



# What is proposed?

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# What is an Eco Park / Why is it Unique?

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- The Eco Park reference relates to the co-location of a number of recovery (waste treatment) and recycling operations
- Gasification as a process is not new (used by the Victorians to produce gas)
- Anaerobic Digestion is a tried and tested process (e.g. sewage sludge)
- The co-location of these technologies on the same site or treating household waste together with community recycling is unique within the UK.
- The Eco-Park is a solution sized to meet some of Surrey's needs and start the move away from landfill and towards self-sufficiency.



# Project progress

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- **2008:** Charlton Lane was allocated within the Surrey Waste Local Plan (along with others) for a variety of waste management uses including thermal treatment.
- **February 2010:** Surrey County Council adopted the strategy to pursue a “World Class Waste Solution for Surrey”.
- **April 2010:** The first public exhibition was held for the Charlton Lane Eco-Park proposals and was attended by around 200 people;
- **July 2010:** Surrey Waste Management Ltd changed its company name to SITA Surrey Limited.
- **June & July 2010:** Scoping report submitted and scoping reply received to inform Environmental Impact Assessment.
- **August 2010:** Draft planning application and Environmental Impact Assessment circulated for comment to Planning Authority and key stakeholders.
- **September 2010:** Public exhibitions on near final proposals, stack options consulted upon.
- **Today:** Planning application submitted, yet to be validated.



# What will the Eco Park look like?

## Slide 1

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# What will the Eco Park look like?

## Slide 2

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# What will the Eco Park look like?

## Slide 3

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# Why Charlton Lane?

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- Existing waste management facility averaging 165,000tpa;
- Satisfies the proximity principle by being close to centres of population (demonstrated by being the busiest WTS & CRC in Surrey);
- Allocated in the Surrey Waste Plan for thermal treatment;
- Identified in the Joint Municipal Waste Management Strategy as the first potential site for an Eco Park;
- Site is of an appropriate size;
- **Site is available;**



# However.....

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- Site is located in the green belt;
- Around 70% of Surrey is covered by green-belt designation;
- Subject to PPS 2 Green Belt;
- Need to demonstrate “very special circumstance”;
- Need to undertake an Alternative Site Assessment (ASA);
- The ASA attempts to bring methodology to answer a subjective question and demonstrate the appropriateness (or lack) of a proposal;



# What is green belt?

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- PPG 2; Green Belt (March 1999) & T&CP Green Belt Direction 2005  
*"Presumption against inappropriate development in Green Belts"*  
and that *"such development should not be approved except in very special circumstances"*.
- PPS 10; Planning for sustainable waste management (July 2005)  
Planning authorities should recognise the particular locational needs of some types of waste facility in the context of green belt policy
- Surrey Waste Plan Inspector noted *"Were built development to occur here we do not consider that the openness of the green belt would be compromised substantially further"*.



# Alternative Site Assessment

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- Purpose

As the site is located in the green belt, it is a material planning consideration of whether there are any, just as suitable sites available for the proposal, which are not located in the green belt.

- Methodology

- Stage 1 sites assessment

- Stage 2 sites assessment

- Summary and conclusions



# ASA : Methodology

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- Identify sites which could accommodate one or more of the proposed activities (i.e. a disaggregated basis);
- Consider sites within Surrey Heath, Woking, Runnymede, Spelthorne and Elmbridge (due to proximity principle) but not any sites outside Surrey (e.g. Hounslow / Berkshire);
- Size threshold CRC 1.0ha, MRF 0.6ha, GAS 1.7ha, AD 1.2ha;
- The scope and methodology used has been agreed with Surrey CC Planning Authority and was previously used on the two now withdrawn Energy from Waste applications at Trumps Farm and Capel;
- An ASA is also being undertaken for Application 1 (Retention of existing facilities beyond 2016);



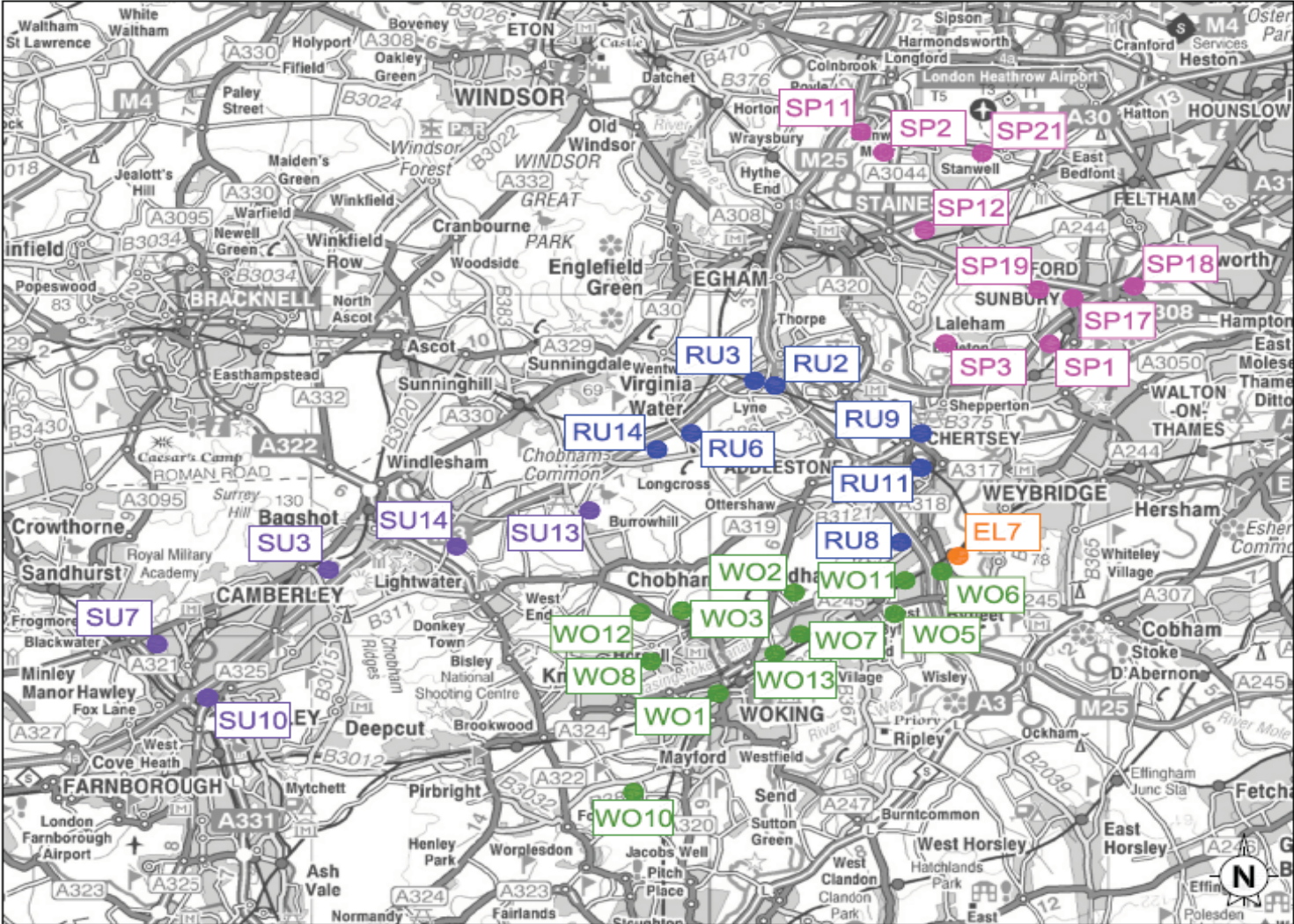
# ASA : Stage 1 & 2 assessments

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- Identify a “long” list of sites that meet the size threshold (228 sites);
- High level planning criteria (desk top based) e.g. Natura 2000, Flood zone 1;
- List reduced to 83 sites following desk top review and dismissal of sites already fully occupied;
- Further multi-disciplinary review reduced list to 33 sites, using development plans, EA flood risk mapping, Ecological mapping website (Magic);
- Site visits in July 2010 by Town Planner, Landscape Architect & Transportation Planner to gather site data and analysis
  - This exercise resulted in 18 of the 32 sites being dismissed as incapable of development for waste.
- Production of pro-formas for remaining 15 sites following site visits to allow sites to be ranked;



# ASA : Stage 2 assessment sites



**RUNNYMEDE**  
 RU2 Land at Lyne Lane  
 RU3 Lyne Lane Compositio Field  
 RU6 Land adjacent to Trunton Farm  
 RU8 Central Veterinary Laboratories  
 RU9 Park Farm, Chertsey Road  
 RU11 Former Marston Site  
 RU14 Longcross Test Track

**SPELLTHORPE**  
 SP1 Land at Chertsey Lane  
 SP2 Oakleaf Farm, Horton Road  
 SP3 Home Farm  
 SP11 Lower Farm, Stanwell Moor  
 SP12 Hengrove Farm, London Road, Staines  
 SP17 DeBain Estate, Wotton Road, Sunbury  
 SP18 Hamworth Road & County Way, Sunbury  
 SP19 Norton Road / Spelthorne Lane, Acton  
 SP21 Redfords Road / Long Lane, Stanwell

**SURREY HEATH**  
 SU9 Redundant DERA Test Track  
 SU11 Yoxford [A3], Feltham/Chess Park  
 SU118 Vauxhall / Chess Lane at Lyne Way, Feltham  
 SU121 Chesham Car Storage, Chesham Narrow  
 SU13 Chesham  
 SU14 Mixed Crops, Hook Lane, Windlesham

**WOKING**  
 WO11 Dago Pit / Aggregate Depot, Woking  
 WO2 Former T10 Site, Marley Lane  
 WO3 Heather Farm, Cobham Road  
 WO6 Stradbrook, Park Road  
 WO8 Byfleet Industrial Estate / Area, Byfleet  
 WO7 Central Farm, Abbot Drive, Woking  
 WO9 Goddard Park, Tring Road, Woking  
 WO10 Marlands Industrial Estate, Smoke Heath Lane  
 WO11 Land to the east of Central Industrial Estate  
 WO12 Windridge Nurseries, Windridge  
 WO13 Monument Way Industrial Estate, Monument Way

**ELMSBRIDGE**  
 EL7 Wincoburn Road Industrial Estate

Surrey Alternative Sites Assessment

Figure 1

ASA Application Two

Scale 1:100,000@A3	Date: August 2010
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# ASA : Summary & Conclusions

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- The proposed development at Charlton Lane is washed by green belt;
- It is therefore appropriate to assess whether any suitable sites are available for this development which are not in green belt (ASA);
- Plan Policy protects green belt land from inappropriate development;
- National and Local Plan Policy accepts that some development on previously developed land in the green belt may be appropriate;
- Surrey Waste Local Plan inspector considered green belt issues when allocatinig Charlton Lane as a potential site for thermal waste treatment;
- Of those sites that are available, Charlton Lane is ranked as technically the best site for the Eco-Park development;
- There are not any non-green belt sites available which could accommodate the proposed Eco-Park;



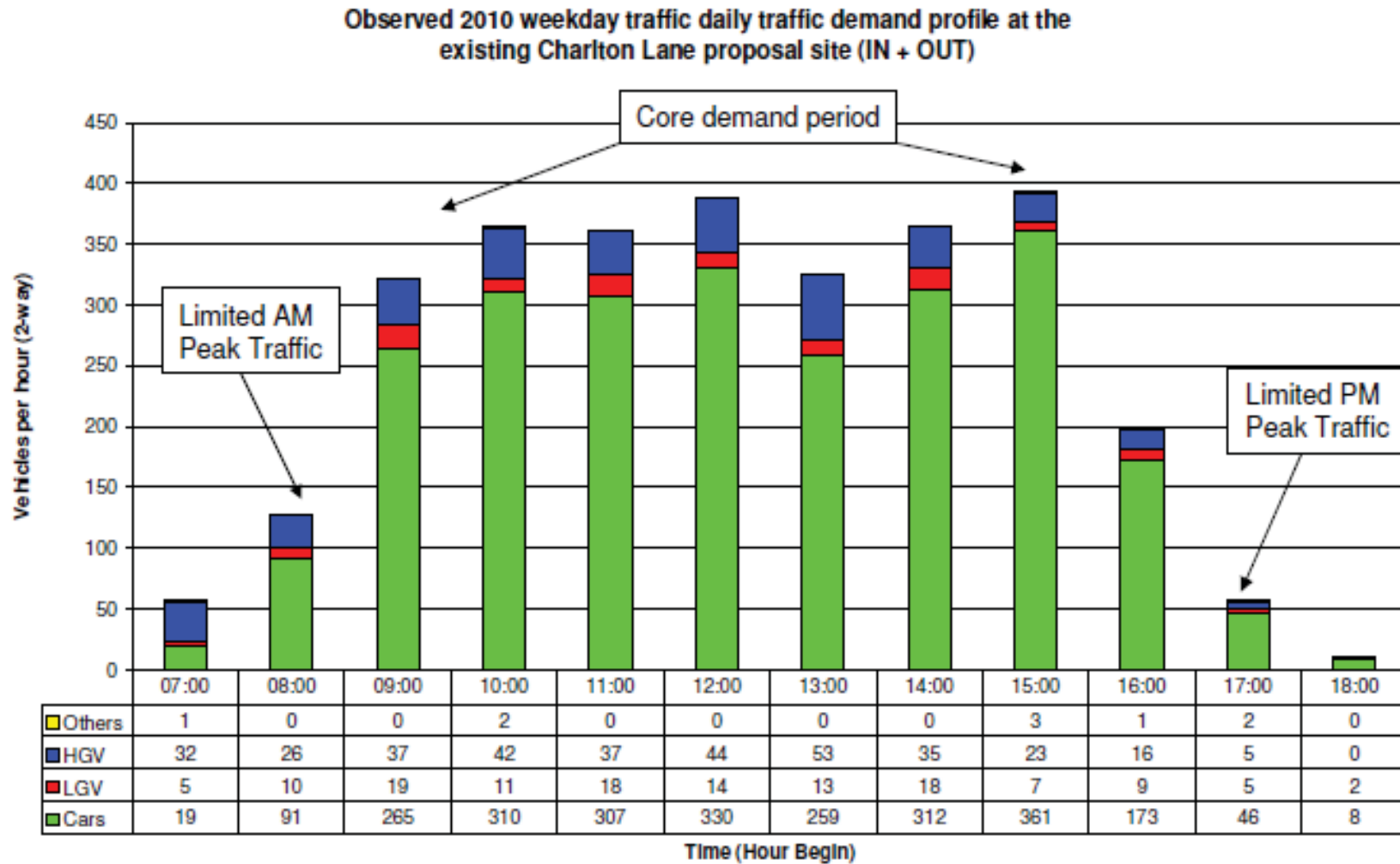
# What about the traffic?

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- **Exiting Traffic**
- Surveys of existing traffic undertaken using manual counts at the site, video recording at 3 off site junctions (12 hours) and ATC at 6 other locations 24 hours);
- Survey of CRC users of where they have come from and how they have got to the site (what road they've used);
- Weekday, Saturday and Sunday conditions recorded;
- April, May and September are the busiest months at the CRC;



# Existing traffic survey profile



# Future traffic; Treatment v Transfer

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## *A sustainable and integrated solution*

**ATT plant**  
60,000tpa IN (waste)  
13,800tpa OUT (Ash)

*Circa 77% mass loss for export*

**AD plant**  
40,000tpa IN (Waste)  
19,545tpa OUT (Digestate)

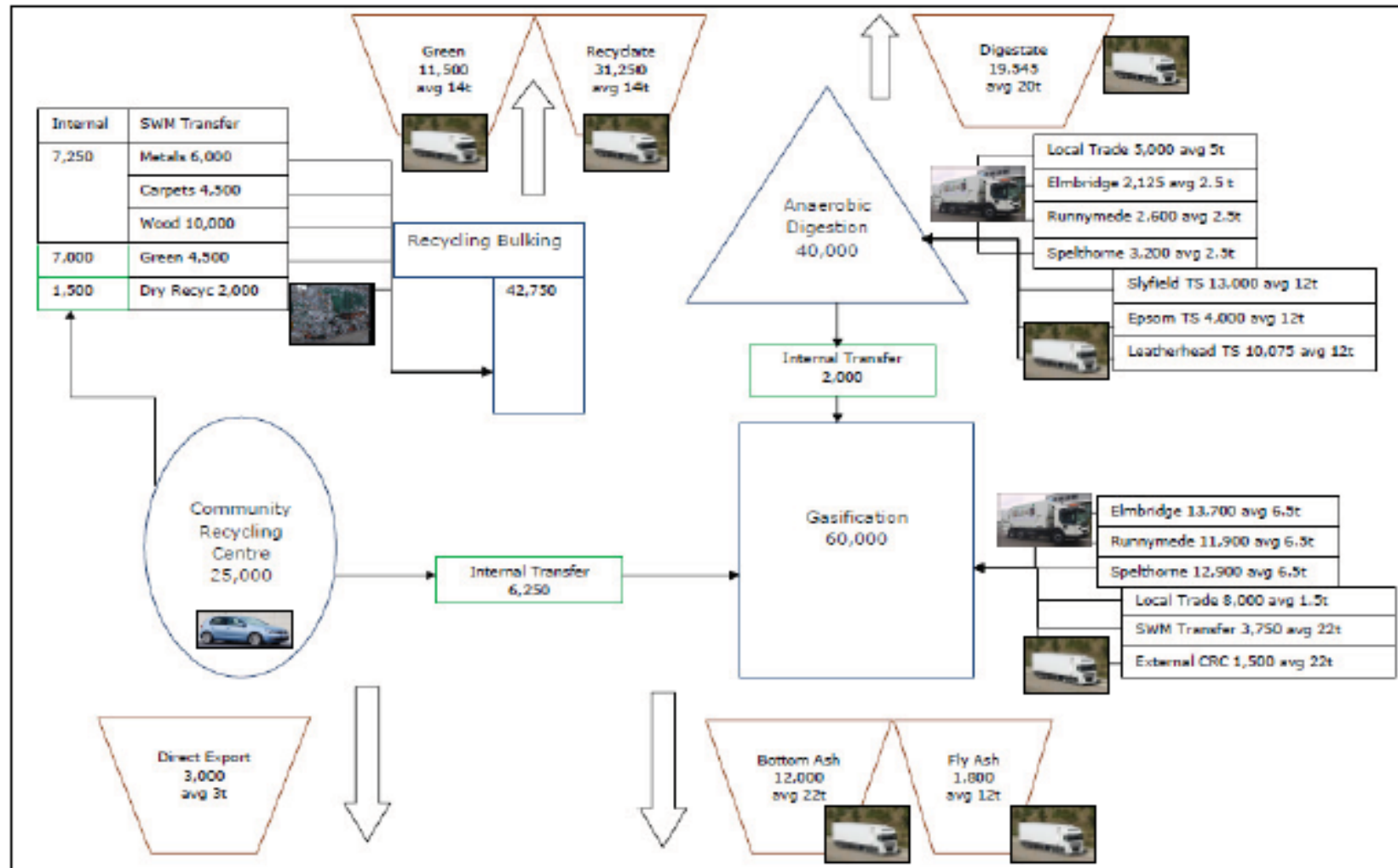
*Circa 50% mass loss for export*

### **Internal Transfer Movements:**

*88% of CRC materials transferred to ATT or RBF facilities*




*3% of ATT inputs received from AD plant*

# Traffic and material movements



# Predicted change in traffic levels 2016

Comparison of 2016 Eco Park predicted traffic demand levels and those associated with permanent retention of existing Charlton Lane facilities.

Hr Begin	'Net change'			Total
	Percentage of Plan App 1			
<b>Weekday</b>				
12hr (07- 19)	+45 +1.7%	-110 -45.6%	-54 -52.9%	<b>-120</b> <b>-3.9%</b>
<b>Saturday</b>				
12hr (07- 19)	+31 +0.9%	-8 -13.1%	-8 -26.7%	<b>+15</b> <b>+0.42%</b>
<b>Sunday</b>				
12hr (07- 19)	+64 +1.8%	+17 +47.2%	-14 -42.4%	<b>+66</b> <b>+1.82%</b>

# What about the emissions / air quality / pollution?

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- Thermal treatment is subject to the Waste Incineration Directive (WiD). Emission levels are set by this Directive;
- In order to be a “world class waste solution” a strategic decision was made to not just meet the Directive standards but to significantly improve upon those standards;
- WiD limits NO<sub>x</sub> emissions to 200mg/m<sup>3</sup>;
- Charlton Lane gasifier will only emit 100mg/m<sup>3</sup>;
- Emission levels, monitoring and compliance are Environmental Permit issues;
- DEFRA and Health Protection Agency research both show no discernable link between modern waste management and health effects. Advise that studies of public health are not recommended.



# Planning / Emissions / health

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- We recognise health is an area of public concern;
- Is this an appropriate location for this type of operation?;
- AQMA (traffic emissions and Heathrow);
- Assess background levels, model emissions and air dispersion using recorded weather data from Met Office;
- Calculate required stack height;
- Air dispersion model shows:
  - SPA & SSSI, nitrogen deposition is less than 1% of critical load
  - Insignificant level of pollutants, i.e. less than 1% of Air Quality Objectives, Environmental Assessment Level, Tolerable Daily Intakes
  - Inhalation & Ingestion



# Planning / Permit

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- In order to build the Eco Park planning permission is required (Surrey County Council);
- In order to operate the Eco Park, an Environmental Permit is required (Environment Agency);
- Government guidance states that these two regulatory processes should complement each other and not duplicate control;
- Planning; landscape, structures, appearance, traffic, opening hours;
- Permit; emissions, monitoring, reporting, auditing, odour, un-announced inspections;
- Overlap; noise;



# What about noise?

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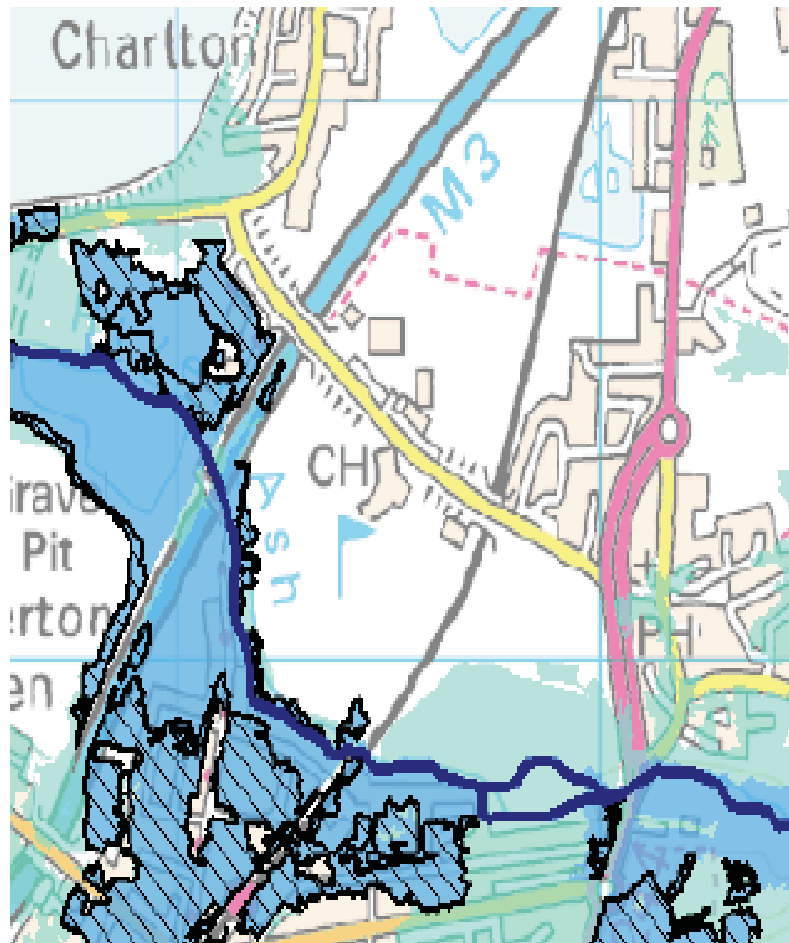
- British Standard BS4142, industrial noise in a mixed (residential) area, recommends no more than +5 dB LAeq 1hour
- Surrey County Council's noise guidance is even stricter
- Background noise surveys (24 hour)
- Noise model applying development noise onto background levels
- Nearest receptor is Ivydene Cottage
- Noise mitigation measures include noise fences / bunding, site layout, doors closed at night.



# What is proposed for the field next door



# Flood Risk



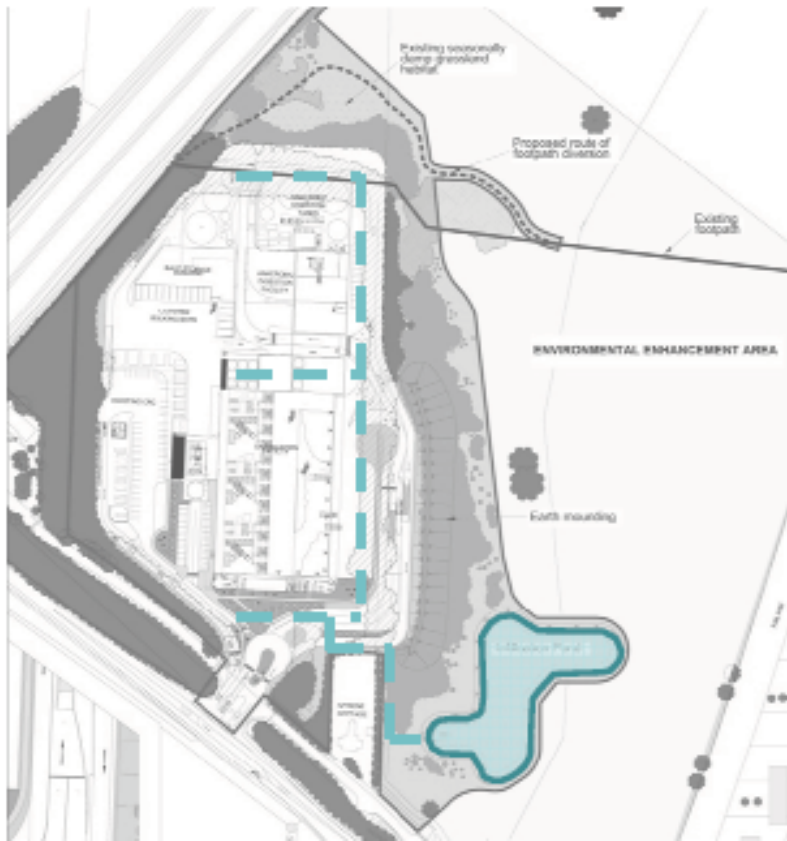
- PPS 25: Development and Flood Risk
- Flood Zone 1 : Low Probability  
1 in 1,000 year extreme event
- Flood Risk Assessment

- Flooding from rivers or sea without defences
- Extent of extreme flood
- Flood defences
- Areas benefiting from flood defences
- Main rivers

# Surface water drainage

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## Proposed Drainage Design



- Increased impermeable area
- Sustainable on-site solution
- Pollution control measures
- Ground condition constraints

# Surface water drainage constraints

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- **Historic gravel extraction**
- **Backfilled with waste**
- **Natural ground comprising terrace gravels above clays**
- **Groundwater flow to the south east towards River Ash and River Thames**

# What happens next?

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- Planning application has been submitted to Surrey County Council but has yet to be validated;
- Once validated the full planning application documents will appear on the Spelthorne District Council website (planning applications);
- Once validated the application will be sent out to consultation and will be open to public consultation;
- At the end of the consultation period all consultation responses will be assessed by the Planning Authority;
- Spelthorne District Council are a consultee to Surrey County Planning Authority and will decide upon their consultation response at their Planning Committee (earliest Committee would be Jan 2011);
- Earliest possible date the planning application could be determined would be February 2011 by Surrey County Council Planning Committee;



# Questions?

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