% higher than the 2009-2018 ten-year average sales value, with sales not exceeding the apportionment value since 2002. Importantly, the actual sales in 2018 were 9.2% above the ten-year average sales figure (2009 – 2018) of 3.23Mt, indeed the ten-year average sales figure of 3.23Mt is below actual sales since 2014, which would question the appropriateness of adopting that figure as a basis for mineral provision in Greater Essex. The PPG also requires an assessment of the last three years of sales to help establish any particular trend in sales. Such an assessment shows that the sales of sand and gravel are increasing following a reduction between 2014/15, to a level just below the 20-year average. A continuation of the current trend would see annual sales of sand and gravel eclipse the 20-year average. It is noted that the current ten-year average figure currently includes the period of recession identified above which is acting to depress the average ten-year sales relative to the current level of sales.

### 3.4. Sand & Gravel Landbank

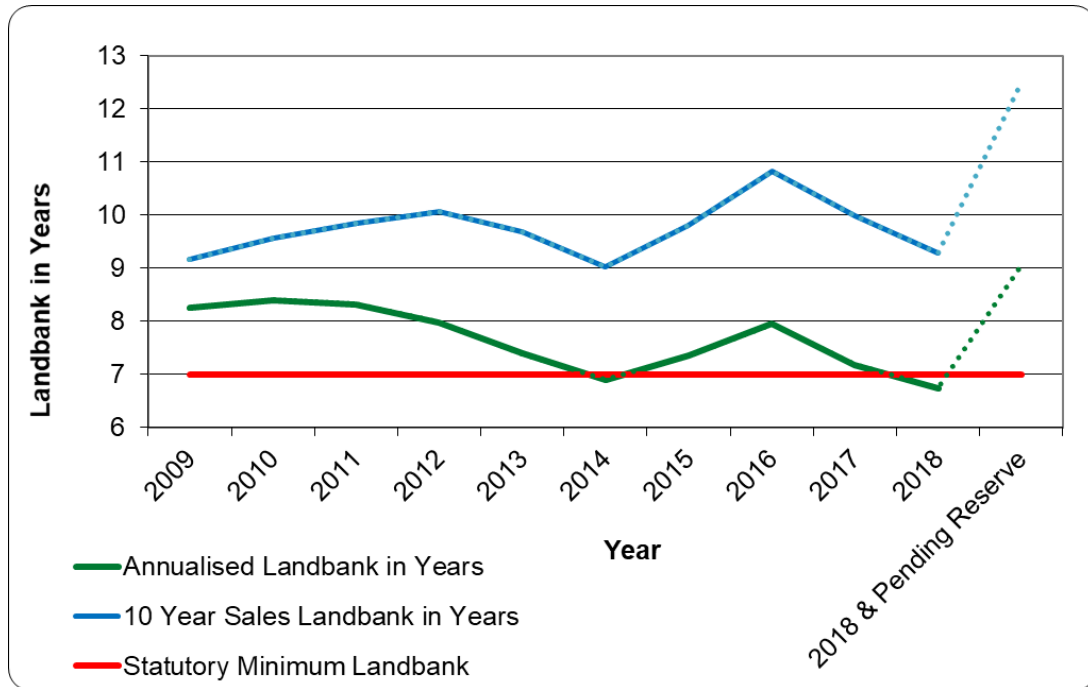
- 3.4.1. Landbanks are calculated by dividing permitted reserve by the annual amount of mineral to be extracted; and is reported in years. This value is the time the landbank will last before it is exhausted, if no further mineral is permitted for extraction.
- 3.4.2. As of December 2018, when using the annualised plan provision method of calculation, the landbank stood at 6.74 years, a reduction from December 2017 when it stood at 7.18 years. When using the ten-year rolling average



sales method, the landbank is calculated as being 9.30 years, compared to 9.99 years recorded in the previous year. Both values are presented in the figure below, which also identifies the landbank value at the end of each year.

- 3.4.3. It is important to note that the [EoEAWP AMR<sup>23</sup>](#) for the same period as this LAA, recognised that a total of three areas (Greater Essex included) had landbanks below the seven years threshold when using the apportionment methodology, whilst all in the region reported a landbank of over seven years when using the ten-year average sales method.

**Figure 6: Greater Essex Landbank (2009 to 2018)<sup>24</sup>**



Source: Essex County Council (2019)

Note: Y axis not at zero. The data that informs this table is located in Annex D

- 3.4.4. It can be seen that both methods of calculating the landbank have similar peaks and troughs, although the ten-year sales method consistently results in a higher landbank than the apportionment method. Importantly, with respect to the adopted annualised apportionment method of calculating the landbank, as of 31 December 2018, was below the seven-year statutory minimum. However, this only considers the ‘permitted reserve’ as identified in Figure 4, and does not include the ‘pending reserve’, that is all of the applications that contain additional sand and gravel, which are currently either awaiting determination or the signing of legal agreements (as stated in Table 2). When this ‘pending’ reserve is also considered, it would bring the landbank above the seven-year minimum (to 9.05 years under the apportionment methodology) or to 12.49 years (under the ten-year sales methodology)).
- 3.4.5. Should the landbank fall below seven years, planning applications bought forward for sites not allocated within the Mineral Local Plan (MLP) could be assessed more favourably if there is an identified need for the aggregate.

<sup>23</sup> EoEAWP (2019) Annual Monitoring Report 2018 Data, page ii

<sup>24</sup> Prior to 2009 the apportionment was 4.55mtpa, and 4.45Mtpa from 2009 onwards.

Such an approach undermines the Plan-led system that is at the forefront of planning policy.

- 3.4.6. As such, within the MPA of Essex, falling below the seven-year threshold would ordinarily trigger the need for a plan review through Minerals Monitoring Indicator 5 as stated in the Authority Monitoring Report. The Essex Minerals Local Plan is however currently being assessed for the need to review in any event due to the statutory need to review Development Plans within five years of adoption. This current and forecasted landbank, the use of windfall sites and the availability of allocated sites are all addressed within the five-year assessment, and any resulting amendments to the MLP are expected to be consulted upon in May/June 2020.

### **Sand & Gravel Landbank Summary**

- 3.4.7. When using the NPPF recognised ten-year sales method of landbank calculation, there is adequate permitted reserves within Greater Essex. However, when using the adopted apportionment method of calculation, the landbank is below the seven-year threshold, which could indicate there is, at present, insufficient permitted reserves available for the level of demand.
- 3.4.8. However, due to the amount of mineral that is pending determination or the satisfactory resolution of the legal agreements, (totalling 10.29Mt), within Essex itself, the landbank would be increased above the statutory minimum. This combined with the emerging findings of the 'Draft Assessment of the Need to Review the Essex Minerals Local Plan (adopted 2014)', suggests that at present, there is no cause for concern regarding the amount of material within the permitted reserve.

### **3.5. Silica Sand Provision**

- 3.5.1. Silica sand is produced at a single site within Greater Essex to provide sales data, for reasons of commercial confidentiality. Martells Quarry, Ardleigh is a dedicated quarry producing this resource. The currently extant permission for the site is planning permission reference ESS/23/15/TEN, which was implemented 23 October 2017.
- 3.5.2. At the time of developing the now adopted Minerals Local Plan, the relevant extant permission was application reference ESS/18/07/TEN, which provided 0.42Mt of material. This permission described the proportional split of the resource as 54% silica sand to 46% sand and gravel and provided the processing plant capacity to produce silica sand which is 0.045Mtpa.
- 3.5.3. In order to maintain the statutory ten-year minimum landbank for silica sand, there was a requirement to allocate an additional 0.39Mt across the plan period, therefore an extension of the site was allocated at Slough Farm within the Essex Minerals Local Plan (2014). This provided a total estimated mineral yield at the site of 0.86Mt, of which 0.46Mt comprises of silica sand. The assumed annual output of the site remains at 0.045Mtpa. As of 31 December 2018, an application on this allocated site has not been submitted. However, during 2019, pre-application advice (ref: ESS/62/19/TEN/PRE) was sought, with an application on this site expected to be submitted before the end of 2019.

## 4. MARINE-WON SAND & GRAVEL

- 4.1.1. Marine-won aggregates are an alternative to those extracted from the land although cannot always act as a direct substitution. They can be used for some of the same purposes including a variety of construction purposes e.g. road sub-base, land reclamation and beach nourishment.

### 4.2. Marine Planning

- 4.2.1. Marine resources have substantial economic, environmental and social value. However, increasing additional pressures such as large-scale renewable energy developments, fishing as well as demand for aggregate led to concerns over marine degradation. The Marine and Coastal Access Act (2009) set out the mechanism for marine planning, which aims to tackle these concerns<sup>25</sup>.

**Figure 7: Marine Planning Areas Close to Greater Essex**



Source: Essex County Council (2019) as derived from MMO Marine Planning Areas in England

- 4.2.2. A key tool are marine plans, which contribute to more effective management of marine activities and reduce the degradation of these habitats. Initially there was a limited evidence-base, meaning decisions were undertaken on a risk-based approach to accommodate uncertainty. Marine plans are monitored with a view to revision in similarity to terrestrial based Local Plans.
- 4.2.3. In England, the Marine Management Organisation (MMO) brings together planning, licensing and enforcement. The marine planning area closest to Greater Essex is covered by the 'South East Marine Plan'. This covers an area of approximately 1,400 kilometres of coastline stretching from Felixstowe to near Dover, a total of over 3,900km<sup>2</sup> of sea. It is however, highly likely that the areas 'East Inshore' and East 'Offshore', could also supply marine aggregate to the Greater Essex area.

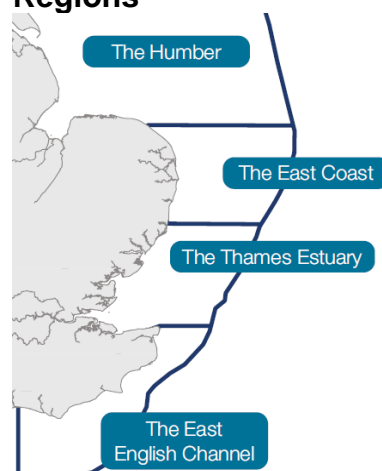
<sup>25</sup> Houses of Parliament PostNote Number 388 (Sept 2011) '[Marine Planning](#)'

- 4.2.4. It is noted that there are three aggregate specific policies (AGG1, AGG2 and AGG3) in the emerging South East Marine Plan which effectively serve as safeguarding policies against the potential of other proposals e.g. off-shore wind farm developments compromising the ability to extract known aggregate resources.
- 4.2.5. Both the East Inshore and Offshore plans were adopted in June 2014, but the South East plan is currently in an iterative process of option development (Stage 6). [Iteration 1](#) of the Plan identifies the outputs of stakeholder engagement carried out in February 2017. Preferred draft policies and supporting text have been developed following this feedback, with statutory consultation on the proposed policies timetabled for late 2019.

### 4.3. Dredging Areas & Wharf Facilities Serving Greater Essex

4.3.1. Ports are considered as ‘virtual quarries’ due to their ability to sell and distribute mineral, whilst many also have processing facilities. The marine-won material landed in the vicinity of Greater Essex is mainly sourced from the Thames Estuary Licensed Area, as identified in Figure 8. This area extends eastwards from Aldebrough in Suffolk to a line extending east from Margate in Kent. To the north of Aldebrough is the East Coast Licensing area and to the south of Margate is the English Channel region.

**Figure 8: Local Dredging Regions**



Source: As derived from The Crown Estate: Marine Aggregates Summary of Statistics (2018)

4.3.2. The National and Regional Guidelines for Aggregate Provision in England 2005 – 2020, assumed 14 million tonnes (Mt) of marine sand and gravel would be landed in the East of England during that time. This equates to 0.93Mt per year, although is not apportioned to individual authorities.

4.3.3. Although marine-won minerals contribute to the Greater Essex mineral supply, across Greater Essex there are only ports in Thurrock that accept marine won aggregate, with other landing points in proximity being in adjoining authorities, namely Ipswich and within the Thames Estuary. The ports serving Greater Essex are shown in Table 4 and Map 3 below. The map also identifies the licensed dredging areas closest to Essex, alongside new dredging application areas and exploration areas.

**Table 4: Wharves with the Ability to Serve Greater Essex (2018)**

Thames Region	
Landing Port (Standard Name)	Wharves (Alternative Name(s))
Cliffe	Alpha Wharf, Cliffe, North Sea Terminal
Dagenham	Hanson/ARC Dagenham, Dagenham, Barking, Docklands Wharf
Denton	Denton, Denton B.A.D, Denton Sand, J Clubbs

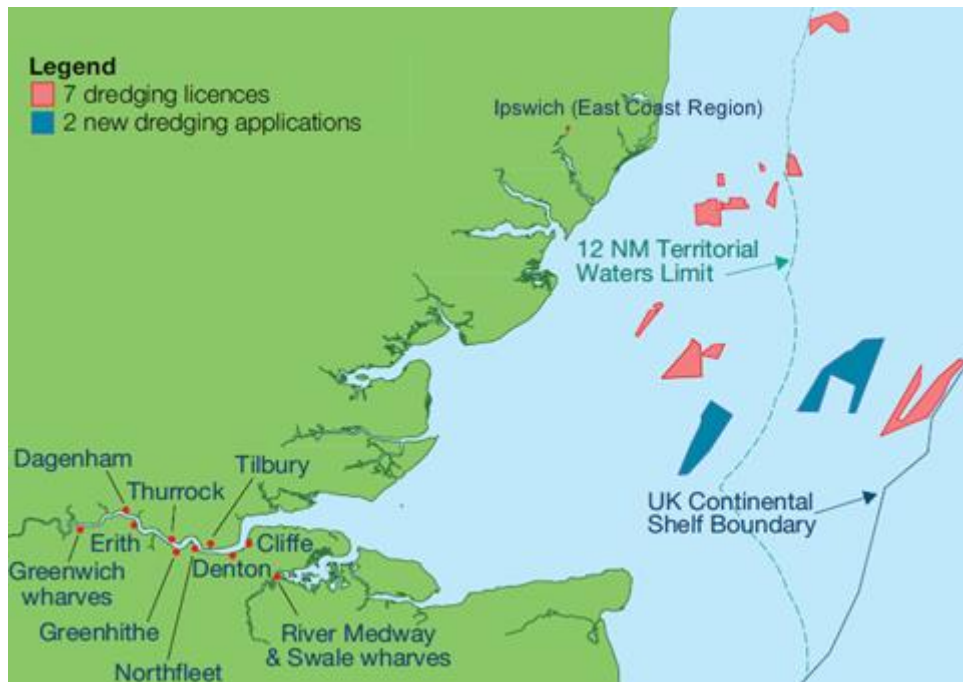
Marine-Won Sand & Gravel

Erith	Erith, Pioneer Wharf
Felixstowe	Felixstowe <sup>26</sup>
Greenhithe	Greenhithe
Greenwich Wharves	Angerstein, Blackwall Wharf, Charlton, Delta Wharf, Greenwich, Murphy's Wharf, Phoenix Wharf, Victoria Deep Wharf
London Docklands Wharves (mostly disused)	Canning Town, Cargo Fleet Wharf, Clarence Wharf, East India Dock, Heron Quay, Millwall, Orchard Wharf, Peruvian Wharf, Rotherhithe, Silvertown,
Northfleet	Northfleet, Northfleet Brett, Robin's Wharf
River Medway Wharves	Ridham, Queenborough
Swale Wharves	Rochester, Rochester Hanson, Sheerness
Tilbury	Tilbury Stema
Thurrock	Purfleet, Purfleet PAL, Thurrock, West Thurrock
<b>East Coast Region</b>	
<b>Landing Port (Standard Name)</b>	<b>Wharves (Alternative Name(s))</b>
Ipswich	Hanson/ARC Ipswich, Brett Aggregates Ipswich
Lowestoft	Lowestoft

Source: The Crown Estate: Marine Aggregates Summary of Statistics (2018)

<sup>26</sup> Felixstowe is counted as Thames Estuary (with the boundary with East Coast being roughly 27km north at Aldeburgh)

### Map 3: Marine Dredging Areas in Proximity to Greater Essex (2018)



Source: Adapted from Crown Estate: [Marine Aggregates – Capability and Portfolio 2018](#) (2019) pages 7 and 8

Note: Each landing port will have a number of associated wharves. For example, the landing port of West Thurrock includes the wharves of Purfleet and Thurrock as noted in Table 4 above.

- 4.3.4. Paragraph 204(e) of the Revised NPPF states (inter-alia) that MPAs should safeguard existing, planned and potential facilities for bulk mineral transport including those for marine-dredged materials.
- 4.3.5. There has been a reduction in wharf availability for mineral dredging in Thurrock during recent years. As reported in 2017, only one wharf (immediately to the East of the QEII bridge) is used to import marine dredged sand and gravel. The remainder of the wharf facilities in Thurrock are used for other mineral related purposes.

#### 4.4. Marine Aggregate Landings

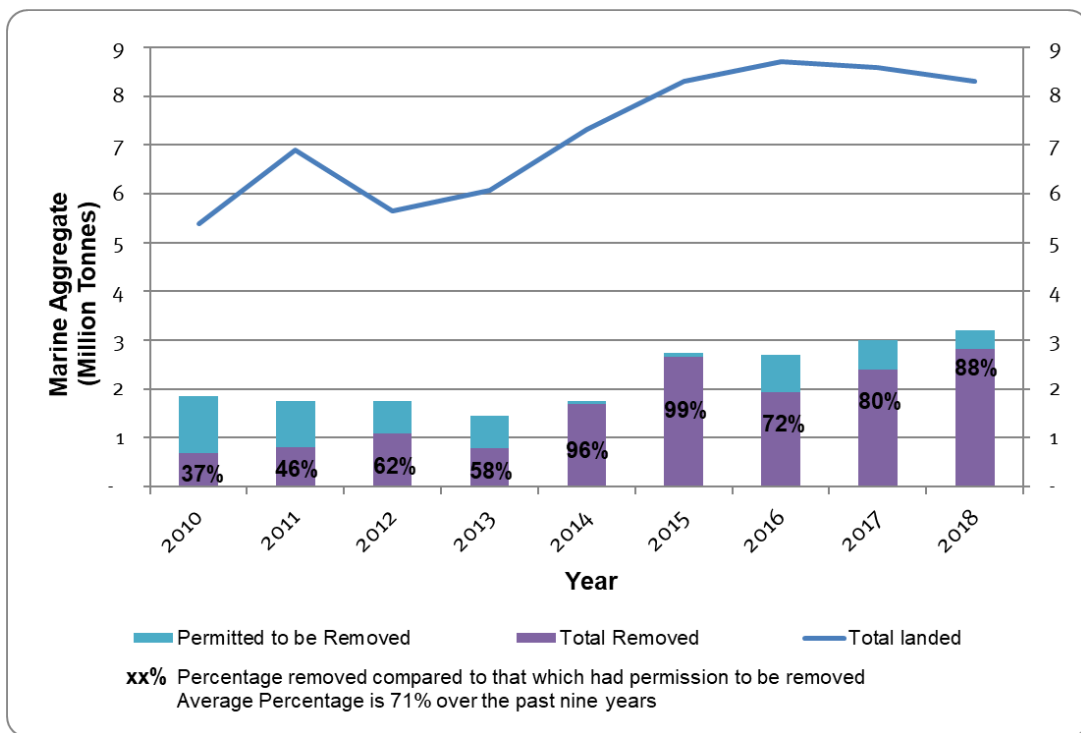
- 4.4.1. The Crown Estate collects statistics regarding marine-won mineral landed at its ports, although these do not define the mineral's final destination<sup>27</sup>. Resultantly, the figures do not relate to the amount of marine-won aggregate **used** within any one location, rather it is the amount landed. In this case marine won aggregate landed in the Thames Estuary and/or at Ipswich would usually be used within close proximity to these ports, namely Essex, Thurrock, Southend-on-Sea, Kent, Suffolk, London but potentially also further afield. However, due to their mass, landed minerals do not have a large road based economically viable transport distance, so it is likely these will be used in the surrounding vicinity. A number of sources of information suggests the average road delivery distance (of any aggregate) is 38km (24

<sup>27</sup> Unless it is sourced for a specific 'significant' project. Such projects are detailed in Crown Estate: [Marine Aggregates – Capability and Portfolio](#) (2018) pages 14 and 15 and include locally Container Terminal, Felixstowe, London Array Wind Farm, Thames Barrier, London, Crossrail, London and numerous other major London projects. No such significant projects were listed within Greater Essex.

miles)<sup>28</sup>, with the cost often doubling for each 30 miles travelled. As such aggregates are likely to only be transported long distances when it is absolutely necessary<sup>29</sup>. BGS<sup>30</sup> studies supports this and suggests that 60km (37 miles) is the maximum **typical** distance bulk aggregates travel by road. It has been concluded that although this isn't stated as an absolute maximum (viability would be considered on a case by case basis) it has been inferred that travel distances of large volumes of aggregate would not likely be greater than 37 miles, loads may travel further, but viability reduces rapidly the further afield it travels.

4.4.2. A Crown Estate Report<sup>31</sup> identifies dredging and landing statistics in 2018, as shown in the figure below. This highlights the total marine aggregate extracted from the Thames Estuary Area, the additional amount that has permission to be extracted and total marine aggregates landed at the Estuary's ports. It can be seen that a total of 2.8Mt of marine aggregate were removed from the sea bed in 2018, meaning 88% of the annually permitted extraction occurred. Comparatively, in 2017, 80% of the permitted removal occurred, with the last eight-year average being 67%.

**Figure 9: Marine Aggregate Extraction in the Thames Estuary Region (2018)**



Source: Essex County Council (2019), as derived from data contained within the Marine Aggregates - The Crown Estate Licences, Summary Of Statistics (Crown Estate) reports between 2010 and [2018](#).

4.4.3. The above figure shows that there was a total of nearly 8.3Mt landed within the Thames Estuary area during 2018, which is significantly more than the

<sup>28</sup> [SustainableConcrete.org](#) referenced the source as the Concrete Centre 2010

<sup>29</sup> [Mineral Products Association](#) - Aggregates

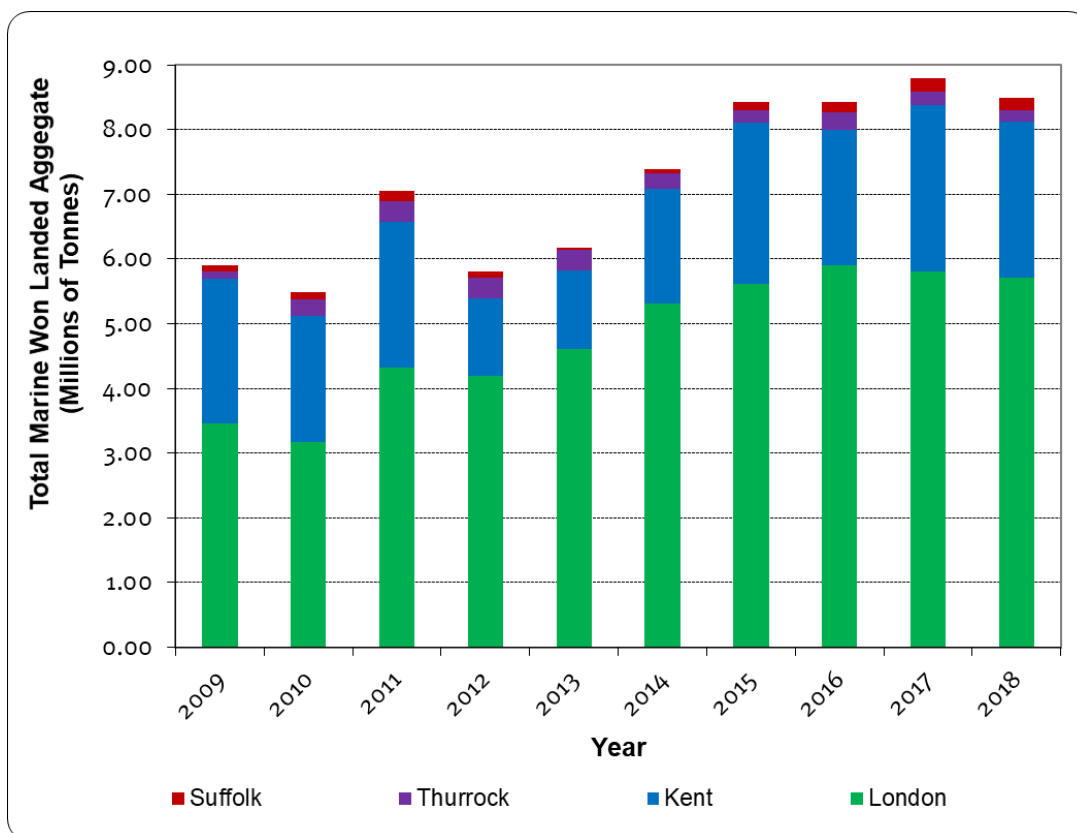
<sup>30</sup> British Geological Survey Planning Matters Factsheet “Construction Aggregates”, BGS, 2007

<sup>31</sup> Crown Estate (2019) [Marine Aggregates - The Crown Estate Licences, Summary Of Statistics 2018](#), Licences to dredge Marine Minerals on page 2 and Landing Statistics for dredged primary aggregates on page 4 (East Coast) and page 5 (Thames Estuary)

total removed (2.8Mt). This shows a significant quantity (5.4Mt) was extracted from other licenced areas (such as the East Coast and East English Channel) and landed here, presumably to assist with the significant amount development within Greater London.

- 4.4.4. According to the Crown Estates Summary of Statistics (2018), only 194 thousand tonnes were landed within the East Coast region in 2018<sup>32</sup>, whilst nearly 4.2Mt were removed through extraction. This means that a significant amount was extracted but landed in other regions.
- 4.4.5. The following figure details the amount of marine-won mineral landed in ports within London, Thurrock, Kent and Suffolk. It is considered that marine dredged minerals landed at these ports have the capacity to be used in Greater Essex.

**Figure 10: Marine-Won Mineral Landed in Ports that Serve Greater Essex (2009 to 2018)**



Source: Essex County Council (2019) as derived from The Crown Estate, Summary of Statistics, 2009 – 2018

The data that informs this table is located in Annex F.

- 4.4.6. There has been a general increase in the amount of marine-won aggregate landed between 2009 and 2018, from 5.90Mt to 8.50Mt, representing an increase of 17%. Despite this general increase however, 2018 had a 3% decrease in tonnes landed than 2017.
- 4.4.7. When ports are analysed by administrative region, since 2009 there has been an overall increase in the marine-won aggregate coming into London ports, (65%). Kent, comprising of three wharves, has seen an increase of

<sup>32</sup> Crown Estate (2019) [Marine Aggregates - The Crown Estate Licences, Summary Of Statistics 2018](#), Licences to dredge Marine Minerals on page 2 and Landing Statistics for dredged primary aggregates on page 4 (East Coast) and page 5 (Thames Estuary)



only 9% since 2009, whilst during the same period, Suffolk comprising of a single wharf, has more than doubled the amount of aggregate landed and Thurrock comprising a single wharf saw a decrease of 45%.

## 4.5. Offsetting Land-won Production

- 4.5.1. Increasing the proportion of marine-won sand and gravel to offset the provision required from land-won sources, is outside of the remit of Mineral Planning Authorities, as marine extraction areas are leased by the Crown Estate, with licenses to dredge issued by the Marine Management Organisation (MMO). Land-won and marine-won aggregate are not directly substitutable in any event<sup>33</sup>. Similarly, it has been noted<sup>34</sup> that substituting land-won for marine aggregates is linked to economic circumstances and ultimately market driven.
- 4.5.2. There are three aggregate specific policies within the emerging [East Inshore and East Offshore Marine Plans](#), which effectively serve as safeguarding policies against the potential threat of other proposals. It is however noted that Marine Plans do not form part of the Development Plan by virtue of different enacting legislation but need to be considered when developing land-based policy.
- 4.5.3. However, during the examination held into the Essex Minerals Local Plan (Nov 2013) a number of concerns were raised claiming that Marine aggregate imports to Essex have the potential to increase/make a greater contribution to overall aggregate provision and therefore the Mineral Planning Authority (MPA), should not be planning for as much land-won aggregate. This resulted in the inclusion of Minerals Monitoring Indicator 3, as specified in the Authority Monitoring Report.
- 4.5.4. Conversations with the industry have established that marine sources are not constrained by resource availability or by a limit on permitted reserves. Instead, it is believed that constraints are focussed around production capability limited by existing dredger numbers (and their production rate), and the ability to access the market, which is determined by the capacity and location of wharfs and associated infrastructure. As such it is not considered appropriate to reduce land-won reserves based on the assumption that they will be replaced by marine-won reserves.
- 4.5.5. MPAs can ensure that marine-won sand is able to make an important contribution to land-won mineral by ensuring that wharves and ports are safeguarded from the encroachment of incompatible development that may compromise the ability of these marine facilities to carry out their function. In this regard, MPAs are supported by the NPPF which incorporates the 'Agent of Change' Principle (para 182). This principle states that where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.

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<sup>33</sup> At the EoEAWP meeting (9 Feb 2019), it was noted that marine aggregates in the East tend to be more sand-rich and therefore can't simply use dredging to achieve a 50:50 sand:gravel mix so therefore not directly substitutable. A more directly substitutable source would be off the north eastern coast (c. Hull)

<sup>34</sup> Source: EoEAWP meeting (9 Feb 2019),

- 4.5.6. The Essex MPA is currently developing a Wharf Baseline Capacity Study to Mineral Monitoring Indicator 3. The aim of the baseline report is to assess whether the amount of marine aggregate landed in Greater Essex is within 90% of existing capacity. Should this be the case, this would necessitate the need to engage with the minerals industry, port authorities and district authorities where landings occur to establish whether marine aggregate supply is being constrained. This report will form part of the evidence base for the assessment in to the need to review the MLP.

## 5. IMPORTS & EXPORTS OF LAND-WON AGGREGATE

5.1.1. Historically, approximately 75% of the mineral extracted within Greater Essex has been used within the area, whilst the majority of that exported going to London. Greater Essex is heavily reliant on hard rock importation, used as construction material and rail ballast as well as limestone specifically used in cement making. A pattern of long-distance supply has emerged, with Greater Essex exporting its sand and gravel, whilst importing hard rock<sup>35</sup>.

### 5.2. Methods of Mineral Transportation within Greater Essex

5.2.1. There are three bulk transport modes for mineral movement: road, rail and water. For internal, relatively short movements, the road network is the most efficient and heavily used mode of transportation, as this offers route flexibility and the ability to deliver to any final destination. Rail and water however provides the most effective long-distance transshipment opportunities, despite involving ‘double handling’ i.e. loading and unloading of aggregate on to lorries at each end.

5.2.2. There are five rail and five wharf transshipment sites that operate (one of which is inactive) within Greater Essex<sup>36</sup> that facilitate long distance movement of aggregate. There is also some cross-boundary movement of aggregate by road into and from neighbouring areas, although exportation to London is predominantly by rail.

### 5.3. Imports & Exports of Sand & Gravel

5.3.1. The import and export data reported below, is gathered through the Mineral Survey undertaken by each Authority within the East of England Aggregate Working Party (EoEAWP). The Greater Essex information is also used to inform section 6 of the [EoE AWP Monitoring Report 2018<sup>37</sup>](#).

5.3.2. Due to the number of operators of wharves and rail transshipment facilities within Greater Essex, it is not possible to provide data for each separate mode of transport, due to commercial confidentiality. Therefore, data in the following sections are an amalgamation of rail and wharf values.

#### Importation of Minerals

5.3.3. The table below shows the amount, type and source of material that was imported in to Greater Essex during 2018.

**Table 5: Imports of Minerals (2018)**

Total tonnage of aggregate imported into Greater Essex	Source of Material	Types of Material
1,116,548	South-west, Scotland, Europe, East Midlands	Limestone, granite & crushed rock

Source: Annual collated mineral survey data.

<sup>35</sup> From areas such as the East Midlands and limestone from the South West.

<sup>36</sup> As listed within Annex A

<sup>37</sup> East of England Aggregate Working Party (2019) Annual Monitoring Report 2018 Data

- 5.3.4. Over 1Mt of material was imported during 2018. When compared to the importation that occurred in 2017, 1,771 tonnes (0.16%) less was accepted at wharves, which shows a relatively stable amount of importation.
- 5.3.5. The [EoEAWP AMR 2018](#) stated that 3.97Mt of aggregate was imported in to the region<sup>38</sup> in 2018, meaning Greater Essex's share of imports totalled approximately 28% of the regions imports. It is not specified in the EoEAWP AMR, whether this 3.97Mt was made up of solely and gravel or hard rock, or a combination of both.

### **Exportation**

- 5.3.6. Even when amalgamating exportation data for both types of transshipment facility, there remains too few sites reporting the exportation of material from Greater Essex to provide data for reasons of commercial confidentiality.
- 5.3.7. Of the information that was received, all of the material that was exported was destined for London. In similarity to 2017, there was much less material exported than imported through Greater Essex transshipment sites in 2018.

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<sup>38</sup> East of England Aggregate Working Party (2018) East of England Aggregates Working Party Annual Monitoring Report 2017, Paragraph 6.2

## 6. SECONDARY & RECYCLED AGGREGATE

### 6.1. Introduction

- 6.1.1. Secondary and recycled aggregates are alternative sources of aggregate. 'Recycled' aggregates are derived from the reprocessing of inorganic materials previously used in construction such as rail ballast or material recovered from demolition or construction waste. 'Secondary' aggregates are created as a by-product of a construction or industrial process<sup>39</sup>. Large amounts are processed on construction and redevelopment sites, either at stand-alone permanent facilities or temporary facilities co-located with existing quarries, landfill and recycling sites for the life of the primary operation.
- 6.1.2. The benefits for maximising the use of these are two-fold. Re-use reduces the need to extract primary material and also reduces the amount of waste needing disposal. This has clear economic, environmental and social benefits.
- 6.1.3. The Greater Essex Authorities positively encourage re-use and recycling of Construction, Demolition and Excavation (CD&E) waste through development plans and policies. However, this does not mean increasing the importation of CD&E waste to be recycled would always be acceptable.

### 6.2. Recycled Aggregate Throughput and Capacity Essex and Southend-on-Sea

- 6.2.1. Supporting evidence to the Essex and Southend-on-Sea Waste Local Plan 2017 (WLP)<sup>40</sup> assessed construction, demolition and excavation (CD&E) waste recycling capacity in the Essex and Southend-on-Sea joint plan area to be 2.118Mtpa, producing around 1.05 Mt of recycled aggregate from CD&E waste arising in the Plan area in 2014 (section 2.3 & 2.5.3). These sites are listed in Annex G. It is not known whether secondary aggregates are produced in any significant quantity in the joint Essex and Southend-on-Sea Plan area, but the lack of heavy industry suggests there will be little.
- 6.2.2. The most recently published Authority Monitoring Report (17/18)<sup>41</sup> identifies a Plan area wide network of facilities. The AMR states that there are substantially more facilities in operation (when comparing the list/map of facilities in AMR 2017/18 to the listed facilities in the MLP) indicating the Policies objectives are being met. However, a number of facilities have temporary permissions indicating that reliance cannot be placed solely on existing facilities to maintain production capacity. Therefore, additional capacity will continue to be encouraged where located in accordance with relevant mineral and waste Plan policies.
- 6.2.3. In addition, CD&E recovery allocations were included within the WLP. It is also important that existing and allocated sites are safeguarded to prevent the operation of existing or future facilities becoming compromised due to their proximity to incompatible development which would act to reduce

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<sup>39</sup> Examples include power station ash from combustion (fly ash) that can be turned into bricks and cement, and slag from iron smelting that can be manufactured into mineral wool and used as heating pipe insulation.

<sup>40</sup> ECC/BPP (December 2015) SD 20 - Topic Paper 1 - Waste Capacity Gap Update

<sup>41</sup> Insert hyperlink when published

available capacity across the Plan area. The NPPF also provides support for the safeguarding of existing facilities from the future development of 'sensitive' uses through the 'Agent of Change' Principle (para 182).

### **Thurrock**

- 6.2.4. With regard to Thurrock, there are eight authorised sites which process recycled aggregate as well as screen soils associated with this type of aggregate. Of these eight sites, three are associated with mineral and landfill sites and are thus of a temporary nature, and five are 'permanent' sites. However, one of the latter (Kiloughery at Botany Way, Purfleet) is within an area proposed for comprehensive redevelopment and thus is likely to be lost at some time in the future. There are no non-operational sites. These facilities are also detailed in Annex G.
- 6.2.5. The Thurrock Waste Management Capacity Needs Assessment Update 2010 indicated that Thurrock had an oversupply of CD&E recycling capacity to meet its own waste arisings. It was forecast that Thurrock would fall short of capacity before 2015/16 but that this could be addressed through the permitting of one or two new or retained sites. Since then the life of two of the temporary facilities has been extended such that this capacity shortfall will probably not occur as envisaged. Furthermore, any undersupply would be reduced by the extent of recycling carried out on development sites by mobile crushers and screens. This latter type of capacity will fluctuate markedly depending on the number and type of development sites within Thurrock at any one time with marked results on total capacity. In theory the provision made for primary aggregate provision could be reduced to a degree to reflect the availability of recycled materials. It is noteworthy that provision of the latter is likely to be greater than the regional apportionment for sand & gravel of 0.14Mtpa. However the CD&E recycling capacity from which this recycled material is derived is 'fueled' to a large degree by imports of waste, with London being in close proximity. Thus for Thurrock it would be inappropriate to reduce primary aggregate provision on the basis of this supply option, as suggested by the NPPF, when the supply of recycled material is underpinned by imports of waste.

### **6.3. Conclusion**

- 6.3.1. Within Greater Essex, there is a well-established network of CD&E waste recycling/recovery facilities. Additional capacity will continue to be encouraged to ensure the continued production of recycled aggregates and to maintain the diversity of aggregate variety/sources, when located in accordance with relevant mineral and waste plan policies.
- 6.3.2. It is not known whether secondary aggregates are produced in any significant quantity within Greater Essex, but the lack of heavy industry suggests there will be little.

## 7. CONCLUSION

- 7.1.1. As of 31 December 2018, Greater Essex has sufficient permitted reserve and allocations to satisfy the assessed sand and gravel mineral requirement when considering the 10-year sales method of calculation (9.30 years). However, the landbank stands at only (6.74 years) when the adopted apportionment method is used. Within the Essex plan area, this would trigger a plan review as a result of Mineral Monitoring Indicator 5, but this has been superseded by the assessment currently being undertaken as part of the statutory five-year plan review process. Importantly, there is also 10.29 Million tonnes (Mt) of pending reserves (equivalent to 2.31-year landbank) awaiting determination through the Development Management system. On balance, it is therefore considered that there is a sufficient supply of sand and gravel within Greater Essex.
- 7.1.2. Total sales of sand and gravel in 2018 in Greater Essex were recorded as 3.56 Mt. This is higher than the ten-year rolling sales average of 3.23 million tonnes per annum (Mtpa), but below the apportionment value of 4.45Mtpa that the Essex Minerals Local Plan (2014) and Thurrock Core Strategy (2015) were based on. Sales have not increased beyond the figure of 4.45Mtpa across the previous ten years. The PPG also requires an assessment of the last three years of sales to help establish any particular trend in sales. Such an assessment shows that the sales of sand and gravel are increasing following a reduction between 2014/15, to a level just below the 20-year average. A continuation of the current trend would see annual sales of sand and gravel eclipse the 20-year average
- 7.1.3. Greater Essex is served by the Thames and East Coast dredging regions. In combination, 7.0Mt of material was removed from the seabed in 2018 in these areas. The combined reserve within these dredging regions is 11.5 Mtpa, which is expected to be sufficient to provide for the Thames region for 34 years and the East of England region for 15 years. The Marine Plan covering this area of sea is the South East Marine Plan which is currently in production. A statutory consultation stage is expected in late 2019.
- 7.1.4. With regard to recycled aggregate production, it has been assessed that 1.05 Mt of recycled aggregate was produced from CD&E waste arising in the Essex and Southend-on-Sea Waste Local Plan area in 2014. There is additional CD&E waste capacity within Thurrock, which also make a contribution to the total amount of recycled aggregate available within Greater Essex. Across the whole of the Greater Essex Area a number of sites are co-located with other minerals and/or waste sites and are therefore temporary in nature. Therefore, additional capacity will continue to be encouraged where located in accordance with relevant mineral and waste Plan policies. The Mineral Planning Authorities will continue to safeguard aggregate recovery facilities from incompatible development to ensure their continued operation, thus maintain this source of aggregate for the market.
- 7.1.5. It is not known whether secondary aggregates are produced in any significant quantity, but the lack of heavy industry suggests there will be little.
- 7.1.6. It is not considered appropriate to seek to directly offset land-won primary aggregate through an increased reliance on marine and/or recycled/ secondary aggregate. Mineral Planning Authorities have no jurisdiction in the marine environment and so have little ability to influence the amount of

marine-won mineral that could be dredged. The small number and constrained location of landing facilities in Greater Essex exacerbates this, whilst it is considered that production capacity is constraining supply rather than demand.

- 7.1.7. The Mineral Planning Authorities will also continue to ensure that existing wharf and rail transshipment facilities are safeguarded from incompatible development to ensure their continued operation.





# Appendices



## ANNEX A PRIMARY EXTRACTION FACILITIES WITHIN GREATER ESSEX

**Table 6: Permitted Primary Aggregate Sites in Essex (31 December 2018)**

Operator	Site Name	Cessation Date for Planning Permission	District /Borough
<b><i>Operational Sand &amp; Gravel Quarries with Permitted Reserves</i></b>			
Brett Aggregates	Alresford Creek, Alresford	2042	Tendring
G&B Finch Ltd	Asheldham Quarry, Southminster	2029	Maldon
Hanson Aggregates	Birch Quarry, Birch	2018	Colchester
Frank Lyons Plant Services Ltd	Blackleys Quarry, Great Leighs	2045	Chelmsford
Blackwater Aggregates	Bradwell Quarry, Silver End	2022	Braintree
Brett Aggregates	Brightlingsea Quarry	2026	Tendring
Hanson Aggregates	Bulls Lodge Quarry, Boreham	2030	Chelmsford
SRC Ltd	Cobbs Farm, Goldhanger	2020	Maldon
Tarmac Ltd	Colchester Quarry, (aka Stanway Quarry)	2042	Colchester
Brice Aggregates	Colemans Quarry, Witham	2036	Braintree
SRC Ltd	Crown Quarry, Ardleigh	2028	Tendring
Edviron Ltd	Crumps Farm, Gt Canfield	2029	Uttlesford
Dewicks	Curry Farm, Bradwell-on-Sea	End on site 2023, restoration by 2024	Maldon
Brett Aggregates	Elsenham Quarry, Elsenham	2030	Uttlesford
SRC Ltd	Highwood Quarry, Little Easton	2026	Uttlesford
Brett Aggregates	Lufkins Farm, Thorrington Road	Commenced January 2019 cessation of extraction January 2022.	Tendring
Danbury Aggregates	Royal Oak, Danbury	2029	Chelmsford

Annex A: Primary Extraction Facilities within Greater Essex

Danbury Aggregates	St Cleres Pit, Danbury	2019 <sup>42</sup>	Chelmsford
Tarmac Ltd	Wivenhoe Quarry, Wivenhoe	2019 (Application for extension of time to 2020 currently being determined) New application being determined for Sunnymead Extension (July 2018)	Colchester
Total Active Extraction Facilities in Essex:			<b>!D21 Is Not In Table</b>

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<sup>42</sup> ESS/31/16/CHL requires extraction to cease 31/7/2019 and restoration to be completed by 2022. There is de-minimus extraction (not active) predominantly an infill/minerals processing site

Operator	Site Name	Cessation Date for Planning Permission / Comments	District /Borough
<b><i>Non-Operational Sand &amp; Gravel Quarries with Permitted Reserves</i></b>			
Gent Fairhead & Co Ltd	Rivenhall Airfield (Waste Facility)	Planning Permission for waste management ESS/34/15/BTE was granted in February 2016 includes 100 thousand tonnes material to be extracted prior to development.	Braintree
R W Mitchell & Sons	Elmstead Hall (AKA Elmstead Reservoir)	Not Yet Commenced, Commencement required within 5 years from the approval date of ESS/24/15/TEN (by Nov 2021), cessation 48 months after commencement	Tendring
JJ Prior Ltd	Fingringhoe Quarry, Fingringhoe	2042 Extraction has ceased on site	Colchester
Widdington Recycling	Widdington Pit, Widdington	2025 Not actively extracting mineral	Uttlesford
SRC	Sheepcotes	Not yet commenced, pre-commencement conditions awaiting discharge. Commencement required within 3 years from the approval date of ESS/01/18/CHL (by Aug 2022), cessation of extraction 5 years after commencement.	Chelmsford
<b><i>Dormant Sand &amp; Gravel Quarries</i></b>			
S.R. Finch	Straits Mill	N/A	Braintree
-	Alton Park	N/A	Tendring
-	Hodgnells Farm	N/A	Tendring
Devernish Ltd	Hambro Hill	N/A	Rochford
<b><i>Operational Silica Sand Sites with Permitted Reserves</i></b>			
SRC Ltd	Martells Quarry, Ardleigh	2026	Tendring

Source: Essex County Council (2019)

Note: Brick clay sites and Chalk sites are no longer listed within this Local Aggregate Assessment, and therefore details are not listed here. For information on these sites, please view the most recently published Authority Monitoring Report.

**Table 7: Permitted Primary Aggregate Sites in Thurrock (31 December 2018)**

Operator	Site Name	Cessation Date for Planning Permission	District /Borough
<b><i>Operational Sand &amp; Gravel Quarries with Permitted Reserves</i></b>			

Annex A: Primary Extraction Facilities within Greater Essex

Rio Aggregates	Dansand Quarry, Stanford Road, Orsett	2025	Thurrock
Ingrebourne Valley	Mill House Farm, West Tilbury	2020	Thurrock
Ingrebourne Valley	Orsett Quarry, Stanford le Hope	2042	Thurrock
S. Walsh & Sons Ltd	East Tilbury Quarry	2021 <sup>43</sup>	Thurrock
<b><i>Non-Operational Sand &amp; Gravel Quarries with Permitted Reserves</i></b>			
None			

Source: As derived from Thurrock Council & the Mineral Survey (2019)

**Table 8: Mineral Transshipment Sites in Essex (31 December 2018)**

Operator	Site Name	District/Borough
<b><i>Permitted Wharfs</i></b>		
JJ Prior Ltd	Ballast Quay, Fingringhoe (exporting until stockpiles exhausted)	Colchester
<b><i>Permitted Rail Depots</i></b>		
Aggregate Industries UK Ltd	Chelmsford Rail Depot	Chelmsford
Tarmac Ltd	Marks Tey Rail Depot	Colchester
Aggregate Industries UK Ltd/ Tarmac Ltd	Harlow Rail Depot x2	Harlow

Source: Essex County Council (2019)

**Table 9: Operational Mineral Transshipment Sites in Thurrock (31 December 2018)**

Operator	Site Name	District/Borough
<b><i>Permitted Wharfs</i></b>		
Aggregate Industries UK Ltd	London Gateway, Berth 7, DP World	Thurrock
Tarmac, Thurrock Sand & Gravel Ltd	Thurrock Marine Terminal, Oliver Close, West Thurrock	Thurrock
Cemex	Purfleet Wharf (Inactive)	Thurrock
Stema Shipping Ltd	1 Berth, Port of Tilbury	Thurrock
<b><i>Permitted Rail Depots</i></b>		
Aggregate Industries UK Ltd	Purfleet Rail Depot	Thurrock
Port of Tilbury	Port of Tilbury, Bulk Rail Terminal	Thurrock

<sup>43</sup> Date the majority of the site has to be restored by

Source: As derived from Thurrock Council & the Mineral Survey (2019)

## ANNEX B PERMITTED PROCESSING PLANTS IN GREATER ESSEX (DEC 2018)

Operator	Quarry / Transportation Facility	Plants Present on Site					
		Primary Processing	Bagging	Concrete / Mortar	Asphalt Coating	Aggregate Recycling	Transshipment Facility
Aggregate Industries	Martells Quarry, Ardleigh	✓					
Blackwater Aggregates	Bradwell Quarry, Bradwell/Kelvedon	✓	✓	✓			
Brett Aggregates	Alresford Creek, Alresford	✓	✓				
	Brightlingsea Quarry, Brightlingsea	✓					
	Elsenham Quarry, Elsenham	✓				✓	
Widdington Recycling Ltd	Widdington Pit, Widdington	✓				✓	
Danbury Aggregates	Royal Oak, Danbury						
Dewicks	Curry Farm, Bradwell-on-Sea	✓					
Frank Lyons Plant Services	Blackley Quarry, Great Leighs	✓					
G&B Finch	Asheldham Quarry, Asheldham	✓		✓			
Hanson Aggregates	Birch Quarry, Birch	✓		✓			
	Bulls Lodge Quarry, Boreham	✓	✓	✓	✓	✓ - (Operated)	

Operator	Quarry / Transportation Facility	Plants Present on Site					
		Primary Processing	Bagging	Concrete / Mortar	Asphalt Coating	Aggregate Recycling	Transhipment Facility
						Separately by Eurovia)	
JJ Prior Ltd	Fingringhoe Quarry, Fingringhoe						✓
Tarmac Ltd	Colchester Quarry, Stanway	✓		✓	✓	✓	
S Walsh and Sons Ltd	East Tilbury Quarry					✓	
Sewells Reservoir Construction	Cobbs Farm, Goldhanger						
	Crown Quarry, Ardleigh	✓		✓			
	Highwood Quarry, Little Easton	✓	✓	✓		✓	
	Harlow Rail Head			✓	✓		✓
<b>TOTAL</b>		<b>14</b>	<b>4</b>	<b>8</b>	<b>3</b>	<b>6</b>	<b>2</b>

Source: Essex County Council (2019)



## ANNEX C PERMITTED RESERVES IN GREATER ESSEX (1997 - 2018)

Permitted Sand and Gravel Reserves in Essex, Thurrock & Southend (Millions of Tonnes)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	69.28	65.52	68.76	68.42	68.48	57.69	59.64	54.6	51.00	50.12	46.68

Permitted Sand and Gravel Reserves in Essex, Thurrock & Southend (Millions of Tonnes)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	39.19	36.71	37.36	37.01	35.5	32.88	30.72	32.69	35.37	31.95	29.98

Source: Essex County Council Annual Monitoring Reports and East of England Annual Monitoring Reports

Note: Dormant mineral developments are not included in the calculations in this section

Supporting: Figure 4 - Permitted Sand & Gravel Reserves in Greater Essex (1999 to 2018), page 7.

## ANNEX D APPORTIONMENT & LANDBANK DATA

**Table 10: Greater Essex Annual Sand & Gravel Apportionment Figures**

Year Set	Period Covered by Guidelines	Apportionment (Millions of Tonnes Per Annum)
1989	1989 - 1994	6.9Mt for Greater Essex
1994	1994 - 2003	6.2Mt for Greater Essex
2003	2001 - 2016	4.55Mtpa (Essex = 4.41Mtpa, Thurrock = 0.14Mtpa)
2009	2005 - 2020	4.45Mtpa (Essex = 4.31Mtpa, Thurrock = 0.14Mtpa)

Source: East of England Aggregates Working Party, 2010 AMR

**Table 11: Annualised Landbank held in Greater Essex (2009 – 2018)**

Year	Permitted Reserve (a)	Annualised Plan Provision in Mt (b)	Landbank in Years (a/b)
2009	36.71Mt	4.45Mt	8.25
2010	37.36Mt	4.45Mt	8.40
2011	37.01Mt	4.45Mt	8.32
2012	35.5Mt	4.45Mt	7.98
2013	32.88Mt	4.45Mt	7.39
2014	30.72Mt	4.45Mt	6.90
2015	32.69Mt	4.45Mt	7.35
2016	35.37Mt	4.45Mt	7.95
2017	31.95Mt	4.45Mt	7.18
2018	29.98Mt	4.45Mt	6.74

Source: East of England Annual Monitoring Reports, Supporting: Figure 6, Greater Essex Landbank (2009 to 2018), page 11

**Table 12: 10 Year Average Sales Landbank held in Greater Essex (2009 – 2018)**

Year	Permitted Reserve (a)	10 years Average Annual Sales of Sand and Gravel (b) (2008 to 2017)	Landbank in Years (a/b)
2009	36.71Mt	3.20Mt	11.02
2010	37.36Mt	3.20Mt	11.22
2011	37.01Mt	3.20Mt	11.11
2012	35.5Mt	3.20Mt	10.66
2013	32.88Mt	3.20Mt	9.87
2014	30.72Mt	3.20Mt	9.23
2015	32.69Mt	3.20Mt	9.82
2016	35.35Mt	3.20Mt	10.62
2017	31.95Mt	3.20Mt	9.99
2018	29.98Mt	3.20Mt	9.30

Source: Essex County Council (2019), Supporting: Figure 6, Greater Essex Landbank (2009 to 2018), page 11



## ANNEX E SALES DATA

**Table 13: Sales of Land Won Sand & Gravel within Greater Essex (1997 – 2018) (in millions of Tonnes)**

Sand and Gravel Sales in Essex, Thurrock and Southend	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	4.02	4.02	4.30	4.04	4.23	4.66	4.47	4.30	4.14	4.07	4.09
Sand and Gravel Sales in Essex, Thurrock and Southend	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	3.29	2.79	2.99	2.80	2.30	3.18	4.37	3.45	3.40	3.41	3.56

<b>Average Annual Sales 1997 to 2018 (20 years)</b>	3.69Mt
<b>10 Year Average Annual Sales (2009 to 2018)</b>	3.23Mt
<b>3 Year Annual Sales (2016 to 2018)</b>	3.46Mt

Source: Essex County Council Annual Monitoring Reports and East of England Aggregates Working Party Annual Monitoring Reports  
 Supporting: Figure 5, Greater Essex Sales of Land Won Sand & Gravel (1999 to 2018, 20 years), page 9

## ANNEX F MARINE-WON MINERALS

**Table 14: Marine Won Mineral Landed in Ports with The Capacity to Serve Greater Essex In Tonnes (2009 to 2018)**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>London</b>	3,466,777	3,178,872	4,319,908	4,188,757	4,606,442	5,316,369	5,613,006	5,898,302	5,808,273	5,705,675
<b>Thurrock</b>	121,852	255,527	329,376	329,376	329,376	238,331	204,276	263,756	198,753	177,047
<b>Kent</b>	2,226,380	1,944,763	2,252,864	1,200,040	1,211,574	1,771,156	2,489,490	2,553,793	2,574,808	2,421,847
<b>Suffolk</b>	87,459	114,468	148,483	83,865	27,931	57,085	119,421	171,083	208,015	194,098
<b>Total</b>	<b>5,902,468</b>	<b>5,493,630</b>	<b>7,050,631</b>	<b>5,802,038</b>	<b>6,175,323</b>	<b>7,382,941</b>	<b>8,426,193</b>	<b>8,886,934</b>	<b>8,789,849</b>	<b>8,498,667</b>

Source: The Crown Estate, Summary of Statistics, 2009 – [2018](#)

Supporting: Figure 10 Marine-Won Mineral Landed in Ports that Serve Greater Essex (2009 to 2018), page 18



## ANNEX G AGGREGATE RECYCLING FACILITIES WITHIN GREATER ESSEX 2018

**Table 15: Essex & Southend-on-Sea Aggregate Waste Recovery Facilities**

SITE NAME	SITE ADDRESS	SPECIFIC FACILITY TYPE	Capacity (Tonnes per annum)	END DATE	Safeguarded
Pitsea	Pitsea Hall Lane Pitsea Basildon Essex SS16 4UH	Aggregate Recycling Centre	208,000	31/12/2025	Yes
Whites Yard	Archers Fields Close, Basildon, SS13 1DN	Aggregate Recycling Centre	25,000	Permanent	Yes
Hallsford Bridge	Plot 9 Hallsford Bridge Industrial Estate Stondon Road Stondon Massey Ongar Essex CM5 9RB	Aggregate Recycling Centre	2,146	Permanent	Yes
Halstead Highway Depot	Fenn Road, Halstead, CO9 2HG	Aggregate Recycling Centre	1,342	Permanent	No
The Yard	New Parsonage Lane, Gt Saling, Braintree CM7 5ER	Aggregate Recycling Centre		Permanent	Mo
Bulls Lodge	Bulls Lodge Quarry, Generals Lane, Boreham, Chelmsford, CM3 3HR	Aggregate Recycling Centre	100,000	30/06/2030	Yes
C A Blackwell (Contracts) Ltd,	The Works, Stock Road, West Hanningfield, Chelmsford, Essex, CM2 8LA	Aggregate Recycling Centre		Permanent	No
Colchester Quarry (Colchester Recycling)	Warren Lane, Stanway, Colchester, CO3 0NN	Aggregate Recycling Centre	190,000	31/12/2037	Yes

SITE NAME	SITE ADDRESS	SPECIFIC FACILITY TYPE	Capacity (Tonnes per annum)	END DATE	Safeguarded
Haven Road	Haven Quay Haven Road Colchester Essex CO13 0DA	Aggregate Recycling Centre	75,000	Permanent	Yes
Patterns Yard	Patterns Yard Nayland Road West Bergholt Colchester	Aggregate Recycling Centre	300	Permanent	Yes
Wivenhoe Quarry,	Alresford Road Wivenhoe Colchester Essex CO7 9JY	Aggregate Recycling Centre	50,000	31/12/2018	Yes
Evans Thornwood	Marlow, High Road, Thornwood Common, Epping, CM16 6LU	Aggregate Recycling Centre	77,178	Permanent	No
Harlow Mill	Aggregate Depot, Station Approach, Old Harlow CM20 2EL	Aggregate Recycling Centre		Permanent	Yes
Hill Demolition & Skip Hire	1-3 Edinburgh Place Edinburgh Way Harlow Essex CM20 2DJ	Aggregate Recycling Centre	4,306	Permanent	No
Royden Lea Farm	Roydon Road, Harlow, CM19 5DU	Aggregate Recycling Centre	23,444	Unknown	No
Cottis Yard Recycling Facility	Cottis Yard, Welton Way, Rochford SS4 1LB	Aggregate Recycling Centre	13,303	Permanent	No
Franklin Hire	Unit 1, Rawreth Industrial Estate Rawreth Lane, Rayleigh	Aggregate Recycling Centre	1,711	Permanent	No



SITE NAME	SITE ADDRESS	SPECIFIC FACILITY TYPE	Capacity (Tonnes per annum)	END DATE	Safeguarded
	Essex, SS6 9RL				
JKS	Roach Valley Works, 53 Purdey's Way, Purdey's Industrial Estate Rochford, Essex, SS4 1LZ	Aggregate Recycling Centre	160,000	Permanent	Yes
Stock Road Recycling Facility	25 Stock Rd, Southend-on-Sea SS2 5QF	Aggregate Recycling Centre	33,447	Unknown	No
Devereaux Farm,	Walton Road, Kirby Le Soken, CO13 0DA	Aggregate Recycling Centre	54,916	Permanent	No
Essex Recycling Wix	Lane Farm, Harwich Road, Wix CO11 2SA	Aggregate Recycling Centre	50,000	Permanent	Yes
EWD Carters Haulage Yard	Morses Lane Industrial Estate Brightlingsea Colchester Essex CO7 0SD	Aggregate Recycling Centre	75,000	Permanent	Yes
Martell's	Slough Lane, Ardleigh, Colchester, Essex, CO7 7RU	Aggregate Recycling Centre	10,000	Permanent	Yes
Parkeston Quay	Land at Parkeston Quay, West Dock Road, Harwich, Essex	Aggregate Recycling Centre	350,000	Permanent	Yes
Haigh Recycling	Armigers Farm, Thaxted, Essex, CM6 2NN	Aggregate Recycling Centre	100,000	Permanent	Yes
Land Adjacent to Taylors Farm	Takeley Essex CM22 6LY	Aggregate Recycling Centre		Permanent	Yes
Little Easton - Highwood Quarry	Little Easton Airfield Little Easton	Aggregate Recycling Centre	70,000	25/03/2027	Yes

SITE NAME	SITE ADDRESS	SPECIFIC FACILITY TYPE	Capacity (Tonnes per annum)	END DATE	Safeguarded
	Gt Dunmow CM6 2BB				
Loppingdales	Gaunts End, Elsenham Bishops Stortford CM22 6DR	Aggregate Recycling Centre	90,000	Permanent	Yes
Widdington Pit,	Hollow Road Widdington Saffron Walden Essex CB11 3SL	Aggregate Recycling Centre	65,000	01/01/2023	Yes
ARC Total			225,000		30

Source: Draft Essex County Council (2018) Authority Monitoring report 1 April 2017 – 31 March 2018 – Hyperlink when published

**Table 16: Thurrock CD&E Aggregate Recovery Facilities**

SITE NAME	SITE ADDRESS	SPECIFIC FACILITY TYPE	Capacity (Tonnes per annum)	END DATE
Clearserve Rainbow Shaw <sup>44</sup>	Holford Road Linford Essex SS17 0PJ	CD&E Inert & Non-Inert	74,999	2018/19
S Walsh and Sons East Tilbury Quarry <sup>45</sup>	Princess Margaret Road East Tilbury Essex RM18 8PA	CD&E Inert & Non-Inert	759,000	2020
Rio Aggregates <sup>46</sup>	Dansand Quarry, Stanford Road, Orsett RM16 3BB	CD&E Inert	75,000	2024/5
Killoughery <sup>47</sup>	Beacon Hill Industrial Estate Botany Way Purfleet Essex RM19 1SR	CD&E Inert & Non-Inert	75,000	n/a

<sup>44</sup> These recycling facilities on landfill/mineral sites and subject to the end of landfill operations and restoration of the site.

<sup>45</sup> These recycling facilities on landfill/mineral sites and subject to the end of landfill operations and restoration of the site.

<sup>46</sup> These recycling facilities on landfill/mineral sites and subject to the end of landfill operations and restoration of the site.

<sup>47</sup> The Killoughery site is located in an area proposed for comprehensive development and may therefore have a limited operational future on the site.

Sims Milling Burrows Farm	Brentwood Road, Bulphan Essex RM14 3TL	CD&E Inert & Non-Inert	24,999	n/a
Seales Road Haulage	Juliette Way Purfleet	CD&E Inert & Non-Inert	250,000	n/a
Brocks Haulage	Watson Close West Thurrock	CD&E Inert & Non-Inert	75,000	n/a
Squibb Group	Stanhope Industrial Estate, Wharf Road Stanford Le Hope	CD&E	75,000	n/a

Source: Thurrock Council (2019)

## ANNEX H FUTURE HOUSING REQUIREMENTS

Table 17: Future Housing Requirements in Emerging Local Plans

LPA	Emerging Local Plan Requirement	Objectively Assessed Housing Need	Emerging Local Plan Build Rate	Emerging Local Plan Period	Builds to Date	Minimum Still to Build
Basildon	18,180	972 - 986	909	2014 - 2034	2,247	15,933
Braintree	14,320	716	716	2013 - 2033	1,896	12,424
Brentwood	8,263	380	413	2013 - 2033	7,38	7,525
Castle Point	6,840	342	342	2017 - 2037	150	6,690
Chelmsford	21,893	805	952	2013 - 2036	4,099	17,794
Colchester	18,400	920	920	2013 - 2033	4,548	13,852
Epping Forest	11,400	520	520	2011 - 2033	1,871	9,529
Harlow	8,000	337	400	2011 - 2031	1,720	6,280
Maldon	4,650	280	310	2014 - 2029	707	3,943
Rochford	7,240	362	362	2017 - 2037	299	6,941
Tendring	11,000	550	550	2013 - 2033	1,939	9,061
Uttlesford	14,100	640	640	2011 - 2033	4,156	9,944
<b>Greater Essex Sub-Total</b>	<b>144,286</b>	<b>6,824 - 6,838</b>	<b>7,034</b>		<b>24,370</b>	<b>119,916</b>
Southend-on Sea	22,280	1,114	1,114	2017 - 2037	521	21,759
Thurrock	Up to 32,000 (Provisional)	1,174-1,381	n/a	2018-2038	409	1,174-1,381
<b>Greater Essex TOTAL</b>	<b>198,566*</b>	<b>9,112 - 9,333</b>	<b>8,148</b>		<b>25,300</b>	<b>142,849 - 143,056</b>

Source: Essex County Council (2019)

Note \*1: Emerging Local Plan totals include where completions have occurred and sites have planning permission since the base date, additional new site allocations, and any additional supply to provide 'flexibility'. Not always equate to extrapolation of OAN rate over plan period

Note \*2: Castle Point, Rochford and Southend to submit post end January 2019 'transition' period - subject to New Housing Methodology

Note \*3: Net Completions as at 1 April 2018

Note \*4: Total includes the maximum provisional stated figures from Thurrock, so may with further development of evidence may increase or decrease.

**Table 18: Emerging Local Plan Progress**

Area	Local Authority	Progress
Mid	Braintree	Publication Draft Local Plan (June 2017). Section 1 examination 'paused' pending further evidence base work
	Chelmsford	Pre-Submission (Regulation 19) - January 2018. Submission (July 2018). Hearings Nov/Dec 2018
	Maldon	Adopted Local Plan (July 2017)
North East	Colchester	Publication Draft Local Plan (June 2017). Section 1 examination 'paused' pending further evidence base work
	Tendring	Publication Draft Local Plan (June 2017). Section 1 examination 'paused' pending further evidence base work
South	Basildon	Pre-Submission (Regulation 19) - December 2018. Submission (March 2019). Hearings expected September 2019
	Brentwood	Pre-Submission (Regulation 19) - February - March 2019
	Castle Point	New Local Plan (2016) - withdrawn March 2017. Regulation 18 (July 2018)
	Rochford	Issues and Options (January 2018)
West	Epping Forest	Submission Local Plan (December 2017) Hearings February - March 2019
	Harlow	Pre-Submission (Regulation 19) - May 2018. Hearings March - April 2019
	Uttlesford	Local Plan (Regulation 19) (May 2018). Submission January 2019. Hearings June - July 2019

Unitary Authorities	Southend	Adopted Core Strategy (December 2007). Issues and Options (February - March 2019)
	Thurrock	Local Plan Issues and Options Stage 2 (December 2018 - March 2019)

Source: Essex County Council (2019)



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