

12 CUMULATIVE EFFECTS

12.1 INTRODUCTION

- 12.1.1 Schedule 4, Regulation 5 (e) of the 2017 EIA Regulations identifies the requirement for the ES to include a description of the likely significant effects of development on the environment resulting from the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources.
- 12.1.2 The 1999 EC Guidelines for the Assessment of Indirect and Cumulative Impacts defined cumulative impacts as '*impacts that result from incremental changes caused by other past, present or reasonable foreseeable actions together with the project*'. UK guidance and best practice considers 'reasonably foreseeable actions' as being limited to those developments that have already gained planning permission (or are under construction).
- 12.1.3 Circular 02/99, which still applies in Wales, states that planning authorities should always have regard to the possible cumulative effects with any existing or approved or committed development.
- 12.1.4 This chapter of the ES draws together a summary of the potential cumulative impacts of the proposed built development at the application site and other developments identified within the immediate vicinity of the application site. Further detailed information pertaining to the likely cumulative impacts is provided within the relevant chapters of the ES and, in respect of transport, the Transport Assessment submitted as part of the planning application.

12.2 OTHER DEVELOPMENT SCHEMES

- 12.2.1 The only approved developments which are determined to require consideration of the cumulative impacts is application reference 15/00591/MJR which Granted Planning Permission for the construction of A 2 MW Anaerobic Digestion Facility at Cardiff Waste Water Treatment Works, Tide Fields Road, East Moors on 15th May 2015.
- 12.2.2 This application, approved in May 2015, was the subject of a number of discharge of conditions applications over 2015 – 2017 and discharge of subsequent verification of works and activities conditions in 2020 (post implementation of works).



Site Location Plan – Application Reference 15/00591/MJR

- 12.2.3 The application site is located approximately 170 metres east of the application site under application reference 15/00591/MJR, with this distance separation being from the access point to serve the proposed Industrial Units upon the site. The scheme is now complete, as depicted by the following Google Earth image:



Google Earth image depicting completion of the scheme approved under planning application 15/00591/MJR

- 12.2.4 No other major developments in the surrounding area have been granted planning permission or have extant consents. As such, no other sites are required to be considered for the cumulative effects.

12.3 CUMULATIVE EFFECTS

12.3.1 The main cumulative effects of the proposed development and the adjoining anaerobic digester facility at Cardiff Waste Water Treatment Works are considered to be as follows:

- Landscape and Visual Impact
- Highways and Transportation
- Ecological Impacts
- Hydrology and Flooding

Landscape and Visual Impact

12.3.2 The cumulative effects of the scheme have been considered in relation to the proposed development and the approved development for a 2NW Anaerobic Digestion Facility at Cardiff Waste Water Treatment Works.

12.3.3 The two sites are separated by an intervening site which is being used for the storage of building aggregates. This site ensures that a significant visual break will be provided between the two developments, ensuring that any cumulative impacts would be minimised.

12.3.4 Furthermore, the vantage points where the two development would be visible would be minimised to highway of Rover Way looking east and the Wales Costal Path, looking west. In each case the views would be limited to seeing the highest parts of each development with the other development in the foreground. As such, any cumulative environmental impacts to the landscape and visual amenities of the surrounding area could not be considered as significant.

12.3.5 The overall visual impacts on the surrounding area are demonstrated in the submitted Visual Impact Assessment which is submitted in support of this application.

Highways and Transportation

12.3.6 The application is supported by a Transport Statement which outlines the number of vehicular movements associated to the development. It also compares vehicular movements with those associated with the previously approved application. The movements associated with the Biomass Plant no longer need to be taken into account - this is a benefit. Also, the additional daily vehicle movements associated with the increase in B8 development are much lower than the reduction associated with recent and predicted long term effects of the on travel behaviour and the road traffic levels as consequence of the COVID-19 pandemic. Most recent DfT data suggests daily traffic flows could be between 10-25% lower than pre-COVID flows.

12.3.7 Therefore, the cumulative highways impacts are considered to be lower than those already approved in the context of the capacity of the surrounding highway network.

Ecological Impacts

- 12.3.8 Contained within Chapter 8 of this ES is a detailed assessment of the potential ecological effects of the proposed development.
- 12.3.9 The most important ecological feature in its assessment is the Severn Estuary, with several designations giving it international significance. This lies immediately adjacent to the site so the development proposals incorporate a number of measures to reduce potential disturbance of overwintering estuary birds and limit any temporary increase in the contamination from the tip would mean that there is no significant impact on the protected site during the construction works. The creation of a coastal bund would screen much of the potentially disturbing construction and operational activities, and the removal and remediation of tipped material would ensure that there is no impact on the protected site in the long term. In addition, there would be no impact on the Gwent Levels SSSI or any of the nearby SINCs
- 12.3.10 Birds and mammals were considered valuable for nature conservation in a more local context. Reptiles and amphibians were also assumed to fall within this category for the assessment but may not actually be present. All of these groups would be taken into account in the new landscaping design, so that the overall effect on them would be neutral. In the case of amphibians, the creation of new ponds would probably be beneficial in the long term. The new landform would inevitably support a different mix of species than those that currently occupy the site, but many of the less common species should be retained and the management priorities would aim to favour species of greater nature conservation significance. Taking all of these factors together it is concluded in Chapter 8 of the ES that proposed development would ensure that there is no overall loss of nature conservation value.
- 12.3.11 However, these ecological impacts need to be considered in cumulation with the adjoining Anaerobic Digester site also. In the Committee Report for the adjoining application, reference 15/00591/MJR, the officer wrote:
- "The site is located approximately 325 metres to the west of the Severn Estuary, which is a European designated Special Area of Conservation (SAC), Special Protection Area (SPA) and also a nationally significant Site of Special Scientific Interest (SSSI) and Ramsar site. The specific risks to the designated sites relate to impact from water pollution (site drainage and contamination release during construction, and site drainage during operation) and from air emissions during operation of the proposed development. Neither Natural Resources Wales nor the Council's Ecologist consider that the proposed amendments are likely to have a significant effect upon the Severn Estuary designations."*
- 12.3.12 Therefore, given that the ecological impacts in the officer report for the planning application were considered not to have a significant impact on the Severn Estuary Designations and that Chapter 8 of this ES concludes the proposed development would ensure that there is no overall loss of conservation value, it is considered that the accumulative ecological effects of both developments would be minor to negligible.

12.3.13 The cumulative impacts of the developments have also been considered in the context of any adverse impacts from major accidents or disasters which are relevant to the project concerned. The biggest risk identified to the development would be the potential from coastal flooding / rising sea levels from climate change. However, the development would be erected behind a bund of more than 20 metres above sea level, which is considered to mitigate any such risks to an acceptable degree. Therefore, any harm would be negligible in the event of such an incident occurring.

Flood Risk and Drainage

Surface Water Runoff

12.3.14 There will be no significant interference to any known flood paths for the 1 in 100 year flood event (allowing for climate change) in the implementation of this development, as a result of which there will be no impact on flood risk elsewhere. Therefore, it is not considered that there will be significant cumulative impacts on flooding.

Foul Drainage

12.3.15 The foul drainage system for the Proposed Development will be developed in consultation with Welsh Water. Given this, and that all connections will need to be consented, it is not considered that there will be significant cumulative impacts on drainage infrastructure. This will have to be concluded once the final response from Welsh Water has been received and the findings have been published. In either event positive or negative conclusion this will have a negative cumulative impact due to the fact that the site can/will be serviced either with existing infrastructure and/or following any upgrades to the network.

Water Quality

12.3.16 The Proposed development will pose a relatively low pollution risk and legislation & planning conditions will require surface water protection measures to be included in their design. Therefore, it is not considered that there will be significant cumulative impacts on surface water quality.

12.3.17 Considering above, it can be stated that there will be no significant cumulative impacts arising from the proposed development in relation to the future development in the surrounding area.

12.4 CONCLUSION

- 12.4.1 The potential for effects of the proposed development to combine with the effects from other proposed development projects and lead to significant effects has been assessed. The only development which is considered to have the potential for significant cumulative effects is the 2 MW Anaerobic Digestion Facility at Cardiff Waste Water Treatment Works, Tide Fields Road, East Moors approved under application reference 15/00591/MJR, and now complete.
- 12.4.2 The proposed cumulative impacts of both developments have been considered and the main combined impacts are considered to relate to landscape and visual impact; highways and transportation; ecological and flood risk and drainage impacts. Each has been assessed above and considered that the cumulative impacts of the development would minor to negligible.