



**OFFICER REPORT TO LOCAL COMMITTEE  
ELMBRIDGE**

**WORLD CLASS WASTE SOLUTIONS UPDATE**

**20 SEPTEMBER 2010**

**KEY ISSUE**

The purpose of the report is to provide the Local Committee with an update on the current stage of the proposed Eco Park at Charlton Lane, Shepperton.

**SUMMARY**

In February 2010 the Surrey County Council Cabinet adopted the World Class Waste Solutions as the Waste Disposal Authority Action Plan. This included the delivery of an Eco Park at Charlton Lane, Shepperton.

This report summarises the wider context of World Class Waste Solutions and proposals for the Eco Park. The report provides the Committee with an update on the proposals. The planning application is due to be submitted formally in October 2010. This report focuses on an update on the planning application and the public consultation that is currently underway.

**OFFICER RECOMMENDATIONS**

The Local Committee Elmbridge is asked to agree that:

- (i) this report is noted as part of the consultation process
- (ii) further presentations will be offered to the committee as required

## **1 INTRODUCTION AND BACKGROUND**

1.1 Before 2009 the strategy for dealing with Surrey's waste included two energy from waste facilities to treat residual waste at a combined capacity of 270,000 tonnes per annum. During 2009, three factors combined to present a major opportunity for the Council to address the imperatives for change:

- There has been a reduction in household waste nationally (5% in last year) but particularly in Surrey (10% in last year).
- There have been significant increases in recycling rates – up 10% in the last year with continuing increases projected. Recycling rates went up 5.6% between 2007/8 and 2008/9 (35.3% to 40.9%). Current projections see recycling for Surrey at 50% in 2010/11.
- New technologies have emerged which offer the prospect of lower cost and smaller scale operation.

1.2 The financial imperative to divert residual waste from landfill has increased, landfill tax rates will increase from £48 per tonne this year to £80 per tonne in 2014/15. There is also an environmental imperative to reduce greenhouse gases and contribute to carbon reduction and renewable energy targets. Within two years there will only be one remaining landfill facility in Surrey, creating cost, environmental and business continuity risks.

1.3 In June 2009 the Leader of the Council stated:

*“As a result of the improvements to date, we have an opportunity to remove or reduce our reliance on EFW (energy from waste) Plants in Surrey”*

*“I have asked officers to look at our options as a matter of priority as I want Surrey to set the standards of excellence in this area and I feel confident that this is possible. It is an area of our work in which I think we should be aiming to be world class”*

29<sup>th</sup> June 2009, Leader's report to Cabinet

1.4 The February 2010 SCC Cabinet report, World Class Waste Solutions (WCWS) sets out the proposed solution. This was approved and is now being implemented.

## **2. IMPLEMENTING WORLD CLASS WASTE SOLUTIONS**

2.1 The development of World Class Waste Solutions involves a major waste reduction programme, improvements to Community Recycling Centres around the county, development of bulking and baling facilities at sites around the county to improve dry recycling, development of an in vessel composting facility to treat green waste and the development of an Eco Park. This report only focuses on the Eco Park element.

- 2.2 The aim of the proposed Eco Park at Charlton Lane, Spelthorne is to divert as much waste as possible from landfill and produce renewable energy from the waste that cannot be recycled.
- 2.3 It would include state-of-the-art waste treatment facilities and enhanced community resources alongside the existing community recycling centre in order to further reduce the environmental impact of our operations. This includes a reduction in traffic movements, reduced carbon emissions and a source of renewable energy.
- 2.4 The Eco Park would be the first of its kind in the UK and is being developed in three phases:

#### Phase 1

- The redevelopment of the existing community recycling centre to create a modern, state of the art facility, which was completed in 2009.
- The creation of a resident scheme to ensure only Surrey taxpayers use the facility and the creation of a van permit scheme. This has resulted in a 15% reduction in traffic movements.
- Submission of a planning application to safeguard the existing community recycling centre and waste management facility, as current permission expires in 2016. This will also include some improvements to the entrance to the centre.

#### Phase 2

Submission of a planning application to develop new facilities at the Eco Park, which will include:

- A gasification facility using batch oxidation system technology to treat 60,000 tonnes of residual (non-recycled) household waste.
- Anaerobic digestion to treat 40,000 tonnes of food waste.
- A materials bulking facility, to bulk recyclables for onward shipment.
- A visitor and education centre which will aim to inspire and motivate children and adults to change the way they think about waste.
- Further improvements to the existing community recycling centre to make it easier for residents to recycle and include the addition of reuse facilities.

#### Phase 3

Creation of an innovation centre to develop new technologies

### **3 CONSULTATIONS**

3.1 Consultation with key stakeholders commenced immediately after the announcement by the Leader of the County Council in December. Consultation with residents commenced following the adoption of the World Class Waste Solutions strategy by SCC's Cabinet in February 2010. To date, newsletters have been sent to local residents, drop in exhibitions and technical meetings have been held and a community liaison group has been set up.

#### **3.2 Newsletter updates**

- The first newsletter update was sent to 7,352 homes in April and provided information on the proposals and contact details for SWM.
- A second update was distributed to 9,792 residents at the beginning of September. This included updates on work carried out over the summer. The distribution area was increased to try to ensure that all interested residents provided with this information.

#### **3.3 Public drop in exhibition**

The exhibition took place in mid April. It contained conceptual images and initial information about the Eco Park. More than 200 people attended and 60 left comments and questions. Written feedback was provided to all questions raised. The formation of a Community Liaison Group was advertised.

#### **3.4 Community Liaison Group (CLG)**

- People showing an interest in the CLG were contacted, 16 people responded and the first meeting was held on 30 June at the Greeno Centre, Shepperton.
- The group provides a forum for representatives from the community to liaise with SCC and SWM on a regular basis, receive information and contribute suggestions on the proposals.
- These representatives then go back into the community, share the information and seek questions to raise on the community's behalf to complement the work of elected members in the area.
- All information provided and minutes of the meetings will shortly be uploaded onto the SCC and SWM websites.

#### **3.5 Technical Meetings**

A number of very detailed technical questions were raised by some residents at the public drop in exhibition. As a result, representatives from the local area were invited to have further discussions with SWM and SCC technical staff at a meeting on 15 July. This was not a public meeting but a forum for residents with a deeper technical understanding to have questions answered. The meeting was felt to be valuable and it is intended

to do a further session for this group and any additional residents who have detailed technical questions.

### 3.6 Further Consultation

- The Acting Head of Environment at SCC has written to all local residents associations offering to meet and answer any questions.
- A second public drop in exhibition will be held on 17 and 18 September to give residents the chance to view the proposal before it is submitted to the County Planning Authority.
- A third newsletter update will be distributed to residents after the exhibition and further updates will follow after the application is submitted.
- An event will take place in October (venue TBC), which will be hosted and chaired by Spelthorne Borough Council's scrutiny committee. This event will enable residents to have pre-submitted questions answered by a panel of experts.

## **4 PLANNING ANALYSIS**

- 4.1 The proposal for Charlton Lane includes two planning applications, which will both be submitted by Surrey Waste Management at the end of October. The first application is to address the long-term future of the Charlton Lane community recycling centre and the site as a whole, because current planning permissions for the site expire in 2016. Further permission would be required at this time to ensure continued use, which is why SWM are bringing forward this application now. It is important to the County Council that there remains waste management provision at Charlton Lane.
- 4.2 The second application is to develop the Eco Park, which is the most sustainable, efficient and cost effective way of treating Surrey's household waste.
- 4.3 These applications are being worked on concurrently, but will be submitted separately to the County Planning Authority in October 2010.

## **5 TRAFFIC ANALYSIS**

- 5.1 At the drop in sessions in April, the most significant issue raised by residents was the potential traffic in and out of the Eco Park. In response to this, we can confirm:
- The number of car movements in and out of the site has been reduced by around 100,000 per year, following the implementation of the phase one policy changes to ensure that the site is only used by Surrey taxpayers. This work has already resulted in a 15% reduction in the number of cars using the recycling centre.

- For phase two of the development we have carried out a full traffic assessment. This has found that the Eco Park would reduce the number of lorries using the site by 49% on weekdays and remain at similar levels at weekends.
- The results of the traffic assessment are available at <http://www.surreycc.gov.uk/ecopark>

## 5.2 Why will traffic levels reduce?

- At present Charlton Lane is used as a bulking facility. This means that waste is taken into the site on one vehicle and deposited in a holding area. This vehicle then leaves the site empty. The waste is bulked and a bigger, empty vehicle comes to the site and is loaded with this waste before leaving again.
- If the proposed Eco Park goes ahead, the waste will still be brought to the site in a number of different sized vehicles. However, the majority of it will no longer be taken away as the technologies proposed at Charlton Lane will process the waste. This will therefore reduce the number of vehicles going in and out of the site.
- The proposed 60,000 tonne gasification facility will reduce the amount of waste by 77 per cent, leaving behind around 13,800 tonnes of ash per year that needs to be transported off site.
- The proposed anaerobic digester will turn 40,000 tonnes of food waste into energy and around 19,545 tonnes of digestate that will be used as fertiliser on nearby farmland each year. This 50 per cent reduction will again mean less vehicles required to move this material off site.

## 5.3 Other traffic improvements

- As part of our first planning application to retain the existing site, we are proposing improvements to the entrance of the community recycling centre. These improvements include:
  - Widening the site entrance to allow separate access for trade vehicles and the public.
  - Measures to allow for an additional 33 vehicles to queue on site whilst waiting to use the recycling centre. This is an increase in queuing capacity of 80 per cent compared with the existing facility.
- These developments will help to resolve the current congestion at the Charlton Lane site entrance and queuing down Charlton Lane.

## **6. ENVIRONMENTAL IMPACT ASSESSMENTS**

6.1 EIAs will accompany both planning applications and will consider any impact that retaining the existing facilities and the Eco Park development may have on the following areas:

- Visual impact
- Ecology and nature
- Noise and vibration
- Air quality
- Hydrology, geology and flood risk
- Archaeology and heritage
- Socio-economic impact
- Cumulative impact
- Traffic

6.2 SWM is continuing with baseline assessments for the EIA and has submitted details of the proposed scoping (methodology) for the EIA to the SCC Planning Authority. A copy of the scoping document for the EIA is available at [www.surreycc.gov.uk/ecopark](http://www.surreycc.gov.uk/ecopark).

6.3 In addition to the EIA, SWM is also preparing an alternative site assessment (ASA) that will accompany each application. This will address comments that have been raised about the choice of the site for the Eco Park.

## **7. SITE PLAN**

7.1 During the design stage SWM has tried to keep the development of the Eco Park within the existing footprint of the site, as this is the allocation boundary in the Waste Local Plan (WLP), with the addition of land to the north of the current operational area. The Eco Park footprint goes beyond the existing boundary slightly to the east (and hence the WLP boundary) to accommodate the weighbridge and a small section of the site access road. This is to move the weighbridge away from the site entrance, to improve traffic flow and queuing capacity within the site. A copy of the proposed Eco Park site plan can be viewed at [www.surreycc.gov.uk/ecopark](http://www.surreycc.gov.uk/ecopark).

7.2 Surrey County Council has purchased land next to the site for the purpose of landscaping and biodiversity enhancement. SWM is still defining which parts of this land will form part of the Eco Park planning application, as parts of it will be needed for surface water management, footpath diversion, temporary construction compound, landscaped screen bunds and planting for landscape and visual mitigation.

7.3 Once this is established SWM will be looking at ways to enhance the remaining areas to further improve the landscape and biodiversity and will be liaising with Spelthorne Borough Council and Surrey Wildlife Trust on this.

## **8 FINANCIAL AND VALUE FOR MONEY IMPLICATIONS**

- 8.1 The cost of the implementation of the Waste Class Waste Solutions has been identified within the Environment and Infrastructure Directorate budget going forward.

## **9 EQUALITIES AND DIVERSITY IMPLICATIONS**

- 9.1 There are no equality and diversity implications.

## **10 CRIME AND DISORDER IMPLICATIONS**

- 10.1 Not applicable.

## **11 CONCLUSION AND RECOMMENDATIONS**

- 11.1 The Local Committee is asked to comment on this report as part of the consultation process, and agree that further presentations will be offered to the committee as required.

## **12 REASONS FOR RECOMMENDATIONS**

- 12.1 The consultation on the Eco-Park is still continuing.

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**Background Papers:** Officer report to Cabinet, World Class Waste Solutions, 2 February 2010



## **KEY ISSUES RAISED DURING THE CONSULTATION PROCESS**

### **Why is Charlton Lane the most suitable site for the Eco Park?**

Charlton Lane, Shepperton is proximate to the majority of the population of Surrey. The site currently operates a waste facility, which comprises a community recycling centre (the busiest in the county), a major waste transfer station, and a Materials Recycling Facility. The site currently accepts waste from the surrounding Boroughs and Districts and also handles transfers from other Transfer Stations.

If the Eco Park was located elsewhere there would still be a need to operate the waste transfer station at Charlton Lane but the waste would need to be transferred elsewhere to be dealt with, resulting in a large number of vehicle movements. By basing operations on the Charlton Lane site, an opportunity is provided to reduce traffic movements and therefore carbon emissions and provide improvements to the current site.

Charlton Lane is listed in the Waste Plan as one of 4 sites in Surrey as suitable for thermal treatment. The WDA has identified Charlton Lane as the most suitable site for this type of development.

### **Why do all of the facilities within the Eco Park need to be located at the site?**

Co-location of the facilities (gasification using batch oxidation system and anaerobic digestion (AD) facilities together with the CRC) on one site provides a number of benefits. These include:

The outputs from one process can be used to feed into another. This will help to improve the efficiency of all the facilities that make up the Eco Park:

- If any material from the CRC is not suitable for gasification, it could be bulked in the on site waste transfer station prior to onward transhipment for disposal, resulting in fewer vehicle movements;
- Having the bulking and baling facilities and CRC together on one site means that recyclables from the CRC could be baled and greater loads achieved, reducing the overall waste vehicle miles;
- There is the potential to save energy by using the waste heat from the gasification plant to warm the buildings;
- All the elements are able to use shared infrastructure, including weighbridges, offices, site personnel, car parking and security;
- The AD and gasification facilities can provide an on-site renewable energy supply all elements could run off a single sub-station;
- Rejected materials from the AD can be treated onsite at the gasification facility.

### **Will the Eco Park increase the number of lorries using the site?**

No, we have carried out a full traffic assessment, which has found that the Eco Park would reduce the number of lorries using the site by 49% on weekdays and

remain at similar levels at weekends. The traffic assessment is discussed in more detail on pages 77 & 78 of this report.

**Will Charlton Lane deal with all of Surrey’s waste?**

No. The Eco Park will handle less than 30 per cent of Surrey’s household waste, with the remainder being processed at other locations. The majority of household waste, such as green waste, dry recycling or excess residual waste will continue to be dealt with elsewhere in Surrey or outside of the county.

**Is there a difference between Energy from Waste and Gasification? Isn’t Gasification another form of EfW?**

While there are some similarities between EfW and gasification there are also major differences. Gasification is an advanced thermal treatment (ATT) where waste is heated in the presence of a small amount of air but not enough to be set alight. This produces a gas, called syngas, which is then captured and is burnt in another compartment to produce energy. The temperatures used in gasification are typically above 650°.

The type of gasification that is proposed at the Eco Park is a specific type of gasification called Batch Oxidation System. The following table outlines the main differences between the proposed batch process gasification technology and EfW:

Batch Process Gasification	EFW
<ul style="list-style-type: none"> <li>▪ Waste smoulders with little air in primary chamber to produce syngas</li> <li>▪ Combusts syngas in secondary chamber</li> <li>▪ Lower volume of fly ash</li> <li>▪ Lower building height</li> <li>▪ Batch process</li> </ul>	<ul style="list-style-type: none"> <li>▪ Waste burns in presence of much air</li> <li>▪ Full combustion in one and only chamber</li> <li>▪ Higher volume of fly ash</li> <li>▪ Taller building</li> <li>▪ Continuous feed</li> </ul>

**How does the technology proposed differ to the technology at Isle of Wight?**

On 30<sup>th</sup> May 2010 it was reported in the Isle of Wight News that processing had been suspended at the Isle of Wight waste gasification plant due to “abnormal” emissions of dioxins. The plant is operated by Energos.

The gasification facility proposed for the Ecopark at Charlton Lane uses a completely different technology to that supplied by Energos. The technology proposed for the Ecopark is a Batch Oxidation System supplied by Ascot Environmental. The flue gas cleaning system will be designed to work with this particular technology from the outset.