



**Biffa Waste Services Ltd**  
Cressex Business Park  
Coronation Road  
High Wycombe  
HP12 3TZ

James.stewart-irvine@biffa.co.uk  
Tel 07734 877562  
Web www.biffa.co.uk

Planning Inspectorate (National  
Infrastructure Directorate),  
Temple Quay House,  
Bristol,  
BS1 6PN.

Date: 23<sup>rd</sup> March 2016

By e-mail

Dear Sirs,

**RE: NORTH LONDON HEAT AND POWER PROJECT - NOTICE OF ACCEPTANCE OF AN APPLICATION FOR THE NORTH LONDON HEAT AND POWER GENERATING ORDER (APPLICATION REFERENCE NUMBER EN010071)**

**Introduction**

Biffa Waste Services Ltd ('Biffa') has been notified of the above application for the redevelopment of the Edmonton EcoPark. This proposal will involve the decommissioning and demolition of the existing Energy from Waste facility ('EfW') to enable the development of an Energy Recovery Facility ('ERF'). This letter represents our response to the consultation and we would be grateful for the information set out below to be formally considered by the Planning Inspector.

Biffa Waste Services Ltd operates a major waste recycling facility at the Edmonton Materials Recycling Facility ('MRF') located on Ardra Road. The MRF is located to the north of the application site. The Edmonton MRF is an established business and is of key strategic importance to Biffa's waste management capacity in the region. The facility processes up to 250,000 tonnes per year of commercial and municipal waste. The site also serves the North London Waste Authority ('NLWA') area. All vehicles associated with Biffa's operational MRF facility access the site via Ardra Road and utilise the access with Meridian Way.

**Background & Context**

This letter of representation follows our previous submission dated 9<sup>th</sup> December 2015. At the time of that submission, we raised concerns regarding the impact upon users of Ardra Road from the creation of a new northern access at Deephams Farm Road during the construction phase and also for the subsequent operational phases. In summary, the representation stated the following:

**Delivering more**

Biffa Waste Services Limited is incorporated and registered in England and Wales, Number 00946107  
Registered Office: Coronation Road, Cressex, High Wycombe, Buckinghamshire HP12 3TZ

*“On the basis of the application documents we have major concerns about the traffic assessment and the subsequent impact upon our recycling facility. For the reasons described below, Biffa **objects** to the proposals for the following reasons:*

- 1. We raise significant concerns regarding congestion on Ardra Road which could lead to detrimental impacts to the operation of the existing MRF owned and operated by Biffa;*
- 2. The cumulative impact of the proposed development upon neighbouring land uses has not been fully considered.”*

Since this time, Biffa and the North London Heat & Power Project (‘NLHPP’) team have met to discuss the contents of our initial representation and possible mitigation measures that may be able to be implemented to alleviate our concerns. In addition, Arup, on behalf of the NLHPP team has compiled the attached technical note titled “Ardra Traffic Flows” (dated 16<sup>th</sup> March 2016) (referred to as the ‘technical note’) which assesses the likely traffic impact upon Ardra Road in further detail, using detailed traffic data supplied by Biffa. This note has not been compiled in consultation with the other existing users of Ardra Road.

We have been encouraged by the open dialogue with the NLHPP team. To clarify, Biffa supports in principle the proposed redevelopment of the EcoPark to a modern, efficient and sustainable integrated waste management facility. Further to receiving the additional technical note, we are satisfied that the numbers of vehicles using the Deephams Road Access with Ardra Road is likely to be appropriate given the existing baseline conditions.

The contents of this representation, therefore, sets out Biffa’s remaining concerns which relate primarily to the management of those vehicles. However, we consider that these outstanding matters to the proposals can be overcome through the adoption of the mitigation measures that we have set out below.

### Deephams Farm Road Access

One of Biffa’s primary concerns associated with the proposed redevelopment of the EcoPark is with the re-instatement of the Deephams Farm Road Access. Historically, the North London Waste Associated (‘NLWA’) has utilised this access however its closure was in part due to the difficulty of enforcement of the types of vehicles that would use this access road. Consequently, severe congestion on the local road network, particularly along Ardra Road, was experienced. We are therefore concerned that this situation might again arise due to this proposed redevelopment.

In our representation dated December 2015 we stated the following:

*“However, Biffa’s existing MRF generates significant numbers of vehicle movements and we are concerned that given the substantial numbers of additional vehicle movements predicted as a result of this development that the length of road between the Deephams Farm Junction and Meridian Way will not be capable of accommodating the additional traffic. In addition, no measures are proposed within the Framework Construction Travel Plan included within Appendix J which will mitigate against these possible impacts.”*

NLHPP has sought to clarify the position with regards to the Deephams Farm Road access (also referred to as the ‘Northern Access’). The traffic movements throughout the construction project are discussed in the accompanying technical note. Paragraph 3.5.11 of that note states that *“during the peak month of construction during the early period of Stage 1d, the daily number of*

*construction vehicles may increase to 30. This would equate to a maximum of three construction vehicles using Ardra Road per direction per hour”.*

The technical note also discuss the latter stages of the project programme. Specifically with reference to Stage 2, the note states:

- 3.6.5 Some operational vehicles traveling to the ERF would use the new northern access. Operational vehicles using the northern access on Deephams Farm Road are likely to originate from within the London Borough of Enfield (LBE).*
- 3.6.6 Based on the data for the existing EfW (for 2013-14), 28 per cent of the total waste arriving at the Edmonton EcoPark originates from within the LBE. Assuming a similar level of waste generation from within LBE, this would equate to a total of 32 daily trips to and from the proposed ERF. It is expected that 50 per cent of these trips could be undertaken using the northern site access via Deephams Farm Road. These trips would typically be undertaken between 0800 and 1500, with a peak of three trips (HGVs) in each direction between 1100 and 1200.*
- 3.6.7 Trips between the RRF and the existing Biffa Materials Recycling Facility (MRF) on Ardra Road could also be undertaken via the northern access and Deephams Farm road. However, it is not anticipated that this would amount to more than one or two trips per day based on the total waste output expected to be generated by the RRF each day.*
- 3.6.8 Operational vehicles originating from other boroughs are not expected to use the northern access on Deephams Farm Road as given their origins, it would be more practical for these to use the Deephams Farm Road access.*

We welcome this clarification on the numbers of vehicles that are likely to use that access point during the construction phase and in this regard we are satisfied with the information provided. However, Biffa raises concerns regarding the control of vehicles utilising that access, particularly when the construction phases cease and the project moves into the commissioning and operations phases. As described in the extract above, it is intended that vehicles associated with delivery of waste materials would continue to utilise this access, including those that would be delivering materials to the Biffa MRF.

The NLHPP assesses the likely traffic utilising Deephams Farm Road as 63 daily construction trips (126 two-way) during Stage 3. It is anticipated that some operational vehicles would continue to utilise this access during Stage 4, primarily those from within the London Borough of Enfield. Paragraph 3.9.12 states that these would equate to 16 trips (32 two-way movements).

Within the technical note, the NLHPP proposes additional mitigation measures that are aimed at reducing the impact of additional traffic along Ardra Road. These measures were discussed at the meeting held in December 2015 and are considered to be additional to those set out in the Code of Construction Practice (October 2015).

In relation to the control of vehicles utilising Deephams Farm Road, we welcome the following proposed mitigation (paragraph 4.2.1):

- Relocation of security control point to the southern end of Deephams Farm Road during construction;
- Restricting operating vehicles from using Ardra Road and the northern end of Deephams Farm Road during Stage 3 (when construction vehicles would also be using it) to keep the additional traffic flow movements on Ardra Road to a minimum.

Biffa's response to the above is set out below:

- I. If the Inspector is minded to grant approval for this development, we request that a suitably worded enforceable planning condition, that satisfactorily meets the requirements of paragraph 203 & 206 of the National Planning Policy Framework ('NPPF') is included within any planning permission given, in order that the development does not cause undue harm to existing land uses along Ardra Road, and to enforce the conclusions of the Transport Assessment and technical note.
- II. Clarification is sought with regards to how the vehicles will be monitored, in order that the information presented within paragraph 3.9.12 of the technical note is enforced. The southern security control point should be retained for the life of the development, and a suitably worded, enforceable planning condition should be attached to any planning permission given which seeks to enforce the results of the traffic assessment stated at paragraph 3.9.12 of the technical note set out above.

#### Proposed Amendments to the Submitted Code of Construction Practice

In order that the development is undertaken with minimal disruption to users of Ardra Road and to formally adopt the additional mitigation measures proposed, Biffa requests that the following additional measures are included within Section 11 of the Code of Construction Practice ('CoCP'):

- I. Phasing of traffic lights at junction with Meridian Way – Alternative phasing pattern of the existing traffic lights at the junction with Meridian Way is requested during the construction phase. Users frequently experience delays in egress from Ardra Road due to the short duration of phases within the traffic light system. Biffa requests that measures are included within the CoCP which seek monitoring and review of the phasing pattern to ensure that disruption is kept to a minimum level.
- II. As proposed by the NLHPP within the technical note, a commitment to undertake regular monitoring or activities along Ardra Road to ensure that the impacts upon Biffa and other operations are minimised. An amendment to the CoCP is required to include this, however an additional measure is required which states that in the event of any undue disturbance to existing operations on Ardra Road that the developer will propose a suitable mitigation strategy to be agreed with those users.

#### **Conclusion**

All vehicles associated with Biffa's operational MRF facility will access the site via Ardra Road and utilise the junction with Meridian Way. Biffa has welcomed the continued discussion with the NLHPP team and the receipt of further technical information which seeks to address the reasons for our objections set out in our initial representation dated 9<sup>th</sup> December 2015.

Further to those discussions and on review of the additional technical information provided, we urge the Inspector to consider the inclusion of the following enforceable conditions and amendments to the submitted documents:

- I. Inclusion of a suitably worded planning condition that ensures the existing operations on Ardra Road are protected from undue harm and enforces the conclusions of the Transport Assessment and technical note;
- II. Clarification of the proposed monitoring strategy, and inclusion of a condition(s) that seeks to enforce the results of the traffic assessment stated at paragraph 3.9.12 of the technical note set out above and permanent relocation of the proposed control point to a location to the south of Deephams Farm Road.
- III. To include provision within the CoCP of the phasing of traffic lights and the Meridian Way junction;
- IV. To include provision within the CoCP of a commitment to long-term, regular monitoring of vehicular activities along Ardra Road to ensure that mitigation measures are adopted if determined to be necessary, in consultation with the existing operations along Ardra Road.

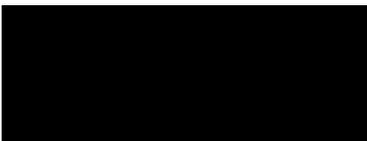
For the reasons set out in this written representation, the impact of additional traffic on our strategically important and well-established operations is an important consideration during the examination process. Biffa therefore welcomes continued dialogue with the NLHPP team where necessary.

For the avoidance of doubt, these comments should be considered alongside our previous representation dated 9<sup>th</sup> December 2015.

I trust these comments will be taken into account in your determination of the current application. Should you have any queries on any of the issues raised then please do not hesitate to contact me.

Yours faithfully

**For Biffa Waste Services Ltd**



**James Stewart-Irvine**  
**Planning Manager**

North London Waste Authority  
**North London Heat and Power  
Project**  
Ardra Road Traffic Flows

Issue | 16 March 2016

Arup

*[If a disclaimer is required for this particular document,  
please use the following wording:]*

This report takes into account the particular  
instructions and requirements of our client.

It is not intended for and should not be relied  
upon by any third party and no responsibility  
is undertaken to any third party.

**ARUP**

**nlwa**  
north london waste authority

## Contents

---

	Page	
<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Ardra Road – existing condition</b>	<b>1</b>
	2.1 Uses and access	1
	2.2 Traffic flows	2
	2.3 Parking	2
<b>3</b>	<b>Additional traffic on Ardra Road</b>	<b>3</b>
	3.2 Stage 1a	3
	3.3 Stage 1b	3
	3.4 Stage 1c	4
	3.5 Stage 1d	6
	3.6 Stage 2	9
	3.7 Stage 3	10
	3.8 Stage 4	11
	3.9 Summary	13
<b>4</b>	<b>Biffa</b>	<b>16</b>
	4.1 Biffa operational vehicle flows	16
	4.2 Potential mitigation	17

## Tables

Table 2.1: Ardra Road traffic flows (in vehicles and excluding cyclists) and percentage HGVs

Table 3.1: Total daily one-way vehicular traffic generated for the duration of Stage 1b

Table 3.2: Total daily one-way vehicular traffic generated for the duration of Stage 1c

Table 3.3: Total daily one-way vehicular traffic generated during the overall busiest period of Stage 1d

Table 3.4: Total daily one-way vehicular traffic generated during the busiest period of Stage 1d for construction vehicles

Table 3.5: Total daily one-way vehicular traffic generated for the duration of Stage 2

Table 3.6: Total daily one-way vehicular traffic generated for the duration of Stage 3

Table 3.7: Total daily one-way vehicular traffic generated for the duration of Stage 4

Table 3.8: Summary of typical total daily two-way traffic flows on Ardra Road

Table 3.9: Summary of peak total daily two-way traffic flows on Ardra Road during Stages 1c and 3

## Figures

Figure 2.1: Ardra Road land use locations

## Appendices

No table of contents entries found.

## 1 Introduction

---

- 1.1.1 This technical note outlines the anticipated additional traffic flows on Ardra Road during each stage of the North London Heat and Power Project (the Project). This includes each stage of construction (Stages 1 to 3) as well as the operational stage (Stage 4). A description of the existing uses and traffic flows on Ardra Road as well a description of the works which would result in additional traffic using Ardra Road are provided.

## 2 Ardra Road – existing condition

---

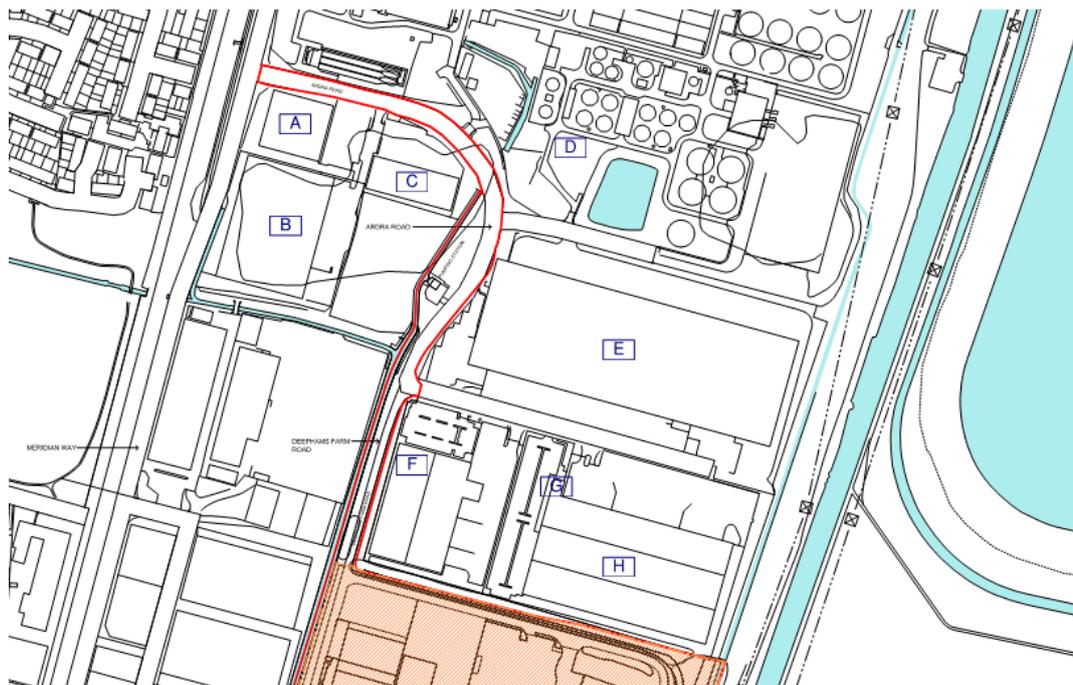
### 2.1 Uses and access

- 2.1.1 Ardra Road is located to the north of the existing Edmonton EcoPark and provides access to a number of land uses including:

- a. Premier Moves (a specialist office moving company);
- b. Bestway (Cash and Carry);
- c. City Link (a courier services);
- d. Deephams Sewage Treatment Works;
- e. Lidl distribution centre;
- f. Heal's (furniture) warehouse;
- g. Smart Solutions recruitment (Edmonton/Enfield branch); and
- h. Biffa Waste Services Edmonton Materials Recycling Facility (MRF).

- 2.1.2 The locations of these land uses are shown in Figure 2.1.

Figure 2.1: Ardra Road land use locations



- 2.1.3

2.1.4 Access to Ardra Road is provided from A1055 Meridian Way at its western end and there is no access from the east (i.e. there is no through access). As such, access to each of the uses outlined above is provided via Meridian Way. With the exception of Premier Moves, Bestway and City Link which share an access from Ardra Road, all other operations have their own individual accesses.

2.1.5 Ardra Road is a private road and so is not under control of the local highway authority (the London Borough of Enfield).

## 2.2 Traffic flows

2.2.1 The existing traffic flows at the junction of Ardra Road and Meridian Way were recorded as part of a traffic survey undertaken in October 2014. The traffic flows entering and exiting Ardra Road, including the percentage heavy goods vehicles (HGV), during the AM peak hour (08:00 to 09:00), the PM peak hour (17:00 to 18:00) and the entire day (24-hours), as obtained from the survey, are provided in Table 2.1. The traffic flows between 11:00 and 12:00, which is the busiest period of operation for the existing Edmonton EcoPark, are also provided.

Table 2.1: Ardra Road traffic flows (in vehicles and excluding cyclists) and percentage HGVs

Time period	Flows entering Ardra Road		Flows exiting Ardra Road		Total (two-way) flow on Ardra Road	
	Total flow	% HGVs	Total flow	% HGVs	% HGVs	Total flow
AM peak hour (08:00–09:00)	118	19.5%	83	34.5%	201	26%
Interpeak hour (11:00–12:00)	107	39.3%	106	44.3%	213	42%
PM Peak hour (17:00–18:00)	54	35.5%	128	9.4%	182	17%
Daily (24-hour)	1,578	30.6%	1,590	30.6%	3,168	31%

2.2.2 The traffic generated by each of uses described in Section 2.1 results in the traffic on Ardra Road comprising approximately 30 per cent HGVs across the day. This increases to over 40 per cent between 11:00 and 12:00 but reduces to below 20 per cent for traffic flow entering Ardra Road during the AM peak hour and to below 10 per cent for traffic exiting Ardra Road during the PM peak hour. During these times, the traffic would comprise more light vehicles (including cars) as these times are typically the start and end of the working day.

## 2.3 Parking

2.3.1 There is currently no formal parking provided on Ardra Road. However, vehicles frequently park informally on Ardra Road. In particular, HGVs including articulated vehicles park on the north side of the section of Ardra Road east of Deephams Farm Road. Cars are also often observed to park

on the sections of Ardra Road between the two accesses to Deephams Sewage Treatment Works and between the access to Deephams Sewage Treatment Works and A1055 Meridian Way. Double red lines which aim to restrict parking are provided on Ardra Road from the southern access to the Deephams Sewage Treatment Works to the southern access to the Lidl distribution centre. However, as Ardra Road is a private road, there is difficulty enforcing parking restrictions.

### **3 Additional traffic on Ardra Road**

---

3.1.1 This sections sets out the additional traffic anticipated to be generated on Ardra Road during each stage of the Project. This reflects the Transport Assessment (TA) prepared as part of the Development Consent Order submission.

#### **3.2 Stage 1a**

3.2.1 Stage 1a involves a series of site preparation works and enabling works required for the Project. This includes the creation of the northern access along Deephams Farm Road. The majority of construction traffic associated with these works and generally during Stage 1a would use the southern access on Advent Way while a minimal number of vehicles associated with the construction of the Project could arrive at the Edmonton EcoPark via the new northern access on Deephams Farm Road.

3.2.2 All traffic associated with the ongoing operation of the existing energy from waste (EfW) facility, the bulky waste recycling facility (BWRF), the fuel preparation plant (FPP) and in-vessel compositing facility (IVC), including staff and visitor trips, would be undertaken using the existing southern access on Advent Way. Stage 1a is anticipated to last for approximately six months.

#### **3.3 Stage 1b**

##### **Overall traffic flows**

3.3.1 During Stage 1b, the Resource Recovery Facility (RRF) and EcoPark House would be constructed at the southern part of the Edmonton EcoPark. The total one-way traffic, including construction traffic, anticipated to be generated by the Project during Stage 1b is provided in Table 3.1. The accesses that would be used by vehicles associated with each activity are also provided. Stage 1b is expected to last for approximately 18 months.

3.3.2 During this stage, traffic associated with the construction of the RRF and EcoPark House would arrive via the existing access on Advent Way with some traffic travelling via the Temporary Laydown Area. Some light vehicles including construction staff shuttle buses may arrive at the Edmonton EcoPark via the new Lee Park Way access.

Table 3.1: Total daily one-way vehicular traffic generated for the duration of Stage 1b

Activity	Total daily flow (each way)	Access
Construction vehicle trips (HGVs and LGVs)	83	Lee Park Way via the Temporary Laydown Area & southern access on Advent Way
Trips associated with existing operational activities	710	Southern access on Advent Way
RRF/EcoPark House trips	0	-
ERF trips	0	-
Construction employee trips <sup>1</sup>	16	Temporary Laydown Area <sup>2</sup>
Operational employee & visitor trips	317	Southern access & Lee Park Way
<b>Total</b>	<b>1,128</b>	-

3.3.3 Operational vehicles would continue to arrive to the Edmonton EcoPark via the existing site access on Advent Way. The new Lee Park Way access would be available and would be used by some staff and Edmonton Sea Cadets traffic.

#### **Ardra Road traffic flows**

3.3.4 During Stage 1b, a minimal number of vehicles associated with the construction of the Project could arrive at the Edmonton EcoPark via the new northern access on Deephams Farm Road and as such, there would be little or no additional traffic associated with the Project using Ardra Road.

### **3.4 Stage 1c**

#### **Overall traffic flows**

3.4.1 During Stage 1c, the existing facilities to the north of the existing EfW facility would be demolished to make way for the new Energy Recovery Facility (ERF). The total one-way traffic, including construction traffic, anticipated to be generated by the Project during Stage 1c is provided in Table 3.2. The accesses that would be used by vehicles associated with each activity are also provided. Stage 1c is expected to last for approximately 12 months.

<sup>1</sup> These trips are construction employee trips from to/from the Temporary Laydown Area and would typically be undertaken to/from home (or other) origins before 08:00 at the beginning of the working day and after 18:00 at the end of the working day.

<sup>2</sup> The proposed Temporary Laydown Area is an area of open scrubland located to the east of the River lee Navigation and north of Advent Way. There is no public access to this area. The Temporary Laydown Area would be reinstated after construction and would not form part of the ongoing operational site.

Table 3.2: Total daily one-way vehicular traffic generated for the duration of Stage 1c

Activity	Total daily flow (each way)	Access
Construction vehicle trips (HGVs and LGVs)	71	Lee Park Way via the Temporary Laydown Area & northern access
Trips associated with existing operational activities	280	Southern access on Advent Way
RRF/EcoPark House trips	836	Southern access on Advent Way & Lee Park Way
ERF trips	0	-
Construction employee trips <sup>3</sup>	13	Temporary Laydown Area
Operational employee & visitor trips	251	Lee Park Way
<b>Total</b>	<b>1,451</b>	-

- 3.4.2 The average of 71 one-way daily construction trips would be the typical flow during Stage 1c and would comprise the following:
- 22 trips (per direction) associated with site management and visitors;
  - two trips (per direction) associated with transporting operational employees; and
  - 49 trips (per direction) directly associated with the construction activities (20 tonne tipper trucks).
- 3.4.3 The 24 daily (one-way) trips associated with site management, visitors and operational employees would be undertaken to the Edmonton EcoPark via the Temporary Laydown Area.
- 3.4.4 Operational vehicles would continue to access the Edmonton EcoPark via the existing access on Advent Way to serve the existing EfW facility (which would continue to operate at current capacity) and the proposed RRF. Members of the public and small business vehicles visiting the Reuse and Recycle Centre (RRC) element of the RRF, users of EcoPark House and staff would access the Edmonton EcoPark via the new Lee Park Way access.
- Ardra Road traffic flows**
- 3.4.5 The 49 daily (one-way) trips would use Ardra Road to access the Edmonton EcoPark via Deephams Farm Road. Given the nature of activities, it is assumed that the trips would be undertaken evenly across the 10-hour construction period (08:00 to 18:00). This would equate to five trips (all HGVs) per hour per direction on Ardra Road. Stage 1c is anticipated to last for up to 12 months.
- 3.4.6 During the peak month of activity during Stage 1c, it is anticipated that the daily construction traffic could be up to 30 per cent higher than on a

<sup>3</sup> These trips are construction employee trips from to/from the Temporary Laydown Area and would typically be undertaken to/from home (or other) origins before 08:00 at the beginning of the working day and after 18:00 at the end of the working day.

typical day during the average month. This would result in 64 trips on Ardra Road per direction per day, equating to between six and seven trips per hour per direction. This level of construction traffic generation would only be experienced for up to one month.

### **3.5 Stage 1d**

3.5.1 During Stage 1d, the main build for the proposed ERF would occur within a defined work zone at the northern area of the Edmonton EcoPark. The total traffic flows (construction vehicle and construction employee) during Stage 1d would vary with two main periods:

- a. the overall busiest period; and
- b. the busiest period for construction vehicles.

3.5.2 The overall busiest period is the time during Stage 1d when the construction workforce is at its peak. While the number of construction vehicles (HGVs and LGVs) is low during this period, the high number of construction employee trips results in this period being the overall busiest period of Stage 1d.

3.5.3 The number of construction trips during the busiest period for construction vehicles is greater than the number of construction trips during the overall busiest period but the number of construction employee trips is significantly lower during this period.

3.5.4 The TA reported the overall busiest period as the assessment was focussed on the overall/greatest effects on the highway network for each stage.

#### **Overall busiest period**

##### ***Overall traffic flows***

3.5.5 The total one-way traffic, including construction traffic, anticipated to be generated by the Project during the overall busiest period of Stage 1d is provided in Table 3.3 The accesses that would be used by vehicles associated with each activity are also provided. Stage 1d is anticipated to last for approximately two and a half years with the overall busiest period lasting for approximately 12 to 14 months.

Table 3.3: Total daily one-way vehicular traffic generated during the overall busiest period of Stage 1d

Activity	Total daily flow (each way)	Access
Construction vehicle trips (HGVs and LGVs)	9 <sup>4</sup>	Lee Park Way via the Temporary Laydown Area & northern access
Trips associated with existing operational activities	280	Southern access on Advent Way
RRF/EcoPark House trips	836	Southern access on Advent Way & Lee Park Way
ERF trips	0	-
Construction employee trips <sup>5</sup>	275	Temporary Laydown Area
Operational employee & visitor trips	249	Lee Park Way
<b>Total</b>	<b>1,651</b>	-

3.5.6 The total traffic set out in Table 3.3 is the anticipated typical level of traffic during the overall busiest period of Stage 1d. During this period, all construction employee trips would be undertaken to the Temporary Laydown Area

3.5.7 Operational vehicles would continue to access the Edmonton EcoPark via the existing access on Advent Way to serve the existing EfW facility (which would continue to operate at current capacity) and the proposed RRF. Members of the public and small business vehicles visiting the Reuse and Recycle Centre (RRC) element of the RRF, users of EcoPark House and staff would access the Edmonton EcoPark via the new Lee Park Way access.

#### ***Ardra Road traffic flows***

3.5.8 During the overall busiest period of Stage 1d, the construction trips (associated with the delivery of steel and electro-mechanical equipment, and smaller service vehicles) would be undertaken via Ardra Road and the northern site entrance. This would equate to around one trip per direction per hour across a ten hour working day (between 08:00 and 18:00). This level of traffic generation is anticipated to last for 12-14 months in mid-Stage 1d (which would last for approximately three years in total).

#### **Busiest period for construction vehicles**

3.5.9 During an earlier period of Stage 1d the number of construction related trips (largely associated with the delivery of concrete) would increase to approximately 25 (one-way) trips per day. However, during this period, the number of construction employee trips would be significantly less than

<sup>4</sup> This does not include construction employee shuttle trips between the Temporary Laydown Area and the Edmonton EcoPark.

<sup>5</sup> These trips are construction employee trips from to/from the Temporary Laydown Area and would typically be undertaken to/from home (or other) origins before 08:00 at the beginning of the working day and after 18:00 at the end of the working day.

that shown in Table 3.3, with an estimated 63 employee vehicle trips per day to and from the Temporary Laydown Area. A summary of the total one-way traffic, including construction traffic, anticipated to be generated by the Project during the busiest period of Stage 1d for construction vehicles is provided in Table 3.5.

Table 3.4: Total daily one-way vehicular traffic generated during the busiest period of Stage 1d for construction vehicles

Activity	Total daily flow (each way)	Access
Construction vehicle trips (HGVs and LGVs)	25 <sup>6</sup>	Lee Park Way via the Temporary Laydown Area & northern access
Trips associated with existing operational activities	280	Southern access on Advent Way
RRF/EcoPark House trips	836	Southern access on Advent Way & Lee Park Way
ERF trips	0	-
Construction employee trips <sup>7</sup>	63	Temporary Laydown Area
Operational employee & visitor trips	249	Lee Park Way
<b>Total</b>	<b>1,455</b>	-

- 3.5.10 During this period of Stage 1d, the total (one-way) traffic flow would be 1,455 vehicles per day. The 25 (one-way) construction vehicle trips during this period of Stage 1d would equate to between two and three trips per direction per hour accessing the Edmonton EcoPark via Ardra Road and Deephams Farm Road, assuming a ten hour working day. This period would last for approximately 12 to 14 months at the beginning of Stage 1d.
- 3.5.11 During the peak month of construction during the early period of Stage 1d, the daily number of construction vehicles may increase to 30. This would equate to a maximum of three construction vehicles using Ardra Road per direction per hour.
- 3.5.12 During the busiest period for construction vehicle during Stage 1d, operational vehicles would continue to access the Edmonton EcoPark via the existing access on Advent Way to serve the existing EfW facility (which would continue to operate at current capacity) and the proposed RRF. Members of the public and small business vehicles visiting the Reuse and Recycle Centre (RRC) element of the RRF, users of EcoPark House and staff would access the Edmonton EcoPark via the new Lee Park Way access.

<sup>6</sup> This does not include construction employee shuttle trips between the Temporary Laydown Area and the Edmonton EcoPark.

<sup>7</sup> These trips are construction employee trips from to/from the Temporary Laydown Area and would typically be undertaken to/from home (or other) origins before 08:00 at the beginning of the working day and after 18:00 at the end of the working day.

## 3.6 Stage 2

### Overall traffic flows

- 3.6.1 This stage marks the completion of the proposed ERF, commissioning of the facility and start of operations. The commissioning stage of the proposed ERF is estimated to take between six and 12 months. During this stage, both the existing EfW and the proposed ERF would be operational as waste inputs are gradually transferred from the existing EfW to the proposed ERF. Landscaping and relocation of support facilities would take place during this stage and it is anticipated that there would typically be little or no construction traffic trips during this stage. Stage 2 is expected to last for approximately 12 months.
- 3.6.2 The total one-way traffic, including construction traffic, anticipated to be generated by the Project during the busiest period of Stage 2 is provided in Table 3.5. The accesses that would be used by vehicles associated with each activity are also provided.

Table 3.5: Total daily one-way vehicular traffic generated for the duration of Stage 2

Activity	Total daily flow (each way)	Access
Construction vehicle trips (HGVs and LGVs)	0	-
Trips associated with existing operational activities	140	Southern access on Advent Way
RRF/EcoPark House trips	836	Southern access on Advent Way & Lee Park Way
ERF trips	80	Southern access on Advent Way & northern access
Construction employee trips	0	-
Operational employee & visitor trips	201	Lee Park Way
<b>Total</b>	<b>1,258</b>	-

- 3.6.3 There would typically be little or no construction traffic generated during Stage 2. However, the occasional trips (associated with landscaping and the relocation of support facilities) that would be generated would be undertaken via the Temporary Laydown Area, the southern site access or the northern access.
- 3.6.4 Operational vehicles would continue to access the Edmonton EcoPark via Advent Way to serve the existing EfW facility and the proposed ERF and RRF. Members of the public and local businesses visiting the RRF element of the RRF would access the Edmonton EcoPark via the new Lee Park Way access.

### Ardra Road traffic flows

- 3.6.5 Some operational vehicles traveling to the ERF would use the new northern access. Operational vehicles using the northern access on

Deephams Farm Road are likely to originate from within the London Borough of Enfield (LBE).

- 3.6.6 Based on the data for the existing EfW (for 2013-14), 28 per cent of the total waste arriving at the Edmonton EcoPark originates from within the LBE. Assuming a similar level of waste generation from within LBE, this would equate to a total of 32 daily trips to and from the proposed ERF. It is expected that 50 per cent of these trips could be undertaken using the northern site access via Deephams Farm Road. These trips would typically be undertaken between 08:00 and 15:00, with a peak of three trips (HGVs) in each direction between 11:00 and 12:00.
- 3.6.7 Trips between the RRF and the existing Biffa Materials Recycling Facility (MRF) on Ardra Road could also be undertaken via the northern access and Deephams Farm Road. However, it is not anticipated that this would amount to more than one or two trips per day based on the total waste output expected to be generated by the RRF each day.
- 3.6.8 Operational vehicles originating from other boroughs are not expected to use the northern access on Deephams Farm Road as given their origins, it would be more practical for these to use the Deephams Farm Road access.

### 3.7 Stage 3

#### Overall traffic flows

- 3.7.1 In Stage 3, decommissioning, stripping out and demolition of the existing EfW facility would commence after the proposed ERF is fully commissioned. The total one-way traffic, including construction traffic, anticipated to be generated by the Project during the busiest period of Stage 2 is provided in Table 3.6. The accesses that would be used by vehicles associated with each activity are also provided.

Table 3.6: Total daily one-way vehicular traffic generated for the duration of Stage 3

Activity	Total daily flow (each way)	Access
Construction vehicle trips (HGVs and LGVs)	80	Lee Park Way via the Temporary Laydown Area & northern access
Trips associated with existing operational activities	0	-
RRF/EcoPark House trips	836	Southern access on Advent Way & Lee Park Way
ERF trips	161	Southern access on Advent Way & northern access
Construction employee trips	12	Temporary Laydown Area
Operational employee & visitor trips	153	Lee Park Way
<b>Total</b>	<b>1,242</b>	-

- 3.7.2 The 80 one-way daily construction trips would be the typical flow during Stage 3 and would comprise the following:

- a. 15 trips (per direction) associated with site management and visitors;
- b. two trips (per direction) associated with transporting operational employees; and
- c. 63 trips (per direction) directly associated with the construction activities (20 tonne tipper trucks).

3.7.3 The 17 daily (one-way) trips associated with site management, visitors and operational employees would be undertaken to the Edmonton EcoPark via the Temporary Laydown Area.

3.7.4 Operational vehicles would continue to access the Edmonton EcoPark via the existing access on Advent Way to serve both the ERF and RRF. Members of the public and local businesses visiting the RRC element of the RRF would access the Edmonton EcoPark via the new Lee Park Way access.

### **Ardra Road traffic flows**

3.7.5 The 63 daily (one-way) would use Ardra Road to access the Edmonton EcoPark via Deephams Farm Road. Given the nature of activities, it is assumed that the trips would be undertaken evenly across the 10-hour construction period (08:00 to 18:00). This would equate to between six and seven trips per hour per direction on Ardra Road.

3.7.6 During the peak month of activity during Stage 3, it is anticipated that the daily construction traffic would be up to 30 per cent higher than on a typical day during an average month. This would result in 82 trips on Ardra Road per direction per day, equating to eight trips per hour per direction. This level of construction traffic generation would only be experienced for up to one month.

3.7.7 As for Stage 2, some vehicles arriving to the Edmonton EcoPark from within LBE would use the northern site access via Deephams Farm Road. This would typically equate to 16 trips per direction per day and would peak at three vehicles per direction between 11:00 and 12:00.

3.7.8 Combining the construction and operational trips using during Stage 3, there would typically be eight to 10 HGV trips per direction per hour, peaking at between 10 and 11 HGV trips per direction per hour during the busiest month. Stage 3 is anticipated to last for up to two years.

3.7.9 Trips between the RRF and the existing Biffa Materials Recycling Facility (MRF) on Ardra Road could also be undertaken via the northern access and Deephams Farm Road. However, it is not anticipated that this would amount to more than one or two trips per day.

## **3.8 Stage 4**

### **Overall traffic flows**

3.8.1 Stage 4 would see the full operation of all new facilities. The total one-way traffic, including construction traffic, anticipated to be generated by the Project during the busiest period of Stage 2 is provided in Table 3.7. The

accesses that would be used by vehicles associated with each activity are also provided.

Table 3.7: Total daily one-way vehicular traffic generated for the duration of Stage 4

Activity	Total daily flow (each way)	Access
RRF/EcoPark House trips	791	Southern access on Advent Way & Lee Park Way
ERF trips	837	Southern access on Advent Way & northern access
Operational employee & visitor trips	153	Lee Park Way
<b>Total</b>	<b>1,151</b>	-

3.8.2 Operational vehicles would continue to access the Edmonton EcoPark via the existing access on Advent Way to serve both the ERF and RRF.

3.8.3 Members of the public and local businesses visiting the RRC element of the RRF would access the Edmonton EcoPark via the new Lee Park Way access.

#### **Ardra Road traffic flows**

3.8.4 As for Stages 2 and 3, some vehicles arriving at the Edmonton EcoPark from within LBE would use the northern site access via Deephams Farm Road. This would typically equate to 16 trips per direction per day and would peak at three vehicles per direction between 11:00 and 12:00.

3.8.5 Trips between the RRF and the existing Biffa Materials Recycling Facility (MRF) on Ardra Road could also be undertaken via the northern access and Deephams Farm Road. However, it is not anticipated that this would amount to more than one or two trips per day.

## 3.9 Summary

- 3.9.1 The additional traffic along Ardra Road associated with the Project would occur during both construction (Stages 1 to 3) and operation (Stage 4) with the level of additional flow varying between each stage. This reflects the Transport Assessment (TA) prepared as part of the Development Consent Order submission. These traffic flows would use Ardra Road to access the new northern access to the Edmonton EcoPark via Deephams Farm Road.
- 3.9.2 During Stages 1a and 1b, there would be a minimal number of additional trips using Ardra Road to access the Edmonton EcoPark via the new northern entrance.
- 3.9.3 During Stage 1c, there would typically be an additional 49 trips per direction per day on Ardra Road associated with construction traffic using the new northern entrance. This would equate to five trips per hour per direction. During the peak month of activity during Stage 1c, it is expected that 64 construction trips would be undertaken in each direction per day. This would equate to between six and seven trips per hour per direction. Stage 1c is anticipated to last for up to 12 months.
- 3.9.4 During the overall busiest period of Stage 1d, there would typically be an additional nine trips per direction per day on Ardra Road associated with construction traffic using the new northern entrance. This level of traffic generation is anticipated to last for 12-14 months in mid-Stage 1d (which would last for approximately three years in total). This would equate to one trip per hour per direction.
- 3.9.5 During an earlier period of Stage 1d the number of construction related trips (largely associated with the delivery of concrete) would increase to approximately 25 (one-way) trips per day. This would equate to between two and three trips per hour. This period would last for approximately 12 to 14 months at the beginning of Stage 1d.
- 3.9.6 During the peak month of construction during the early period of Stage 1d, the daily number of construction vehicles may increase to 30. This would equate to a maximum of three construction vehicles using Ardra Road per hour.
- 3.9.7 There would typically be little or no construction traffic generated during Stage 2 and hence there would be no additional construction traffic using Ardra Road. However, it is expected that 16 trips associated with the operation of the proposed ERF would be undertaken via Ardra Road, with a peak of three trips in each direction between 11:00 and 12:00.
- 3.9.8 During Stage 3, 63 construction trips would be undertaken in each direction mainly use Ardra Road to access the Edmonton EcoPark via Deephams Farm Road. This would equate to between six and seven trips per hour per direction on Ardra Road.
- 3.9.9 During the peak month of activity during Stage 3, up to 82 could be undertaken trips on Ardra Road per direction per day, equating to eight trips per hour per direction. This level of construction traffic generation would only be experienced for up to one month.

- 3.9.10 Operational vehicles would continue to access the Edmonton EcoPark via the existing access on Advent Way to serve both the ERF and RRF. This would typically equate to 16 trips per direction per day and would peak at three vehicles per direction between 11:00 and 12:00.
- 3.9.11 Combining the construction and operational trips using during Stage 3, there would typically be eight to 10 trips per direction per hour, peaking at between 10 and 11 trips per direction per hour during the busiest month. Stage 3 is anticipated to last for up to two years.
- 3.9.12 During Stage 4, some vehicles arriving to the Edmonton EcoPark from within LBE would use the northern site access via Deephams Farm Road. This would typically equate to 16 trips per direction per day and would peak at three vehicles per direction between 11:00 and 12:00.
- 3.9.13 A summary of the typical total two-way daily traffic flows on Ardra Road, including the additional traffic associated with the Project, for each stage of the Project are provided in Table 3.8 for the AM peak hour, interpeak hour, PM peak hour and for the entire day. The percentage HGVs has also been provided. A summary of the traffic flows on Ardra Road during the peak months of Stages 1c and 3 is provided in Table 3.9.
- 3.9.14 The traffic flows for each stage of the Project show the increases due to the additional traffic generated by the Project only and do not account for any changes due to background traffic growth or increases due to changes in the operation of any of the land uses on Ardra Road.

Table 3.8: Summary of typical total daily two-way traffic flows on Ardra Road

Time period	Existing		Stage 1b		Stage 1c		Stage 1d (overall peak)		Stage 1d (early stage)		Stage 2		Stage 3		Stage 4	
	Total flow	% HGVs	Total flow	% HGVs	Total flow	% HGVs	Total flow	% HGVs	Total flow	% HGVs	Total flow	% HGVs	Total flow	% HGVs	Total flow	% HGVs
AM peak hour (08:00 to 09:00)	201	26%	201	26%	206	28%	202	26%	204	27%	203	27%	210	29%	203	27%
Interpeak hour (11:00 to 12:00)	213	42%	213	42%	218	43%	214	42%	216	43%	216	43%	223	44%	216	43%
PM peak hour (17:00 to 18:00)	182	17%	182	17%	187	19%	183	18%	185	18%	182	17%	189	20%	182	17%
Daily (24-hour)	3,168	31%	3,168	31%	3,217	32%	3,177	31%	3,193	31%	3,184	31%	3,247	32%	3,184	31%

Table 3.9: Summary of peak total daily two-way traffic flows on Ardra Road during Stages 1c and 3

Time period	Existing		Stage 1c		Stage 3	
	Total flow	% HGVs	Total flow	% HGVs	Total flow	% HGVs
AM peak hour (08:00 to 09:00)	201	26%	208	28%	211	29%
Interpeak hour (11:00 to 12:00)	213	42%	220	44%	224	45%
PM peak hour (17:00 to 18:00)	182	17%	189	20%	190	21%
Daily (24-hour)	3,168	31%	3,232	32%	3,226	33%

## 4 Biffa

---

### 4.1 Biffa operational vehicle flows

4.1.1 Biffa has provided traffic flow data for its Materials Recycling Facility (MRF) on Ardra Road. The data covers the months of July, August and September 2015. A summary of the total monthly vehicle movements as well as the average flow between 10:00 and 16:00 each date was also provided. The data was provided for weekdays only.

#### Monthly analysis

4.1.2 The annual summary data shows that the peak month for vehicle movements to and from the Biffa MRF was July. For July, the highest hourly number of vehicle movements was 39 between 12:00 and 13:00 while the average hourly number of vehicle movements between 10:00 and 16:00 was 22.

4.1.3 Just over 60 per cent of the daily vehicle movements in July occurred between 10:00 and 16:00. However, on certain days, the number of movements started to increase (from less than 10 vehicle movements per hour) from 08:00/09:00 and there is a clear drop in the number of vehicle movements (to less than 10 per hour) after 17:00.

4.1.4 A similar trend was observed for both August and September. During these months, the total number of vehicle movements between 10:00 and 16:00 represented 62 per cent and 56 per cent of the daily total respectively, with a peak number of movements of 39 and 39 vehicles respectively (between 12:00 and 13:00). The average hourly number of vehicle movements between 10:00 and 16:00 was 21 vehicles for August and 22 vehicles for September.

4.1.5 In general, the daily trend for vehicle movements in August and September is similar to that of July. The peak hour for vehicle movements occurs between 12:00 and 13:00. On either side of this peak hour, the number of movements varies from day to day and there is no consistent daily profile of vehicle movements to the Biffa MRF. The EcoPark construction traffic would be relatively consistent across the day and the operational flows (for Stage 2 onwards) would peak at around three per hour (between 11:00 and 12:00), there would be little advantage in scheduling movements to be at one time of the day or another as the Biffa profile of vehicle movements can vary from day to day. However, this could be different if data from the other operations was available.

#### Annual summary

4.1.6 The summary data shows that during 2015, the maximum number of vehicle movements occurred in July (4,960 each way) with the minimum number occurring in February (3,767 each way). The average number of vehicles movements per month was 4,370 while the average number of vehicles movements per day was 199.

- 4.1.7 As stated in paragraph 4.1.3, approximately 60 per cent of the daily vehicle movements to the Biffa MRF occur between 10:00 and 16:00. Across the year, the average number of vehicle movements between 10:00 and 16:00 is 123 with an hour average of 21 vehicles during this period across the year.
- 4.1.8 The annual summary for the year shows that there was little variation across the year a total number of vehicle movements between 10:00 and 16:00 of the range of 119 to 134 from February to November. This dropped slightly to 115 for December and dropped more significantly to 99 for January. Other than for January and possibly December, the monthly variation in the 10:00 to 16:00 vehicle movements would not make much difference to the total hour traffic flows on Ardra Road.
- 4.1.9 Given that there is limited seasonal variation in the number of vehicle movements between 10:00 and 16:00 (other than January), without considering the traffic flows from other operations, it would be difficult to suggest specific months within which it would be beneficial to limit the EcoPark traffic on Ardra Road.

## **4.2 Potential mitigation**

- 4.2.1 In order to fully mitigate any impacts of the additional traffic on Ardra Road generated by the Project, the following could be considered:
- a. provide the security control point at the southern end of Deephams Farm Road during construction (which has already been suggested) but also during operation;
  - b. operational vehicles could be restricted from using Ardra Road and the northern access during Stage 3 (when construction vehicles would be using it) to keep the additional traffic flow movements on Ardra Road to a minimum; and
  - c. commit to regular monitoring of activities on Ardra Road to ensure that the impacts on Biffa and other operations are minimised. This would be provided for more generally through the Code of Construction Practice (CoCP) but Ardra Road would be specified to ensure appropriate monitoring takes place.