

## Chapter Eight

# TRANSPORT AND ACCESS

### INTRODUCTION

8.1 Chapter eight of Enviroparks' 2008 ES described the proposed changes to local transport and access which would likely occur as a result of the planned development, which at the time, was to be constructed on a vacant site, within an under-used industrial estate. The changes to the transport and access arrangements will change marginally with the revised scheme, and there are also changes to take into account on the Hirwaun Industrial Estate more widely. Hence, this ES Addendum chapter serves to review and update the original 2008 ES chapter eight, but should be read in conjunction with that document, which it supplements. This chapter provides specific updates only where there have been changes.

### LEGISLATION AND POLICY UPDATE

8.2 Many of the legislation and policy requirements remain fundamentally the same as in 2008 when considering transport and access requirements.

#### Regional Transport Plan

8.3 The South-East Wales Transport Alliance (SEWTA) Regional Transport Plan<sup>(1)</sup> was consulted upon during 2008 and the final version was published in March 2010. Rhondda Cynon Taf County Borough Council is a member of SEWTA and has adopted the transport plan. The final plan has a vision of creating a modern, accessible, integrated and sustainable transport system for South-East Wales that increases opportunity, promotes prosperity for all and protects the environment; and where walking, cycling, public transport, and sustainable freight options are available, promotes real travel alternatives. Whilst maintaining a similar focus, the key priorities of the plan have changed slightly and set the general direction of the transport plan, as follows:

#### ***Safety and security***

- To reduce the number and severity of road traffic casualties.
- To improve actual and perceived levels of personal security when travelling.

#### ***Connectivity and accessibility***

- To improve access for all to employment opportunities, services, healthcare, education, tourism and leisure facilities.
- To improve connectivity by sustainable transport between South-East Wales and the rest of Wales, the UK and Europe.

**Quality and efficiency**

- To improve interchange within and between modes of transport.
- To improve the quality, efficiency and reliability of the transport system.
- To reduce traffic growth, traffic congestion and to make better use of the existing road system.

**Environment**

- To achieve a modal shift towards more sustainable forms of transport for moving both people and freight.
- To reduce significantly the emission of greenhouse gases from transport.
- To reduce the impact of the transport system on the local street scene and the natural, built and historic environment.
- To promote sustainable travel and to make the public more aware of the consequences of their travel choices on climate, the environment and health.

**Land use and regeneration**

- To ensure developments in South East Wales are accessible by sustainable transport.
- To make sustainable transport and travel planning an integral component of regeneration schemes.

8.4 The transport plan identifies a number of core activities and interventions that are critical to achieving its vision:

- developing innovative walking, cycling and Smarter Choices programmes;
- continuing investment in the regional rail system;
- improving the quality of bus services across the region;
- developing better public transport integration;
- making better use of the regional road system.

8.5 The preferred strategy is made up of policies and actions. The policies set out the objectives and the actions identify how these policies will be implemented. Many of the policies in the adopted Regional Transport Plan have changed little from those considered in the 2008 ES. However, other policies which could affect or be affected by the proposed Enviroparks development are as listed below. Where relevant, Enviroparks has taken these policies into account in the formulation of its proposals.

PLA2: SEWTA will seek to ensure that Local Development Plans contain appropriate planning obligations policies.

WCP1: SEWTA supports improved infrastructure for walking and cycling.

SCA2: SEWTA will continue to promote and develop a regional car sharing system

RAP1: SEWTA supports improvements and further extensions to the regional rail system.

BUP2: SEWTA supports the introduction of a more efficient and effective bus regulatory system.

BUP3: SEWTA supports regional quality standards for all bus services and the associated infrastructure.

IIP1: SEWTA supports further improvements and expansion of public transport interchanges and Park & Ride facilities.

ECP1: SEWTA supports improved links between South-East Wales and other parts of Wales and the UK, in particular by rail, coach and sea.

FRP1: SEWTA supports measures to improve the sustainability, efficiency and effectiveness of the transport of freight, including the transfer to rail and water where practical.

FRP2: SEWTA supports improved access to key destinations such as major industrial sites, seaports, airports, rail hubs and freight interchanges, in particular by rail and water.

CPP1: SEWTA supports a consistent approach to car parking standards across the region.

Existing SEWTA Walking & Cycling Programme - RCT16 & RCT19 Heads of the Valleys Cycle Route and Links to Hirwaun Industrial Estate from planned and aspirational routes.

### Local Development Plan Policies

8.6 Within the Rhondda Cynon Taf Local Development Plan<sup>(2)</sup>, Policy CS9 on Waste Management states that in order to meet the capacity requirements of between 12.5 and 21.7 hectares in the South-East Wales Regional Waste Plan, land will be made available at the regional and sub-regional level. Among the sites identified as being able to accommodate a range of waste management options at a regional level is the Hirwaun Industrial Estate, for use by 'in-building processes' only. The plan acknowledges that the site is well located in relation to the strategic highway network and is accessible within the plan area and to the wider region.

8.7 The requirement for waste management facilities at the Hirwaun Industrial Estate to be limited to 'in-building processes' only is a recognition of the proximity of the National Park. It is accepted that proposals for development in this area will require careful assessment for their effects on the National Park and other local sensitive ecological receptors.

8.8 The Brecon Beacons National Park Authority Local Development Plan<sup>(3)</sup> includes objective SE4 on transport which seeks to promote development that is supported by sustainable transport initiatives and reduces the reliance on private motor vehicles. However, as the National Park Authority is not a Highways Authority, it seeks to influence the reduction in the need to travel by the following means:

- the spatial strategy controlling the location of development;
- the negotiation of Planning obligations in partnership with constituent Highways Authorities;
- and
- the control of the design of developments.

8.9 Planning and appraisal of transport proposals by the National Park Authority are guided by the Welsh Government’s “*Welsh Transport Planning and Appraisal Guidance*” (WelTAG), which explains how transport proposals should be planned and developed. The policies below provide additional guidance and advice on sustainable transport in the National Park.

**SP17 Sustainable Transport**

To ensure that land use planning opportunities are taken to improve and promote accessibility and to reduce the need to travel by private car by:

- a) *Permitting facilities to improve public transport by helping to link between travel modes or providing facilities for passengers;*
- b) *Ensuring new development is well designed by providing appropriate access for pedestrians, cyclists and encouraging the provision of new pedestrian and cycle infrastructure;*
- c) *Refusing proposals that will result in transport impacts which cannot be satisfactorily mitigated (see Policy 59);*
- d) *Where necessary permitting proposals that assist in delivering improved traffic and parking management that are proven necessary for the enhancement of the sustainable transport network; and*
- e) *All development proposals defined as Major Development must be accompanied by a Travel Plan prepared to the satisfaction of the NPA.*

**Policy 59 Impacts of Traffic**

*Development will be permitted where appropriate access can be achieved. Instances where access will be considered to be inappropriate are:*

- a) *Traffic is likely to generate an unacceptable impact on congested areas or at times of peak traffic flows; or*
- b) *Traffic is likely to be generated at inappropriate times such as late at night in residential areas; or*
- c) *Where there is an unacceptable impact on road safety; or*
- d) *Where significant environmental damage would be caused and cannot be mitigated.*

**METHODOLOGY USED**

8.10 As in the original assessment, consideration has been given to the Institution of Highways and Transportation’s “*Guidelines for Traffic Impact Assessment*”, and the Institute of Environmental Assessment’s “*Guidelines for the Environmental Assessment of Road Traffic*”, although as per a discussion with Souren Zeinali, Highways Development Control and Adoptions Manager at Rhondda Cynon Taf County Borough Council (telephone correspondence 25 October 2016) it is considered that if the Enviroparks proposal has not changed substantially, or if there is a reduction in the overall traffic numbers then provision of a Transport Statement rather than a full Transport Assessment should suffice. Enviroparks has followed this advice.

8.11 The Enviroparks development is located off Fifth Avenue on the Hirwaun Industrial Estate, Hirwaun, Aberdare. The Hirwaun Industrial Estate has been under-used for some time, although in recent years a number of development proposals have been made which are rejuvenating the estate. These are identified in chapter two of this ES addendum and include the Enviroparks proposals; the Green Frog Short Term Operating Reserve (STOR) site which has been operational since 2012; the Hirwaun Power peaking plant, a Nationally Significant Infrastructure Project which received a Development Consent Order in 2015; and the change of use of a current B2 industrial unit into the Hirwaun Energy Centre, a renewable energy generation production facility. Since the original assessment, phase I of the Enviroparks development has progressed, although operations at the site have not yet commenced. Hence there are no current traffic movements to or from the site other than during construction of the phase I development.

8.12 Although the Enviroparks proposal will result in a number of daily vehicle movements once operational, the most significant vehicle numbers associated with each of these developments occur during construction, and hence are short-term. The Green Frog STOR requires 4 – 6 members of staff attending site between 09:00 and 18:00 Monday to Friday now it is operational. Hirwaun Power will employ 15 staff daily on a three-shift basis, resulting in 10 vehicle movements at shift changes three times per day, and while the Hirwaun Energy Centre will require up to 44 operational vehicle movements per day, these are a significant reduction in the current requirements of the site. Each vehicle visit to sites will produce two vehicle movements.

8.13 Similarly, the operational vehicle movements at the Enviroparks site are set to reduce. The currently consented scheme was based on the intention of bringing much of the waste materials to site direct from doorstep collections, that is, in refuse collection vehicles. This will now not be the case and Enviroparks will instead receive materials from commercial and industrial sources and pre-sorted materials which incorporate a low biogenic content. As such, the number of heavy goods vehicles (HGV) attending the site on a daily basis will reduce dramatically with the revised scheme, and the total daily operational vehicle movements now equates to 80 HGV visits or 160 HGV movements, which includes consideration of an allowance for the high energy user at the site as previously, against an initial assessment of 218 movements (a reduction of 58 movements per day).

8.14 Although the overall staffing levels have reduced for the revised Enviroparks proposals due to significant changes in the shift requirements, the number of staff attending the Enviroparks site daily has increased slightly to 58, as more staff will work 8-hour shifts rather than 12-hour shifts. The original Transport Assessment calculated peak hour am and pm staffing movements of 45 and 73 vehicle movements respectively within the Industrial Estate when considering both the Enviroparks facility and the high energy user needs. The new Transport Statement presented as Appendix 8.1 to this chapter notes that the peak hour pm vehicle movements will now reduce by 14 during operations under the revised scheme, and although the peak hour am increases by 1 vehicle movement, the impact of this is considered to be negligible.

8.15 As the traffic movements for the development will ultimately reduce during the operational phase these are not considered further. The Transport Statement in Appendix 8.1 focuses on the impact of construction vehicles, both for the revised Enviroparks development and for other key sites in the area which may be constructed at a similar time. Although there might be a period where both construction and partial operational activities progress in parallel at the Enviroparks site, this could only occur during the latter stages of the Enviroparks site construction, when construction vehicle movements for all sites are expected to have reduced. As such, the combination of the cumulative Enviroparks and other local construction traffic during the second half of the construction timetable, and the potential operational traffic associated with the start of operations at the Enviroparks site, remains within the maximum daily cumulative construction traffic assessed over the entire build. Hence no further assessment has been made as to the resultant impact of this potential overlap in activities, as the worst-case construction traffic movements are considered to represent a robust assessment.

8.16 The Transport Statement identifies that the percentage increase on the network from the construction of the development range from approximately 24 % to 84 % on the local network serving the industrial estate. This is relatively comparable with the previous assessment which suggested increases of 71.43 % on the estate roads during the peak hour, and 31.45 % at the junction with the A4061 at the peak hour. The percentage increases are higher still when considering the cumulative effects of other proposed developments, and are predicted to be 110 % of the current peak local traffic level at their maximum. Although percentage increases of more than 5 % where congestion is an issue and 10 % in all other areas is deemed to constitute the criteria for further assessment, these large increases only apply to the estate roads, which are currently under-used and are often quiet, and of course are only planned for a short period during the construction of one or more industrial facilities. As such, no further assessment is proposed at this stage.

8.17 The percentage increase caused by construction traffic on the A465 is, as would be expected, far less significant, and remains below 5 % when considering the construction vehicle movements from the Enviroparks development in isolation, and when considered cumulatively with other potential construction projects. As such, no further assessment is required.

8.18 Traffic modelling for the original Transport Assessment, produced as part of the 2008 ES, demonstrated that, due to the current under-use of the industrial estate road network, there would be no capacity issues if the development proceeded. Although the revised construction figures do increase the use of the estate network substantially during a two year period, and especially if coincident with other local development projects, these increases are short term, and with a reduction in the operational traffic of the development now proposed, the available highway network is considered to remain suitable and sufficient for the needs of the revised scheme, and the impact of the development on the traffic flows in the area will be minimal.

8.19 The potential noise and air quality effects of vehicle movements have also been assessed within the Transport Statement and are considered to be neutral when considering noise impacts, and negligible when assessing the impact of changes in air quality likely to occur as a result of the construction stage of the project. As, during the operational phase of the development under the proposed new scheme, substantially less vehicles will be attending site than currently consented, no detailed assessment has been made of the impact of these movements. As explained, the impact of the revised scheme will reduce from the currently consented operations.

## MITIGATION

8.20 The traffic generation associated with the construction of the Enviroparks site, and then during the operation of the proposed revised development, is relatively small when considering the available highway links and capacity in the area. Mitigation measures which the Company has and remains committed to, include a strict vehicle routing policy for heavy goods vehicles to avoid creating unacceptable nuisance and congestion in local residential areas, and the implementation of a Transport Plan to promote sustainable commuting measures for all staff.

8.21 Although detailed information on the likely vehicle movements required during construction has increased the estimates submitted during the original ES, vehicle movements associated with the long-term operation of the Enviroparks facility are greatly reduced, and no further mitigation measures are considered to be necessary.

## EVALUATION OF RESIDUAL EFFECTS

8.22 As previously, the current non-operational status of the site can only result in an increase in the vehicle movements required both during the construction of the site, and the operational phase which requires staffing and material movements. However, as the Enviroparks site is already subject to a consented development scheme, and has undergone an initial construction phase, it is appropriate to evaluate the change in likely impacts from those already consented, which may otherwise continue to progress. As such, the impact assessment applied during the original ES, which considered only negative impacts of varying significance, has been expanded as follows:

**Table 8.1: Criteria for Assessing the Impact of Transportation Between the New and Currently Consented Schemes**

| Significance                | Description of Impact   |
|-----------------------------|---|
| Significant Negative Impact | Significant negative impact on the highway or local environment |
| Moderate Negative Impact    | Moderate negative impact on the highway or local environment    |
| Minimal Negative Impact     | Minimal negative impact on the highway or local environment     |
| Neutral / Negligible        | Impact barely perceivable                                       |
| Minimal Positive Impact     | Minimal positive impact on the highway or local environment     |
| Moderate Positive Impact    | Moderate positive impact on the highway or local environment    |
| Significant Positive Impact | Significant positive impact on the highway or local environment |

## Construction

8.23 Although increases in the predicted construction traffic flows will occur, these have been calculated as less than a 5 % increase on the current or future flows on the main trunk road network, and only exceed 5 % on the smaller, under-used estate roads and junctions. The most recently forecasted construction vehicle movements associated with the Enviroparks development equate to 2.35 times those originally estimated, at the highest level of construction movements (495 movements per day from 148). However, this represents a short-term peak in a two-year

construction period and equates to a maximum percentage increase of 83.81 % on the Hirwaun Industrial Estate roads during the peak hour movements, for one month only. This might sound high but needs to be considered against a low baseline traffic volume. No traffic congestion is anticipated on the Hirwaun Industrial Estate as a result of this temporary increase.

8.24 When compared to the 2008 assessment, which suggested long-term operational increases of 71.43 % on the estate roads during the peak hour and which were determined by modelling to retain suitable capacity if the scheme were to progress, and the fact that the number of Enviroparks construction vehicle movements equate to an average of 1.375 vehicles per minute at their peak, it is considered that despite the significant increase in the predicted construction traffic, the available highway network and the localised and short term nature of any disruption will continue to result in a **minimal negative impact on the local road network, and a negligible impact on the wider network.**

8.25 An assessment has been made of the likely impact of the increased vehicle movements during the construction of the Enviroparks facility on both the noise levels around the site and on the local air quality. The effect of the development on the current and future levels of noise is considered to be **neutral**, and the effect of the development on the current and future levels of air pollution attributed to road transport is **negligible**.

### Operation

8.26 A noticeable reduction in the levels of vehicle movements associated with the development during the operational phase will result in a **minimal positive impact** on the currently consented scheme, once the site is operational. The reduction of 58 vehicles per day will reduce the proposed long term addition to the road network, and although during the weekday morning peak hour, a negligible increase on the current scheme of 1 vehicle movement is estimated, assuming all staff travel in single occupancy cars, there is a significant reduction estimated in the afternoon peak hour, and an overall reduction in vehicle movements associated with the site.

### REFERENCES

- (1) South East Wales Transport Alliance Regional Transport Plan March 2010.  
<http://www.sewta.gov.uk/regional-transport-plan>.
- (2) Rhondda Cynon Taf Local Development Plan up to 2021. Adopted March 2011.  
Jane Cook, Director of Regeneration & Planning and Simon Gale, Service Director Planning.
- (3) Brecon Beacons National Park Authority Local Development Plan 2007-2022.  
As Adopted by The Brecon Beacons National Park Authority 17th December 2013.