

# **ARUP**

### CiNER Glass Limited

# Volume IV: Non-Technical Summary

Dragon Glass Bottle Manufacturing Facility

DRAGON-ARUP-ENVZ-XX-RP-YE-000006 7th January 2022



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# 1. What is the Dragon Glass Bottle Manufacturing Facility?

The Dragon Glass Bottle Manufacturing Facility is a proposed development located within the Rassau Industrial Estate for the production and distribution of glass bottles. The site is allocated within the Ebbw Vale Enterprise Zone one of eight Enterprise Zones across Wales, and focuses primarily on the advanced materials and manufacturing sector. The facility is forecasted to create approximately 671 jobs associated with the operation and running of the facility and approximately 450 jobs during peak construction.

CiNER Glass Ltd's glass manufacturing facilities are high tech environments, the aspiration is to design a facility to support the implementation of advanced technologies in the glass packaging industry, from state of the art production and control systems, to automatic sampling and recycling system. CiNER Glass Ltd. is committed to providing training and employment opportunities for local people and boosting the local economy with the vision to build a centre of engineering excellence in glass technology in Wales.

The Environmental Statement (ES) is submitted to accompany the planning application. It describes the environmental effects of the proposed development, assessed in accordance with the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017. This document is the Non-Technical Summary (NTS) of the ES, providing an overview of the proposals and summarising the assessment outcomes.

#### Site Location

The site is located within the Rassau Industrial Estate to the north of Ebbw Vale, Blaenau Gwent, South Wales. It is approximately 21.5ha and comprises a vacant plot adjacent to the built facilities of the industrial estate. The industrial estate is situated on the foot slopes of Mynydd Llangynidr, approximately 400m south of the Brecon Beacons National Park (BBNP) as shown in Figure 1.

The site occupies a strategic location adjacent to the A465 Heads of the Valleys Road in the head of the South Wales Valleys, approximately 700m to the north of Rassau village and 3 km north of Ebbw Vale town centre. The site is approximately 10km northeast of Merthyr Tydfil and approximately 14km west of Abergavenny, the two nearest large urban conurbations.

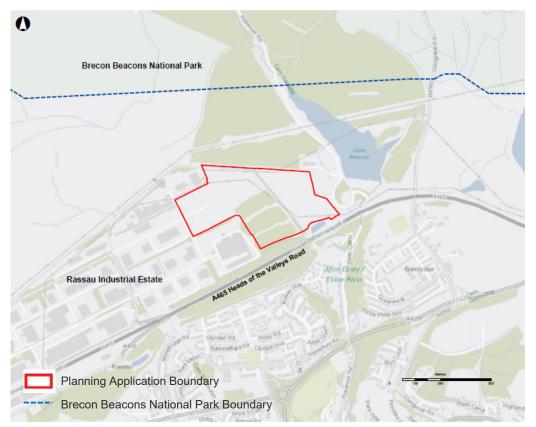


Figure 1: Site Location and surrounding context

# 2. What is being proposed?

The Dragon Glass Bottle Manufacturing Facility consists of a number of distinct components as shown in Figure 2 and Figure 3 for the manufacturing and distribution of glass bottles.

#### Main Development

- Two furnaces and associated filters and chimney stacks at approximately 75m in height;
- Two cullet buildings and stores, approximately 40m in height, for the storage and processing of rejected and recycled glass;
- Batch building and silos for the storage and mixing of raw materials approximately 40m in height;
- Two production lines for hot & cold processing, inspection and packaging of glass bottles (approx. 80,000m<sup>2</sup> Gross Internal Area) including workshops and storage areas;
- Office space and welfare facilities including canteen, infirmaries and changing facilities (approx. 10,300m<sup>2</sup> Gross Internal Area);
- An automated warehouse for storage and distribution of glass bottles (approx. 16,000m<sup>2</sup> Gross Internal Area);
- Utilities building which includes plant space and workshops (approx. 12,100m² Gross Internal Area);
- Waste material stores, approximately 5m in height;
- Standalone plant buildings including substation facilities and back up fuel storage buildings and facilities;
- Main entrance security lodge and associated weighbridge;
- External hardstanding for the storage of materials, parking and loading.



Figure 2: Illustrative layout and landscaping

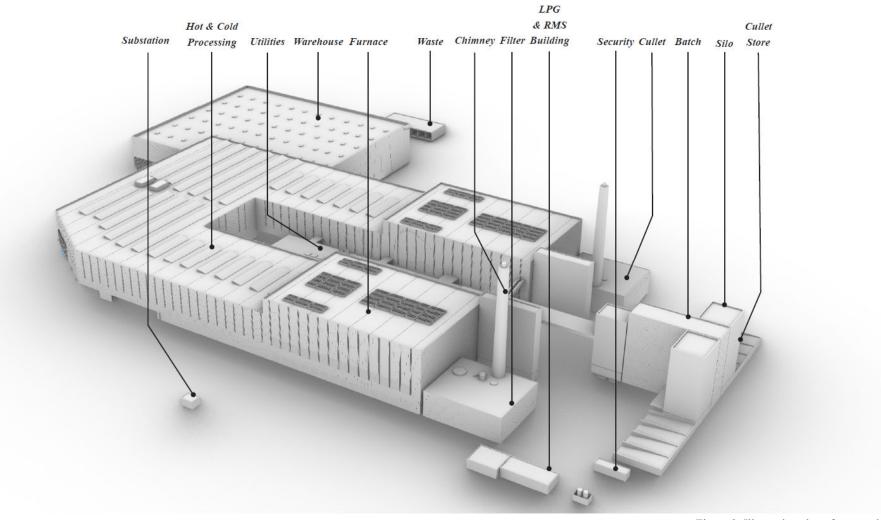


Figure 3: Illustrative plan of proposals

#### Supporting Infrastructure

Supporting infrastructure is required to enable the plant operations these include: attenuation ponds for surface water, gas connections, Western Power Distribution (District Network operator) substation, water supply and drainage connections, security infrastructure, telecommunication connections, cycle parking, dust suppression systems, lighting, landscape and ecological mitigation.

#### **Enhancement Offsite Works**

Enhancement measures are proposed in addition to any mitigation and or compensatory measures, to provide further benefit to ecological receptors, beyond what is required. Biodiversity enhancements are proposed on and offsite. The majority of enhancements and net gain will be provided through off-site habitat management, delivering management prescriptions as set out in existing LNR management plans.

#### Operation of the works

It is anticipated that the proposed development will commence operation of the first furnace in 2024, with the proposed development expected to be fully operational in 2026 with both furnaces in operation. For the purpose of the assessment the operational phase is assumed to run from 2024-2084, with the first full year of operation commencing in 2026.

The facility is forecasted to create approximately 671 jobs associated with the operation of the facility that will run 24 hours a day, 7 days a week via a shift system.

#### Vehicle movements

The proposed works will require the delivery of raw materials to the site and will also require the transportation of finished product glass bottles following production. During peak months there will be 190 two-way (380 total) daily HGV trips associated with the delivery of raw materials to the site, including sand and soda ash to produce glass and for transportation of glass bottles off site following production.

Incoming deliveries will take place between 08:00 and 17:00, with outgoing deliveries between 06:00 and 22:00. Deliveries are also likely to be higher in the first half of the day to accommodate the transportation and delivery of glass bottles before 09:30.







Figure 4: Illustrative landscaping images

#### **The Operational Process**

The manufacturing process for the production of glass bottles on site has two distinct principal areas as shown on Figure 5 and below:

- 1. Production (including the glass making furnace, processing lines, and process support area).
- 2. Warehouse for the storage and distribution of glass bottles.

These two principal areas of the manufacturing process are shown in Figure 5 which provides an illustration of the glass bottle manufacturing process through a schematic.

The glass bottle manufacturing process begins with raw materials. The batch building houses the raw materials in silos, fed by trucks. These raw materials include, silica sand, soda ash and limestone. The batch building measures and mixes the raw materials before delivering them via conveyor to the furnace building via the cullet building.

Cullet is crushed recycled glass that is ready to be remelted. The cullet building stores and mixes recycled glass with the raw material mixture. The mixture is then delivered to the furnaces via a conveyor.

The production facility is composed of two production lines. Each production line includes three principal areas: a furnace, a hot processing area and a cold processing area. Both production lines are linked to a utilities building which houses transformers to power the furnaces and back up power generators. The glass bottles would then leave the production line and enter the automated warehouse for storage and distribution relative to baseline.

A packing area is located at the end of the production lines where the bottles are batched onto pallets before entering the automated warehouse for storage and distribution.

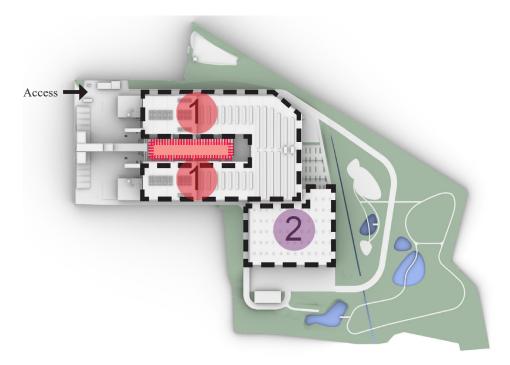


Figure 5: Principal areas of the proposed development

### 3. How have the plans evolved?

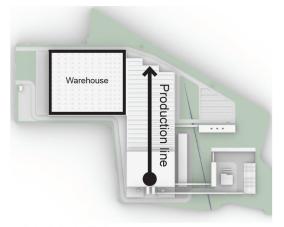
Design development including the consideration of the six key design principles of *Orientation, Context, Topography, Infrastructure, Dark Skies, Landscape* were adopted to minimise adverse impacts on the environment and the surrounding area. As part of this process, two main scenarios for the site layout were developed:

- 1. Production process running South to North, with the warehouse positioned to the West; and
- 2. Production process running West to East, with the warehouse positioned to the south.

Through consideration of the key design principles the second scenario presented was taken forwards and presents the following advantages:

- Tall chimney stacks would be positioned further away from the main road and located at a
  more central location in the industrial estate adjacent to other tall structures;
- The facility enables more opportunity for retention of vegetation and additional landscaping to the south of the site, adjacent to the A465 Heads of the Valleys Road;
- The materials yard is positioned next to the site entrance, allowing for more efficient raw material delivery;
- The key areas of high activity and industrial processes surrounding the furnaces, cullet stores and batch buildings are located to the west of the site adjacent to the neighbouring industrial plots and further from the residential areas to the south of the site;
- In this orientation the utilities building could be located centrally between both production lines, acting as a central hub to the facility;
- The proposed development will provide a functional connection between the principal areas, for an optimised process route; and
- This orientation has reduced overall footprint onsite enabling more space for landscaping, mitigation and retention of green areas.

Figure 6 sets out two options that were considered in the design development process before the design was finalised.





Option 2 - West to East

Production line

Warehouse

Option 1 - South to North

Figure 6: Site layout options

#### **Building Facade**

Studies were undertaken to develop a concept for the appearance of the building. These studies considered the structural grid, materiality, colour and appearance of the external façade of the building, along with consultation with Blaenau Gwent County Borough Council (BGCBC).

Given the scale of the facility it is important through the design process to consider how the material and finishing choices for the building disguises the overall mass of the facility on site. The proposed development should sit within its surroundings and local context with the key considerations being how it appears in the landscape and against the skyline.

Using a reflective metallic finish to the facade, the building would be able to adapt to various viewpoints both locally and at a distance, subtly picking up on the tones of the sky, natural colours of the surrounding landscape and adjacent buildings. It has been considered that the use of a metallic finish not only serves to reflect the local context, it also gives a lighter appearance to the overall facility. The use of darker tones applied to the building would only highlight its overall mass giving the appearance of a large, heavy building sat in the landscape.

The finish would create a light structure to what would otherwise be a large mass and the reflective quality would change daily reflecting the weather and change of seasons.

#### Biodiversity & Landscape

As part of design process, a sensitive approach to biodiversity was undertaken with the aim to design the proposed scheme to retain as much habitat as possible and where possible create enhancement opportunities on site as well as working with BGCBC to identify further off site enhancement opportunities. Where possible existing habitats such as woodlands and marshy grassland has been retained through the layout and orientation of the facility, as well as the configuration of outdoor areas including parking.

A *landscape vision* has been developed with the overarching concept to create a multifunctional and robust landscape that respects and responds to both the open moorland and the industrial context of the site.

The landscape spaces will be optimised to serve ecological functionality, amenity for staff members and sustainable water management through the application of six principles underpinning the design:

- 1. Protect and Restore
- 2. Transition and integrate
- 3. Promote well-being
- 4. Integration of blue infrastructure / water elements
- 5. Local and sustainable



### 4. How would the Dragon Glass Bottle Manufacturing Facility be constructed?

#### Programme

The proposed development would be constructed over a period of approximately four years following a phased approach (Figure 7):

#### Phase 1

The first phase of construction is proposed to commence in summer 2022, following approval of the planning application, with mobilisation and earthworks. Construction will then commence in autumn 2022 for the superstructure for the first furnace with an aim for it to be operational by Q4 of 2024 following an 18 month build programme.

#### Phase 2

Construction of the second furnace would be undertaken alongside the operational aspects of the first furnace with commencement in 2025 with an aim of being operational by 2026 following a 12 month build programme.

#### **Construction Access**

Construction vehicles would enter and exit the site at the western extent of the proposed facility during construction as well as operation, with movements coming off the A465 Heads of the Valley Road. Access for construction purposes (vehicular and pedestrian) would be controlled via the main entrance.

Construction vehicles are anticipated to use the same route as existing traffic to and from the industrial estate. This route uses the main signposted route to the site from the A465 Heads of the Valley Road. Vehicles would be restricted from travelling through the local Rassau residential areas.

#### Construction Traffic

HGV movements will be restricted as far as reasonably possible to avoid traffic flow periods 08:00 to 09:00 and 16:30 to 18:00

#### Construction Working Hours

Core working hours are anticipated to be Monday – Friday 08:00 – 18:00; Saturday 12:00 – 18:00 unless in exceptional circumstances which dictate evening or further weekend working.

#### Construction Management Plan

An outline Construction Environmental Management Plan (CEMP) has been prepared which contains control measures, and the standards to be implemented throughout the construction of the works in order to avoid and reduce impacts during construction. It is proposed that compliance with the CEMP is achieved through planning conditions

#### Construction Jobs

It is anticipated that 450 jobs would be created during the peak construction period, creating employment opportunities during construction. CiNER Glass Ltd. is committed to working with local communities with the provision of training and employment opportunities for local people.

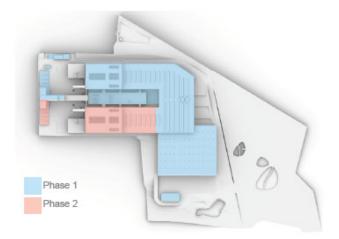


Figure 7: Illustrative plan of construction phases

# 5. Summary of Environmental Statement findings

The environmental impact assessment (EIA) is a statutory requirement to enable an understanding of likely significant effects and to use the process to identify options for preventing, reducing and monitoring these effects where appropriate. The assessment also identifies and proposes enhancement for positive effects where this is possible.

A scoping exercise was initially carried with Blaenau Gwent County Borough Council out to identify where likely significant effects may occur in relation to the proposed development. It was determined that the following aspects of the environment should be covered within the EIA:

- Chapter 5 Air Quality
- Chapter 6 Climate Change
- Chapter 7 Ecology
- Chapter 8 Health
- Chapter 9 Materials and waste
- Chapter 10 Noise and Vibration
- Chapter 11 Socio-economics
- Chapter 12 Transport
- Chapter 13 Visual
- Chapter 14 Water environment
- Chapter 15 Cumulative Effects

#### Air Quality

The air quality chapter examined the effects on humans and ecology associated with construction activities, including impacts from construction traffic. The air quality considers all pollutants and potential emissions of odour associated with proposed development during full operation.

Construction activities will be managed by the CEMP which will include measures to control air quality effects from construction including pollutants and dust. A Construction Traffic Management Plan (CTMP) will be prepared by the contractor and used to manage vehicle movements to the site.

With implementation of the measures identified in the CEMP, air quality effects from construction activities are not considered significant to humans or ecology. Furthermore, during construction there would be no significant negative air quality effects in relation to construction traffic.

The air quality assessment considers all pollutants and potential emissions associated with the proposed development during full operation. Air quality effects from the operational phase on humans are not significant for all pollutants assessed. There will also be no significant odour impacts.

Air quality effects from the operational phase on ecological receptors are also not significant.

#### Climate Change

The climate change chapter assesses greenhouse gas (GHG) emissions, climate change resilience (CCR) and in-combination climate change impacts. The GHG assessment quantifies the potential release of GHG emissions during construction and operation and identifies mitigation measures to reduce these emissions. The CCR assessment evaluates the effectiveness and resilience of the proposed development to climate change.

In addition, the combined effects of the scheme and potential changes in climate are considered in each topic in the relevant chapter of the ES.

During the construction phase, construction activities and use of materials would lead to the release of GHG emissions. Mitigation measures have been recommended to reduce GHG emissions during construction.

On completion, the proposed development would emit GHG emissions as a result of energy consumption from the operation of plant and machinery for the production of glass bottles, buildings, transport, loss of habitat carbon sequestration and embodied emissions within maintenance and refurbishment activities. Mitigation measures have been recommended to reduce GHG emissions during operation.

The CCR assessment did not identify any significant risks associated with climate change. This is a result of mitigation being built into the design.

#### **Ecology**

The ecology assessment considers effects for both construction and operation; including habitat loss, severance and damage, and species mortality, injury and disturbance.

The project site comprises a mosaic of habitats. Habitats of most significance for nature conservation within the site comprise the mosaic of species rich wet and dry grassland which occurs across the industrial plateau in the central and western parts of the site. The site's habitats are known to support a range of breeding birds, foraging and commuting bats, badger, palmate newts, common lizard, a number of invertebrate species and a range of fungi species.

Usk Bat Special Area of Conservation (SAC) and Mynydd Llangatwyg Site of Special Scientific Interest (SSSI) are located approximately 900m to the north-east of the site. In addition, a number of locally designated sites including Sites of Importance for Nature Conservation (SINCs) and Local Nature Reserves (LNRs) occur within the surrounding area, in addition to ancient woodlands.

Impacts on the above ecological receptors have been considered, in light of best practice during construction and licensing requirement in addition to the site landscaping proposals. Mitigation during construction will include but is not limited to good practice during construction such as sensitive vegetation clearance under ecological supervision, a trapping and relocation programme for reptiles and amphibians (if present), closure of badger setts under licence (if required), a sensitive lighting during construction and tool box talks to contractors; and, the retention and creation of habitats within the site, to provide habitat for species and maintain and enhance ecological connectivity through the site, as part of the landscaping design.

Potential impacts from aerial emissions from the glass manufacturing process on the nearby European designated site Usk Bat SAC have been assessed within a separate Habitat Regulations Assessment (HRA). Following detailed air quality modelling it has been concluded that impacts from aerial emissions would not be significant. With the implementation of mitigation measures it is concluded that there would be no significant adverse effects on the integrity of the European designated site Usk Bat SAC.

The proposed scheme has the potential to significantly impact upon habitats of value to nature conservation including species rich grassland and notable fungi within the mixed plantation woodland. These elements will be lost as a result of the proposed development, however offsetting will be undertaken through the management of nearby woodland and grassland habitats, to mitigate and enhance their condition and increase the diversity of flora and fauna they support.

Through design and best practice mitigation and enhancement measures during construction and operation, it is not anticipated that there would be any residual significant effects on valued ecological receptors.



1. Diverse mosaic of habitats on the raised plateau



2. Central watercourse

3. Dense scrub and coniferous woodland within the south

Figure 8: Site survey photos

#### Health

The health and wellbeing assessment considers how the proposed development may influence a number of health determinants, which are aspects of the environment which influence a person's health. Health determinants considered included:

- · Air quality;
- The noise environment;
- · Crime and community safety; and
- · Access to work and training.

No significant health effects were identified for the construction phase including the impact of air quality, dust and noise due to the distance from receptors and the standard construction measures implemented to reduce sources of emission. The assessment reported minor beneficial effects through increased employment opportunities during construction of the proposed scheme.

During operation there are likely to be approximately 671 direct employment opportunities; this includes 80% technical, 18% engineering and administrative and 2% managerial. It is likely that these roles would be filled by people who live regionally, with some potentially living within the local communities. This would be enhanced further should the proposed development offer training opportunities which are specifically aimed at people within the local communities.

Once completed, the high number of jobs directly generated through the operation of the proposed development would provide significant beneficial effects with increased opportunities for employment and training.

#### Materials and waste

The materials assessment considers the types and quantities of materials required and the impact of using these materials on their availability in the local and regional areas. The waste assessment considers the types and quantities of waste likely to arise from the proposed development and, taking into account the management of this waste, the effect on regional landfill capacity.

During the construction phase, an excess of material would be produced, so negligible further primary construction material (e.g. aggregates and sand) would need to be imported to the site meaning that there would be no significant effect on the availability of primary materials. The regional availability of manufactured materials in relation to the size of the development means that the development would not have a significant effect on their availability.

The operation of the development would not result in a significant effect, as materials used during operation are either readily available or (for a number of materials) these would be sourced from overseas due to quality and supply. The potential for any effects on the supply of materials would be further reduced through use of cullet (recycled glass).

The waste assessment included a consideration of the impact of excess materials produced by earthworks during construction on the regional landfill capacity. Other construction and operational waste were scoped out of the assessment based on the local and regional waste management facilities having sufficient capacity for the expected waste produced.

The earthworks design would result in approximately 15,000m<sup>3</sup> excess material to be disposed of. However, a significant effect would not occur during the construction phase as regional landfill for inert, non-hazardous and hazardous waste has sufficient capacity so that the waste generated from the proposed development is not significant by comparison. Furthermore, opportunities would be sought for the reuse of this material in other projects in the local area, line with the principles of circular economy and all regulatory requirements.



#### Noise and vibration

The noise and vibration assessment considers potential effects of noise and vibration from the construction and operation of the proposed development on the nearest residential and non-residential sensitive receptors.

The noise climate around the proposed development site is dominated by road traffic noise arising from the A465 with some contribution from HGV movements and plant items which serve the nearby industrial units.

During construction, noise from the construction activities and from additional HGV traffic would not result in significant effects being identified at any of either the residential or non-residential receptors.

The highest construction noise levels were due to preliminary works, earthworks and piling. Construction activities, including earthworks and piling, will be managed through the CEMP. Through this plan further measures to eliminate construction vibration will be considered, informed by more detailed information on construction activities.

During operation, noise levels would not exceed the background noise at nearby receptors, with the exception of marginal increases at night-time predicted at the upper floors of residences immediately opposite the proposed development. These were considered marginal, and therefore no significant effects were identified.

Residential receptors further from the proposed development were predicted to also experience noise levels above the background noise level at night-time, however as background noise levels are very low in this location, this does not result in a significant effect.

No significant effects were identified at non-residential receptors.

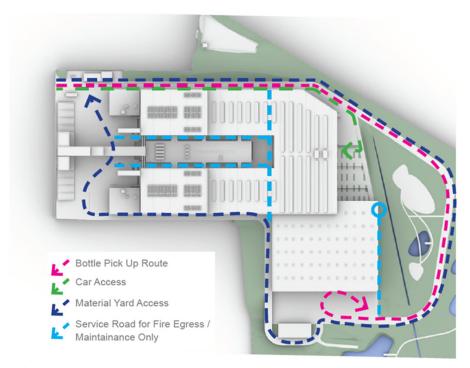


Figure 9: Site access routes

#### Transport

The traffic and transport assessment examines the effects relating to the potential delays experienced by road traffic, delays experienced by pedestrians and cyclists, pedestrian and cycle amenity, road safety, access to public transport, and the potential for added severance of communities.

During the construction phase, there will be an increase in traffic which is estimated to peak during the overlap between Phase 1 (Earthworks and Excavation) and Phase 2 (Construction - Substructure) of construction. The total number of daily vehicular trips generated by both construction vehicles (128 one-way trips) and construction workers (383 one-way trips) would be 511 (1,022 two-way trips).

To help mitigate this a Construction Traffic Management Plan (CTMP) will be prepared by the Contractor and agreed with BGCBC prior to construction. This would set out the times and days construction vehicles can access the site, the sizes of vehicle, and the routes these vehicles are to use.

During the operational phase, there will be an increase in Heavy Goods Vehicles (HGV) associated with import of materials and transportation of glass bottles, resulting in an increase of between 117% and 163% along Alan Davies Way however, total traffic is only expected to increase the link flow by between 11% and 16%. The percentage increase in traffic on all links within the study area for the construction phase are considered to be negligible.

To reduce effects from traffic, the proposed development seeks to maximise the proportion of journeys made to and from the site by sustainable modes of transport via a range of physical interventions and soft influencing measures as follows:

- Improvements to the existing footway fronting the site, including resurfacing
- Adequate footway provision and dropped kerbs/tactile paving within the development site to
  enable pedestrian movement and crossings, including to the south of the site where a new
  crossing is proposed.
- Provision of appropriate levels of cycle parking and associated facilities including cloakroom facilities, showers and lockers for staff.
- A Travel Plan will be produced which will seek to encourage sustainable modes of transport to/from the site.

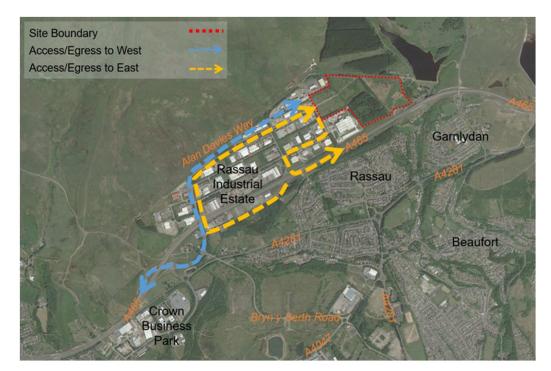


Figure 10: Accessibility to the A465 Strategic Network



#### Visual

The visual impact assessment considers the likely visual effects of the development on key receptor groups, including communities, recreational users, visitors to the Brecon Beacons National Park and road users.

During the construction phase, receptors will experience a range of visual effects due to construction activities depending on their location, distance from the development and the extent of visual screening provided by intervening landform and vegetation.

Construction of the proposed development would introduce new features into views causing visual change. Receptors with an elevated position in relation to the site, are likely to experience greater visual change with direct views of the works gained from several locations. Views of construction vehicles, personnel, large-scale earthworks and partially constructed buildings would be seen and experienced for a short-term duration with the construction activities being partially reversible. There would be limited effects on views during night-time, as there are no construction activities proposed to take place during the hours of darkness.

The assessment outlined that the community of Beaufort, visitors to the Brecon Beacons National Park and users of the B4560 would experience significant visual effects during construction of the proposed development.

During the operational phase, the development will create a prominent feature experienced by local communities, recreational users, visitors to the Brecon Beacons National Park and road users. The chimney stacks will contrast with the existing view, appearing on local skylines. From viewpoints to the south, the proposed development will be seen in views to the Brecon Beacons National Park, interrupting the intervisibility between the National Park and the local hills. Existing features such as pylons and the adjacent wind turbine are already present on the Rassau Industrial Estate. The facility will operate 24 hours a day requiring internal and external lighting, resulting in some limited effects on users of the Brecon Beacons at night as these would be seen in the context of the existing large-scale industrial buildings located within the Rassau Industrial Estate.

The assessment outlined that walkers on Mynydd Carn-y-cefn, the communities of Rassau, Garnlydan and Beaufort, visitors to the Brecon Beacons National Park and users of the B4560 would experience significant effect during the operational phase.

Landscaping of the site will be undertaken to help blend the proposed development within the surroundings, however due to the size and scale of the facility this will not fully mitigate the visual impacts assessed. The use of metallic grey reflective material to clad the outside of the facility buildings are proposed to reflect the local environment to help blend the proposed development into the surroundings. The reflective quality enables the facility to change its appearance with the weather and the change in seasons. These qualities will provide an opportunity to create an 'exemplar' feature of high architectural quality at a key location on the approach to Ebbw Vale.

#### Socio-economics

The socio-economic assessment focuses on employment opportunities, skills, training and supply chain impacts.

The proposed development is located within an area characterised by steady population decline, higher than average unemployment rates and lower than average levels of educational attainment. Manufacturing provides the largest sector for employment locally with business demographics showing only a small number of larger employers (250+ employees).

The area faces a number of key economic challenges including a need for greater economic diversification, stabilisation of population and improvements to educational attainment.

Construction of the proposed development is anticipated to lead to moderate beneficial effects through the creation of construction related jobs and opportunities for training and apprenticeships within the local area.

During operation, the proposed development is anticipated to generate employment opportunities, as well as having further benefits through creation of indirect jobs, training and apprenticeship opportunities.

Given the beneficial nature of the impacts, mitigation measures are not considered to be necessary.

#### Water

The Water Environment assessment considers potential effects of the proposed development on the groundwater and groundwater dependent features including springs, habitats and water supplies. The assessment looks at the impacts on groundwater level, flow and quality resulting from the proposed deep excavations, land contamination and proposed drainage.

The formation and reprofiling of the Rassau Industrial Estate has significantly altered the water environment by moving surface watercourses along the estate perimeter and installing shallow drainage to capture shallow groundwater. The area to the north of the site remains unaltered and is

known for its springs and marshy ground that may support groundwater dependent habitats.

The site is underlain by an aquifer, which supports three groundwater abstractions within the study area. A Source Protection Zone, a designated area to protect water supplies from pollution, also slightly encroaches on to the site area.

With mitigation measures in place during construction (as set out within the CEMP and following the findings of the hydrogeological impact assessment) no significant effects are predicted on the water environment. Direct impacts from land contamination during construction on groundwater quality would be managed through an environmental management plan. Drainage design will incorporate treatment to minimise impact on the water environment.

#### Cumulative Effects

The cumulative effects chapter presents an assessment of the effects of the Dragon Glass Bottle Manufacturing Facility when combined with other projects likely to be delivered in the local area.

Nineteen projects with the potential for cumulative effects were identified in the BGCBC administrative area. These are all located within approximately 5km of the proposed development.

For each environmental topic, the potential for cumulative effects was assessed and it was concluded there would be no significant cumulative effects.

### 6. How to Find Out More

The full planning application, including the Environmental Statement can be found on the Blaenau Gwent County Borough Council website upon request. (https://www.blaenau-gwent.gov.uk/)

Any comments on this application should be made directly to BGCBC via email (planning@blaenau-gwent.gov.uk), or in writing to:

Development Management, Municipal Offices, Civic Centre, Ebbw Vale, Gwent NP23 6XB

A copy of the NTS translated into Welsh is available on request.



