

## **Surrey Green Party Response to Surrey Local Waste Plan Consultation**

Jonathan Essex, County Councillor, Redhill East

January 10th 2018.

### **Summary**

Surrey County Council is consulting on its new draft Waste Plan.

The Plan says we will need three to six waste incinerators across the county by 2033 – and that we will need to build waste management facilities on Green Belt land.

I disagree. There is great potential for helping residents and businesses to waste less and recycle more, and this should be the priority.

We do not agree that there is a justification for building incinerators, which are polluting and energy inefficient and would lock us into continuing to burn high volumes of waste, thus working against waste reduction strategies.

Considering more ambitious targets for recycling, composting and anaerobic digestion, together with policies and plans to discourage waste in the first place, will remove the need for any new energy from waste infrastructure (EfW, commonly referred to as incinerators, which includes gasification such as in the current Shepperton Energy-from-Waste plant). Surrey County Council should develop and work towards a zero waste policy for the county.

Instead we should have a vision and plan for zero waste in Surrey, as is best practice in the UK (Wales, Scotland). This should set a higher level of ambition to the 2008 waste plan, with greater flexibility to enable this to be realised. We must aim to continue to improve our recycling and waste prevention outcomes, not over invest in inflexible infrastructure that limits our recycling potential and locks-in CO2 and waste behaviours for the medium-long term.

This response is structured as follows:

1. Comments on Specific Sites Proposed in the Waste Plan
2. Contrasting Surrey's current recycling performance and UK best practice
3. Comments on the Supporting Evidence
4. Comments on the Strategic Approach
5. Jobs Potential of Recycling

## **1 Comments on Specific Sites Proposed in the Waste Plan**

The consultation starts by asking for views on individual sites. The main changes in terms of the sites identified in the plan are highlighted in Table 1 below.

<b>Proposed Site</b>	<b>Change from 2008 plan</b>
Former Weylands Sewage Treatment Works, Walton-on-Thames Elmbridge	Similar proposal
Land to the north east of Slyfield Industrial Estate, Moorfield Road, Guildford	Addition of Energy from Waste plant
Land at & adjoining Leatherhead Sewage Treatment Works, Randalls Road, Leatherhead, Mole Valley	Addition of Energy from Waste plant
Land to the west of Earlswood Sewage Treatment Works, Redhill Reigate and Banstead	Smaller area of land (as some built on in current waste plan). Addition of Energy from Waste plant.
Land adjacent to Lyne Lane STW, Chertsey Runnymede	Addition of Energy from Waste plant
Land adjacent to Trumps Farm, Kitsmead Lane, Longcross Runnymede	Similar proposal (including EfW plant)
Oakleaf Farm, Stanwell Moor Spelthorne	Addition of Energy from Waste plant
Land at Lambs Business Park, South Godstone Tandridge	Addition of Energy from Waste plant
Land at Martyrs Lane, Woking	Addition of Energy from Waste plant

**Table 1 – Contrasting site from proposals in 2008 waste plan with current proposed waste plan**

However, the starting point of the consultation should be considering whether there is indeed a need for this new EfW capacity on these sites, as well as being clear that EfW facilities could be included on any or even all of the above sites.

We note in the consultation document that Surrey currently only has anaerobic digestion at one sewage treatment plant in Surrey. We support this being expanded to all sewage treatment plants in Surrey, noting that there are a number of sewage treatment plants adjacent to many of the sites above. However, we do not accept that these should be accompanied by EfW plants on any of the sites above (for the reasons stated earlier in this consultation response) – such as previously proposed for the Slyfield site by Thames Water in the Guildford area.

The consultation is misleading as only one site – in South Godstone – is specifically cited as suitable for incineration – whereas all have been identified as potential for incineration in the proposed spatial approach. This is inconsistent.

I do not support the development of any of the above sites on the basis that such development could include Energy from Waste facilities. I believe that it would perfectly possible and reasonable for Surrey County Council to consult the public on what is actually proposed for each site, and for this plan not to include any additional EfW capacity.

## 2. Contrasting Surrey's current recycling performance and UK best practice

### 2.1 Current Surrey Performance

Official statistics show that 44.9% of England's household waste was recycled in 2016. This rate includes for the first time the percentage of metal recovered and recycled from waste which has been through incineration. For 2016 this raises the waste from households recycling rate by around 0.7 percentage points, based on a total waste from households" of 412 kg per person in 2016.

Surrey's recycling rate for 2016/17 was reported as 58%, joint highest in England. There are significant variations in dry recycling and composting rates between the Boroughs and Districts as noted in Table 2 below.

2016/17	dry recycling %	composting	recycling and composting	residual
Woking Borough Council	26.5%	32.8%	59.4%	40.6%
Waverley Borough Council	30.5%	20.8%	51.3%	48.7%
Tandridge District Council	33.0%	24.7%	57.7%	42.3%
Surrey Heath Borough Council	33.4%	28.8%	62.3%	37.7%
Spelthorne Borough Council	27.4%	18.6%	46.0%	54.0%
Runnymede Borough Council	24.8%	19.3%	44.1%	55.9%
Reigate and Banstead Borough Council	28.2%	26.8%	55.0%	45.0%
Mole Valley District Council	29.6%	28.6%	58.2%	41.8%
Guildford Borough Council	29.7%	30.0%	59.7%	40.3%
Epsom and Ewell Borough Council	23.0%	23.8%	46.8%	53.2%
Elmbridge Borough Council	26.5%	28.5%	55.0%	45.0%
Surrey County Council –(Total)	31.9%	25.7%	57.7%	42.3%

**Table 2. Contrasting 2016/17 recycling performance across Surrey.** Source: ONS.

Standardisation, together with better separation of recycling materials are recommended by WRAP 2014 as the best way to improve the level and value of recycling.

### 2.2 Comparison with Wales and Scotland

At the same time that Surrey is widely reported as having the joint highest recycling rate in England, Wales was reported as having the 2<sup>nd</sup> best performance for recycling worldwide, with England dropping to 18<sup>th</sup> (Eunomia, 2017)<sup>1</sup>. A comparison between recycling trends in Surrey and Wales is included here, to benchmark the level of ambition in the Surrey plans.

<sup>1</sup> <http://www.eunomia.co.uk/reports-tools/recycling-who-really-leads-the-world-issue-2/>

Contrasting data for different countries, the average recycling rate in Wales (64%) is currently significantly better than the highest recycling rate in England (Surrey, 58%)<sup>2</sup>. Key statistics are contrasted in Table 3 below.

Country	2011/12 recycling rate	2016/17 recycling rate	Comments
England	43%	50%	22% have multi-stream recycling collection, 35% twin stream collection, and 53% co-mingled. Surrey mainly has co-mingled household recycling collection.
Wales	43.7%	63.7%	Wales already has 59% households on multi-stream collections.

**Table 3. Comparison of Household Recycling Performance in England and Wales.** Source: ONS.

Key statistics contrasting Surrey and Wales include the following:

- If Surrey was a Welsh county it would be 2<sup>nd</sup> last in 2016/17.<sup>3</sup> Ceredigion and Anglesey have achieved recycling rates of 70% and 75% respectively.<sup>4</sup>
- The highest dry-mix recycling rate in Surrey (33%, Surrey Heath) matches the level achieved across the whole of Wales in **2013/14**.
- The Joint Waste Solution collection agreement applies to four boroughs which include the lowest (Epsom – 23%) and highest (Surrey Heath – 33%) absolute levels of dry mix recycling in Surrey. Is this contract structured to enable Surrey to continue to increase the % of dry mix recycling such as already achieved in Wales, in ways that maximise both financial value and carbon saving through separating this recycling out at the doorstep?

Therefore, if Surrey aims to track Wales recycling rates then it could increase its waste ambition. Surrey's rate this year was the same as that reported by Anglesey in 2011/12. Now (April-June 17) Anglesey has achieved a 75% recycling rate, which is an 18% improvement in 6 years<sup>5</sup>. Similarly, Parma achieved 70% recycling (and a large reduction in residual waste) in just four years<sup>6</sup>. In this time Wales has improved by 14% on average. If Surrey was to achieve this same improvement from its current recycling rates there is no reason why 75% cannot be achieved in Surrey by 2023 and 85% achieved across Surrey, by 2028 or 2033 at the latest.

<sup>2</sup> <http://www.eunomia.co.uk/reports-tools/recycling-who-really-leads-the-world-issue-2/>

<sup>3</sup> The Welsh recycling figures are not directly comparable to Surrey as the definition of recycling in Wales includes where incineration bottom ash is turned into aggregate (see <http://www.eunomia.co.uk/reports-tools/recycling-who-really-leads-the-world-issue-2/> which corrects this so Wales is then fourth not second best worldwide in terms of recycling to England's 18<sup>th</sup> once this is taken into account.

<sup>4</sup> See <https://statswales.gov.wales/Catalogue/Environment-and-Countryside/Waste-Management/Local-Authority-Municipal-Waste/combinedmunicipaldryrecyclingandcompostingrate-rolling12monthaverage-by-localauthority>

<sup>5</sup> In the 20 years since devolution Wales's recycling rate has increased from just under 5% to 64%. They are confident to meet their targets of 70% recycling and halving of food waste by 2025. (see [www.theguardian.com/environment/2017/dec/11/wales-household-waste-recycling-england](http://www.theguardian.com/environment/2017/dec/11/wales-household-waste-recycling-england)).

<sup>6</sup> <https://zerowasteurope.eu/2016/06/new-case-study-parma-proves-70-recycling-and-100kg-residual-waste-can-be-achieved-in-only-4-years/>.

This assumes that the reason Welsh recycling rates have improved is as a result of its waste strategy and policies, and resulting investment and infrastructure choices. Eunomia (2017) highlights the following policies in place in countries with the highest recycling rates, but not in England:

- Mandatory separate collection of bio waste.
- Statutory targets for rates of recycling or the reduction of unrecycled waste.
- Pay-as-you-throw charges.
- Producer responsibility schemes, where producers fund the collection of key recyclables.
- Deposit refund systems.

In conclusion, Surrey is at the top of the league in England for recycling, alongside Oxfordshire, a success on which we can build. This means supporting and enhancing recycling facilities and collections. Investment, including in waste infrastructure in the Local Plan, should support a zero waste policy for Surrey, focusing on increasing reuse and recycling rather than incineration of waste.

### **3. Comments on the Supporting Evidence**

This draws particularly on the supporting evidence in the Waste Needs Assessment is being consulted on and supports this consultation on the Surrey Local Waste Plan.

#### **3.1 Higher recycling targets**

The targets for recycling in the waste plan are low, compared to UK best practice (see section above) and EU circular economy commitments:

- The lowest target for recycling (referred to as lower bound) by 2033 in the Waste Needs Assessment is 48%. But the current recycling rate in Surrey is reported at 58%<sup>7</sup> and Surrey target is 70%. This target should be reflected as what is planned for in Surrey. Planning for residual waste based on lower level of recycling is likely to directly affect Surrey's ability to meet its JMWMS.
- The Joint Municipal Waste Management Plan (JMWMP) for Surrey set a 70% target for Surrey for 2019/20. This could still be achieved by this date.
- Background evidence 5. Para 2.4.1 refers to the 65% recycling by 2030 target for the EU. This should be reflected as a minimum (interim) target in the SWLP, which would be consistent with achieving 70% by 2033 as a *minimum* target. Leaving the EU should not be an excuse of lessening our ambitions in this area. Para 2.6 highlights the Waste Plan for England will soon be out of date and only has targets for the first 2 years of the plan period, so should have less prominence in guiding the level of ambition for the plan.
- The highest target (referred to as upper bound) for recycling in the Waste Plan should reflect UK and EU best practice. Recycling rates of 85% have already been achieved in the EU<sup>8</sup> so achieving that in Surrey over the next 15 years does not appear unrealistic. 85% should be considered as the upper bound target.

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<sup>7</sup> [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/664594/LACW\\_mgt\\_annual\\_Stats\\_Notice\\_Dec\\_2017.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/664594/LACW_mgt_annual_Stats_Notice_Dec_2017.pdf)

<sup>8</sup> See <https://zerowasteurope.eu/2015/02/new-case-study-the-story-of-contarina-85-recycling-is-possible/>

- An overall strategy approach should aspire for zero residual waste in the long-term. This means zero waste to landfill or energy-from-waste plants. This could be adapted from the new Welsh waste strategy<sup>9</sup>.
- This approach should plan for increased participation in recycling as well as increased separation into different recyclates. This includes households (including ensuring flats and communal properties recycling infrastructure and participation are improved asap) and businesses.
- Surrey County Council should not reduce the amount of money that is available to incentivise changes to recycling collection and management that lead to higher recycling rates and increased revenue. For example, the proposed reduction of recycling credits from Surrey County Council to the Districts and Boroughs should not lead to a reduction of funding available to invest in improved recycling, and to incentivise this at a household level.

The recycling target for the last waste period of 70% has not been met anywhere in Surrey. It has meanwhile been met and exceeded in Wales. The targets up until 2033 continue to appear to treat our target as an aspirational maximum – whereas other local authorities in the UK have *already achieved* our targets, so as a repeated target, no better than that in the previous waste plan, it lacks ambition.

Finally, para 3.4.5 notes that 28-100% of construction waste is recycled into aggregate. Note that this is “open loop recycling” (downcycling) and has minimal carbon emissions savings. Higher value reuse and recycling should also be incentivised for all types of waste in the plan.

### 3.2 Forecast Waste Volumes (Household Waste)

Increasing recycling is generally not accompanied with increases in overall waste (for example see Gellyneck et al, 2011<sup>10</sup> and in Wales)<sup>11</sup>. The reason for this is waste prevention and reuse tends to increase with higher recycling rates.

Page 12 of the Preferred Options Report on draft policies proposes that there is no policy on waste prevention in the Surrey Local Waste Plan. This is not supported. This policy should be included and designed with budgetary support to reduce the waste arisings/household going forward. This would link to support for charities, including funding for premises to ramp up waste prevention (including preparing for reuse) across Surrey. This could include targets for a % of high streets used to support the circular economy (including reuse, leasing and renting). This could include targets for a budget/tonne of waste prevention, in the same way as there is a cost of sending waste for residual waste treatment/tonne. This should be reflected in contractual agreements, including the PFI

<sup>9</sup> See [http://gov.wales/topics/environmentcountryside/epg/waste\\_recycling/zerowaste/?lang=en](http://gov.wales/topics/environmentcountryside/epg/waste_recycling/zerowaste/?lang=en).

<sup>10</sup> See

[https://s3.amazonaws.com/academia.edu.documents/40029376/Identifying\\_the\\_key\\_factors\\_in\\_increasin20151115-25693-16qtohn.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1515594105&Signature=zLAQtzVTbPclEkkE0TdnYMwbbhl%3D&response-content-disposition=inline%3B%20filename%3DIdentifying\\_the\\_key\\_factors\\_in\\_increasin.pdf](https://s3.amazonaws.com/academia.edu.documents/40029376/Identifying_the_key_factors_in_increasin20151115-25693-16qtohn.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1515594105&Signature=zLAQtzVTbPclEkkE0TdnYMwbbhl%3D&response-content-disposition=inline%3B%20filename%3DIdentifying_the_key_factors_in_increasin.pdf).

<sup>11</sup> For example, noting that Wales targeting higher recycling rate is matched by targets they plan to meet to reduce total waste arising. For example, Wales plans to halve food waste by 2025.

agreement between Surrey County Council and Surrey Waste Management Ltd and be supported by an assessment of both the reuse potential and reuse capacity as part of this Waste Plan.

The plan notes that the national planning policy guidance (NPPG) recommends a growth profile based on population data and waste arising per household.

a) Population data

Table 4 below highlights the current planned housing per year across Surrey. Surrey leaders recently recommitted to these targets, as opposed to higher targets being considered by government<sup>12</sup>.

<b>Current Housing Targets across Surrey</b>	Dwellings per annum (additional) in core strategies	Dwellings per annum in waste plan
Woking Borough Council	292	310
Waverley Borough Council	519	389
Tandridge District Council	470	459
Surrey Heath Borough Council	382	236
Spelthorne Borough Council	166	438
Runnymede Borough Council	498	391
Reigate and Banstead Borough Council	460	816
Mole Valley District Council	188	323
Guildford Borough Council	654	524
Epsom and Ewell Borough Council	181	410
Elmbridge Borough Council	225	455
Surrey County Council –(Total)	4035	4751

**Table 4 Current annual housing targets across Surrey against figures in Waste Plan.**

This appears to over-estimate the increase by around 10,000 homes in Surrey. This equates to an 18% over-estimate on the annual increase in waste, and appears to equate to a planned additional number of homes being built on the Green Belt (as many Surrey boroughs and districts have already considered some building on the Green Belt). This is not supported.

b) Waste Arising per household

The plan bases total waste arising from a baseline of 570,334 in 2015 (1.21 tonnes per household) not 548,313 in 2017 (1.13 tonnes per household). This represents a 4% over-prediction.

c) Overall Household Waste

Surrey municipal waste has decreased in the past seven years by 0.16% a year from 2010 to 2017 (2009/10: 554,565 tonnes, 2014/15: 572,100 tonnes, 2016/17: 548,313 tonnes). In contrast, the SE7 model predicts waste rising for the next 15 years. This does not appear realistic.

<sup>12</sup> See <http://www.getsurrey.co.uk/news/surrey-news/live-updates-government-publishes-white-12568777>.

The needs assessment appears to have picked the highest numbers of the waste arising predicted, not the lower or even median of the predictions for waste arising. **This is likely to mean a planned overprovision of waste treatment capacity.** This includes over capacity for energy from waste.

Based on the above figures the 2032 estimated level of waste should be 91% of that in 2017 per household, and a 12.6% increase in households. **Before assuming that there is no change in waste behaviour as recycling rates change this equates to 562,000 tonnes of total waste.** This is much lower than the figure assumed in the waste plan (which appears to be 694,000 tonnes/year).

Therefore, based on a proposed 85% recycling rate then the amount of residual household waste would be a maximum of 84,300 tonnes/year by 2032<sup>13</sup>. This figure suggests there is no need for any additional energy from waste infrastructure in Surrey.

This is likely to be an over-estimate as higher recycling rates tend to result in falling overall waste volumes, and policy changes which support these such as restriction of use of single use plastics.

### **3.3 Estimates of current Commercial and Industrial (C&I) and Construction and Demolition and Excavation (CDE) waste estimates and predicted changes**

The C&I estimate is based on 2009 estimates, and forecasts without good current data. The estimate is based on number of enterprises.

The growth profiles for C&I and CDE wastes (Appendix 10-15 of waste need assessment) appear based on no change in the nature of reuse, recycling and recovery over this period. The impact of a circular economy and shift to higher recycling rates and different waste management behaviour do not appear to be considered. This looks to a significant over-estimate.

Instead, the Surrey Local Waste Plan should support development of a local circular economy in Surrey, for the C&I and CD&E as well as in relation to household waste.

### **3.4 Reuse and Recycling capacity estimates**

The recycling capacity estimate appears to double count. For example, collection of household recycling may first go to a WTS (e.g. Earlswood depot) before the dry mix recycling portion continues to a materials recycling facility (as opposed to *recovery* facility).

The recycling capacity estimates are not broken down into MSW, C&I and CDE capacity. In particular, household waste recycling capacity should be considered separately (for example, see statement supporting additional capacity in Reigate and Banstead's TEEP, 2017). Please can this be done as this will be important to be able to assess whether the current capacity is sufficient in each of these areas, or not.

It is not clear that an assessment of reuse capacity and reuse potential has been completed. If it was increased it could retain significant financial value (through retaining higher value outputs from the waste stream) and create jobs creating a more circular economy for waste in Surrey. This is not evidenced in the report presented.

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<sup>13</sup> Considering 15% to 30% of 562,000 tonnes as opposed to 29% to 52% of 694,000 tonnes of residual waste per year by 2033. This is before reduction in overall waste volumes due to higher recycling rates is considered.

### 3.5 Waste movements to/from Surrey

There is an appendix with details of waste movements to/from Surrey. However, this needs to be broken down to be useful. This does not indicate whether these relate to recycling, composting, AD, thermal energy-from-waste plants or landfill are provided. Some hazardous waste is imported – can more details be provided as to what this was, and the destination for this. Also, it does not indicate the distances travelled (as in some case there may be less transport requirements for waste to enter/leave rather than travel across the county). A full breakdown needs to be provided so that the impact can be better understood.

The waste needs assessment (see insert) is not clear as to whether these other authorities are happy to continue to receive waste from

20.1.1 Surrey County Council wrote to waste planning authorities who received significant amounts of waste<sup>42</sup> from Surrey on the 21<sup>st</sup> December 2016 and the 30<sup>th</sup> January 2017. Eleven responses were received from WPA confirming that the waste movements to Surrey from their area were correct and could continue into the future.

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Surrey (which this local waste plan proposes to change, by increasing waste treatment in Surrey) only that they are happy to continue to send waste to Surrey. Therefore, it is not clear if the authorities around Surrey are supportive of this proposed waste plan's approach.

## 4. Comments on the Strategic Approach

### 4.1 Comments on Proposal for Waste Infrastructure, including for 3-6 Energy from Waste plants

The plan for more waste incineration capacity in Surrey is challenged on two grounds:

- a) Firstly, this runs counter to UK's climate commitments and the energy generation strategy required to achieve it; and
- b) Secondly, there is already too much incineration capacity installed and under construction in the UK for the total amount of UK residual waste; and
- c) There is no need for this increased incineration capacity in Surrey either, but there is need for more recycling capacity in Surrey as highlighted above.

These points are expanded upon below.

#### a) Carbon impact of incineration.

Incineration relies on the immediate release of large volumes of greenhouse gases into the atmosphere rather than capturing and sequestering the carbon in the waste through reuse and recycling. The ratio of energy generated per unit of greenhouse gases released is typically two times worse than for coal-fired power stations. In addition, far more energy in waste is retained through reuse (all), recycling (typically around 50%) than for energy recovery, material recovery (also called downcycling or open loop recycling) or waste disposal.

The government's Committee on Climate Change (CCC) in 2013<sup>14</sup> recommended that the government should drive carbon intensity of power generation from current levels (around 500 gCO<sub>2</sub>/kWh) down to around 50 gCO<sub>2</sub>/kWh by 2030. And their scenario, produced before the government published the fifth carbon plan, is for a power sector that is decarbonised to an average grid intensity of around 50 gCO<sub>2</sub>/kWh in 2030 but with lower emissions through the 2020s. The government's fifth carbon plan<sup>15</sup> agreed with the Committee on Climate Change in setting its carbon budget for the period covering 2028 to 2032 at 1,725 MtCO<sub>2</sub>e. Therefore, incineration technologies (including gasification) which emit around ten times<sup>16</sup> the carbon budget level (typical current electricity generation, not low-carbon generation as proposed), should not be introduced, as this runs counter to the UK's Carbon Budget and Carbon Plan.

Following the Paris Climate Agreement in 2015 the government's Committee on Climate Change reviewed how this would affect UK carbon budgets and plans. The CCC commented that the UK must

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<sup>14</sup> See [https://www.theccc.org.uk/wp-content/uploads/2013/12/1785b-CCC\\_TechRep\\_Singles\\_Chap2\\_1.pdf](https://www.theccc.org.uk/wp-content/uploads/2013/12/1785b-CCC_TechRep_Singles_Chap2_1.pdf).

<sup>15</sup> See <https://www.gov.uk/guidance/carbon-budgets>.

<sup>16</sup> See [http://www.ipcc-nggip.iges.or.jp/public/gp/bgp/5\\_3\\_Waste\\_Incineration.pdf](http://www.ipcc-nggip.iges.or.jp/public/gp/bgp/5_3_Waste_Incineration.pdf) which concludes that "the incineration of 1 Mg of municipal waste in MSW incinerators is associated with the production/release of about 0.7 to 1.2 Mg of carbon dioxide (CO<sub>2</sub> output). The proportion of carbon of biogenic origin is usually in the range of 33-50%." This means a carbon intensity of between 350-800 tonnes CO<sub>2</sub>/tonne waste burned. Hogg and Ballinger (2015, <http://www.eunomia.co.uk/wp-content/uploads/2015/11/Technical-Appendices-EN-1.pdf>) note that incineration is typically 17% efficient. Considering 23% efficiency (best practice) they calculate the EfW has a carbon intensity of around 500-1000g/kWh – depending on whether or not the biogenic carbon emissions are excluded. Assuming they are this equates to around ten times the 50g/kWh for new generation on which the government's carbon plan is based.

“vigorously pursue” efforts “with urgency” to meet its existing carbon budgets to 2030 and beyond 2030 that alternative measures of fairness “nearly all point to more ambitious [UK] action than the existing targets” ... with actions such as “*Greenhouse gas removal options (e.g. afforestation, carbon-storing materials, bioenergy with carbon capture and storage, and direct air capture and storage)* will be required alongside widespread decarbonisation in order to reach net-zero emissions.”<sup>17</sup>

Increasing installed incineration capacity in Surrey, or elsewhere in the UK is therefore not consistent with the UK Climate Change Act.

#### Other environmental aspects

The Mole Valley District Council TEEP report (2015) produced by Surrey Waste Partnership states that “*DEFRA’s greenhouse gas emissions tool shows that sending paper to EfW is better for the environment than recycling it*”. This is incorrect. Recycling results in fewer environmental impacts than both landfilling and incineration<sup>18</sup>. This kind of understanding within SWP could lead to investing in EfW plants in the mistaken assumption that this is environmentally better (whilst it is not) and, also ignore the greater financial returns (and employment benefits) of reuse and recycling waste instead of burning or landfilling it.

Also, there are health concerns about pollutants to air from incinerators, which give rise to much public opposition to siting them near to centres of population. In particular concerns have been raised about cancer causing dioxins, heavy metals emitted from EfW plants and wider impacts as a point source of air pollution<sup>19</sup>

Finally, the sites identified are for new developments on Surrey’s Green Belt. This highlights that the waste plan, together with Surrey’s housing targets and level of economic and infrastructure development are impacting on the balance between urban and rural/countryside in Surrey. The overall cumulative effect of this development, alongside the other development proposed in Local Plans across Surrey should be assessed.

#### b) There is already too much incineration capacity in the UK (including the South East).

The Waste needs assessment refers to a capacity gap. However, the latest assessment of residual waste treatment capacity in the UK (Eunomia, August 2017)<sup>20</sup> concludes that:

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<sup>17</sup> See <https://www.carbonbrief.org/cc-uk-needs-negative-emissions-to-comply-with-paris-climate-deal>.

<sup>18</sup> See [http://waste-prevention.gr/waste/wp-content/uploads/2015/10/2004\\_Review%20of%20existing%20LCA%20studies%20on%20recycling%20and%20disposal%20of%20paper%20and%20cardbord\\_EN.pdf](http://waste-prevention.gr/waste/wp-content/uploads/2015/10/2004_Review%20of%20existing%20LCA%20studies%20on%20recycling%20and%20disposal%20of%20paper%20and%20cardbord_EN.pdf)

<sup>19</sup> This should include consideration of the actual emissions from EfW chimneys based on the actual waste mix taken and what happens during start up/shutdown and after waste leaves the chimney, as opposed to the theoretical estimates based on the waste mix considered at the planning stage.

<sup>20</sup> <http://www.eunomia.co.uk/reports-tools/residual-waste-infrastructure-review-12th-issue/> These findings were re-affirmed after critique from the Environmental Services Association (<https://www.letsrecycle.com/news/latest-news/eunomia-reaffirms-residual-waste-findings/>) and re-affirmed (December 2017) noting that the figures from the ESA fail to account for 1.8 million tonnes of net capacity provided by MBT, 2 million tonnes of waste that will still be landfilled in the future and 1 million tonnes of potentially lower waste arisings ([http://www.rebnews.com/news/recycling/eunomia\\_criticise\\_environmental\\_services\\_association\\_report\\_waste\\_infrastructure.html](http://www.rebnews.com/news/recycling/eunomia_criticise_environmental_services_association_report_waste_infrastructure.html))

- UK has 13.5 million tonnes of waste treatment capacity, and together with that under construction the UK's supply of treatment capacity will exceed the available quantity of residual waste in 2020/21
- Were all facilities to operate at full capacity, together they would limit the UK's recycling rate to no more than 63%.

This confirms that there is no need for Surrey to expand its energy from waste capacity, and in doing so it will directly contribute to not just its ability to meet its own recycling target, but make it harder for other local authorities to meet theirs. The 'duty to cooperate' between local authorities should be applied to ensure that this does not occur.

c) There is no need for this increased incineration capacity in Surrey either, but there is need for more recycling capacity.

### **Energy from Waste Capacity**

There is already more than is required across the South East. Further investment could constrain recycling in future, so the self-sufficiency part of the strategy should not be followed for residual waste EfW capacity (see 3.2 below).

In fact, the strategy already highlights this. It shows that depending on the current lower and higher recycling targets, either 3 or 6 incinerator plants are needed. However, considering more ambitious targets for recycling, composting and anaerobic digestion, together with policies and plans to discourage waste in the first place will remove the need for any new energy from waste infrastructure. This is already the approach followed in Wales. The same could and should be achieved here in Surrey<sup>21</sup>.

Also, the potential removal of the Colnbrook EfW to the west of Surrey (if Heathrow airport is expanded) should be seen as an opportunity to move up the waste hierarchy – i.e. not be replaced as part of this Surrey Waste Local Plan.

The predicted gap in disposal is due to a proposed shift away from landfilling waste. However, if it reflected the current SCC recycling target as a minimum and introduced a new aspirational target consistent with best practice UK recycling trends (85%) the gap would be recycling not energy from waste or other recovery/disposal capacity. Some landfill in the short-to-medium term would be useful to avoid building EfW capacity that in future is no longer required. Therefore, the **flexibility** due to the proposal to include some landfill capacity together with a more **ambitious** recycling target will significantly reduce the estimated need for waste treatment.

### **Likely Under-prediction of Needs for Recycling (and Reuse, Composting and Anaerobic Digestion) facilities.**

The waste needs assessment states that there is sufficient recycling capacity in Surrey. This is based on some incorrect simplifications, including at least:

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<sup>21</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/284612/pb14130-energy-waste-201402.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284612/pb14130-energy-waste-201402.pdf) state that EfW should not be built such that competes with recycling.

- **It may double count.** Source separated recycling could involve both waste bulking (e.g. new Surrey County Council facility at Earlswood depot) and subsequent separation in a Materials Recycling Facility. Lumping these together and contrasting this with tonnage recycling will likely underestimate the need for new recycling capacity.
- **It does not consider MSW, C&I and CDE waste streams differently.** The types of facilities, and who runs them will differ for different waste types. The lack of waste bulking capacity to increase glass recycling at the Surrey CC Earlswood Depot is not reflected in the plan<sup>22</sup>. This cannot be provided by private CD&E recycling capacity, but needs to be integrated into the SLWP and JMWMS for management of Surrey’s household waste.
- **Lack of ambition.** It assumes a low rather than ambitious increase in recycling.

## 4.2 Comments on Strategy Choices

This draws in particular from the “Preferred Options – Spatial Strategy”, Table 6. The main points proposed here are summarised as:

- a) The Strategy should include details of ‘what should go where’.
- b) The policy of Net Self Sufficiency should be replaced with a South East zonal waste strategy, including for Residual Waste Treatment
- c) The Discussion of Scale should be reviewed against and related to the Waste Hierarchy

These are discussed in more detail below.

- a) The Strategy should include details of ‘what should go where’.

This plan proposes that 3-6 energy-from-waste (incineration type) plants are required across Surrey to deal with household waste, but does not say where. ***It has deliberately chosen not to consult the public on where different sorts of waste sites are to be located*** – yet most of the sites in the plan are proposed to deal with public sector (primarily MSW) waste.

As these plants are likely to be planned by Surrey County Council through its leadership of the Surrey Waste Partnership and potentially through its 25 year public finance initiative (PFI) agreement with the waste company Suez (formally called Surrey Waste Management and SITA)<sup>23</sup> it is likely that this will be planned anyway by Surrey County Council. Surrey County Council should consult the public as

<sup>22</sup> The Reigate and Banstead TEEP assessment states that *“although collecting the four materials separately would present Reigate and Banstead Borough Council with operational challenges, similar systems are being run successfully elsewhere in the UK. However, there is a lack of available space within the existing transfer sites and finding a suitable alternative site within the area would present a major challenge ... depending on how close by the alternative bulking site is”*. It also states that *“the existing transfer site available for use by the Council does not have sufficient space to undertake the bulking of multiple material streams. In order to maximise the value of materials collected through a source separated operation, some sort of sorting to separate the cans from the plastic, prior to onward sale would be required. There is not sufficient space at the existing transfer site to undertake such sorting, so sourcing one would present a practical challenge”*.

Similarly, the Mole Valley District Council TEEP (SWP, 2015) reports that only 50% of glass collected and 50% of plastic collected is recycled back into the glass and plastic products of the same quality (closed loop recycling).

<sup>23</sup> SUEZ recycling and recovery Surrey was formally called SITA Surrey (see [www.sitasurrey.co.uk/](http://www.sitasurrey.co.uk/)) which used to be called Surrey Waste Management Ltd, when it signed the 25 year contract with Surrey County Council to manage Surrey’s waste in 1999

([www.whatdotheyknow.com/request/52642/response/132052/attach/html/4/2206%20WDPA%20May08.pdf](http://www.whatdotheyknow.com/request/52642/response/132052/attach/html/4/2206%20WDPA%20May08.pdf))

to what *its* plans for waste management are, rather than only discuss these in private. The Surrey Joint Municipal Waste Management Strategy (JMWMS)<sup>24</sup> does not include any details of waste disposal (or recovery). This proposed Surrey Waste Plan is also proposed to have no details of what is proposed, where.

However, this Local Waste Plan *should* consult the public as ‘what is proposed to go where’. It should include a spatial plan. It *should* clearly consult the public not just on what Surrey County Council is proposing, but *where* it is proposing it. The 2008 Surrey Local Waste Plan distinguished between sites with thermal treatment and those without thermal treatment. Currently this plan has not done that. As a result the plan completely lacks both clarity and ambition.

Setting out what goes where would allow Surrey County Council to consult the public on changes in its waste plan, to make it better and better reflect its JMWMS which focuses on how to improve reuse and recycling, and mentions nothing about waste recovery or waste disposal. There currently appears a strategic gap between these two documents. Surrey could propose how some (or all) of the proposed public sector sites are used to increase reuse and recycling capacity – and to consult the public to gain support for this. This could also include smaller scale sites, and sites in industrial areas. This is important, due to the more employment intensive nature of reuse/recycling (see section 4 below).

Such sites are *not* currently included in this waste plan – which implies it is indeed a plan not to share details on where different types of waste disposal are proposed, whereas it could be a plan that seeks to gain public support for a greater reuse and recycling ambition.

b) The policy of Net Self Sufficiency should be replaced with a South East zonal waste strategy, including for Residual Waste Treatment

The implications of targeting net self-sufficiency for waste management in Surrey, whilst considering a strategy that focuses on site allocation primarily for waste disposal and recovery (as opposed to reuse and recycling) has not been explored. If each waste disposal authority follows the same approach then the UK could have an overcapacity in waste disposal facilities (For example, an over provision of energy from waste plants with a low thermal efficiency, such as the gasification plant in construction in Shepperton). This could constrain future reuse and recycling, by locking waste management into long-term contracts for disposal.

Incineration pulls waste out of the recycling stream and into its own supply chain. It relies on a steady supply of waste and the plan points to the need to import waste to support this: “Managing some waste from London and other surrounding counties; net self-sufficiency accepts that it is not practicable to deal only with waste produced in Surrey and that cross-boundary waste movements, including those from London, will be necessary to support the viability and efficient operation of waste management facilities”.

The alternative, of collaboration with neighbouring authorities should be considered. Surrey could work with other waste authorities, such as via the Local Enterprise Partnerships Enterprise M3 and Coast to Capital to invest strategically in a sustainable local circular economy for waste management in Surrey (recycling and reuse facilities, waste prevention activities). This has been mentioned in

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<sup>24</sup> [www.surreywastepartnership.org.uk/ data/assets/pdf file/0004/76387/JMWMS\\_Rev2\\_v6\\_STRATEGY.pdf](http://www.surreywastepartnership.org.uk/data/assets/pdf_file/0004/76387/JMWMS_Rev2_v6_STRATEGY.pdf)

comments made at Surrey County Council cabinet meetings but is not reflected in the strategy as it stands. This would shift from a policy of self-sufficiency (in disposal and recovery) to collaboration in maximising and driving up the potential for reuse and recycling.

Collaboration to improve reuse, composting, AD and recycling capacity would avoid food waste (or low quality co-mingled recycling) collected from Surrey's households being incinerated. This is reported under the Waste Needs Assessment Report, paragraph 18.2.10 appears to state that 7% of Surrey's food waste was sent to the Lakeside Energy from Waste Facility<sup>25</sup>. If this is indeed the case, this should be presented clearly.

As noted above, because there is no regional or national approach to residual waste capacity. There is already far more incineration capacity existing and under construction in the South East and the UK overall than is needed, which will likely constrain reuse and recycling.

For these reasons a South East approach to resource and waste management is required, which would help to address many of these issues.

#### c) The Discussion of Scale should be reviewed against and related to the Waste Hierarchy

The discussion of scale (apart from excluding landfill) is not related to the waste hierarchy. It should be. Operating higher up the waste hierarchy will change the nature of waste management facilities from dealing with a quantity of waste (the focus of the strategy as it stands) to maximising quality through higher value reuse and recycling. This will likely increase the complexity of waste management, and reduce the scale of individual facilities. Facilities could still offer 'scale' through clustering of different reuse and recycling technologies together. However, maximising financial value and employment potential of delivering a local circular economy for waste management in Surrey (see <https://www.edie.net/news/12/How-many-jobs-could-the-circular-economy-create-in-your-town/29748/>) will require clustering of waste management locally. It will also focus on reuse and recycling enterprises, which is less likely to receive local opposition<sup>26</sup>.

The devolved authority in Scotland considered the jobs impact of its waste plan<sup>27</sup>. This noted that most of the employment is in waste collection and disposal – so the waste plan's targets and types of waste facility it plans for will likely have a strong impact on the likely jobs created.

#### d) Flexibility

Our plan should have the flexibility to enable and encourage improvements in recycling and waste prevention during the plan period. In particular, it should consider:

- There is likely to be greater restriction in single-use plastics in the future. This could increase the amount of plastic that is recyclable, and ease rising recycling rates going forward; and

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<sup>25</sup> Confusingly the report calls this facility the 'Lakeside Energy from Waste Facility, Slough' in one paragraph and then appears to call it Grudons, Colnbrook later. It would appear that Grudons is actually Grundons, the firm that runs the Lakeside Energy from Waste at Colnbrook - [www.grundon.com/Energy-From-Waste](http://www.grundon.com/Energy-From-Waste).

<sup>26</sup> This could include new enterprises such as for WEEE reuse as opposed to recycling, evolving solutions to compost/recycle nappies as well as initiatives to refurbish/recycle carpets and mattresses.

<sup>27</sup> See <http://www.gov.scot/Publications/2009/08/19141153/66>.

- We support the plan's proposal to include a limited amount of landfill capacity. This should be considered as a short-term bridging solution as residual waste is cut by increased recycling rates going forward (as opposed to locking-in a certain amount of residual waste and associated CO2 emissions through investing in EfW plants).

This should enable a local waste plan that focuses on zero waste without incineration, with some landfill in the short-term to build flexibility into the plan.

## 5 Jobs Potential of Recycling.

Increasing recycling to 70% and 85% by 2030 is estimated to create around 2,700 or 7,100 new jobs in Surrey<sup>28</sup>. This is based on research by the government's waste agency, WRAP considering the potential job impact (considering current unemployment and trends in declining skilled employment) across the UK (see Figure 1 below).

The three circular economy development scenarios to 2030: characteristics and potential labour market impacts			
	Scenario one No new initiatives	Scenario two Current development 2020	Scenario three Transformation
<b>Assumptions</b>			
Recycling rate (all waste streams) <sup>29</sup>	55%	70%	85%
Remanufacturing rate (in relevant sectors) <sup>30</sup>	1%	20%	50%
Reuse	Slight growth	Slight growth	Significant growth
Servitisation	Limited	Modest growth	Substantial growth
Biorefining	Limited	Expansion, from fuel to bioplastics/ biomaterials	Expansion, to pharma and chemicals
<b>Jobs market impacts</b>			
Overall	Very limited	More significant impacts	Largest impacts
Geographical dispersion	Dispersed, but limited in number	Dispersed, but more around manufacturing sites, transport hubs and population centres	Dispersed, but more around manufacturing sites, transport hubs and population centres
Occupations and skills	Low skilled jobs in waste management and higher skilled jobs in biorefining	A range including lower skilled waste collection, skilled remanufacturing and high skilled biorefining jobs	A range including lower skilled reuse activities, skilled remanufacturing and high skilled biorefining jobs
Potential gross jobs	31,000	205,000	537,000

**Figure 1. Three circular development scenarios to 2030: characteristics and potential labour market impacts.** Source: WRAP/Green Alliance (2015).

This advocates improving resource efficiency to develop what is known as a 'circular economy' by keeping products and resources in use for as long as possible through recovery, reuse, repair, remanufacturing and recycling. These jobs would be funded by the greater retained financial value by returning waste into use higher up the waste hierarchy<sup>29</sup>. For example, a reused iPhone retains around 48% of its original value, whereas its value as recycle is just 0.24% of its original value<sup>30</sup>. Similarly, analysis suggests remanufacturing saves at least 70% of the material required to manufacture new goods<sup>31</sup>, and jobs can be created from increasing servitisation (renting and leasing) in the economy and a shift from open loop (commonly referred to as 'downcycling') to closed loop (source separated) recycling collections<sup>32</sup>.

<sup>28</sup> See WRAP (2015) <http://www.green-alliance.org.uk/resources/Employment%20and%20the%20circular%20economy.pdf> and [www.edie.net/news/12/How-many-jobs-could-the-circular-economy-create-in-your-town/29748/](http://www.edie.net/news/12/How-many-jobs-could-the-circular-economy-create-in-your-town/29748/).

<sup>29</sup> The waste hierarchy is to prevent waste before reuse, reuse before recycling, recycling before recovery (either materials or energy from waste with a 40-50% efficiency or greater), before disposal (which includes landfill of waste and burning waste in low efficiency incineration such as the gasification energy-from-waste facility under construction to burn some of Surrey's household waste in Shepperton).

<sup>30</sup> WRAP (2015) cites D Benton, J Hazell and J Hill, 2013, Resource resilient UK, Green Alliance.

<sup>31</sup> WRAP (2015) cites Dr G Lavery, N Pennell, S Brown and S Evans, 2013, The next manufacturing revolution: non-labour resource productivity and its potential for UK manufacturing, Next Manufacturing Revolution.

<sup>32</sup> For example, see the TEEP Assessment for Reigate and Banstead (2017) which states that glass collected 'closed loop' (through a separate collection) would increase financial value and carbon savings.

