



SEVERN ROAD RESOURCE RECOVERY CENTRE

Chapter 2 – Site and Surroundings

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SITE AND SURROUNDINGS

- 2.1 The development site consists of the northern part of the Sevalco Plant which historically operated across two sites separated by Severn Road. The site is located at National Grid Reference 353797, 181739 around 7 miles outside of Bristol City Centre. The application site comprises about 8.3 hectares of land located adjacent to Severn Road and about 230 metres east of Chittingen Road, which is the main road providing a north/south connection within the Avonmouth industrial area. The site is shown in its local context on the aerial photograph¹ set out below.

Fig 1.0 Aerial Photograph of Proposed Site at Avonmouth



Avonmouth Industrial Estate

- 2.2 Avonmouth is an extensive, long established industrial area that serves the West of England sub region and beyond. It hosts a wide range of general industrial uses, specialist industries, port facilities, storage and distribution, power generation and waste management uses and has excellent links to the strategic route network.

¹ www.googleearth.com

Surrounding Area

- 2.3 The Avonmouth area is clearly defined as part of the Severn and Avon flood plains separated from the rest of Bristol to the south east by the M5 Motorway. As an established industrial area it is well separated from residential development. The application site is located on the flat low lying plain along the eastern bank of the River Severn, to the north west of Bristol. The elevation of the land is generally between 6-7m AOD, and is artificially drained by numerous 'Rhines' (drainage ditches). The site and much of the surrounding area supports a wide range of industrial use both past and present, within a background agricultural landscape of low lying fields.
- 2.4 To the north of the application site is Severnside Works and Seabanks Power Station with a number of pylon lines running past the northern edge of the site, and then diverging across the landscape to the east. To the west of the site is the large area of Chittening Industrial Estate on the edge of the Severn Estuary.
- 2.5 To the east, flat open agricultural land leads to a gas works, and the M49 motorway (linking the M5 to the southern Severn Crossing). Beyond the motorway an existing landfill operation is present, prior to the landform rising up to Spaniorum Hill. This hill forms part of a significant ridge of land (circa 60-90m AOD) that follows the line of the M5 running northeast to southwest.
- 2.6 Immediately south of the site lies an adjacent industrial complex and then flat open farmland towards a sewage works and the outlying Bristol suburbs of Lawrence Weston and Shirehampton.

Access

- 2.7 The site is currently served from Severn Road via two priority T-Junctions. To the west of the site, Severn Road joins with the A403 via an at grade T junction, with the major road of the junction passing through a near 90 degree bend, with the minor arm being on the apex of the bend.

Air Quality

- 2.8 The site does not fall within any Air Quality Management Zones.

Geology

- 2.9 The geology of the site is discussed based on geological map "Bristol District", 1:63,360 Solid and Drift published by the British Geological Survey; and the map indicates that the site is underlain the following sequence of strata:
- Alluvium.
 - Mercia Mudstone.

At greater depth are the following deposits:

- Upper Coal Measures (Upper Coal Series – the Avonmouth No. 1 and No. 2 seams are reportedly present under the site).
 - Pennant Sandstone.
- The site is not within a Radon affected area.

Land Quality

2.10 The site comprises the following features/facilities:

- Former carbon black production plants – these two plants are located in the north western portion of the site. The plants formerly produced ‘Industrial Carbon Black’ and carbon black using a ‘Medium Thermal Plant’ which was a batch production process. These two plants remain in situ with no specific demolition having taken place. It should be noted that these plants are likely to contain both solidified feedstock oil and carbon black residues;
- Former power plant – this is located in the south western portion of the site and contained two boilers that combusted ‘tail gas’ from the carbon black production plants, but could also be fired using natural gas;
- Product warehouse – this is a modern, steel framed structure with metal cladding. It is used for the storage of bulk bags of various grades of carbon black.
- Surface water settlement tanks/lagoons – located in the eastern portion of the site (two tanks are located in the north western area of the site adjacent to the former Medium Thermal Plant) and comprise a large lagoon excavated an estimated 3m into the ground, 4 concrete lined settlement tanks, an overflow tank and a single tank for storage of water prior to discharge to a surface water rhine. Treatment of surface water is understood to comprise the settlement of fines (primarily carbon black) prior to re-use within the production plant or discharge to surface water.
- Oil storage tanks – these are located at the eastern end of the site and comprise two above ground tanks (each estimated at 8,000-12,000 tonnes) constructed from steel. It is reported that only one of the tanks may have actually been used for the storage of feedstock oil (‘Cracker’ oil).
- Compressor house/electricity sub station – these are small brick built structures located in the south western portion of the site. It is understood the electricity sub station is to remain on the site.

- 2.11 It is anticipated that the demolition of redundant plant and equipment at the site will include the need to safely remove and dispose of asbestos containing materials and solidified feedstock oil and carbon black within the pipe network.

Landscape

- 2.12 The Avonmouth area is identified as a target area for regeneration, including regeneration through the development of waste management and energy production industries. It is not covered by any statutory landscape designations.

Nature Conservation

- 2.13 The site itself is not covered by any nature conservation designations but issues likely to be of interest are the water network around the site and site's proximity to the Ramsar/SPA/SAC/SSSI of the Severn Estuary.

Topography

- 2.14 The site elevation is approximately 6-7m Above Ordnance Datum (AOD) with the surrounding area being essentially flat with no significant topographic changes.

Water Environment

- 2.15 The groundwater at this site is classified by the Environment Agency (EA) as a non aquifer (Mercia Mudstone). The site is not located within a Source Protection Zone. Information from the Envirocheck® Report indicates there are no licensed groundwater abstractions listed within 1km of the site. It is considered feasible that private water abstractions could be present in the general site area, but it is unlikely that any exist in the immediate site area given its industrial setting.

Landscape and Visual Characteristics

- 2.16 Two Regional Character Areas (RCAs) as defined by Countryside Commission (now Natural England) cover the area of the site; the 'Severn and Avon Vales' (RCA 106) and 'Bristol, Avon Valleys and Ridges' (RCA 118). The key characteristics of these areas relevant to the site area are as follows:
- A landscape of very mixed landform, geology and settlement pattern, strongly influenced by the Avon Valley, Bristol at its centre and by its industrial history;
 - Diverse range of flat and gently undulating landscapes, united by broad river valley character;
 - Riverside landscapes with little woodland, often very open; wooded scarps – with ancient woodland – and high, open, downland ridges.

Views of the application site

- 2.17 The low-lying nature of the land around the site gives an open exposed character to the area. However, the scrub, small landscape features and large industrial buildings present combine to restrict distant views within the area. This feature emphasises the scale of the wooded ridge to the east and makes it the backdrop to views from the west. Views from the ridge itself are restricted by the degree of woodland cover, but where views are present they can extend out west across the low-lying land and Severn Estuary to South Wales.
- 2.18 Sensitivity to visual effects within the immediate landscape will be low due to the industrial legacy and quality of the landscape present. Slightly further afield views from small settlements such as Easter Compton (to NE) and Hallen (to SE) will be more sensitive, but will be restricted due to their low lying nature.
- 2.19 Views from the west across the Severn Estuary already comprise a large proportion of industrial elements set against the background wooded ridge. These features are seen at a distance of around 9km and thus perception of the proposed development would be greatly reduced.
- 2.20 Views from the ridge to the east require greater consideration. In many places these are restricted by existing woodland cover but open views are present. The ridge is followed by the long distance Community Forest Path, which is utilised for informal recreation and includes various historic features. Of particular importance are views from the southeast near Lawrence Weston where residential areas rise up from the valley floor over the lower levels of the wooded ridge (circa 50m AOD). The ridge also provides a strong screen between the main sections of Bristol and the industrial land uses around the area of the site.

Planning History

- 2.21 The complete planning history for the application site is set out in Table 2-1 below:

Table 2-1 PLANNING HISTORY

Application No.	Description	Decision
Application No. 58/01701/U_U	Erection of new gatehouse and ambulance room	Granted
Application No. 66/38133/62U_U	Erect a temporary sectional timber building for offices and small drawing office.	Granted subject to conditions.

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Application No. 66/38133/62U_U	Description – Construction of a Jones Gas Process Plant with control and storage buildings.	Granted
Application No. 68/04063/U_U	Description – Erect a temporary works conference room and training centre where meetings can be held	Granted subject to conditions.
Application No. 76/02253/U_N	Extension to the existing switchroom for additional switchgear	Granted
Application No. 77/01815/P_N	Temporary wooden “Pratten” building	Granted
Application No. 78/02587/P_N	Description – Drilling of a borehole for water supply and installation of pumping equipment and pipe work.	Granted
Application No. 79/01537/U_N	Erection of building to contain air compression equipment.	Granted
Application No. 81/03219/T_N	Erection of sectional temporary building for offices	Granted subject to conditions.
Application No. 90/00310/F	Erection of 2no. storage tanks, 6.5m high, for the storage of waste water.	Granted subject to conditions.
Application No. 92/01654/F	Description – Sevalco Limited, Severn Road, Avonmouth, Bristol. Demolish existing production office and replace with new process control centre and engineers office	Granted subject to conditions.
Application No. 96/02455/F	New Carbon Black production line, 2 x 65m chimneys, warehouse;	Granted subject to conditions.

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	laboratory extension...; new power plant and cooling unit.	
Application No. 98/01794/F	Erection of a 12m post with a warning siren array mounted on top	Granted subject to conditions.
Application No. 08/03940/W	Hazardous Substances consent application for Fluidised Catalytic Crack feedstock, Coal Tar Oil feedstock.	Application cancelled

2.22 The above history confirms that the site is a previously used, brownfield industrial site in an established industrial area.