Gravity

Smart Campus

Gravity LDO Environmental Statement

Volume 1 – Chapter 7: Economics

7 Economics

7.1 Introduction

7.1.1 This chapter presents the findings of a desk-based assessment of the likely significant economic effects of the Proposed Development.

7.1.2 This chapter sets out the methods used in the assessment, the relevant economic baseline context, including the 2032 baseline, and the likely significant effects on economic receptors resulting from the demolition, construction and operation of the Proposed Development. Mitigation measures embedded within the Proposed Development are also considered, as well as those which are additionally required to prevent, reduce, or offset adverse effects.

7.1.3 This assessment considers economic factors and draws on findings of other chapters within this ES, including**: Chapter 8 - Health, Social and Wellbeing** and **Chapter 9 - Transport and Access.**

7.1.4 This chapter has been prepared by Stantec. In accordance with Regulation 18(5) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, as amended, a statement outlining the relevant expertise and qualifications of competent experts appoint to prepare this ES is provided in **Appendix 1.6.**

7.1.5 The appendices associated with this chapter are:

- **Appendix 7.1** Labour Market Study Area
- **Appendix 7.2** Housing Market Study Area

7.2 Policy, Legislation, Guidance and Standards

7.2.1 A brief overview of relevant national and local planning and economic policy is provided below to set the context for the chapter. A more generic summary of planning policy is provided in **Chapter 6**.

7.2.2 The Proposed Development closely aligns with the planning policy context and the local authority priorities for investment and growth, creating a positive culture which is pro-business and supports the long-term economic growth and prosperity of the region in a clean and inclusive manner.

7.2.3 The purpose of the Proposed Development is to be transformational and bring new businesses to the region which can be sustained into the future in clean growth sectors. Given the transformational agenda, workforce and supply chain development will be important to help the existing community and business transition to support new sectors, as well as the area welcoming new community members and businesses to diversify the economic base and improve its resilience. The existing business landscape, specifically consortia developed with the Hinkley Point C project, have already created new corporate structures and processes to support Gravity with both Somerset Larder, Host Somerset, and Somerset Passenger Transport Solutions providing services to attract new occupiers. The full occupation and management of Gravity smart campus will obviously require a full range of business services for its occupiers, from training to landscape management, accountancy, food and drink, transport, leisure services, hotels and so on. A Business Charter directs occupiers to seek to utilise local business and this will be through their own procurement processes.

7.2.4 Relevant policies and how the Proposed Development supports their objectives are set out below.

National Planning Policy Framework (NPPF) (2021)

7.2.5 The NPPF (2021) states that significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future.

7.2.6 The NPPF also states that planning policies and decisions should recognise and address the specific locational requirements of different sectors. This includes making provision for clusters or networks of knowledge and data-driven, creative or high technology industries, and for storage and distribution operations at a variety of scales and in suitably accessible locations.

7.2.7 In the context of building a strong and competitive economy the NPPF states that planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt.

7.2.8 The Proposed Development will respond to national objectives by supporting the creation of high value employment opportunities and bolstering the industrial and manufacturing capacity which can attract additional investment.

Industrial Strategy: Building a Britain fit for the future (2017)

7.2.9 The areas where Britain is expected to become a global leader in driving innovation are set out in the Government's 2017 Industrial Strategy, which lays out a vision to drive productivity improvements across the UK. The Industrial Strategy identifies five Grand Challenges and sets out a delivery programme to make the UK a leader in four of these: artificial intelligence & big data, clean growth, future mobility, and catering for an ageing society. The Government explains that the move to cleaner economic growth is one of the greatest industrial opportunities of our time.

7.2.10 Two of these are directly related to the Proposed Development, with clean growth and future mobility being at the heart of the ambition and likely to play key roles in maximising the benefits and minimising the impacts of the Proposed Development.

7.2.11 This is Gravity Ltd have recognised the priority for an accelerated response to climate change and clean growth. Gravity has developed a Clean and Inclusive Growth Strategy that will set out, shape and drive a strategic response through the Local Development Order. An advanced manufacturing study has informed parameters for modern commercial buildings to shape the requirements for the Gravity site.

7.2.12 Recently the Government has developed its thinking and has prioritised transport decarbonisation. This includes a rapid response to the transition to electric vehicles (EV) which is opening up new market opportunities for large scale advanced manufacturing in the EV and battery production space.

Heart of the South West Local Industrial Strategy (2020)

7.2.13 The South West region has a number of globally competitive industrial assets and strengths, providing exciting high growth opportunities. The South West region is home to the first new nuclear power station in a generation (Hinkley Point C), as well as the largest naval base in Europe with unique nuclear defence capabilities. These assets offer opportunities linked to decommissioning, defence, and marine renewables, providing a multi-billion-pound clean energy opportunity which spans both the energy and engineering sectors and their supply chains.

7.2.14 However, even with these acknowledged strengths there are still significant disparities in productivity within the Local Economic Partnership (LEP) area and the Heart of the South West performs poorly on a number of productivity indicators, which directly impacts on region's settlements. This is linked to low scores with respect to innovation indicators, relatively poor enterprise performance, wide disparity in social mobility, and sub-par performance for higher level skills attainment.

7.2.15 The Local Industrial Strategy (LIS) provides the opportunity to transform the economy through clean and inclusive growth, by developing a new approach to growth in urban, rural and peripheral areas. This will be achieved by decoupling economic growth from emissions growth, where the proceeds and benefits of economic growth are shared across communities. The Proposed Development's site designation as a Government approved Enterprise Zone (EZ) allows business rate retention, so that growth at this Site will generate business rates that can be retained and reinvested back into the local area. The EZ designation covers a period of 25 years from April 2017 until 2042. Therefore, it is a priority to create the conditions to enable and attract investment into the Site to capitalise on the unique commercial opportunities presented by the EZ. With no jobs or new floorspace yet established over the first four years, there is a now a reduced window to realise benefits for the locality and community. The LDO is a simplified and streamlined form of planning which is ideally placed to respond to EZ sites and specifically large sites in single ownership.

7.2.16 The Heart of the South West LEP are partners alongside District and County Councils in the delivery of the Proposed Development. The Proposed Development has the capacity to provide significant employment and Gross Value Added[1] benefits to local and regional economies during the construction and operation (once fully built out and occupied) of the Proposed Development, and the realisation of the full suite of potential impacts will be facilitated through the adoption of the LDO. The LDO is aligned to the full extent of the boundary of the EZ and enables the whole site to be re-imagined to enable a strategic response which will create new high value employment opportunities in conjunction with climate action.

7.2.17 The Proposed Development responds to the economic strategy set out in the Heart of the South West LIS by seeking to attract businesses aligned to key business sectors identified in the LIS including:

- Low carbon energy production
- Advanced manufacturing
- Artificial intelligence and robotics
- Electric vehicles
- Data centres
- Creative industries

Sedgemoor Local Plan 2011-32

7.2.18 The Sedgemoor Local Plan (2011-32) was adopted February 2019. It sets out how the district will grow and develop into the future. It includes the vision, priorities and policy framework for future development in the district, including addressing the requirements relating to housing, employment, retail and other facilities and infrastructure.

7.2.19 The Local Plan priority stated in paragraph 3.3 is "To ensure development in Sedgemoor supports the principles of sustainable development and delivers sustainable communities

[1] gross value added is the value generated by an individual producer, industry or sector engaged in the production of goods and services to an economy, sector or region. It is a way of measuring the economic contribution made to the economy.

whilst respecting the diversity in function and character of Sedgemoor's towns, villages and countryside."

7.2.20 Strategic Priority 5 sets out the plan's ambition to ensure economic wellbeing by addressing the low skill lever, qualifications deficit and low quality job opportunities. It recognises that despite employment growth this has been in low wage sectors and there is need to develop opportunities in higher value sectors and attract inward investment.

7.2.21 The Proposed Development is identified on policy maps as "Land Committed for Development" given planning consent was granted at the Site in November 2017 (42/13/00010).

7.2.22 The Major Infrastructure Projects policies within the Plan make reference to the Site. For the purposes of the Local Plan, Major Infrastructure Projects (MIPs) are defined as the infrastructure projects which would require Environmental Impact Assessments (EIA). Energy generation uses in particular at the Site are identified as potential MIPs.

7.2.23 Policy S1 Presumption in Favour of Sustainable Development states "When considering development proposals, the council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework"

7.2.24 Policy S2 sets out the spatial strategy for Sedgemoor and confirms that during the plan period (2011-2032), the Council will plan, monitor and manage the delivery of a minimum of 13,530 new homes (644 per annum) and 75 hectares of land for B1, B2 and B8 uses (business, general industrial and storage and distribution) to help meet the need for new homes, support the economy and create 9,795 new jobs.

7.2.25 Policy S3 Infrastructure Delivery states "New development will be required to provide and contribute towards the provision of services, facilities and infrastructure at a rate, scale and pace to meet the needs and requirements that are expected to arise from that development. All new development that generates a demand for infrastructure will only be permitted if the reasonable and necessary on and off-site infrastructure required to support and mitigate the impact of the development is provided."

7.2.26 Policy CO3 sets out the planning authority's approach to brownfield site development and is generally supportive of brownfield development. It states that "Generally the re-use or remodelling of such sites for employment uses will be supported but exceptionally where it can be demonstrated that such an approach is not viable or suitable, mixed-use schemes or residential only schemes may be considered."

Bridgwater Vision (2015)

7.2.27 The aim of the Vision was to develop a spatial vision for Bridgwater in order to bring about place transformation and to help create distinctiveness with a revitalised image and economic base. The first iteration of this Vision (2009) describes the Gravity site as one of the key character areas of focus to deliver the Vision. It explains that the Gravity site will be a significant employment area linked to a renewable, low carbon energy source. The Vision also explains that opportunities to incorporate other uses on the Site would also be explored.

7.2.28 The Vision was refreshed in 2015 to update on the successes delivered over the previous six years and to make adjustments where required. The refreshed vision explained that the then owner of the Site, BAE Systems, was considering ideas for potential energy uses, but that the Site could also provide a unique opportunity to support the services and industries related to a new generation of nuclear investment, possibly to accommodate foreign direct investment to supply components.

7.2.29 The Proposed Development responds to the Vision by supporting transformation of place at a scale which can revitalise the economic base. The Proposed Development will support significant levels of employment in key growth sectors which will help to create a distinctive offer and attractive image for a new manufacturing hub in the South West.

Sedgemoor Economic Development Strategy

7.2.30 The Sedgemoor Economic Development Strategy 2015-2032 identifies Gravity as a key opportunity site to be implemented early in the Strategy period. The Site is identified as a key opportunity to address the economic challenges the District faces in terms of having a low-wage, low-skill economy.

7.2.31 The economic challenges need to be addressed in order for the District to transform its economy to support higher-skilled, higher-salary employment opportunities which allows its residents to live, work and play in proximity without having to commute out of the area for suitable employment opportunities.

7.2.32 The Proposed Development responds to the Strategy by delivering new manufacturing and commercial floorspace which will support high value jobs and develop and strengthen links to local and regional colleges and universities to improves skills development pipelines and pathways to employment.

Core Strategy 2011

7.2.33 The Sedgemoor Core Strategy was adopted in September 2011 and, although now superseded by the new Local Plan, included an allocation for an 'Energy Park' on the Gravity site (Policy P1 Bridgwater), with priority given to industrial uses including renewable or low carbon energy generation and other energy-related or complementary uses, including green technologies, supply components and support services. This allocation was based upon assumptions made at the time regarding the opportunity the Site presented, without any market interface, and identified approximately 90 hectares of developable employment land for a range and mix of employment uses.

7.3 Consultation

7.3.1 A section was included within the EIA Scoping Report (**Appendix 5.2**) submitted to SDC in July 2021 which identified that economics would be scoped into the EIA and provided an overview of the baseline economic context and proposed methodology.

7.3.2 As part of Gravity's programme of engagement, consultations have taken place with SDC to confirm the structure and approach of the chapter, discuss associated mitigation measures, and provide opportunity for further comment if required.

7.3.3 Public consultation has been conducted for the Proposed Development which has included establishing a project website, circulation of newsletters to stakeholders, articles in local papers and on social media platforms Key issues raised by stakeholders are considered as part of this assessment and referred to in the relevant sections of this assessment.

7.3.4 The Scoping Opinion received from SDC **(Appendix 5.3)** confirmed that economic effects and receptors are to be scoped into the ES. The Economic Development Team has been consulted on the ES Scoping Report and has stated that Chapter 7 – Economics provides a comprehensive overview of the issues that will need to be considered as part of the ES.

7.3.5 The Scoping Opinion noted that the Proposed Development will significantly increase the volume of the development in comparison to the existing hybrid consent which is in place. Therefore, it would be desirable to provide an updated and more accurate estimate of the level of employment which could be created on site. This has been done through an analysis of the number of jobs in relation to the proposed floorspace.

7.3.6 The Scoping Opinion also highlights that it is the ambition of the Proposed Development to host new sectors on site, and that the assessment should consider how the new sectors would fit and enhance the existing business landscape and supply chain.

7.4 Methodology

7.4.1 All developments have the potential to generate economic effects at the local, regional and / or national level, principally in relation to changes in economic development, employment opportunities and additional spending power within local communities. Impacts are considered within the context of:

- Primary impacts: those which can be directly attributed to the proposed action - such as increased employment levels during the construction phase; and
- Secondary impacts: those which are indirect or induced changes - such as retail expenditure effects during the operational phase of the Proposed Development.

7.4.2 The range of likely significant economic effects generated by a development proposal depends upon the characteristics of the individual development combined with both the baseline economic conditions (e.g. labour market) which the development would be introduced to and identified committed developments which the development proposal would interact with.

7.4.3 As the Proposed Development is an ambitious proposal introducing new business land and infrastructure which will contribute to supporting economic growth at national, regional and local levels, the Proposed Development has the clear potential to generate a range of secondary economic effects. Specific types of likely effects have been assessed in relation to the relevant phase(s) of development and assessment scenario as detailed below.

7.4.4 Since the LDO is a market facing flexible consent in terms of actual land uses implemented, the Proposed Development has been assessed for a most likely outcome of the maximum development parameters set out within the description of development and Parameter Plans and comprises of the land uses and operations below:

- 1,000,000 sqm of Advanced Manufacturing floorspace;
- 65,000 sqm of supporting employment uses;
- 35,000 sqm of supporting and ancillary uses; and
- 750 residential units for employees at the Site.

Study Area

7.4.5 The following Study Areas have been adopted for this economic assessment:

- **Labour Market Study Area**: the M5 Corridor Functional Economic Market Area (FEMA). This area has been chosen to define the Labour Market Study Area as it takes account of Travel to Work Areas (TTWAs), housing market areas, and commercial property markets to best capture the mobility of labour across administrative boundaries. The geographic boundaries of the FEMA are consistent with the combined borders of Sedgemoor District Council and the Taunton Deane area[2]. West Somerset which now forms part of Somerset West and Taunton District Council has not been included in the study area which focuses on the M5 north/south corridor.

[2] Somerset West and Taunton Council came into being on 1 April 2019 covering the administrative areas of the former Councils of West Somerset (WSC) and Taunton Deane.

The Labour Market Study Area has an estimated population of 243,218, a working age population of 141,992 and a higher jobs density of 0.91 (compared with the UK average of 0.87), however this ranges from 0.82 in Sedgemoor to 1.0 in Taunton Deane.

- **Housing Market Study Area:** Defined by the Sedgemoor District boundary, which is recognised as forming its own housing market area (HMA), although the M5 corridor means that there are some links to other districts such as West Somerset and Taunton the identification of a single HMA for each local authority supports the Study Area boundary of Sedgemoor.

7.4.6 The Labour Market Study Area and Housing Market Study Areas are presented in **Appendix 7.1 and 7.2** respectively.

Baseline Data Collection

7.4.7 This section provides an overview of the economic characteristics within the Site, the identified Study Area and highlights how these compare to other spatial areas, where relevant, including SDC, the South West Region and the United Kingdom.

7.4.8 The following economic indicators have been considered to establish the baseline conditions:

- Main demographic groups (children, working age, pensionable age)
- Economic activity rate
- Unemployment rate
- Wages
- Qualification attainment
- Employment by broad industrial sector (additional emphasis given to key business sectors identified at Scoping.)

7.4.9 The following sources of information have been used to develop the baseline economic conditions:

- Annual Population Survey (2020)
- Annual Survey of Hours and Earnings (2020)
- Business Register and Employment Survey (2019)
- Index of Multiple Deprivation (2019)
- Population Estimates (2019)
- Population Projections (2020)
- UK Business Counts (2020)

7.4.10 Relevant quantitative data was analysed to predict gross and net economic effects, including demographic changes, expenditure and employment generation, from the construction of the Proposed Development. This model applied economic multipliers and additionality assumptions as detailed in **Section 7.5.**

7.4.11 Discounting has been applied to the net gross value added (GVA) presented within this Chapter to determine the present value (2021) of GVA. This takes account of the current understanding of the construction programme to up to the baseline year of 2032. It is however acknowledged that the capital expenditure and programme associated with the Proposed Development may be subject to change within the parameters of the LDO as it will be market led.

Sensitive Receptors

7.4.12 Based on the information sources outlined above, the current baseline conditions of the Site and surrounding area were characterised which has led to the identification of relevant sensitive receptors to consider within the assessment. Any potential receptor with no or negligible sensitivity to possible economic change(s) arising from the Proposed Development has no potential to experience likely significant effects (within the context of the EIA Regulations) and has therefore been excluded from this assessment. This ensures that the assessment remains proportionate and focuses on reporting likely significant economic effects from the Proposed Development.

7.4.13 For employment effects, the availability of labour and skills is critical in accommodating the demands, needs and requirements of the Proposed Development. The sensitivity of the labour market has been defined in relation to:

- The availability of skilled labour in the Labour Market Study Area, relative to regional and national averages;
- The proportion of employment in relevant sectors (e.g. construction, manufacturing, scientific, professional and technical) within the Labour Market Study Area; and
- The availability of labour (including the unemployed) within the Labour Market Study Area.

Assessment of Significance

7.4.14 There are no specific methodological guidelines or requirements for assessing economics within the context of EIA. However, the assessment of the likely significant economic effects associated with the Proposed Development has been undertaken in accordance with HM Treasury Green Book appraisal guidance.

7.4.15 The level and significance of likely economic effects has been judged with reference to the following factors:

- Sensitivity of affected receptor (e.g., construction, manufacturing, scientific, professional and technical sectors); and,
- Predicted magnitude of change.

7.4.16 In overall terms, the sensitivity of the labour market within the Study Area has been defined in relation to:

- The availability of skilled labour relative to regional and national averages;
- The proportion of employment in relevant sectors (e.g. construction);
- The availability of labour (including the unemployed); and
- Relevant education and training provision.

7.4.17 A labour market with plentiful capacity and/or high skills would be defined as low sensitivity, while a limited labour market and/or low skills capacity would be classified as a high sensitivity receptor. The sensitivity criteria which have been applied to the assessment are detailed in **Table 7.1** below.

Sensitivity	Example
High	There is a shortfall of appropriate labour and skills. The Proposed Development would therefore lead to labour market pressure and distortions (i.e., skills and capacity shortages, import of labour, wage inflation).
Medium	There is a low/limited supply of appropriate labour and skills. The Proposed Development may therefore lead to labour market pressure or distortions.
Low	The is a readily available supply of appropriate labour and skills. The Proposed Development is therefore unlikely to lead to labour market pressure or distortions.

Table 7.1 Labour Market Sensitivity Criteria

7.4.18 Magnitudes of change are also considered within the assessment, and consistent definitions have been adopted for economic effects, as set out in **Table 7.2** below.

Magnitude of Change	Type of Change	Criteria
High	Adverse	**Employment changes**: the number of jobs lost in the Study Area would be 250 or greater (based upon the EU definition of small and medium enterprises (European Commission, 2003).
	Beneficial	**Employment changes**: the number of jobs created in the Study Area would be 250 or greater.
Medium	Adverse	**Employment changes**: the number of jobs lost in the Study Area would be 50 or greater, but fewer than 250.
	Beneficial	**Employment changes**: the number of jobs created in the Study Area would be 50 or greater, but fewer than 250.
Low	Adverse	**Employment changes**: the number of jobs lost in the Study Area would be greater than 10, but fewer than 50.
	Beneficial	**Employment changes**: the number of jobs created in the Study Area would be greater than 10, but fewer than 50.
Negligible	Adverse	**Employment changes**: the number of jobs lost in the Study Area would be less than 10.
	Beneficial	**Employment changes**: the number of jobs gained in the Study Area would be less than 10.
No Change		No change would be perceptible, either beneficial or adverse.

Table 7.2 Labour Market Sensitivity Criteria

7.4.19 The combination of receptor sensitivity and magnitude of change informs the assessment and attribution of significance. The levels of significance relate to the extent to which the impacts are felt. In the case of economic factors, the significance of impacts is defined by their relevance and influence on decision-making at different spatial scales.

7.4.20 An overview of the significance criteria is summarised in **Table 7.3** below.

	Level of Effect	Criteria
Significant	**Substantial**	These effects are assigned this level of significance as they represent key factors in the decision-making process. These effects are generally, but not exclusively, associated with sites and features of national or regional importance.
	Major	These effects are likely to be important considerations at a district scale and may become key factors in the decision-making process.
	Moderate	These effects, while important at a local scale, are not anticipated to be key decision-making issues.
Not significant	**Minor**	These effects may be raised as local issues but are unlikely to be of importance in the decision-making process.
	Negligible or No Effect	These effects are imperceptible, or within normal bounds of variation, or in the margins of forecasting errors. Such effects should not be considered by the decision-maker.

Table 7.3 Significance Criteria

7.4.21 These thresholds may be adjusted by:

- Application of additionality factors;
- Comparison with regulations or standards;
- Reference to criteria such as protected species, protected sites, landscapes;
- Consultation with consultees and decision makers;
- Compliance with policy (or plan) objectives;
- Comparison with experience on similar projects elsewhere; and
- Experience and professional judgement of the specialist assessor.

7.4.22 In line with standard EIA practice, a matrix-based approach was adopted to consider the sensitivity of identified receptors in tandem with the likely magnitude of change from the Proposed Development. This method allows the level and significance in EIA terms of all predicted economic effects to be determined. The EIA significance matrix adopted in this assessment is detailed in **Table 7.4** below.

Sensitivity	Magnitude of Change			
	High	**Medium**	**Low**	**Negligible**
High	Substantial	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Minor/Negligible	Negligible

Table 7.4 Significance Matrix of Economic Effects

7.4.23 In line with the methodology outlined above, moderate, major, or substantial likely effects are considered significant within the context of EIA Regulations.

7.4.24 Following the identification of likely economic effects, the need for further mitigation measures to address the predicted adverse effects have been considered.

7.4.25 The assessment concludes by reporting the level and significance of likely residual economic effects from the Proposed Development, taking account of all proposed mitigation measures, and considering the requirement for monitoring.

Limitations and Assumptions

7.4.26 The following limitations and assumptions have been adopted in this assessment:

COVID-19

7.4.27 The baseline conditions presented within this assessment utilise data collected prior to and during the global disruption as a result of the ongoing COVID-19 pandemic.

7.4.28 At the time of writing, COVID-19 has resulted in changes to socio-economic conditions, however the extent of the magnitude and temporal influence of these effects is not yet fully understood. Consequently, it may be the case that some impacts are not manifest in the current baseline data and will appear in the medium term. As a result, data has been presented up to 2019 to avoid any confusion or misinterpretation of trends associated with the impacts of COVID-19 on 2020 figures.

7.4.29 The additionality assumptions presented within this Chapter (see **Section 7.7**) have been adjusted to take account of the increased competition for contracts which may arise as an implication of the COVID-19 pandemic on the labour market. Baseline data presented remains representative and appropriate to inform a robust and proportionate assessment of the Proposed Development.

Labour Market Study Area

7.4.30 The Labour Market Study Area is consistent with the combined borders of Sedgemoor and the former Taunton Deane Council. This geography was identified as the M5 Corridor Functional Economic Market Area (FEMA) within the Somerset Housing Market Areas and Functional Economic Market Areas in Somerset report (2015).

7.4.31 It is acknowledged that the report is several years old and that there are many linkages between local and regional economies in the South West, however the M5 Corridor FEMA nonetheless provides robustly defined boundary which will aid the collection and analysis of statistical data.

Capital Expenditure

7.4.32 The capital expenditure to deliver the floorspace quantum set out in the Description of Development has been estimated using RICS Build Cost Information Service (BCIS).

7.4.33 BCIS data has been rebased to Q3 2021 values for Sedgemoor. The mean build cost per square meter for mixed commercial developments (£3081) and advanced factories/offices – mixed facilities (£1499) have been used as they best fit with the parameters of development described for the Site. In addition, 750 homes are to be delivered on site for use by employees of the Proposed Development. The England average home size of 67.7 sqm has been used, along with the mean build cost per square metre in Sedgemoor (£1,281), to estimate the capital expenditure required to deliver the housing units.

7.4.34 Consequently, the estimated capital expenditure to deliver the floorspace quanta is:

- 100,000 sqm commercial x BCIS cost per square meter for mixed commercial developments (£3081) = £308,100,000
- 1,000,000 sqm advanced manufacturing x BCIS cost per square meter for advanced factories/offices – mixed facilities (£1499) = £1,499,000,000
- 750 homes x average home size of 67.7 sqm x BCIS cost per square metre for housing = £65,043,000.

7.4.35 Therefore, the total estimated capital cost of the Proposed Development is £308,100,000 + £1,499,000,000 + £65,043,000 = £1,872,142,000.

7.4.36 No discount for scale of development has been applied to the cost estimates, as the floorspace quanta may come forward in a mix of unit sizes and specifications depending on what the market delivers.

7.4.37 The robustness of the calculations estimating the capital expenditure are limited by the level of specificity regarding the Proposed Development. It is understood that the Proposed Development will be market-led, and therefore the parameters set out in the Description of Development provide the basis for estimating total build cost. Options for modular and more efficient construction methods are being considered by potential occupiers and therefore costs and in turn labour required for construction may be reduced. costs and construction methods will be refined at such a time when there is more clarity on the preferred occupier, design and specification.

Worker productivity and Gross Value Added

7.4.38 Figures for Gross Value Added per head have been sourced from the Office for National Statistics Annual Business Survey. The most current available data is from 2017, and therefore these values have been uprated by the ONS GDP Deflator[3] to bring them to 2021 prices.

7.4.39 The GVA per head for the various types of employment supported by the demolition / construction and operation phases of the Proposed Development are summarised in **Table 7.5** below.

	GVA per-employee	
	2017	2021
Construction	£60,664	£65,711
Manufacturing	£63,792	£69,099
Professional, scientific & technical	£55,688	£60,320
Services	£42,708	£46,261

Table 7.5 showing GVA per head

Construction Employment

7.4.40 The calculation of construction employment is calculated by taking the capital investment required to deliver the infrastructure and assets as set out in the Description of Development and dividing that figure by the amount of turnover within the construction industry required to support a single worker.

7.4.41 Data from the Annual Business Survey revealed that the level of turnover required to support one construction worker in the South West region was £151,953 in 2017. This has been adjusted by the ONS GDP Deflator to uprate the figure to 2021 values, resulting in a turnover of £164,595 to support one construction worker.

7.4.42 The estimates of construction employment are limited by the robustness of the build cost data. Current market data has been sourced from BCIS to estimate the capital expenditure; however this may be refined in the future when formal cost estimates have been obtained based on detailed designs and specifications for floorspace and the infrastructure for individual plots.

[3] The GDP Deflator value to translate 2017 prices into 2021 prices is 1.083194909

Operational Employment

7.4.43 The calculation of operational employment is done by taking the total floorspace delivered within a given use classification (i.e. B8 – storage and distribution) and dividing the area by an employment density figure sourced from Employment Densities Guide (3rd edition). Where use classifications are not covered within the Employment Densities Guide (3rd edition), such as advanced manufacturing uses, custom figures have been derived using a combination of market research and previous project experience.

7.4.44 A summary of the employment densities used within the assessment is presented in **Table 7.6** below. **Table 7.6** provides a breakdown of the 1,000,000 sqm of advanced manufacturing space and a breakdown of the 100,000 sqm of supporting commercial floorspace.

Use	Floorspace (sqm)	Employment Density	Gross Jobs
Advanced Manufacturing			
Advanced manufacturing	1,000,000	164	6,100
Manufacturing Support Space			
R&D	35,000	60	585
Industrial Processes	7,500	47	160
Storage/Distribution	15,000	80	190
Other supporting uses	7,500	60	125
Total	**65,000**		**1,060**
Supporting & Ancillary uses			
Nursery	1,000	6	55
Hotel/conference centre	8,500	3*	65
Sports/leisure centre	8,000	n/a	50**
Gym	7,500		
Retail/café	750	15	50
Health Centre	750	33	25
37 Club***	2,500	n/a	0
Various other	6,000	60	100
Total	**35,000**		**345**
Grand Total	**1,100,000**		**7,505**

*Hotel employment density is the number of beds per worker
**The Employment Density Guide recommends 40-50 employees per gym. Assumed to be managed/operated as a single facility with the sport/leisure facilities with upper estimate used.
***existing facility with not net increase in employees anticipated

Table 7.6 Operational Employment Density Assumptions

Net Employment

7.4.45 To assess the scale of net additional jobs likely to be generated or supported by the Proposed Development, additionality factors based on the characteristics of the Labour Market Study Area were applied to predicted gross employment. Appropriate economic appraisal guidance[4] and professional judgment based on similar economic impact assessments have been used to estimate values for:

- **Deadweight**: what would happen in the absence of the Proposed Development;
- **Leakage:** the proportion of employment opportunities accessed by people living outside the Study Area;

[4] HM Treasury's Green Book appraisal guidance

- **Displacement:** the proportion of Proposed Development benefit accounted for by a reduction in benefit elsewhere;

- **Multipliers:** to estimate further economic activity associated with additional income and supplier purchases.

7.4.46 The additionality factors adopted in this assessment are detailed in **Section 7.8 Assessment of Likely Effects** under the appropriate subheadings.

Assessment

7.4.47 The assessment scenario presented in this Chapter is based on the 2032 Baseline. The current state of the environment is provided as context.

Current State of the Environment (2021)

7.4.48 Baseline conditions are presented for the current state of the environment in 2021, which includes part implementation of the 2017 Planning Consent (i.e. Gravity Link Road, Site remediation completed and associated ecological enhancements).

2032 Baseline

7.4.49 The year 2032 has been identified as the assessment year for operational effects for Economics Assessment. This year has been identified as it is the end of the current Local Plan period and a date by which it is reasonable to assume that the development approved by the LDO will have been delivered.

7.4.50 The assessment of likely significant economic effects has taken account of the influence of approved developments (or those considered likely to have been approved and implemented by 2032) developments likely to generate economic effects which may interact with the Proposed Development. This assessment includes estimating employment generation and the economic value added to the local economy in terms of GVA.

7.4.51 The 2032 Assessment factors in committed developments that were identified as having the potential to give rise to significant cumulative effects. The assessment of likely significant cumulative effects with these developments is inherent to the assessment and is not reported separately.

7.5 Baseline Conditions

7.5.1 This section identifies the pertinent aspects of current economic baseline conditions of relevance to this assessment and considers how these conditions may evolve in the absence of the Proposed Development. The sensitivity of receptors to potential economic effects are identified in **Table 7.1** and used within the impact assessment presented in **Section 7.8**.

Current State of the Environment (2021)

Site and Surroundings

7.5.2 Sedgemoor is a part of the Heart of the South West Local Enterprise Partnership (LEP) which covers 16 local authority areas across Somerset and Devon. The LEP is home to some 1.8 million people, 72,000 enterprises, and boasts four universities and ten further education colleges.

7.5.3 The Site is located within the M5 corridor which is recognised as presenting significant economic potential for the district. The M5, associated A roads and the mainline railway allow access to international airports at Bristol and Exeter and the Site is within 90 minutes of the rapidly expanding economies of Bristol and Exeter, which provide opportunities to capture spill out activities and graduates and apprentices from these cities.

7.5.4 The Proposed Development will be created on the Site of the Former Royal Ordnance Factory (ROF) to the north of Bridgwater. It is noted that the ROF was a key employer in the local area for around 60 years employing more than 1,000 people during its peak activity periods. It finally closed in 2008 in parallel to a number of other industrial closures on other sites in Bridgwater.

7.5.5 The Site lies immediately to the north of the villages of Puriton and Woolavington, where there are existing businesses providing day to day convenience goods for local residents. A post office is also located on Middle Street within the centre of Puriton. Bridgwater, the principal service centre within Sedgemoor, lies approximately 6km to the south and provides additional services and employment associated with a larger town.

7.5.6 The Proposed Development, as an Enterprise Zone and smart campus, aims to attract higher value occupiers to create new opportunities for local residents and businesses as well as addressing national challenges relating to clean and inclusive growth.

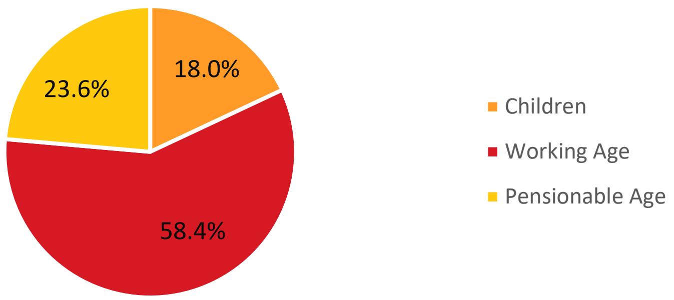
7.5.7 **Appendices 1.1** and **1.2** show the Site location and LDO boundary respectively.

Demographics

7.5.8 Data from the Office for National Statistics (ONS) shows that the population within the Labour Market Study Area was estimated at 243,220 in 2019. The total population of the Study Area grew faster compared to the Sedgemoor Local Authority area alone, increasing by 8.7% across the Labour Market Study Area between 2010 and 2019 versus 8.3% for Sedgemoor alone.

7.5.9 The distribution of the population within Labour Market Study Area between the three primary categories (children, working age, and pensionable age) is summarised in **Figure 7-1** below.

Figure 7-1 Population Distribution (2019)



7.5.10 The distribution of population among the main age groups in the Labour Market Study Area is broadly similar to what is observed in the South West region, however the Labour Market Study Area is more top heavy, i.e. there is a greater proportion of people of pensionable age, when compared to the national average.

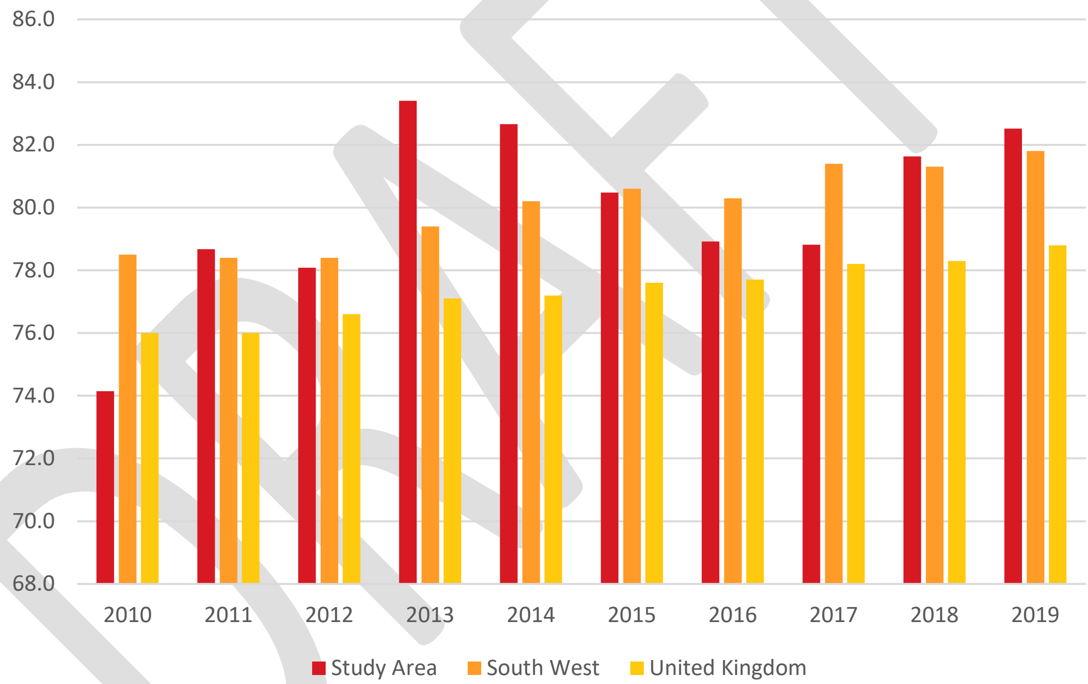
7.5.11 What is not revealed from the population data is the influence of migration in to / out of the Labour Market Study Area. It is acknowledged that not all labour will be sourced from within the Labour Market Study Area, and therefore additional context is provided which aligns with the assumptions made within **Chapter 9 Transport and Access** that additional labour will come from a 90-minute drive time of the Proposed Development. In this wider area there are an estimated 2,163,300 residents, distributed across the main age groups in similar proportions Providing a significant pool of labour from which the Proposed Development can draw on.

7.5.12 The Proposed Development will help to retain and attract people of working age into the Labour Market Study Area to take up new employment opportunities. This may help to balance the population distribution and slow the trend of an increasingly ageing workforce by attracting younger people as well as reduce current levels of out commuting.

Economic Activity

7.5.13 Economic activity measures whether or not a person is an active participant in the labour market and includes those unemployed but who are actively seeking work. Data from the Annual Population Survey (APS) indicates that the economic activity rate within the Study Area was 82.5% in 2019. This is reflective of the rate across the entire South West region (81.8%), and above what is observed at the national scale (78.8%)[5]. The economic activity rate at three different spatial levels is presented in **Figure 7-2** to provide context and comparison between the Study Area, the wider South West, and the national levels.

Figure 7-2 Economic Activity Rate (%)



7.5.14 The economic activity rate in the Study Area has been above the national rate over the past decade in all but a single year (2010). The economic activity rate is a measure of an economy's active workforce and labour supply. Strong rates in the Study Area when combined with low unemployment signals that the labour market has limited capacity in proportion to its population when compared to the national average.

7.5.15 In the wider context, aligned with the 90-minute drive time assumption adopted within **Chapter 9 Transport and Access,** ONS data shows that the economic activity rate is 82.2%. This is very closely aligned with what is observed within the Study Area.

[5] Office for National Statistics. Annual Population Survey

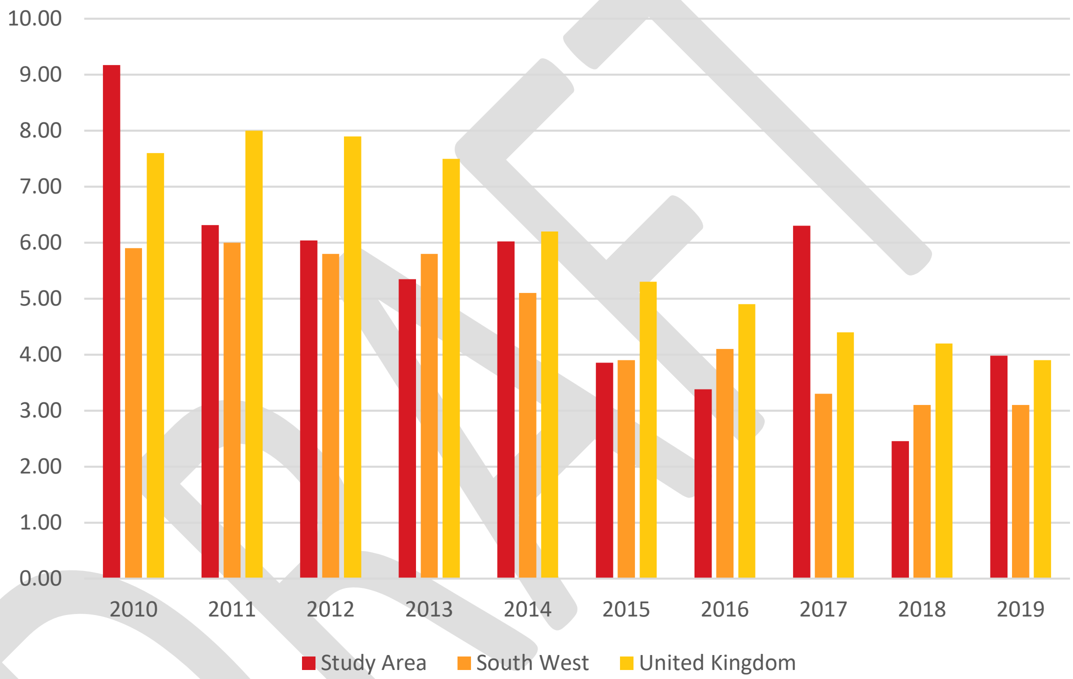
7.5.16 The development of the Gravity site will present an opportunity to further engage the labour market within the Study Area, and indeed to surrounding locales, supporting new high value employment opportunities.

Unemployment

7.5.17 The unemployment rate across the Study Area was 4.0% in 2019, a slight increase over the 2.5% reported in 2018. This rate is above that which was observed in the South West (3.1%) region and also above the national average for the UK (3.9%)[6].

7.5.18 The unemployment rate was relatively high at all spatial levels in the years following the Financial Crisis circa 2008. The unemployment rate at local, regional, and national spatial levels is presented in **Figure 7-3** below.

Figure 7-3 Unemployment Rate (%)



7.5.19 The overall trend of the unemployment rate in the Study Area has been gradually decreasing. This could relate to a range of factors including a strengthening labour market which is providing employment opportunities through large scale projects such as Hinkley Point C that are being taken up by residents within the Study Area, but also due to demographic factors such as an ageing population taking people out of the labour market.

7.5.20 In the wider context the unemployment rate is 3.6% which is similar to what is observed within the Study Area. However, it should be noted that a couple of data point were missing or suppressed within the Annual Population Survey and therefore the 3.6% is indicative of rate in the wider region, but not exact.

7.5.21 The Proposed Development will support both short and long-term employment opportunities, some of which are anticipated to be taken up by people presently unemployed but looking for work. This will reduce the overall level of unemployment and further engage the labour market within the Study Area.

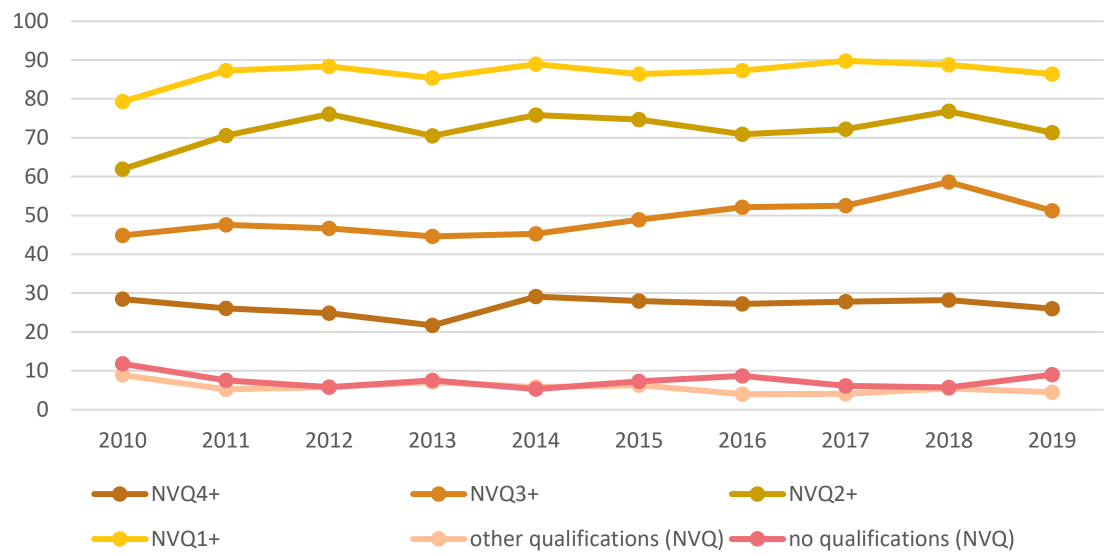
[6] Office for National Statistics. Annual Population Survey

Skills Profile

7.5.22 Qualification attainment is an indicator of the levels of skilled labour within an area, with greater proportions of highly qualified workers correlated with greater availability of high-value and well-paid jobs.

7.5.23 Within the labour market Study Area, the working age population shows less than 32% are qualified to NVQ4+ as indicated by 2019 APS data[7]. The overall profile of qualification attainment in the Study Area is presented in **Figure 7-4** below.

Figure 7-4 Qualifications Attainment, Study Area (%)



7.5.24 The rates of high-level qualifications attainment, NVQ4+, within the Study Area (31.9%) and South West region (39.2%) is behind the UK population (40.2%) showing lower qualification attainment than the wider region. The distribution of skills in the labour force within the Study Area suggests that there is not a high concentration of high-skilled jobs, whereas other locations in the South West have established manufacturing clusters which support a range of high skilled employment which is better remunerated.

7.5.25 In the wider spatial context, the skills profile within the workforce shows higher rates of NVQ4+ attainment (41.3%) than the Study Area and is more similar to the skills profile observed across the South West region. This indicates that there is a high degree of skills within the wider labour force which may be drawn upon.

7.5.26 The Proposed Development will support the development of a new advanced manufacturing cluster which will create a focal point for high-value and highly skilled employment opportunities. This will help to retain and attract skilled workers into the area and strengthen linkages to local and regional further and higher education institutions to increase the skills profile of the labour force and raise qualification attainment rates, which can be directly linked to employment opportunities at Gravity. The Gravity Skills Charter will also support local people finding opportunities within the Site.

7.5.27 Bridgwater and Taunton College have been supporting occupier enquiries to respond to their workforce development needs and has agreed to provide a strategic role to liaise with and coordinate with other partners to find solutions to meet business requirements. The provision of a dedicated training facility and bespoke programmes may well be required if transformational objectives are to be achieved and local labour is optimised. As such

[7] Annual Population Survey. Office for National Statistics

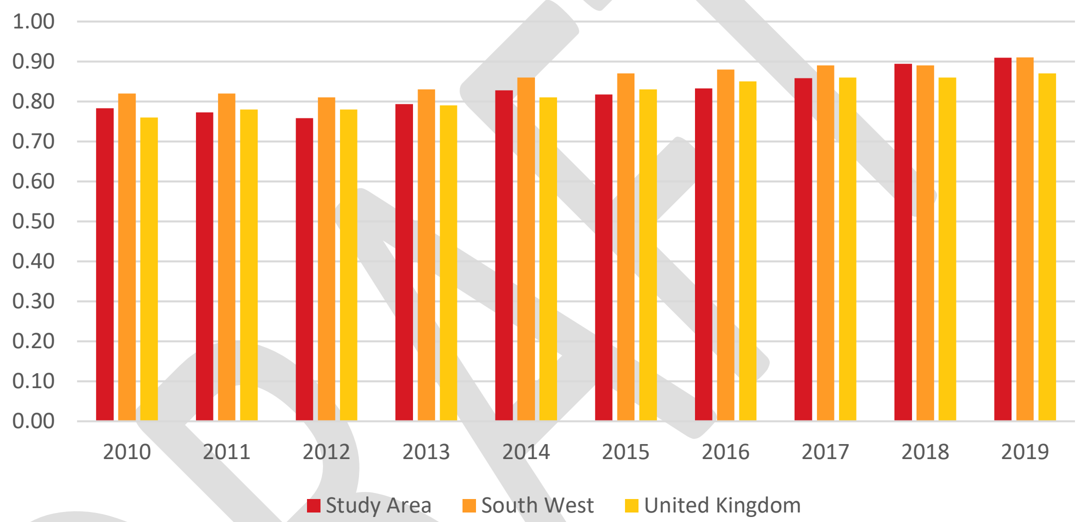
investment in skills and training is an important part of the locality investment plan and may need a fast-track response early in the programme to avoid a skills or labour force gap.

7.5.28 The existing Somerset Energy Innovation Centre constructed to support the HPC project could also be repurposed to support supply chain development, subject to agreeing terms with the County Council as landlord. The skills need of the supply chain therefore is also relevant but may be more indirect.

Job Density

7.5.29 Job density is a measure of the number of jobs relative to the working age population. The jobs density within the Study Area was 0.91 in 2019, meaning that for every 100 people of working age in the Study Area, there were 91 jobs available[8]. This figure aligns with the jobs density of the entire South West region and is slightly above the national rate (0.87). The jobs density for the Study Area, South West and UK is presented in **Figure 7-5** below.

Figure 7-5 Job Density



7.5.30 There is little variation in the jobs density between each of the spatial areas, indicating that there are proportionally similar numbers of job opportunities for the working age populations across each spatial area. It is important to state that this does not mean that employment activity is largely contained within the local labour force – there will be in-commuting and out-commuting of workers as they seek employment which matches their personal skill profile and interests.

7.5.31 The Proposed Development will support a substantial number of new employment opportunities for residents of the Study Area, as well as nearby locales. This will increase the jobs density, meaning there will be more employment opportunities for each person of working age. This may reduce instances of out-commuting from the Study Area, whereby residents travel outside of the Study Area's boundaries for work. The high-quality employment opportunities at Gravity will help to retain and attract diverse and skilled workers, stimulating additional economic activity within the Study Area.

Earnings

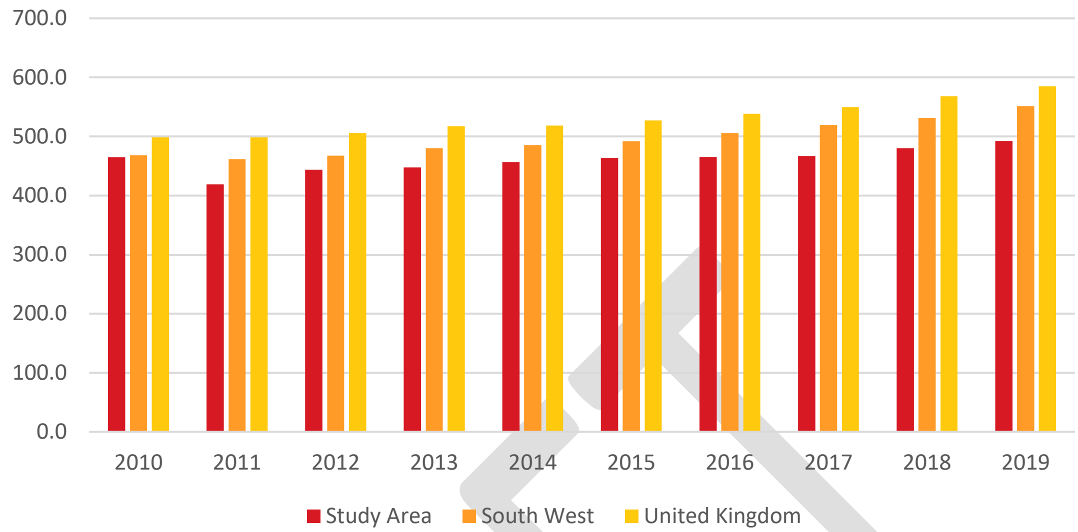
7.5.32 The gross median weekly wage for employees working within the Study Area were reported at £492.3[9] in 2019, which was some 10.8% below the median wages in the South West and

[8] Jobs Density. Office for National Statistics

[9] Annual Survey of Hours and Earnings. Office for National Statistics

15.9% below the UK wide average. The trend in gross median weekly wages across the past decade is shown in **Figure 7-6** below.

Figure 7-6 Gross Median Weekly Wages



7.5.33 Lower wages in the Study Area compared with the South West and wider UK is indicative of the area's characteristics. The profile of the Study Area is predominantly rural in nature, with no major urban centre supporting significant concentrations of high-value employment. Pockets of skilled labour and high value employment exist, however employment clustered sectors such as services (particularly related to the visitor economy) and the public sector, which traditionally do not have the highest wages. This is also reflected in the lower proportion of highly qualified (NVQ4+) compared to the national and regional figures.

7.5.34 The advanced manufacturing and commercial floorspace delivered at Gravity will create a step change and move towards higher value opportunities within the local economy providing full and part time opportunities for higher paid jobs, apprenticeships and re-skilling. Advanced manufacturing industries are understood to pay premium wages compared with the manufacturing sector as a whole, and furthermore there is also stronger growth in wages within advanced manufacturing. The premium in average wages for those employed in advanced manufacturing has been estimated at 13% above the wider manufacturing sector[10].

Industrial Profile

7.5.35 To contextualise the Proposed Development and understand the implications its delivery may have, it is important to understand the profile of employment within the Study Area labour market. The BRES indicates that there were some 112,000 jobs within the Study Area in 2019, of which slightly less than half (52,000) were in SDC[11]. The industrial sectors supporting the greatest levels of employment were:

- Health (17.0%)
- Retail (10.7%)
- Manufacturing (9.4%)

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[10] UK Commission for Employment and Skills (2015). Sector Insights: skills and performance challenges in the advanced manufacturing sector. Available: 150626_AM_SLMI_report.pdf (publishing.service.gov.uk)

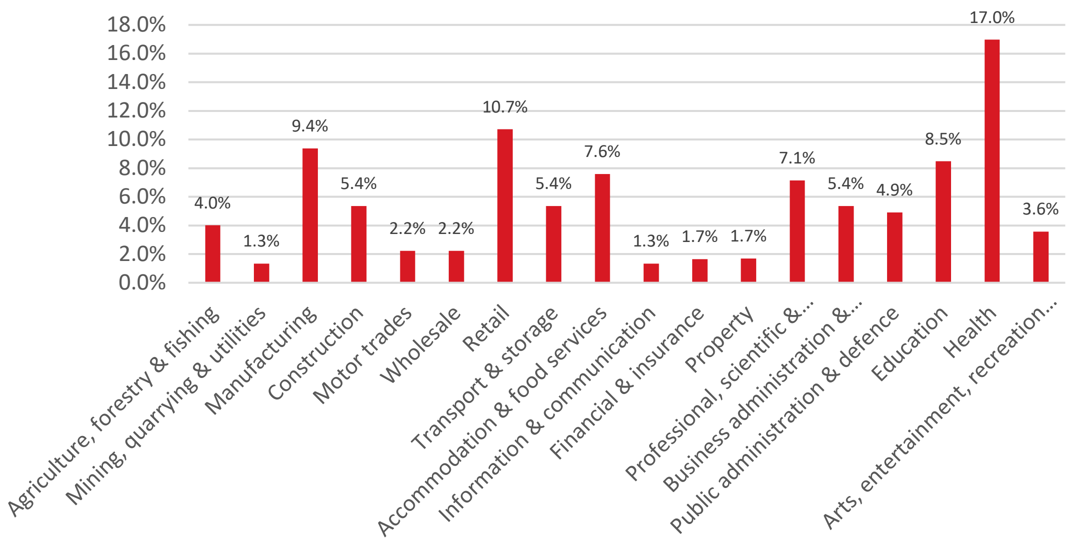
[11] Business Register and Employment Survey. Office for National Statistics

- Education (8.5%)
- Accommodation & Food Services (7.6%)

7.5.36 These five sectors account for over half (53.1%) of the total employment within the Labour Market Study Area. The high proportion of jobs in Health and Education signal the importance of public sector institutions as sources of employment, while the presence of Retail and Accommodation & Food sectors illustrate the significance of basic services and the visitor economy. The inclusion of manufacturing within the top five sectors of employment highlights the area's heritage and strengths in fabrication and production and suggests that the area is well positioned to grow this base and support growth in this sector.

7.5.37 The distribution of employment across the main industrial sectors is shown in **Figure 7-7** below.

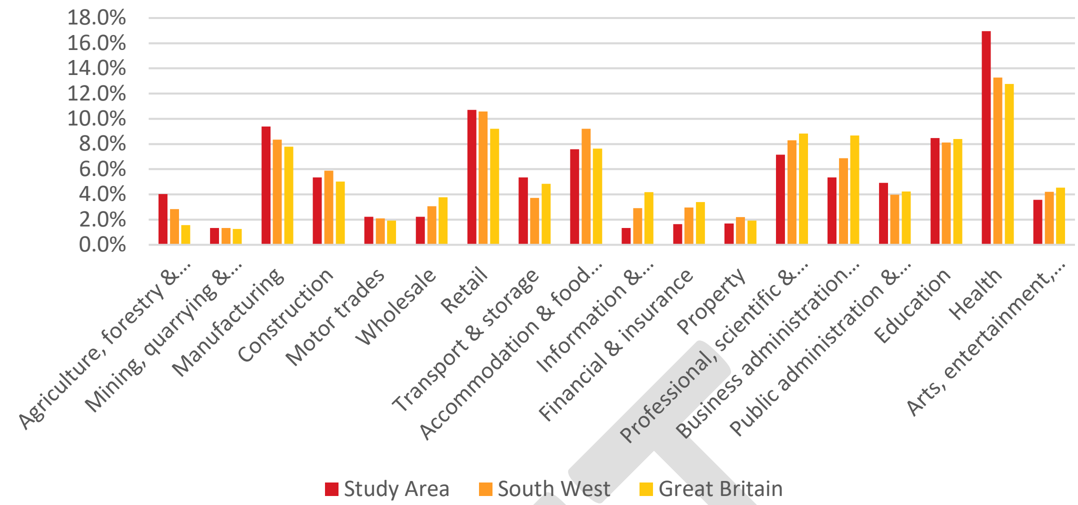
Figure 7-7 Employment by sector, 2019 (Study Area)



7.5.38 The main sectors of employment within the Study Area are aligned with those of the South West region, where Health, Retail, Food & Beverage Services, and Manufacturing sectors are within the top five. The lone difference between the Study Area and South West region is between Education and Professional, Scientific, & Technical employment.

7.5.39 Across Great Britain (BRES does not contain data for Northern Ireland), the main sectors of employment are similar to those observed at the South West region spatial level. The proportion of employment within the broad industrial sectors across the Study Area, South West, and national levels is presented in **Figure 7-8** below.

Figure 7-8 Employment by sector, 2019



7.5.40 Proportionally, the five sectors supporting the greatest levels of employment at each spatial scale account for between 47%-54% of total employment, highlighting the reliance on a handful of sectors for the majority of employment opportunities.

7.5.41 The data shows that there are clear similarities in the distribution of employment across the main industrial sectors at each spatial level which suggests that local, regional and national labour markets respond in similar fashions to broad economic trends.

7.5.42 Within the wider labour market, the largest sectors of employment are Health (13.4%), Retail (9.7%), Professional, scientific & technical (9.5%), Education (8.8%), and Accommodation & Food Services (7.7%). While not within the top five, manufacturing accounts for 7.3% of employment with approximately 80,500 people employed in the sector. This demonstrates that there is a sizable contingent of manufacturing labour within the wider area to draw upon.

7.5.43 The Proposed Development will build on the heritage and strength of the manufacturing sector opportunities within the Study Area. This aligns with several local and regional economic development policies and objectives (see **Chapter 6).** The advanced manufacturing element will need to be supported by a range of other goods and services providers, which will strengthen existing supply chains as well as create new ones. This will have a ripple effect whereby additional employment opportunity across a number of sectors will be supported by the increased economic activity linked with the Proposed Development.

Key Business Sectors

7.5.44 A brief overview of the key business sectors identified within the Scoping Report is provided below to highlight the sectors within the context of the wider labour market. Examination of the key sectors individually will enable a more thorough understanding of the anticipated impacts resulting from the Proposed Development.

Construction

7.5.45 BRES data identifies that the construction sector within the Labour Market Study Area has 6,000 employees as of 2019[12]. This equates to 5.4% of the total workforce within the Labour Market Study Area. For comparison, the proportion of total employment involved in construction in South West region is 5.9%, and the national figure stands at 5.0% in the same year.

[12] Office for National Statistics. Business Register and Employment Survey (2019)

7.5.46 The significant level of capital expenditure which is estimated to deliver the quantum of floorspace delivered in the Description of Development (c. £1.872 billion) will support a substantial level of construction employment within the Labour Market Study Area. The impacts of this level of construction activity are assessed in **Section 7.8 Assessment of Likely Effects**. It is noted that the construction workforce within the Study Area will be heavily influenced by construction of Hinkley Point C (HPC) which EDF Energy estimate will peak at up to 8,500 workers. It is anticipated that as construction activity winds down on HPC in the run up to 2026 there will be opportunity for continuity of construction employment as Gravity construction ramps up capturing a large proportion of those workers.

Manufacturing

7.5.47 ONS data from the BRES reveals that 10,500 people were engaged in manufacturing within the Labour Market Study Area in 2019, accounting for 9.4% of total employment within the Study Area[13]. This places it as the 3rd largest sector of employment, behind Health (17%) and Retail (10.7%). To put in a wider context, manufacturing accounts for a proportionally larger share of employment within the Labour Market Study Area than it does across the wider South West (8.3%) and nationally (7.8%) in the same year.

7.5.48 The 1,000,000 sqm of advanced manufacturing floorspace to be delivered at Gravity, as set out in the Description of Development, will support a substantial level of new manufacturing sector employment within the Labour Market Study Area. The economic impacts of the increased capacity within the manufacturing sector are assessed in **Section 7.8 Assessment of Likely Effects.**

Professional, scientific & technical

7.5.49 Professional, scientific and technical employment supports 8,000 jobs, which equates to 7.1% of the total employment within the Labour Market Study Area as per 2019 BRES data[14]. This sector accounts for proportionally less employment at the Labour Market Study Area level when compared to the South West (8.3%) and nationally (8.8%) in the same year.

7.5.50 The 100,000 sqm of commercial floorspace coming forward on the Gravity site, as specified by the Description of Development, will support a substantial level of professional, technical, and scientific employment within the Labour Market Study Area. The economic impacts of this operational employment within the professional, scientific & technical sector is assessed in **Section 7.8 Assessment of Likely Effects.**

Services

7.5.51 The services sector, defined as the combination of the retail and accommodation, food & drink sectors, supports 20,500 jobs with the Labour Market Study Area as identified by 2019 ONS data[15]. The services sector is the single largest sector of employment within the Labour Market Study Area, accounting for 18.3% of total employment. The proportion of employment in the services sector within the Labour Market Study Area is between that observed at the South West and national spatial levels, 19.8% and 16.7% respectively.

7.5.52 The delivery of the Proposed Development will result in increased economic activity within the Labour Market Study Area. In the short term, the construction activity will bring an increase of construction labour into the Labour Market Study Area who will spend wages at local shops, restaurants, and entertainment and leisure facilities. In the long term, the operational employment within the Proposed Development will bring increased levels of spend within the Labour Market Study Area in local, regional and national supply chains. The economic impacts of the short and long term employment related to the Proposed Development on the

[13] Office for National Statistics. Business Register and Employment Survey (2019)
[14] Office for National Statistics. Business Register and Employment Survey (2019)
[15] Office for National Statistics. Business Register and Employment Survey (2019)

services sector within the Labour Market Study Area is assessed in **Section 7.8 Assessment of Likely Effects.**

Housing Market Characteristics

7.5.53 Strategic Housing Market Assessment (SHMA) for Sedgemoor identifies an objectively assessed need (OAN) of 644 dwellings per annum (pa) for the period up to 2032 which aligns to both the Local Plan period and the 2032 baseline for the Proposed Development. This is aligned to delivering a requirement of 13,530 homes during the period from 2011 up to 2032.

7.5.54 The five-year housing land supply statement dated April 2020 notes that in terms of completions over the plan period there is a cumulative deficit of 194 units (5,602 units between 2011-2020), This does not necessarily mean that there will still be a deficit by 2032 as completions fluctuate and will depend on the number and size of sites coming on stream each year, however it shows that there is a deficit as of 2020.

7.5.55 The housing approach adopted by Sedgemoor, which has flowed through into the Local Plan from the previous plan is that the housing requirement for the area is derived from a jobs-led approach, targeting new jobs in the local area and improving self-containment (i.e. reducing outward commuting by residents) with the bulk of the housing provision is focused on Bridgwater, approximately 6km to the south of the Site. The Proposed Development aligns to this strategy, seeking to create new, higher value employment within the HMA and increasing self-containment through employment opportunities for local residents.

7.5.56 Housing price statistics from the ONS show that Sedgemoor has below average house prices, making it more affordable than other districts within Somerset[16]. However, low average wages mean that home ownership remains challenging despite a lower average house price. The Local Plan notes that a considerable number of affordable homes have been built since 2006, but the need remains high. There is a particular need identified for starter homes for young people.

7.5.57 HPC has also been successful in driving up accommodation capacity in the Study Area. The workforce and associated accommodation demand from HPC will reduce as construction winds down to completion in 2026.

7.5.58 The Proposed Development seeks to support the housing market through creation of higher value jobs, which are accessible to local people and seeks to improve self-containment and reduce the drain of younger people leaving the district, as well as reducing the current levels of out-commuting. Recognising the pressures on the local housing market provision has been made within the Proposed Development for suitable housing to support the construction phase and new operational employees, particularly young people who have chosen to remain in the local area offering the opportunity for not only employment, but also a home.

2032 Baseline

7.5.59 This section utilises current conditions at the Site and in the surrounding area (as discussed above), to forward predict likely conditions at the Site in 2032. This will enable the effects of the Proposed Development to be considered against a ‘Do Nothing’ (Future Baseline) assessment.

7.5.60 Within this assessment it is assumed that employment levels, sector splits, qualification attainment and economic activity rate will be broadly similar to their current levels, adjusted proportionally to reflect the increase in population and ageing profile. It is acknowledged that Hinkley Point C is a major infrastructure project within the South West in proximity to the Proposed Development and will contribute to the skills and employment trends anticipated up to 2032. HPC has a large number of workers living locally. It has been reported by EDF

[16] Office for National Statistics. House price statistics for small areas and England and Wales.

Energy that the construction workforce is likely to peak at up to 8,500 workers in comparison to the 5,400 originally anticipated. This is a significant construction workforce from which to draw on as it de-mobilises. It is assumed that the upskilling and training programmes related to HPC will continue to improve the skills base and qualification attainment within the construction labour market in the South West. The HPC project is scheduled to complete in 2026 and a portion of that skilled construction workforce will become available to work on other projects, including the Proposed Development. This will provide continuity of employment for those that have a base in the area and wish to remain and contribute to the local economy. This enables the locality to retain and retrain the workforce and not lose working age population to other regions of the UK.

7.5.61 It has been assumed that consented development within the Local Plan will be delivered under the 2032 Baseline scenario. The following projects have been included within the 2032 baseline:

- The implemented 2017 Planning Consent totalling 177,059 of employment floorspace. As described in the Huntspill Energy Park (HEP) ES from the 2013, this floorspace is broken down into different uses:
  - 21,433 sqm of B1a/B1b, Research & Development and other office use not within Class A2
  - 10,716 sqm of B1c, light industrial uses
  - 43,600 sqm of B2, industrial process uses
  - 101,310 sqm of B8, storage and distribution uses
- The approved village enhancement scheme. This was identified as mitigation for the 2017 Planning Consent and is anticipated to be implemented in Spring 2022. The village enhancement scheme will deliver traffic calming enhancements within the villages of Puriton and Woolavington.
- Landscaping associated with the Gravity Link Road, anticipated to be implemented in Autumn 2021.
- Existing and approved development in the surrounding area, including development which have been allocated in the Local Plan 2011-2032. These include:
  - 42/20/00014 – Outline application with some matters reserved for the erection of 120 dwellings with public open space, structural planting and landscaping, surface water floor mitigation and attenuation, and vehicular access point from Woolavington Road (all matters reserved except access)
  - 54/19/00008 – Hybrid (full and outline) application. Full application for the erection of 100 dwellings including 30 affordable homes and associated infrastructure. Outline application with some matters reserved for the erection of up to 75 dwellings and associated infrastructure
  - 54/20/00009 – Resubmission of 54/18/00008 while at appeal. Outline planning application for the erection of up to 125 dwellings with public open space, landscaping, sustainable drainage system (SuDS), formation of vehicular access and offsite improvements to A39/B3141 Woolavington Hill Junction
  - 54/20/00010 – Resubmission of 54/19/00011 while at appeal. Outline application with some matters reserved, for the demolition of stable buildings and the erection of up to 95 dwellings with public open space, landscaping, and sustainable drainage systems (SuDS), vehicular access point from Woolavington Road and the erection of a double garage with associated access at Westfield Farm

7.5.62 Establishing the quantum of development within the 2032 baseline scenario enables assessment of likely significant effects on economic receptors in combination with the predicted baseline in 2032.

7.5.63 In terms of demographic and economic data, population projections are statistical measures currently available to consider within the 2032 Baseline scenario.

7.5.64 The ONS projections suggest that the population within the Labour Market Study Area is anticipated to grow by 8.9% between 2020 and 2032. This growth is projected to be driven by substantial increases to the population of pensionable age persons, (+32%) and the population of working age people (+3.1%), while the overall population of children within the Labour Market Study Area is anticipated to decline (-3.2%).

7.5.65 The anticipated population distribution in 2032 is shown below in **Figure 7-9**.

Figure 7-9 Population Distribution (2032)

Hinkley Point C

7.5.66 The EDF website confirms that the final investment decision and the start of construction at HPC took place in the second half of 2016. Current estimates also suggest that HPC is anticipated to be completed around June 2026. It is acknowledged that there is a relatively short period of overlap where temporary construction activity will occur concurrently at Hinkley Point C and the Proposed Development, and as a result there may be competition for construction labour between the two projects. However, the nature of the work will be very different with Gravity under physical construction i.e. site and buildings, and Hinkley being in advanced Mechanical and Electrical (M and E) and fit out stages into operational readiness. Therefore quite different labour pools. The projections for the HPC M and E labour force predicted a much smaller percentage of local labour and higher levels of migrant labour, due to the higher level and specialist skills required.

7.5.67 Construction work at Hinkley Point C is expected to have peaked and be winding down as activity at the Proposed Development is ramping up. It is therefore anticipated that a proportion of the locally based construction workforce at HPC can benefit from the Proposed Development ramping up construction from 2022 providing continuity of work and opportunity for continued employment by those already within the local area.

Summary of Receptor Sensitivity

7.5.68 In the context of the baseline conditions described in the above section, **Table 7.7** below identifies the receptors which are likely to experience impacts from the Proposed Development, thus requiring consideration within the impact assessment. **Table 7.7** below also determines the sensitivity of each identified receptor and the development phase(s) when it would be likely to be affected by the Proposed Development.

Receptor	Sensitivity	Rationale	Phase(s) of likely effects
Labour Market Study Area	High	The scale of the Proposed Development is likely to introduce new pressures within the labour market resulting from the short- and long-term employment associated with the delivery and subsequent operation of the Proposed Development.	Construction and Operation
Housing Market Study Area	Medium	The scale of the Proposed Development is likely to introduce new operational employees who will require homes within the HMA. Up to 750 homes are to be provided on site and local skills and training commitments for local people who are likely to already have accommodation within the housing market area.	Operation
Key business sector: Construction	High	The construction sector in the Labour Market Study Area employs 6,000 people. The scale of the Proposed Development is likely to have distortionary effects on the sector. However, a significant portion of labour employment is anticipated to come from the existing local construction workforce at Hinkley Point C. It is acknowledged that the Hinkley Point C project is scheduled for completion in 2026, whereas work will commence on the Proposed Development in 2022. The respective projects will have different skill and labour force requirements during this time therefore limited competition is expected. There will be a phased de-mobilisation of HPC relating to the changing nature of the project and changing skill / workforce requirements. This will enable transition, retraining and deployment as a positive legacy beyond HPC and will enable a transition from temporary employment into more permanent roles.	Construction
Key business sector: manufacturing	High	The manufacturing sector in the Labour Market Study Area employs 10,500 people. The 1 million sqm of advanced manufacturing floorspace within Proposed Development is anticipated to result in a significant increase in manufacturing jobs, which is unlikely to be able to be fully absorbed by the existing labour market and thus have distortionary effects on the sector	Operation
Key business sector: Professional, scientific & technical	Medium	The professional, scientific & technical sector employs 8,000 people within the Housing and Labour Market Study Area. The 100,000 sqm of commercial space within the Proposed Development is anticipated to support a substantial number of professional, scientific & technical jobs, which may have distortionary effects on the sector.	Operation
Key business sector: services	Low	The services sector (the combination of retail, accommodation, and food & beverage activities) supports the greatest amount of employment within the Housing and Labour Market Study Area at 20,500 jobs. The economic activity stimulated by the increase in construction employment in the short term, and operational employment in the long term, will result in increased spending within the services sector and supply chain. This is likely to increase the demand for services within the Housing and Labour Market Study Area, which is anticipated to have impacts on the services sector.	Construction and operation

Table 7.7 Summary of Receptor Sensitivity

7.6 Embedded Mitigation

Demolition and Construction

7.6.1 A Framework Demolition and Construction Environmental Management Plan (FDCEMP) is submitted with the ES (Appendix 4.1), of relevance to this assessment the FDCEMP will set out the responsibilities with regards to compliance with legislation and to implement any mitigation measures. The FDCEMP details management measures to minimise environmental impacts from the demolition and construction phase of the Proposed Development. In the context of economics this will apply to maintaining access to areas of employment and residences. This is secured through the Compliance Form.

7.6.2 It is acknowledged that the approved village enhancement scheme was identified as mitigation for the 2017 Planning Consent and will be implemented one year from the opening of the link road, i.e., in autumn 2022. This is therefore factored into the 2032 Baseline Assessment.

7.6.3 Temporary workforce accommodation for up to 200 workers during the construction and demolition phase of the Proposed Development is included within the LDO parameters. While this is related to the Housing market receptor, it is more closely aligned with community infrastructure and construction worker travel patterns and is therefore covered within **Chapter 8 – Health, Social and Wellbeing** and **Chapter 9 Transport** respectively.

Operational

7.6.4 Mitigation which has been embedded into the development parameters and relied upon as part of the operational assessment include:

- Provision of up to 750 residential units;

7.7 Assessment of Likely Effects

Construction Phase

Capital Expenditure and Gross Construction Employment

7.7.1 The construction of the infrastructure and buildings described in the LDO parameters are estimated to cost £1.872 billion. This estimate has been derived using BCIS build cost data for Sedgemoor (rebased to Q3 2021) and the quantum of development parameters in the Description of Development, including:

- 100,000 sqm of mixed commercial space, at a mean build cost of £3,081 / sqm. This portion of the Proposed Development is estimated to cost a total of £308.1 million.
- 1,000,000 sqm of advanced manufacturing space, at a mean build cost of £1,499 / sqm. This portion of the Proposed Development is estimated to cost £1.499 billion.
- 750 residences for workers, at a mean build cost of £1,281 / sqm. The average home size in England is 67.7 sqm. This element of the Proposed Development is estimated to cost £65.0 million.

7.7.2 Therefore, the total 1,100,000 sqm of floorspace plus the 750 homes is estimated to require £1.872 billion in capital expenditure.

7.7.3 In high level terms, the gross construction employment is calculated by the following formula:

$$\frac{Capital\ expenditure\ (£1{,}872{,}143{,}000)}{Turnover\ required\ to\ support\ one\ construction\ worker\ (£164{,}595)} = 11{,}375\ (PYE)$$

7.7.4 Construction employment is reported in Person Year Equivalents (PYE), i.e. the number of full-time jobs which could be supported for a single year based on the capital expenditure.

7.7.5 Within the list of committed development for the EIA Assessment for inclusion in the 2032 Baseline (Appendix F), no sites supporting employment uses have been scoped in. Consequently, no additional employment land is considered within this assessment.

Net Construction Employment

7.7.6 This level of expenditure is estimated to support 11,375 gross person years equivalent (PYE) of employment over the course of the construction phase. Only a proportion of total construction employment would occur within the Labour Market Study Area due to mobility of labour, competition from externally located construction firms and supply chains. To take account of these factors, the additionality assumptions detailed in **Table 7.8** below have been used to convert the estimated gross construction employment from the Proposed Development.

7.7.7 The additionality factors are set out in **Table 7.8** below.

Additionality factor	Value	Rationale
Deadweight	9%	The 2017 Hybrid Consent for Huntspill Energy Park will be delivered in absence of the Proposed Development coming forward. The Huntspill Energy Park ES estimated a build cost of £148.1 million in 2012, and uprating this to 2021 prices results in an estimated capital expenditure of £174.2 million. This level of expenditure could support an estimated 1,060 PYE construction jobs, which is approximately 9% of the gross employment supported by the Proposed Development. This therefore represents the deadweight.
Leakage	45%	The scale of the Proposed Development means that the construction labour market within the Labour Market Study Area is unlikely to be able to absorb the full requirement of labour, thereby necessitating the acquisition of resources from a wider area
Displacement	60%	The scale of the Proposed Development and the target sectors is likely to demand a diverse range of skills and capabilities. This is anticipated to result in opportunities which pay higher wages, thereby displacing existing construction workforce participants as they seek to maximise the returns on their labour
Multiplier	2.45	ONS National multiplier for construction
Adjusted Multiplier	1.72	The national multiplier has been adjusted by 75% to translate the impacts to a regional level, and then that figure is then adjusted by 50% to estimate the impacts specific to the Labour Market Study Area. This is done through the formula: $\left[\left[\left[National\ multiplier\ (2.45)-1\right]*0.75\right]*0.5\right]+1=adjusted\ multiplier$
Total additionality	34.4%	The total additionality is the factor by which gross jobs are adjusted to estimate the level of net additional jobs resulting from the Proposed Development. The total additionality figure is calculated through the following formula: $(1-deadweight)*(1-displacement)*(1-leakage)*adjusted\ multiplier=total\ additionality$

Table 5.8 Construction Additionality

7.7.8 The application of the total additionality to the estimated 11,375 gross jobs results in an estimated 3,920 net construction jobs.[17] The construction phase is anticipated to be spread over a 10-year period up to 2032 with varying levels of activity expected in any one given year.

7.7.9 The level of construction employment required to deliver the Proposed Development is anticipated to result in distortions to the labour market within the Study Area by creating new employment opportunities. There is likely to be demand for construction labour from other projects and sites over the period up to 2032 to deliver other development sites.

7.7.10 There will be a period of overlap of the construction phases for Hinkley Point C and the Proposed Development, however activity is anticipated to wind down as Hinkley Point C near completion (programmed for 2026). This means that the Hinkley Point C construction workforce can be retained and redeployed to the Proposed Development where possible. This will retain jobs in the area and maintain continuity of employment within the local area. Some degree of training or re-skilling may be required, however it is assumed that the construction labour force at HPC will have broadly transferrable skillsets including but not limited to: ground workers, plant operators, drivers, security, catering and housekeeping through to HGV and bus drivers, steel fixers, project managers, welders, manufacturing and assembly mechanical and electrical engineers .

7.7.11 The Labour Market is a **High** sensitivity receptor which is anticipated to experience a **High** magnitude of change. This is expected to result in **Substantial Beneficial temporary (**but long term) effects persisting for the duration of the construction phase up to 2032, which is **Significant** in EIA terms.

Key Business Sector: Construction

7.7.12 The key sector likely to experience economic effects from the Proposed Development during the construction phase is the construction sector.

7.7.13 GVA generated through the construction phase of the Proposed Development will act as a stimulus to the wider construction sector and induce multiplier effects. The creation of 3,920 net temporary construction jobs within the Study Area is anticipated to generate some £257.6 million Net GVA over the construction period.

7.7.14 The net GVA generated through construction employment associated with the Proposed Development would result in a **High** magnitude of change on the construction sector receptor (a **High** sensitivity receptor as per **Table 7.1**), resulting in a **Substantial Beneficial temporary** effect, which is **Significant** in EIA terms.

Indirect Impacts

7.7.15 The services sector is likely to experience economic impacts from the Proposed Development during the construction sector. The wages earned by the construction labour force will be spent at local food & drink, retail, and recreational establishments, stimulating additional economic activity over the course of the construction phase.

7.7.16 The ONS Family Spending Report for the financial year ending 2020, the period immediately preceding the COVID-19 pandemic, notes that average monthly household spend in the UK was £2,548, based on the average UK household size of 2.4 people. The Report details that 55% of household spend is on discretionary items. Thus, the average household is anticipated to generate £1,299 in discretionary expenditure each month.

7.7.17 Therefore, the net 3,290 PYE of construction employment is anticipated to generate £25.5 million in additional discretionary spend in the local economy. Based on an estimated turnover to support one worker within retail and food & beverage services of £77,190, this level of

[17] Person Year Equivalents for the Construction Period.

expenditure is anticipated to support 330 jobs over the construction phase. Retail and food & beverage activities GVA per head in the South West is estimated at £21,600, therefore the 330 jobs will generate an additional £7.1 million in gross GVA over the construction phase.

7.7.18 However, there are uncertainties regarding these impacts at this stage, particularly as supply chains may be located outside of the Study Area or even the South West depending on the nature of the spend. The indirect effects of the spending from the construction labour associated with the Proposed Development are assessed to be **Major**. These effects will be **beneficial and temporary**, lasting the duration of the construction phase. These effects will result in a **Major beneficial temporary** (yet long term) impact, which is **Significant** in EIA terms.

Operational Phase

Labour Market

7.7.19 Due to the nature of the Proposed Development there is a large scale operational employment associated with the use.

7.7.20 Based on the assumed development scenario considered within this assessment of the Proposed Development, the floorspaces allocated to the anticipated operational uses and their respective employment densities are outlined in **Table 7.9** below.

Use	Floorspace (sqm)	Employment Density	Gross Jobs
Advanced Manufacturing			
Advanced manufacturing	1,000,000	164	6,100
Manufacturing Support Space			
R&D	35,000	60	585
Industrial Processes	7,500	47	160
Storage/Distribution	15,000	80	190
Other supporting uses	7,500	60	125
Total	**65,000**		**1,060**
Supporting & Ancillary uses			
Nursery	1,000	6	55
Hotel/conference centre	8,500	3*	65
Sports/leisure centre	8,000	n/a	50**
Gym	7,500		
Retail/café	750	15	50
Health Centre	750	33	25
37 Club***	2,500	n/a	0
Various other	6,000	60	100
Total	**35,000**		**345**
Grand Total	**1,100,000**		**7,505**

Table 7.9 Operational employment floorspaces and densities

7.7.21 As shown in **Table 7.9** above, employment density assumptions have been applied to the proposed floorspace quantum to calculate likely gross employment requirements for each employment generating use within Description of Development. This is expressed in terms of gross number of full-time equivalent (FTE) workers likely to be directly employed in support of each operational use.

7.7.22 The roles involved in the uses identified in **Table 7.9** represent high quality and productive jobs, particularly within advanced manufacturing and manufacturing support uses. Combined with ambition to recruit from the local area wherever possible, with a Framework setting formal targets and KPIs for local recruitment the Proposed Development is well aligned to policy ambition around clean and inclusive growth. The Framework and Skills Charter also includes other targets, such as for graduate, apprentice, work experience and internship schemes.

7.7.23 Whilst the exact operational employment associated with each detailed phase of development which comes forward by the market, **Table 7.9** above indicates that a total of 7,505 gross FTE workers would be required per annum to support the proposed operational employment use.

7.7.24 In absence of the Proposed Development being delivered, it is assumed that the 2017 Hybrid Planning consent for Huntspill Energy Park would come forward. The Huntspill Energy Park ES notes that an estimated 4,020 direct operational jobs would be supported. Therefore, the Proposed Development is anticipated to support 3,485 gross jobs over and above those which would come forward through the Huntspill Energy Park development.

7.7.25 The provision of these potential employment opportunities will stimulate GVA throughout the Study Area and beyond into national supply chains.

7.7.26 Operational employment would result in a **High** magnitude of change on the Labour Market receptor (a **High** sensitivity receptor as per **Table 7.1**), resulting in a **Permanent Substantial Beneficial** effect, which is **Significant** in EIA terms.

Housing Market

7.7.27 The Proposed Development will deliver up to 750 residential units. The units will be targeted at employees on site to support clean and inclusive growth opportunities and encourage the workforce, especially young professional people to live locally. The housing units provide access to suitable and affordable housing close to the employment cluster.

7.7.28 As these residential units will not be open market homes, they will ensure the Proposed Development makes a meaningful contribution to supporting employees living locally and reduce the pressure on the Sedgemoor HMA generated by new employees working at the Site.

7.7.29 The result of delivering the Proposed Development with potential for up to 7,505 operational jobs would place pressure on the existing housing supply. It is anticipated that by the end of the Local Plan period in 2032 that there will be an additional 13,530 homes with a minimum of 6,440 being delivered during the ten-year period up to 2032[18] alongside the Proposed Development. This means that the Proposed Development would provide an additional 750 homes (12%) on top of that ten-year housing figure.

7.7.30 It is recognised that due to the large scale of the Proposed Development labour will be required from outside of the Study Area. HMA impacts will be offset by tied residential units within the Site that will be available for employees and their families. Local recruitment and skills development will also play a key role in reducing any impact on the local housing market. Creating training and reskilling opportunities for local people to move into higher value jobs will mean that those employees will already have a home within the HMA and do not require a new home. This will also help reduce outward commuting and self-containment within the Study Area.

7.7.31 In economic terms the contribution of 750 homes to support operational jobs would result in a **medium** magnitude of change on the Housing Market receptor improving the quality and choice of stock for employees in combination with other housing delivery within the Sedgemoor HMA (a **medium** sensitivity receptor as per **Table 7.1**), resulting in a **Permanent moderate Beneficial** effect, which is **Significant** in EIA terms.

Key business sector: manufacturing

7.7.32 The Description of Development states that the maximum parameters for development are one million sqm of manufacturing floorspace. As the Proposed Development is being taken forward through a market-led approach, the specific developments which will come forward on

[18] Based on a target of 644 units per annum.

the Site are not yet known. To that end, a series of assumptions have been made regarding the most likely sectors which will occupy the Site, and their proportion of the total floorspace. It is understood that it is priority at local, regional and national levels to support advanced manufacturing. There are already existing advanced manufacturing hubs for the chemicals industry at Grangemouth and at Humberside, so it is unlikely that Gravity would compete with these clusters.

7.7.33 Within the South West there is established expertise within aerospace and advanced engineering. Therefore, an assumption has been made that Gravity will be developed to complement and diversify existing strengths, but also reposition the South West for new growth sector opportunities in advanced manufacturing, particular around low carbon transport and associated supply chains.

7.7.34 It is anticipated that 1,000,000 sqm will be dedicated to advanced manufacturing uses. Market research of existing advanced manufacturing facilities, specifically related to vehicle manufacturing, has revealed an average employment density which equates to one job per 149 sqm of floorspace. With the continued progression and integration of automation technology in manufacturing, it is assumed that the Proposed Development will have slightly lower density than existing facilities (10%). This equates to an employment density of one job per 164 square metres.

7.7.35 Therefore, the gross manufacturing employment anticipated within the Proposed Development has been calculated via the following formula:

$$\frac{Floorspace\ (1{,}000{,}000)}{Employment\ density\ (164)} = 6{,}100$$

7.7.36 Additionality assumptions have been applied to the gross manufacturing employment figure to estimate the amount of net additional jobs associated with the Proposed Development. The additionality factors are set out in **Table 7.10** below.

Additionality factor	Value	Rationale
Deadweight	50%	In absence of the Proposed Development, the development described in the 2017 Hybrid Consent for the Huntspill Energy Park would be delivered on the Site. This development includes over 54,300 sqm of industrial floorspace and 101,310 of storage/distribution space. These uses most closely align to what is envisioned within the manufacturing space of the Proposed Development. The Huntspill Energy Park ES notes that an estimated 2,965 jobs could be supported within this floorspace, which is approximately 50% of the manufacturing employment estimated within the Proposed Development and therefore represents the deadweight.
Leakage	40%	The scale of the Proposed Development means that the manufacturing sector within the Labour Market Study Area is unlikely to be able to absorb the full requirement of labour, thereby necessitating the acquisition of resources from a wider catchment area.
Displacement	35%	The scale of the Proposed Development and the target sectors is likely to demand a diverse range of skills and capabilities. This is anticipated to result in opportunities which pay higher wages, thereby displacing existing manufacturing workforce participants as they seek to maximise the returns on their labour.
Multiplier	2.30	ONS National multiplier for manufacturing of motor vehicles, trailers and semi-trailers .
Adjusted Multiplier	1.64	The national multiplier has been adjusted by 75% to translate the impacts to a regional level, and then that figure is then adjusted by 50% to estimate the impacts specific to the Labour Market Study Area. This is done through the formula: $\left[\left[\left[National\ multiplier\ (2.45) - 1\right] * 0.75\right] * 0.5\right] + 1 = adjusted\ multiplier$
Total additionality	32%	The total additionality is the factor by which gross jobs are adjusted to estimate the level of net additional jobs resulting from the Proposed Development. The total additionality figure is calculated through the following formula: $(1 - deadweight) * (1 - displacement) * (1 - leakage) * adjusted\ multiplier = total\ additionality$

Table 7.10 Manufacturing Additionality

7.7.37 The direct impacts of the Proposed Development on the manufacturing sector are assessed to be **Substantial**. The 6,100 manufacturing jobs anticipated equate to 58% of the existing manufacturing workforce within the Labour Market Study Area. The application of the total additionality to the estimated 6,100 gross manufacturing jobs results in an estimate of 1,950 net additional manufacturing jobs.

7.7.38 The level of net additional manufacturing employment represents a significant increase over the existing manufacturing labour force within the Labour Market Study Area (+18.5%) Therefore, it is likely that the Proposed Development will result in distortions within the manufacturing sector, and it is anticipated that a proportion of the manufacturing labour required will be sourced from beyond the Labour Market Study Area.

7.7.39 Within the list of committed development for the EIA Assessment for inclusion in the 2032 Baseline (**Appendix F**), no sites supporting employment uses have been scoped in. Consequently, no additional manufacturing employment land is considered within this assessment.

7.7.40 The manufacturing sector is **High** sensitivity receptor which is anticipated to experience a **High** magnitude of change resulting from the Proposed Development in combination with the identified development in the 2032 Baseline.

7.7.41 Based on the established EIA criteria these impacts are assessed to result in **Substantial Beneficial and permanent** effects, lasting for the duration of the operation of the Proposed Development which are **Significant** in EIA terms.

GVA Impacts

7.7.42 The key economic sector is likely to experience impacts resulting from the operational phase of the Proposed Development. GVA generated through the manufacturing employment is likely to stimulate further activity within the sector and induce multiplier effects.

7.7.43 The 1,950 net additional manufacturing jobs (at full capacity) is estimated to generate £134.8 million in net GVA per annum throughout the operational life of the Proposed Development. Over a 25-year horizon (2032-2057) this equates to £3.370 billion net GVA. The net present value (NPV) of this GVA is £1.521 billion.

7.7.44 The net GVA generated through manufacturing employment associated with the Proposed Development would result in a **High** magnitude of change of the manufacturing sector receptor (a **High** sensitivity receptor as per **Table 7.1**), resulting in a **Substantial Beneficial and permanent** effect, which is **Significant** in EIA terms.

Key business sector: professional, scientific & technical

7.7.45 The Description of Development notes that the maximum parameters for development include up to 100,000 sqm of commercial space. Due to the market-led approach of the Proposed Development, the specific nature of the development which will come forward within this floorspace is not yet known. It is understood that this floorspace will host supporting and ancillary functions to the manufacturing space.

7.7.46 For the purposes of this assessment, it has been assumed that 65,000 sqm of the commercial space will be dedicated to uses supporting the manufacturing elements, hosting a range of professional, scientific and technical employment (see **Table 7.9**). The weighted average of the employment densities across the various uses equates to one job per 61 sqm.

7.7.47 Therefore, the gross operational employment is estimated by the following formula:

$$\frac{Floorspace\ (65{,}000\ sqm)}{Employment\ density\ (61)} = 1{,}060$$

7.7.48 Additionality assumptions have been applied to translate the gross jobs figure into an estimate of the number of net additional jobs in the economy. The additionality assumptions are set out in **Table 7.11** below.

Additionality factor	Value	Rationale
Deadweight	99%	The 2017 Hybrid Consent for the Huntspill Energy Park includes over 21,000 sqm of floorspace for R&D activities. The Huntspill Energy Park ES notes that an estimated 1,055 professional, scientific & technical jobs could be supported within the development. This equates to over 99% of the professional, scientific & technical employment anticipated within the Proposed Development. This therefore represents the deadweight.
Leakage	40%	The scale of the Proposed Development means that the professional, scientific & technical sector within the Housing and Labour Market Study Area is unlikely to be able to absorb the full requirement of labour, thereby necessitating the acquisition of some resources from a wider catchment area.
Displacement	35%	The scale of the Proposed Development and the target sectors is likely to demand a diverse range of skills and capabilities. This is anticipated to result in opportunities which pay higher wages, thereby displacing existing professional, scientific & technical workforce participants as they seek to maximise the returns on their labour
Multiplier	1.8	ONS National multiplier for other professional, scientific & technical activities
Adjusted Multiplier	1.14	The national multiplier has been adjusted by 75% to translate the impacts to a regional level, and then that figure is then adjusted by 50% to estimate the impacts specific to the Labour Market Study Area. This is done through the formula: $\left[\left[[National\ multiplier\ (2.45)-1]*0.75\right]*0.5\right]+1=$ $adjusted\ multiplier$
Total additionality	0.6%	The total additionality is the factor by which gross jobs are adjusted to estimate the level of net additional jobs resulting from the Proposed Development. The total additionality figure is calculated through the following formula: $(1-deadweight)*(1-displacement)*(1-leakage)*$ $adjusted\ multiplier=total\ additionality$

Table 7.11 Professional, scientific & technical additionality

7.7.49 The application of the total additionality to the gross jobs figure results in an estimated six net additional jobs over and above what would come forward in the 2032 Baseline.

7.7.50 Within the list of committed development for the EIA Assessment for inclusion in the 2032 Baseline (Appendix F), no sites supporting employment uses have been scoped in. Consequently, no additional professional, scientific & technical employment land is considered within this assessment.

7.7.51 The professional, scientific & technical sector is a **Medium** sensitivity receptor which is anticipated to experience a **Negligible** magnitude of change as a result of the employment generated by the Proposed Development with reference to the 2032 Baseline

7.7.52 As defined by the EIA significance criteria this impact is assessed to result in a **Negligible Beneficial and permanent** effect, which is **Not Significant** in EIA terms.

GVA Impacts

7.7.53 GVA generated through professional, scientific & technical employment associated with the operational phase of the Proposed Development will stimulate additional activity within the sector and induce multiplier effects.

7.7.54 The creation of 6 net additional professional, scientific & technical jobs within the Study Area (at full occupation) is anticipated to generate £361,900 net GVA per annum. Over a 25-year horizon this equates to £9.0 million in net GVA. Discounting this back to the base year of 2021 results in £4.0 million NPV GVA.

7.7.55 The net GVA generated through the professional, scientific & technical employment associated with the Proposed Development would result in a **Low** magnitude of change on the professional, scientific & technical sector (a **Medium** sensitivity receptor as per **Table 7.1**), resulting in a **Minor Beneficial and permanent** effect, which is **Not Significant** in EIA terms.

Key business sector: services

7.7.56 The Description of Development notes that the maximum parameters of development include 100,000 sqm of commercial space. As noted above, 65,000 sqm of this space is assumed to be complimentary to the primary advanced manufacturing functions within the Proposed Development. The remaining 35,000 sqm are therefore assumed to be ancillary support uses which provide convenience and quality of life functions on site. The assumed development scenario includes the uses set out in **Table 7.9**.

7.7.57 A blended employment density has been adopted to approximate the level of employment which may be supported by the ancillary uses (please see **Table 7.9** for further detail on areas and densities). Overall, and average density of one job per 101 sqm has been used within the assessment. Therefore, the estimated number of gross jobs has been calculated using the following formula:

$$\frac{Floorspace\ (35{,}000\ sqm)}{Employment\ density\ (101)} = 345$$

7.7.58 Additionality assumptions have been applied to translate the gross jobs figure into an estimate of the net additional jobs to the economy. The additionality assumptions for the services employment are set out in **Table 7.12** below.

Additionality factor	Value	Rationale
Deadweight	45%	It is assumed that the 2017 Hybrid Consent for Huntspill Energy Park will come forward if the Proposed Development is not delivered. While there is no explicit provision for services floorspace it is anticipated that some services employment would be present in the Huntspill development to cover administrative responsibilities, site security, maintenance and associated works. Deadweight has been set at 45% to provide a conservative estimate.
Leakage	10%	The wages within the services sector are generally on the lower end of the scale and it is unlikely that they would be at a threshold to attract a significant level of employment from beyond the Labour Market Study Area.
Displacement	75%	The supporting service uses within the Proposed Development may be attractive employment opportunities for people living in proximity to the Site. That, alongside the relatively low barrier to entry (i.e. no requirement for highly skilled workers or specific qualification attainment) may result in high levels of displacement.
Multiplier	1.29	ONS National multiplier for other personal services
Adjusted Multiplier	1.14	The national multiplier has been adjusted by 75% to translate the impacts to a regional level, and then that figure is then adjusted by 50% to estimate the impacts specific to the Labour Market Study Area. This is done through the formula: $\Big[[National\ multiplier\ (2.45) - 1] * 0.75\Big] * 0.5\Big] + 1 = adjusted\ multiplier$
Total additionality	54.3%	The total additionality is the factor by which gross jobs are adjusted to estimate the level of net additional jobs resulting from the Proposed Development. The total additionality figure is calculated through the following formula: $(1 - deadweight) * (1 - displacement) * (1 - leakage) * adjusted\ multiplier = total\ additionality$

Table 7.12 Services additionality

7.7.59 The application of the total additionality on the number of gross jobs figure results in an estimate of 50 net additional jobs.

7.7.60 The 50 net additional services jobs represent an increase of just under 1% within the services sector in the Housing and Labour Market Study Area.

7.7.61 Within the list of committed development for the EIA Assessment for inclusion in the 2032 Baseline (Appendix F), no sites supporting employment uses have been scoped in. Consequently, no additional services employment land is considered within this assessment.

7.7.62 The services sector is a **Low** sensitivity receptor which is anticipated to experience a **Medium** magnitude of change resulting from the employment of the Proposed Development with reference to the 2032 Baseline.

7.7.63 As defined by the EIA significance criteria this impact is assessed to result in a **Minor Beneficial and permanent** effect, which is **Not Significant** in EIA terms.

GVA Impacts

7.7.64 The services sector is likely to experience impacts resulting from the operational phase of the Proposed Development. GVA generated through the services employment is likely to stimulate additional economic activity within the sector and induce multiplier effects.

7.7.65 The 50 net additional service jobs (at full operational capacity) is estimated to generate £2.3 million in net GVA per annum. Over a 25-year operational horizon this equates to £57.8 million in net additional GVA. Discounting the future GVA back to 2021 prices translates to £26.1 million in NPV GVA.

7.7.66 The net GVA generated through the services employment associated with the Proposed Development would result in a **Medium** magnitude of change on the services sector receptor (a **Low** sensitivity receptor as per **Table 7.1**), resulting in a **Minor Beneficial and permanent** effect, which is **Not Significant** in EIA terms.

Indirect Impacts

7.7.67 The development of the Site and the integration of the supply chain would bring wider indirect benefits to the region, including increasing indirect GVA and indirect employment.

7.7.68 The ONS Family Spending Report for the financial year ending 2020, the period immediately preceding the COVID-19 pandemic, notes that average monthly household spend in the UK was £2,548, based on the average UK household size of 2.4 people. The Report details that 55% of household spend is on discretionary items. Thus, the average household is anticipated to generate £1,299 in discretionary expenditure each month.

7.7.69 Therefore, the net operational employment of 2,005 (FTE) is anticipated to generate £13.0 million in discretionary spend per annum. Based on the estimated level of turnover required to support one employee in retail or food & beverage activities of £77,190, this level of expenditure could support an estimated 170 gross jobs per annum. An estimated £21,600 GVA per head is associated with retail and food & beverage employment in the South West, thus the 170 gross jobs are estimated to generate £3.6 million in gross GVA per annum.

7.7.70 However, there are uncertainties regarding these impacts at this stage, particularly as supply chains may be located outside of the Study Area or even the South West depending on the requirements of occupiers, therefore an assessment of **moderate beneficial impact** magnitude on the **high** sensitivity (Labour Market Study Area) has been identified, which is **Significant** in EIA terms.

7.8 Further Mitigation

7.8.1 The predicted economic impacts resulting from the Proposed Development, in combination with the development anticipated in the 2032 Baseline are positive effects on the identified sensitive receptors.

7.8.2 Whilst a large number of permanent and temporary jobs will be created, to maximise the opportunity for local people and others to re-train and maximise their potential a number of further mitigation measures are proposed and set out below:

- A Clean and Inclusive Growth Strategy (2020) (available at www.thisisgravity.co.uk) has been prepared which sets out an ambitious vision for Gravity to deliver a socially inclusive development that considers clean and inclusive economic growth as critical to its success. A Design Guide has also been prepared and is submitted with the LDO, which sets out the design and placemaking principles.

- The Gravity Skills Charter (2021) is intended to set out the high-level principles and objectives for Gravity addressed through occupier specific Employment and Skills Plans which will establish opportunities for work experience, apprenticeships and set out how recruitment will be managed to optimise the recruitment and development of local people. Gravity and its partners, including the councils and the Local Enterprise Partnership, will work primarily with Bridgwater and Taunton College and through them, with other educational institutions, employers, occupiers and skills advisers to shape the local labour force to meet industry and market requirements. In support of this lies a series of actions designed to raise ambitions and aspirations and help residents to understand the training opportunities available to them at Gravity. Investment priorities for curricular development, new premises and courses as well as support for schools will be included in the locality investment plan to ensure the locality can respond to realise local opportunities. The Gravity Skills Charter is secured through the S106 Agreement.

- The Gravity Business Charter (2021) reinforces the Growth Mission at Gravity recognising that in the UK, Government has committed to 'net zero carbon' by 2050. This requires a seismic shift in thinking and action to respond. Creating a route to delivering clean and inclusive growth is the greatest industrial opportunity in our history. At Gravity, the strategy is to seize this opportunity to make a smart campus and integrated community that delivers the 4th Industrial Revolution, providing an exemplar in the UK and a beacon for wayfinding on this Clean Growth Journey. Gravity will proactively support and encourage occupiers and collaborators to make a commitment to promote and facilitate the economic development of the locality in conjunction with the private sector, local councils, local enterprise partnerships, and business organisations. The Gravity Business Charter is secured through the S106 Agreement and draws out and focusses on:
    - Championing the South West
        - through marketing and enquiry management.
    - Establishing a digital innovation alliance across the M5 growth corridor via the 5G Create project on logistics
    - Host test beds and green finance initiatives to develop green solutions
        - via 5G test bed project and linking this culture into management strategies within the LDO, seeking new collaborations with potential partners, and following up on opportunities that arise
    - Incubating innovation, start-ups, enabling new forms of business, energy and transport technologies
        - by making provision within the LDO for flexible business space to accommodate.

7.8.3 There is a potential legacy beyond HPC through the repurposing of the Somerset Energy Innovation Centre to support the supply chain mobilisation and development for the Gravity project, subject to agreement with the County Council as landlord from 2026.

7.8.4 The Further Mitigation for the Proposed Development includes the implementation of measures which to reduce the risk of significant adverse effects on environmental receptors as a result of the construction and operational activities, and to maximise opportunities for local people to access higher paid and higher skilled employment opportunities than are currently contained within the Study Area. This responds to the wider clean and inclusive growth agenda and industrial strategy and seeks to ensure that new opportunities are accessed by local people. Through implementation of these agreements more, better paid jobs can be accessed by local people and therefore reduces outward commuting and has the potential to retain more economically active young people within the Study Area.

7.9 Residual Effects

7.9.1 The likely residual effects from the construction and operation of the Proposed Development are identified in combination with further mitigation measures listed in **Section 7.8** are:

Potential Effect	Duration	Impacted receptor	Receptor Sensitivity	Residual Magnitude of change	Residual effect level	Residual EIA Significance
Construction Phase						

Potential Effect	Duration	Impacted receptor	Receptor Sensitivity	Residual Magnitude of change	Residual effect level	Residual EIA Significance
Net construction employment	Short term	Labour Market (FEMA area)	High	High	Substantial Beneficial	Significant
Key business sector	Short term	construction	High	High	Substantial Beneficial	Significant
Operational Phase						
Net operational employment	Permanent	Labour market	High	High	Substantial Beneficial	Significant
Net operational employment	Permanent	Housing Market	Medium	Medium	Moderate Beneficial	Significant
Key business sector	Permanent	Manufacturing	High	High	Substantial Beneficial	Significant
Key business sector	Permanent	Professional, scientific & technical	Medium	Negligible	Negligible Beneficial	Not Significant
Key business sector	Permanent	Services	Low	Medium	Minor Beneficial	Not Significant
Supply Chain and Clustering	Permanent	Labour Market (FEMA area)	High	Medium	Moderate Beneficial	Significant

Table 7.63 Summary of residual effects

7.10 Monitoring

7.10.1 No significant residual adverse effects are identified within this chapter and therefore no formal monitoring is proposed for these effects in respect of the ES.

7.10.2 It should however be noted that the response to operationalising the Skills Charter and Business Charter will be reported upon within the Environmental and Social Governance ((ESG) reporting, the commitment to which is made within the Gravity Monitoring and Management Plan submitted with the LDO. Positive outcomes and inclusion are key to success therefore transparent reporting on progress in training and recruitment will be important to understand. Information will be reported to the local delivery groups and there will need to be a multi-agency approach to ensure the timely delivery of investment into skills and training to ensure the workforce is available and ready in a timely way to enable business operations. Beyond operational start, there will be a need for ongoing workforce development to sustain a pipeline of labour and this will require information and support into schools, to promote new career opportunities and align advice on pathways to further and higher education and to work.

7.11 Summary

7.11.1 This Chapter has been prepared by Stantec UK Ltd to provide an assessment of the likely significant economic effects of the Proposed Development.

7.11.2 The Proposed Development responds to national, regional, and local policy and strategy documents related to economic development. Relevant documents include: the National Planning Policy Framework; the UK's Industrial Strategy: Building a Britain fit for the future; the Heath of the South West Local Industrial Strategy; the Sedgemoor Local Plan; the Bridgwater Vision; the Sedgemoor Economic Development Strategy; and the Sedgemoor Core Strategy.

7.11.3 The methodology used to assess the likely significant economic effects considers both primary impacts, which are effects that can be directly attributed to the Proposed Development such as employment created during the construction and operational phases; and secondary impacts, which are effects that are indirectly generated from the Proposed Development such as increase spend in the local economy.

7.11.4 The primary impacts are measured by estimating the number of net jobs created and the Gross Value Added associated with this employment. The secondary impacts are measured by estimating the amount of additional consumer spending generated by the new workers and residents.

7.11.5 The economic conditions of the local area show that the unemployment rate is slightly above that in the South West and UK; the rates of high level qualification attainment are below that of the South West and UK; the median weekly wages lag behind the wider South West and national average; and employment is distributed across the main industrial sectors in broadly similar fashion to the South West and UK workforces.

7.11.6 Embedded mitigation includes a Framework Demolition and Construction Environmental Management Plan to ensure compliance with legislation and set out management measure to minimise adverse impacts. In the context of economics, this will apply to maintaining access to areas of employment and residences. Additionally, temporary workforce accommodation for up to 200 workers will be provided during the construction phase, and up to 750 residential units will be created for staff in the operational phase.

7.11.7 Further mitigation measures are proposed to maximise the employment opportunities for local people. The future mitigation measures include: A Clean and Inclusive Growth Strategy; the Gravity Skills Charter; and the Gravity Business Charter. Through the implementation of these agreements, more high value jobs will be accessible to local people.

7.11.8 The residual impacts of the Proposed Development are:

- Net construction employment – The Proposed Development is estimated to support 3,920 net additional temporary construction jobs. This is concluded to result in a temporary substantial beneficial impact

- Net construction Gross Value Added – the net construction jobs are estimated to generate £257.6 million in Gross Value Added. This is concluded to result in a temporary substantial beneficial impact

- Net manufacturing employment – The Proposed Development is estimated to support 1,950 net additional manufacturing jobs. This is concluded to result in a permanent substantial beneficial impact

- Net professional, scientific & technical employment – The Proposed Development is estimated to support 6 net additional professional, scientific & technical jobs. This is concluded to result in a permanent negligible beneficial impact

- Net services sector employment – The Proposed Development is estimated to support 170 net additional services jobs. This is concluded to result in a permanent minor beneficial impact

- Housing market –The Proposed Development will include up to 750 homes for staff at the Site. This is concluded to result in a permanent moderate beneficial impact

7.11.9 The assessment therefore concludes that Proposed Development is likely to result in significant impacts (within the context of EIA Regulations) in relation to: Net construction employment; Net construction GVA; Net manufacturing employment; and Housing Market. In all cases, the predicted likely significant impacts would be beneficial in nature.

7.12 Referencing

7.12.1 The statistical sources and references used within the chapter are listed below.

- Office for National Statistics. Annual Population Survey (2020) local authority based
- Office for National Statistics. Annual Survey of Hours and Earnings (2020) local authority based
- Office for National Statistics. Business Register and Employment Survey (2019) local authority based
- Office for National Statistics. Population Estimates (2019) local authority based
- Office for National Statistics. Population Projections (2020) local authority based
- Office for National Statistics. Regional Gross Value Added by region in the UK
- Office for National Statistics. House price statistics for small areas in England and Wales
- Sedgemoor District Council (2020) 5-year Housing Land Supply Statement
- JG Consulting (2016) Strategic Housing Market Assessment
- Sedgemoor District Council (2016) Sedgemoor Employment Land Review
- Sedgemoor District Council (2020) Hinkley Point C Annual Monitoring Report 2018-2019