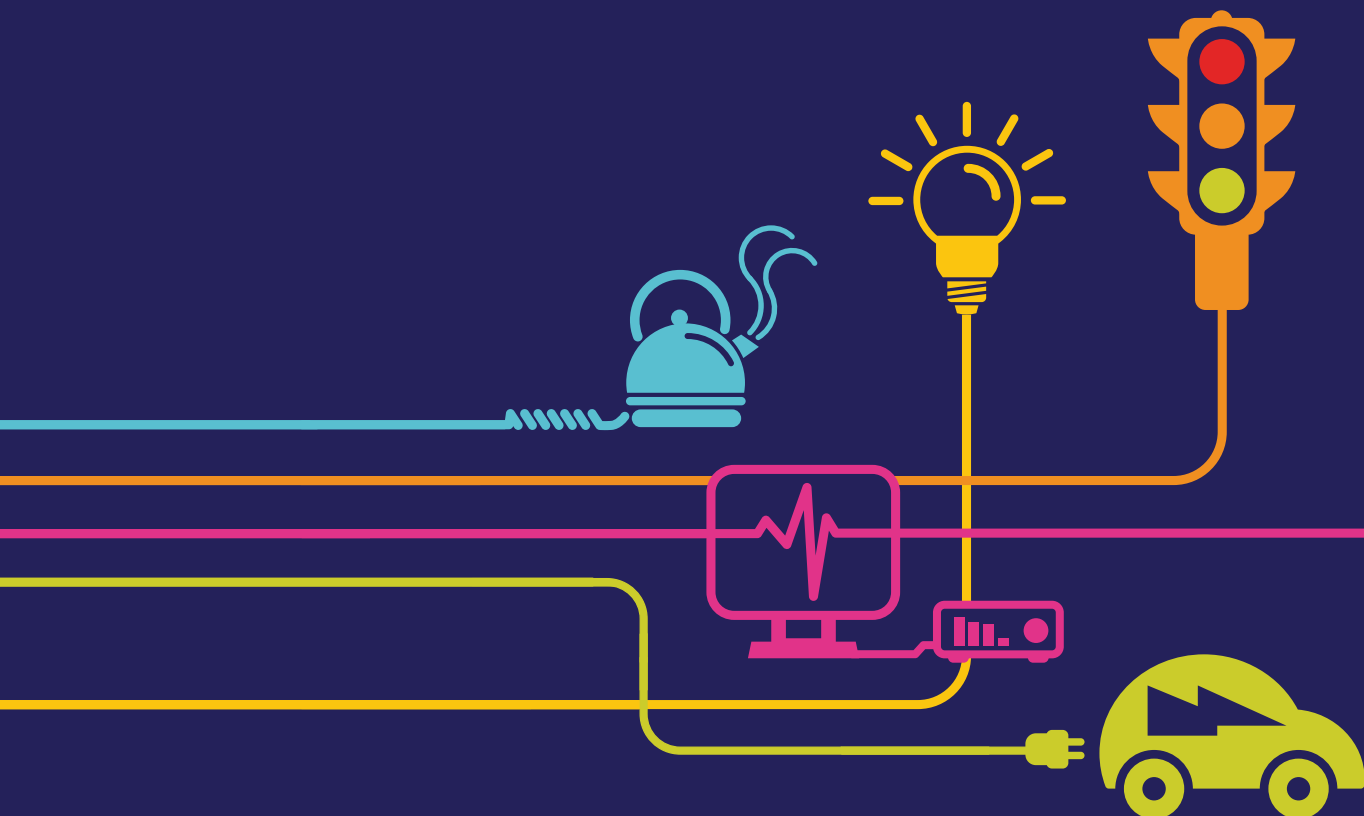


Environmental Statement Socio-economics and Land Use

Hinkley Point C Connection Project

*Regulation 5(2)(a) of the Infrastructure Planning
(Applications: Prescribed Forms and Procedure)
Regulations 2009*



Hinkley Point C Connection Project

ENVIRONMENTAL STATEMENT – MAY 2014

VOLUME 5.15.1, CHAPTER 15 – SOCIO-ECONOMICS AND LAND USE

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15 SOCIO-ECONOMICS AND LAND USE

15.1 Introduction

- 15.1.1 This chapter of the Environmental Statement (ES) describes the assessment of the likely significant effects of the Proposed Development on socio-economic features and on existing and future land uses during the construction, operation and decommissioning phases.
- 15.1.2 This chapter describes the assessment method; the baseline conditions of the land required for the Proposed Development and its surroundings; an assessment of the significance of effects of the Proposed Development; the mitigation options to avoid, reduce or offset significant adverse effects and the residual effects.
- 15.1.3 A description of the Proposed Development is provided in **Volume 5.3.1** and illustrated at **Volume 5.3.3, Figures 3.1 – 3.6**. This chapter is supported by a number of figures and appendices provided after the main text of this chapter **Volume 5.15.1**. To assist the reader, some figures are presented as insets within this chapter. This chapter should be read with the figures and appendices available for reference as they assist the understanding of the descriptions and assessments presented in the text.

Project Engagement

EIA Scoping

- 15.1.4 As part of the scoping phase of the Environmental Impact Assessment (EIA), National Grid Electricity Transmission Plc (National Grid) prepared the EIA Scoping Report 2013 setting out the proposed approach to EIA in respect of the Proposed Development, including the identification of assessment methods for each of the EIA topics to be assessed.
- 15.1.5 The Scoping Opinion is provided at **Volume 5.5.2, Appendix 5A**. A summary of the Scoping Opinion representations received (relevant to EIA) and National Grid's responses are summarised at **Volume 5.5.2 Appendix 5B**. A summary of the main Scoping Opinion representations received in relation to socio-economics and land use are presented in **Table 15.1**.

Table 15.1 Summary of the Main Socio-economic and Land Use Scoping Representations Received

Representation	Response
<p>The SoS recommends that the assessment criteria should be locationally specific and consider the potential significance of the impacts of the proposal within the local and regional context. The Applicant should assess the project's requirements, including construction materials and workforce numbers and evaluate these against local availability. The types of jobs generated during the construction phase should be considered in the context of the available workforce in the area. The potential cumulative effects on availability of local workforce and materials arising from other projects in the area should also be taken into account.</p>	<p>Section 15.5 of this Volume includes consideration of local employment in the baseline conditions, assessment and mitigation proposals, where relevant. This includes an assessment of material costs and workforce requirements, taking into account availability and the proportion which may be sourced locally.</p>
<p>We note that the consideration of the impact on the Avonmouth Severnside Enterprise Area. The potential for impact on the developability of land in the area needs to be assessed as does the impact of existing businesses and the operational capabilities of Bristol Port. The assessment should also consider the relationship with the proposed development at Seabank Power Station.</p>	<p>These developments are considered in Volume 5.17.1, section 17.3. They have also been considered in section 15.5 of this Volume with respect to land 'developability' and the business and operational effects on Bristol Port.</p>

Representation	Response
The Council would wish for a qualitative assessment to be a precursor to a quantitative assessment which would provide an accurate assessment of the effect of the development on the significant tourism industry in this area.	The assessment of the effects on tourism, described in section 15.5 of this Volume draws upon quantitative evidence and primary research through user and count surveys on key PRoW to assess the value of tourism within the project area. Baseline studies and field validation surveys have been used to identify likely tourism receptors, supported by engagement with tourism operators and local councils. The socio-economic assessment has been supplemented by consideration of the findings from other relevant EIA assessments, including Landscape (Volume 5.6.1) and Traffic and Transport (Volume 5.12.1).
Given the potential for impact on PRoW and long distance paths in the vicinity of the proposed project, it is recommended that Public Rights of Way are a significant issue that merits their own sub section, heading, and mapping within the EIA. While it is recognised that visual effect will be assessed in the relevant section, it will be important for the EIA to assess impact on PROW routes and/amenity.	<p>The public right of way (PRoW) baseline assessment includes identification of PRoWs which act as connections between villages and the assessment of impacts on these PRoWs take this into account. The impact on all PRoWs, including permissive paths, within the Local Area of Influence (as identified from Local Authority Definitive Maps) have been assessed within the EIA and are presented in Volume 5.22.1 and considered in section 15.5 of this Volume in terms of land use and amenity effects. National Grid undertook consultation with PROW officers which has informed the development of the EIA for the Proposed Development. A PRoW Management Plan is provided at Volume 5.26.6.</p> <p>The landscape and visual assessment considers likely long distance views. The findings of this assessment have been incorporated into the socio-economic impact assessment where impacts on visual amenity are anticipated.</p>

Statutory Stage 4 Consultation

- 15.1.6 Statutory Stage 4 Consultation took place over a period of eight weeks between 3 September and 29 October 2013 in accordance with the Planning Act 2008. Statutory and non-statutory consultees and members of the public were included in the consultation. Various methods of consultation and engagement were used in accordance with the Statement of Community Consultation (SoCC) including letters, website, public

exhibitions, publicity and advertising, inspection of documentation at selected locations and parish and town council briefings.

- 15.1.7 National Grid prepared a Preliminary Environmental Information Report (PEIR) which was publicised at this consultation stage. National Grid sought feedback on the environmental information presented in that report. Feedback received during Statutory Stage 4 Consultation was considered by National Grid and incorporated where relevant in the design of the project and its assessment and presentation in this ES.
- 15.1.8 A summary of the Statutory Stage 4 Consultation representations received (relevant to EIA) and National Grid's responses are summarised at **Volume 6.1** (Consultation Report). A summary of the main Statutory Stage 4 representations received in relation to socio-economics and land use is presented in **Table 15.2**.

Table 15.2 Summary of the Main Socio-economic and Land Use Statutory Stage 4 Consultation Representations Received

Representation	Response
There is a lack of information about the way in which tourism effects are to be assessed	A description of the method for assessing tourism effects is set out within section 15.3 of this Volume including use of quantitative assessment techniques. Effects on land holdings across all Sections of the Proposed Development have been considered.
The methodological approach to the primary business survey is questioned, in particular whether it has been conducted in a manner that all potentially impacted firms have been contacted, that firms from the right mix of sectors have been included in the sample and that the questions asked to ascertain significant factors in location decisions, have been covered.	National Grid's land agents have sought to engage with all land holders, including businesses, directly affected by the Proposed Development to identify anticipated effects on each holding. The aim of the socio-economics and land use business survey was not to replicate this, rather to capture information regarding perceived effects of the Proposed Development by a range of businesses and commercial operations. Approximately 10% of all businesses within 2km of the Proposed Development were interviewed on a random and anonymous basis.

Representation	Response
In relation to PRow, little information has been provided in respect of what constitutes “path management”, what timescale relates to “closures of short duration” and the impact on PRowS that are proposed to be used and crossed by construction access routes. In addition, little detail has been provided in respect of alternative routes for those paths, which are to be closed for the duration of the construction works. Much greater detail will therefore be required in the forthcoming ES. See also comments relating to PRowS in the Landscape and Visual Effects and Traffic and Transport sections of this report.	<p>A specific PRow and footpath meeting was held on 12th November 2013 to further discuss the Joint Councils' concerns in this regard.</p> <p>Effects on PRow are described in section 15.5 of this Volume and a PRow management plan detailing the affected PRow and the management procedures is provided as supporting document Volume 5.26.6.</p>
Further mitigation measures are likely to be needed to address impacts identified following this further assessment work, and would expect these to be provided to the joint councils for review in advance of the DCO application. The Joint Councils do not accept the current draft as a definitive list.	Section 15.7 of this Volume provides a detailed list of mitigation measures. The list has been updated as the assessment work was being undertaken.
The primary concerns for BCC relate to potential impact of the proposed route alignment through the Severnside/Avonmouth, which is designated jointly by South Gloucestershire and Bristol City Council as an Enterprise Area.	Section 15.5 of this Volume considers the effects upon the Severnside/Avonmouth area. The area is further considered as part of the Cumulative Impacts Assessment detailed at Volume 5.17.1 , section 17.3.
A full review needs to be undertaken of the current position regarding consents and planned development in the Enterprise Area.	Impacts on the 1957/58 consent were considered in the PEIR and a full assessment of impacts on consented projects, planning applications and planning allocations considered in Volume 5.17.1 , section 17.3 (Cumulative Assessment) and within individual topic chapters as appropriate.

Draft ES and Supporting Documents

- 15.1.9 The Draft ES and a large number of the ES supporting documents were provided to a number of statutory and non-statutory consultees over a period of two weeks between 3 and 17 February 2014.
- 15.1.10 A summary of the Draft ES representations received (relevant to EIA) and National Grid's responses are summarised at **Volume 5.5.2, Appendix 5C**. A summary of the main Draft ES representations received in relation to socio-economics and land use are presented in the table below.

Table 15.3 Summary of the Main Socio-economic and Land Use Draft ES Representations Received

Representation	Response
The delivery of the Avonmouth Severnside Enterprise Area (ASEA) underpins the City Region Deal, which has been signed off by all four West of England Councils (July 2013) and this depends on financial modelling based on the WYG development strategy drawn up for the area. The delivery of the ASEA is work in progress with flood options being consulted on and site allocations being drawn up.	Additional text has been provided in relation to the Severnside Enterprise Area to address the concerns raised
Businesses were not provided with sufficient information about the scheme and its likely impacts to make an informed judgement on whether there would be positive, neutral or adverse impacts. Businesses were also not asked (despite recommendation) whether and to what extent their locational decisions are affected by landscape quality.	Clarification has been provided within Volume 5.15.1 . As a perceptions survey, the purpose of the survey was to establish the businesses' existing awareness of the Proposed Development and their perception of effects, based on any extant knowledge that they had of the Proposed Development (at the time of the survey). It would not have been possible to establish existing awareness and perceptions of businesses if a briefing of the Proposed Development had been provided in advance of conducting the survey

Representation	Response
<p>Users surveyed were provided with fairly minimal information about the scheme and its likely impacts which would have been insufficient to make an informed judgement on how it might affect their activities and expenditure, and whether there would be positive, neutral or adverse impacts.</p>	<p>The text in Volume 5.15.1 has been amended to provide clarification. As a perceptions survey, the purpose of the survey was to establish the users' existing awareness of the Proposed Development and their perception of effects, based on any extant knowledge that they had of the Proposed Development (at the time of the survey). It would not have been possible to establish existing awareness and perceptions of users if a briefing of the Proposed Development had been provided in advance of conducting the survey. Although, interestingly, when asked and provided with a description of the Proposed Development, 50% of interviewees were aware of it, of which 66% felt well informed about it.</p>
<p>The percentages here (38% and 56% think that the area would be worse as a place to visit and a place to live respectively) contradict the statements made in 15.5.104 (assessment of minor adverse impact on the local visitor economy).</p>	<p>National Grid acknowledges this comment. As a perceptions survey, the purpose of the survey was to establish the users' existing awareness of the Proposed Development and their perception of effects, based on any extant knowledge that they had of the Proposed Development (at the time of the survey). It would not have been possible to establish existing awareness and perceptions of users if a briefing of the Proposed Development had been provided in advance of conducting the survey. Although, interestingly, when asked and provided with a description of the Proposed Development, 50% of interviewees were aware of it, of which 66% felt well informed about it.</p>
<p>The statement '...the most common perception was that the Proposed Development would not influence user decisions...' is not evidenced by the survey results.</p>	<p>The majority of respondents felt that the Proposed Development would have no effect or influence on:</p> <ul style="list-style-type: none"> • their decision to come to the area (87%, (88% of local residents and 86% of visitors); • what they are doing in the area or how often (86% (86% both local residents and visitors); or <p>recreational activities they might undertake in the area (71% (70% of local residents and 73% of visitors).</p>

Representation	Response
<p>It should be noted that day visitor expenditure figures derived from the user survey are considerably lower than UK averages £32.59 (UKTS) which compares with £11.24 indicated by the user survey).</p>	<p>Because the figures are location and user specific they are unlikely to reflect findings from other surveys undertaken at wider geographical levels or for specific types of users or visitors (for example, the GBTS, formally known as the UKTS, which is a national consumer survey measuring the volume and value of overnight domestic tourism trips taken by residents of the Great Britain).</p>
<p>It is noted that the information provided here is 'what if' analysis rather than a full economic impact appraisal (in line with recommendations in the PIER and Inspector's Scoping Report). However, this is not made sufficiently clear in the text, leading to the impression of spurious accuracy. The text should make explicit that these figures are not the result of a rigorous quantitative tourism impact assessment and do not represent statistically valid projections. Given the discrepancy between the survey-derived expenditure estimates and regional averages (highlighted above) it would be germane to present a range of values with some calculated on the basis of regional averages and some on the basis of user surveys.</p>	<p>It is not possible to undertake a complete and wholly rigorous economic impact assessment of the effect of the Proposed Development on user and visitor spending in the area because current ('without project') user and visitor spending is not known.</p>

Representation	Response
<p>There is no evidence for the assumption made that: ‘the likelihood is that they would choose somewhere else local to visit’.</p> <p>The average spend on activities is not consistent with the regional average spend: - Accom: 18% / Shopping: 26% / Food and Drink: 31% / Attractions: 11% / Travel: 14%. The assumptions and conclusions made in 15.5.101 and 15.5.102 which flow from this are therefore questionable. At minimum the discrepancy between the user-derived expenditure figures and regional averages should be referenced</p> <p>Whilst it is recognised that the conclusion re: the reduced turnover of 1.5% for accommodation businesses the ‘what if’ style quantitative analysis requested in previous consultations, this is not made sufficiently clear in the text, leading to the impression of spurious accuracy. The text should make explicit that these figures are not the result of a rigorous quantitative tourism impact assessment and do not represent statistically valid projections. Given the discrepancy between the survey-derived expenditure estimates and regional averages (highlighted above) it would be germane to present a range of values with some calculated on the basis of regional averages and some on the basis of user surveys.</p>	<p>This reasoning is based upon the economic concept of ‘displacement’, where the benefits of a project are offset through reductions of output, employment, spending or trips offered by similar projects elsewhere. Displacement is highest when local competition from other similar resources is high, and low where services are more unique. Thus, if a footpath is closed, similar local alternatives would be sought first, with alternatives further away being preferred if local alternatives are not available or lack the same qualities</p>

Representation	Response
The assumption 'some losses may be re-assigned to businesses elsewhere' is unsubstantiated and should be amended to reflect the possibility that this equally may not happen. Likewise, the assessment states that 'losses should be set against potential benefits...' without summarising those benefits.	This is displacement which is described in the response above.
There is no evidence for the assumption made re: no effect on popular visitor attractions.	This is justified. These attractions are destinations in their own right associated with attractors, infrastructure, services and brand such that they would not be affected by the Proposed Development
The bullet points states that 42 local communities/settlements were identified. It is not clear how these relate to the assessment which does not appear to assess 42 local communities/settlements. The assessment that the development is not expected to limit the current land use and functions is challenged.	Table 15.44 presents the likely <i>significant</i> amenity effects by receptor type, for those receptors where potential in-combination effects were identified, whilst the full assessment of amenity effects is presented in Volume 5.15.2, Appendix 15J .
<p>A number of significance ratings in the table are given as a range. A clear conclusion should be drawn as to whether an effect is significant or not.</p> <p>Impact on settlements: For Avonmouth (residential area) table says: 'significant visual affects during operation'. This is not expressed using the scaling system for other impacts and should be 'Major Adverse' effect on visual amenity.</p>	The assessment uses an in-combination appraisal, incorporating factors which could affect the ability to use or enjoy the receptor, such as ability to access a receptor, noise, visual and air quality effects. As an in-combination appraisal, the amenity assessment therefore draws from the magnitude of effects identified in some of the other technical assessments (such as transport, noise, landscape and air quality), and considers these effects in the context of the amenity value or sensitivity. This means that in some cases a range has been applied to classify the effects, and also, there may be differences in the classification of effects on the same receptor between ES chapters

Representation	Response
It is stated that 'The Proposed Development is considered to be likely to have minor adverse to minor beneficial cumulative effects with Steart Peninsula'. An assessment outcome which is a range including both positive and negative outcomes is not a reasonable conclusion.	<p>The cumulative assessment is provided at Volume 5.17.1 and includes potential cumulative effects of the Proposed Development together with other major development proposals. A summary of the cumulative effects only is provided at section 15.9.</p> <p>The visitor assessment (2011) for the Steart Peninsula estimates that the existing peak annual throughput for the site is 11,271 persons per annum. Once the project is at the established stage, an annual total of some 43,550 visitors are expected, with associated economic benefits. The catchment areas assumed for the Steart Peninsula include a residential population of 158,000 within 30 minutes and some 916,000 within one hour. The ES for the Steart Peninsula notes:</p> <p><i>"...such a low key nature reserve would be expected to provide only limited long-term socio economic benefit, through attracting additional visitors, but also for the local community... Overall, these positive effects are considered to be of minor beneficial significance for the local economy of the Steart Peninsula"</i></p> <p>Based on the above, it is likely that the catchment area for the Steart Peninsula would therefore overlap with the study area of the Proposed Development. There is therefore potential for the Steart Peninsula project to counter balance the potential minor adverse effect on local visitor economy that is predicted for the Proposed Development, although it is not possible to quantify this. The significance of effect of these projects cumulatively is therefore considered to have the potential to range from minor adverse to minor beneficial significance</p>

Other Engagement

- 15.1.11 Socio-economics and land use topic-specific meetings were held on 29 August 2012, 6 June 2013 and 14 October 2013 to discuss the Proposed Development and receive input from key stakeholders in terms of:
- the scope of the socio-economic and land use assessment: in particular baseline data sources, receptors, engagement, anticipated effects, integration with other EIA topics and mitigation;
 - the proposed method for baseline data collection: in particular, PRow/recreational route condition and land use surveys,

-
- PRow/recreational route count surveys, business surveys, land use and landowner information and user surveys; and
 - details of specific receptors of interest to the stakeholders, details of the results from the business and recreational user surveys, response to the PEIR assessment and on-going assessment activities through the ES.

15.1.12 Stakeholders that were represented at the meetings included:

- Somerset County Council;
- Sedgemoor District Council;
- South Gloucestershire Council;
- North Somerset District Council;
- West Somerset District Council; and
- Bristol City Council.

15.1.13 Additional meetings were held on 7 October 2013 and 13 March 2014 with South Gloucestershire Council, Bristol City Council and the project manager for the Avonmouth Severnside Enterprise Area to discuss the specific challenges of development within the Avonmouth/Severnside area. The discussions at these meetings sought to minimise the effects of the Proposed Development on the consented land parcel in South Gloucestershire and Hallen Marsh within the Avonmouth Severnside Enterprise Area.

15.2 Policy and Legislation

National Policy

National Policy Statements

- 15.2.1 The principal guidance for examination of the application is that provided by Overarching National Policy Statement for Energy (EN-1) (Ref 15.1) and National Policy Statement for Electricity Networks Infrastructure (EN-5) (Ref 15.2) .
- 15.2.2 NPS EN-1 is directly relevant to this chapter and the relevant sections and how they have been addressed are summarised in **Table 15.4**.
- 15.2.3 The National Policy Statement for Electricity Networks Infrastructure EN-5 does not provide specific guidance in relation to socio-economic assessment.

Table 15.4 Summary of NPS EN-1 Requirements Relevant to Socio-economics and Land Use

Para	Requirement	ES Section	Compliance
Part 4: Assessment Principles			
4.2.2	The IPC will find it helpful if the applicant sets out information on the likely significant social and economic effects of the development, and shows how any likely significant negative effects would be avoided or mitigated. This information could include matters such as employment, equality, community cohesion and well-being.	Volume 5.15.1	Volume 5.15.1 provides an assessment of the likely significant social and economic effects of the development, and shows how any likely significant negative effects would be avoided or mitigated.
4.13.4	New energy infrastructure may also affect the composition, size and proximity of the local population, and in doing so have indirect health impacts, for example if it in some way affects access to key public services, transport or the use of open space for recreation and physical activity.	Section 15.5 (assessment) and section 15.6 (Inter-relationship of effects); Volume 5.12.1.	Volume 5.15.1 assesses that this is not a likely significant effect of the Proposed Development
Land Use			
5.10.5	The ES (see section 4.2) should identify existing and proposed land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing.	Section 15.6 of this Volume	The guidance in section 5.10 of EN-1 has been taken into account in the scope of the socio-economic assessment. The effects of the Proposed Development on existing and proposed land uses (including planning permissions and allocations) have been taken into account. This includes business operators and economic land uses, agricultural land quality and operations, local communities and community facilities (health, education and community gathering) and visitor attractions, accommodation and recreational areas.
5.10.5	Applicants should also assess any effects of precluding a new development or use proposed in the development plan.	Section 15.6 of this Volume	
5.10.6	Applicants should use any up-to-date local authority assessment or, if there is none, provide an independent assessment to show whether the existing open space, sports and recreational buildings and land is surplus to requirements.	Section 15.6 of this Volume	

Para	Requirement	ES Section	Compliance
5.10.7	Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5) except where this would be inconsistent with other sustainability considerations.	Section 15.6 of this Volume	Specific reference is made to Best and Most Versatile (BMV) agricultural land. BMV land is that classified by the Department for Environment, Food and Rural Affairs (Defra) based on the physical characteristics of the land as Grades 1 (excellent quality), 2 (very good quality) and 3a (good quality) agricultural land.
5.10.2 3	Where a project has a sterilising effect on land use (for example in some cases under transmission lines) there may be scope for this to be mitigated through, for example, using or incorporating the land for nature conservation or wildlife corridors or for parking and storage in employment areas.	Section 15.6 of this Volume	The effects of the Proposed Development on existing and proposed land uses (including planning permissions and allocations) have been taken into account.
Socio-economic Impacts			
5.12.2	Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES	Volume 5.15.1	The guidance in section 5.12 of EN-1 has been taken into account in forming the scope of the socio-economic assessment. The creation of jobs and economic value of the scheme at the local and national level, effects on tourism (including expenditure and employment, effects of the influx of workers (for example, induced spend and effects on visitor accommodation) cumulative and in-combination effects (specifically, amenity effects) have all been included within the scope of the assessment.
5.12.3	This assessment should consider all relevant socio-economic impacts, which may include: <ul style="list-style-type: none"> the creation of jobs and training opportunities; the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities; effects on tourism; the impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. 	Section 15.5 of this Volume	

Para	Requirement	ES Section	Compliance
5.12.4	Applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio-economic impacts correlate with local planning policies.	Section 15.2 and 15.3 of this Volume	
5.12.5	Socio-economic impacts may be linked to other impacts, for example the visual impact of a development is considered in section 5.9 but may also have an impact on tourism and local businesses.	Section 15.6 of this Volume	

National Planning Policy Framework (NPPF)

- 15.2.4 The NPPF (Ref 15.3) sets out that the purpose of the planning system is to contribute to the achievement of sustainable development, which is identified as having three dimensions: economic, social and environmental. Paragraph 17 of the NPPF sets out the 12 core land use principles which should underpin plan-making and decision-taking. It identifies that planning should proactively drive and support sustainable economic development to deliver infrastructure; and always seek a good standard of amenity for all existing and future occupants of land and buildings. Section 3 notes that planning should seek to promote the retention and development of local services and community facilities in rural areas. Section 11 also notes that authorities should also take into account the economic and other benefits of BMV land.
- 15.2.5 The NPPF Planning Practice Guidance was published in March 2014 to provide a degree of technical grounding to the policies described in the NPPF. The Planning Practice Guidance includes little guidance of specific relevance to socio-economic and land use assessment, however it reiterates various principles within the NPPF, such as, that the Government is committed to ensuring sustainable economic growth and to protecting valued community facilities and services and also notes that planning policies should seek to protect and enhance public rights of way and access.
- 15.2.6 The effects of the Proposed Development on these groups of land use and socio-economic receptors have been assessed and presented within this ES chapter.

Local Policy

- 15.2.7 Nationally Significant Infrastructure Projects (NSIPs) are not subject to s38(6) of the Planning and Compulsory Purchase Act (2004), which states that determination of planning consent should be in accordance with the local development plan. Local planning policy does not therefore set the tests for the acceptability of NSIPs. However, local planning policy has been reviewed in order to identify policies of relevance to the scope of the assessment. A summary of relevant local planning policy is provided below and at **Volume 5.4.2, Appendix 4A**.
- 15.2.8 Allocated areas for economic growth or recreational allocations are directly addressed in the chapter and are therefore not drawn out in the policy review.

West Somerset District

- 15.2.9 The Proposed Development passes within an area designated as Coastal Zone that is subject to policy CO/1. This policy sets certain requirements that development proposals must meet if approval is to be granted, including only permitting development which is unlikely to have a direct or indirect adverse effect on residential amenity.
- 15.2.10 Economic and agricultural policies within the West Somerset Local Plan (Ref 15.4) seek to preserve the rural economy, prevent loss of employment opportunities and support economic growth and diversification. Policy A/2 seeks to protect BMV land from development. It states that:
- “Planning permission for development affecting such land will only be granted exceptionally if there is an overriding need for the development and either (i)sufficient land of a lower grade (grades 3b, 4 and 5) is unavailable or (ii)available lower grade land has an environmental value recognised by a statutory or non-statutory wildlife, historic or archaeological designation and outweighs the agricultural considerations. If best and most versatile land needs to be developed and there is a choice between sites in different grades, land of the lowest grade available should be used.”*

Sedgemoor District

- 15.2.11 The Sedgemoor District Core Strategy *Shaping the Future of Sedgemoor 2006-27* was adopted in October 2011 (Ref 15.5).
- 15.2.12 Given the importance of major infrastructure projects for the Sedgemoor District policy, the Core Strategy includes a specific policy (MIP 1) to set out the Council's approach to decision making for major infrastructure proposals. It states that:
- “In responding to major infrastructure proposals as a consultee or decision maker, the Council will consider applications against the relevant national planning policy and the strategy and relevant policies of the development plan... to undertake the assessment it [the Council] may request the preparation of delivery plans identifying measures to be taken to maximise benefits, to avoid and minimise impacts, and to mitigate and compensate*

for impacts, with respect to matters such as the economy... [and] local communities...”

- 15.2.13 Policy D11 seeks to ensure economic prosperity for the District and describes the way in which the council promotes development of skills. It states that:

“For employment developments that propose 10 or more jobs in total, the Council will seek to enter into a local labour agreement with the developer/applicant in accordance with the Council’s adopted Employment and Skills Charter that sets out the following: an agreed % target for local labour, a training and recruitment plan, and commitment to an agreed proportion of local procurement of services and supplies.”

- 15.2.14 Policy D20 safeguards Green Infrastructure, requiring that the amenity, landscape character and image of the area be maintained or enhanced.

North Somerset Council

- 15.2.15 The North Somerset Core Strategy was adopted in April 2012 (Ref 15.6), however policy CS13 (scale of new housing) and some associated policies have since been remitted back to PINS for re-examination following a High Court challenge. The Core Strategy policies identified below (those relevant to this assessment) are not affected by the re-examination. Certain policies from the North Somerset Replacement Local Plan (2007) (Ref 15.7) have been saved and are still in effect.
- 15.2.16 Core Strategy Policy CS9 seeks to safeguard, improve and enhance the green infrastructure, including managing, maintaining, upgrading and extending the PRow network.
- 15.2.17 Saved Policy CF/4 of the Replacement Local Plan safeguards existing and proposed sites and buildings, specifically safeguarding for community use those *“other land or buildings used or last used for cultural or community facilities (unless the site is allocated for another purpose in this Plan)”*. Certain requirements are set if permission is to be granted for development of these sites/buildings for other uses.

South Gloucestershire Council

- 15.2.18 The South Gloucestershire Core Strategy was adopted in December 2013 (Ref15.8) and provides the current planning policy for the Unitary Authority. Some policies from the Local Plan (2006) (Ref 15.9) are also saved and remain relevant.
- 15.2.19 The principle of Severnside being safeguarded for Economic Development is set out in CS12 and further expanded upon in the South Gloucestershire Core Strategy Policy CS35 which safeguards land at Severnside for distribution and other extensive employment uses, including energy generation, broadly in line with extant planning permissions dating from 1957 and 1958

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- 15.2.20 Saved Policy T6 protects the function, convenience, attractiveness and safety of existing and proposed cycle and/or pedestrian routes, and Policy LC12 safeguards the utility and amenity of existing and proposed recreational walking, cycling and horse riding routes. Both policies state that contributions towards the enhancement of the routes *'will be sought on the basis of the need arising from the development proposals affecting those routes'*.

Bristol City Council

- 15.2.21 The Bristol City Council Core Strategy (Ref 15.10) was adopted in June 2011. Avonmouth is identified as a priority area for industrial and warehousing development and renewal in Policy BCS4, which states that *"principal industrial and warehousing areas will be identified and retained for industrial and warehousing uses... development will be expected to respect the area's environmental assets and take account of its physical constraints"*. Policy BCS12 relates to community facilities and emphasises that existing facilities should be retained *"unless it can be demonstrated that there is no longer a need to retain the use or where alternative provision is made"*. Policy BCS23 notes that development *"should be sited and designed in a way as to avoid adversely impacting upon environmental amenity..."* Additionally, Saved Local Plan (1997) Policy L1 protects playing fields and recreational grounds, setting requirements which must be fulfilled, should development result in their loss and Policy L3 makes provision for the protection of greenways for walking and cycling.

Summary of Local Policy

- 15.2.1 The following section highlights the main themes in relation to socio-economics within the local policy and how these have been addressed:
- new development should aim to avoid adversely impacting on residential and environmental amenity through situation and design. There has been ongoing design iteration throughout the Proposed Development to minimise these effects and the assessment has considered the amenity effects of the project on settlements and recreational/tourism receptors;
 - protect BMV land from development. The assessment has identified the areas and types of BMV land affected by the Proposed Development and assessed the different effects during construction, operation and decommissioning;
 - safeguard green infrastructure and community facilities. The design and management plans of the Proposed Development have been developed to minimise these affects where possible. The assessment has considered the effects of the Proposed Development on Public Rights of Way and recreational area. The Proposed Development does not directly affect any community facilities and consideration has been given to possible amenity effects to these receptors;
 - encourage economic prosperity and the development of skills. The assessment has identified the estimated value of the Proposed

Development to the local economies and the potential number and type of employment opportunities it could offer to the local workforce.

15.3 Method

- 15.3.1 The method adopted for this socio-economic and land use assessment follows that set out in the EIA Scoping Report 2013 and takes into consideration the EIA Scoping Opinion (see **Volume 5.5.2, Appendix 5A**) from PINS and other representations received during Project Engagement. The ES contains some variations to the overall EIA method in response to subsequent stakeholder comments and the current level of information available. The method is outlined below, including the method for assessing sensitivity of receptors and the significance criteria and effect magnitude used for the assessment.
- 15.3.2 The method considers the following topics in the assessment of likely significant socio-economic and land use effects:
- economic consequences, for example employment and spending effects through the supply chain;
 - land take and temporary or permanent effects upon land holdings;
 - preventing or delaying planning permissions or allocations coming forward in part or in their entirety (for example, through limiting the potential for development); and
 - amenity effects arising as a result of the inter-relationship of other environmental effects, such as changes in views, traffic and noise.
- 15.3.3 The assessment of effects relating to the temporary or permanent severance of access to recreational receptors, for example through the temporary diversion of a PRoW or recreational route, is presented in **Volume 5.12.1, section 12.5** (Traffic and Transport). PRoW and other routes have however been considered in this chapter as part of the amenity assessment and therefore information on the existing status of these routes (e.g. the count surveys that were undertaken to gain an understanding of the potential range in use) is also provided for context in the baseline conditions of this chapter.

Study Area

- 15.3.4 The spatial scope of the assessment comprises:
- the Local Area of Influence – within which direct socio-economic and land use effects of the Proposed Development are likely to occur, which for the purpose of this assessment comprises the Proposed Development's Order Limits and a corridor of approximately 250 metres (m) around the Order Limits; and
 - the Wider Study Area – including the Local Area of Influence and the wider extent over which socio-economic and land use receptors have the potential to be significantly affected by the Proposed Development.

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- 15.3.5 In general, for the land use assessment, the Wider Study Area considers sensitive receptors within a corridor of approximately 2 kilometres (km) around the Proposed Development, substations, cable sealing end (CSE) compounds and associated modifications to existing lines necessary to enable the Proposed Development. A 2km buffer was selected, based on professional judgement and distance over which likely significant effects could occur. The Limits of Deviation within the Order Limits have been taken into account in the assessment of direct land use effects. They do not affect the socio-economic assessment, which are considered in the broader spatial context of relevant administrative areas from Super Output Area (SOA) to regional (South West of England) level, with the local economy being considered as that of the five host Unitary and Local Authority areas (West Somerset, Sedgemoor, North Somerset, Bristol and South Gloucestershire).

Temporal Scope

- 15.3.6 The temporal scope of the assessment assumes a baseline of the existing socio-economic and land use conditions in 2013/2014 (or latest data available) and the effects of the Proposed Development during construction, operation and decommissioning. Although receptors may adjust to any effects that are predicted over the life of the Proposed Development, the assessment does not attempt to predict a 'future base case' of social or economic change or assume changes in the pattern of use of facilities or businesses over time.

Baseline Data Collection

- 15.3.7 Baseline data were collected through a combination of desk-top searches, site visits and surveys.

Site Visits and Surveys

- 15.3.8 In summary, surveys that have been undertaken to inform the analysis of baseline conditions and assessment of effects include:
- PRow/recreational route and land use site walkover (22 and 23 May 2013 and 6 to 8 August 2013);
 - PRow/recreational route count surveys outside of peak tourist season (19 and 20 June 2013) and during peak tourist season (10 and 11 August 2013);
 - user questionnaire surveys during peak tourist season (1 to 18 August 2013); and
 - business questionnaire surveys of a random, anonymous sample of 34 businesses within 2km of the Proposed Development (undertaken over a period of three weeks during April 2013). Further business surveys were undertaken in September 2013 through which, 166 additional businesses were interviewed. In total, 1,921 businesses were identified through Dun and Bradstreet (D&B) Market Insight databases as being within 2km of the Proposed Development. In total, 200 businesses were

surveyed; approximately 10% of the total number of businesses located within 2km of the Proposed Development.

Public Rights of Way

- 15.3.9 The assessment of effects relating to the temporary or permanent severance of access to recreational receptors is presented in **Volume 5.12.1, section 12.5** (Traffic and Transport). PRoW and other routes have however been considered in this ES chapter as part of the amenity assessment and therefore information on these routes is also provided for context in the baseline conditions.
- 15.3.10 Maps of PRoW and recreational routes across the Wider Study Area were obtained and two site visits were conducted to check the alignment and condition of the PRoW/recreational routes within the AONB and Somerset Levels North Local Areas of Influence. These were undertaken on the 22 and 23 May and 6 to 8 August 2013. **Inset 15.1** and **Figure 15.2** of this Volume shows the location of PRoW and recreational routes relevant to the Proposed Development. Land uses within the Local Area of Influence in this area were also checked for conformity with the detail shown on Ordnance Survey mapping.
- 15.3.11 In order to gain an understanding of the potential range in use, count surveys were undertaken at specific locations along PRoW and recreational routes within the Local Area of Influence (as shown on **Inset 15.1** and **Volume 5.15.3, Figure 15.2**) between 8am and 6pm at each location in accordance with Volume 11, Part 8, Annex I of the Design Manual for Roads and Bridges (DMRB), (which provides useful context for the assessment of effects from linear infrastructure, such as the Proposed Development, and sets out accepted survey methodologies for PRoW user counts). Off-peak counts were undertaken during the week commencing 17 June 2013. Repeat counts were undertaken during the weekend of the 10/11 August 2013 to represent the peak tourist season.
- 15.3.12 Eight count locations were provisionally identified in May 2013 (Huntspill Moor, Mendip Way, Sandford, Kenn Moor, Gordano Round, Avonmouth, Aust, Hinkley Point). These locations were selected as they are known to be popular sites for recreational users, and were therefore intended to maximise the potential count response rate, in comparison with other, less well used, recreational areas and PRoWs. One additional location, King's Sedgemoor Drain, was included following receipt of responses to the Scoping Report.
- 15.3.13 The nine count locations were presented to stakeholders at the socio-economic and land use topic-specific meeting on 6 June 2013 and were generally agreed as fit-for-purpose. It was agreed that the data recorded on the Severn Way at Avonmouth would be more likely to reflect general pedestrian movements within the more urban setting than specific recreational users of the Severn Way and the suggested count location at Avonmouth was removed. Three additional sites were identified for count surveys; two at Portbury/Portishead to understand use through this area and one on Puriton Ridge following discussion about the value of this area to walkers.

15.3.14 In total, eleven count locations were identified for the survey:

- King's Sedgemoor Drain near Peasey Farm;
- Puriton Ridge on PRow due north of Knowle;
- Huntspill Moor on Sustrans route 33;
- Mendip Way to north of Webbington Hotel on a route from Crooks Peak;
- Sandford where the Strawberry Line leaves Nye Road;
- Kenn Moor at junction of PRow and Avon Cycle Ways to NW of Nailsea;
- Gordano Round to NW of Noah's Ark;
- Portbury on the pedestrian bridge over M5;
- Portishead on the PRow giving access to the nature reserve off Sheepway;
- Aust, Severn Way, directly adjacent to substation; and
- Hinkley Line Entries, along the West Somerset Coast Path on the alternative PRow route for the coastal path while Hinkley Point C is being constructed.

15.3.15 The pedestrians, cyclists, equestrian users and dog walkers were counted at each location. The group size was recorded and the time at which they passed the counters, in order to understand the popularity of the PRow and recreational routes for each user type and any peaks and troughs in usage. At the King's Sedgemoor Drain, the number of anglers observed was also recorded, following stakeholder feedback.

15.3.16 National Grid has subsequently amended the design of the Proposed Development so that there are no works proposed at Aust Substation. The findings of the count surveys conducted at Aust have therefore not been included.

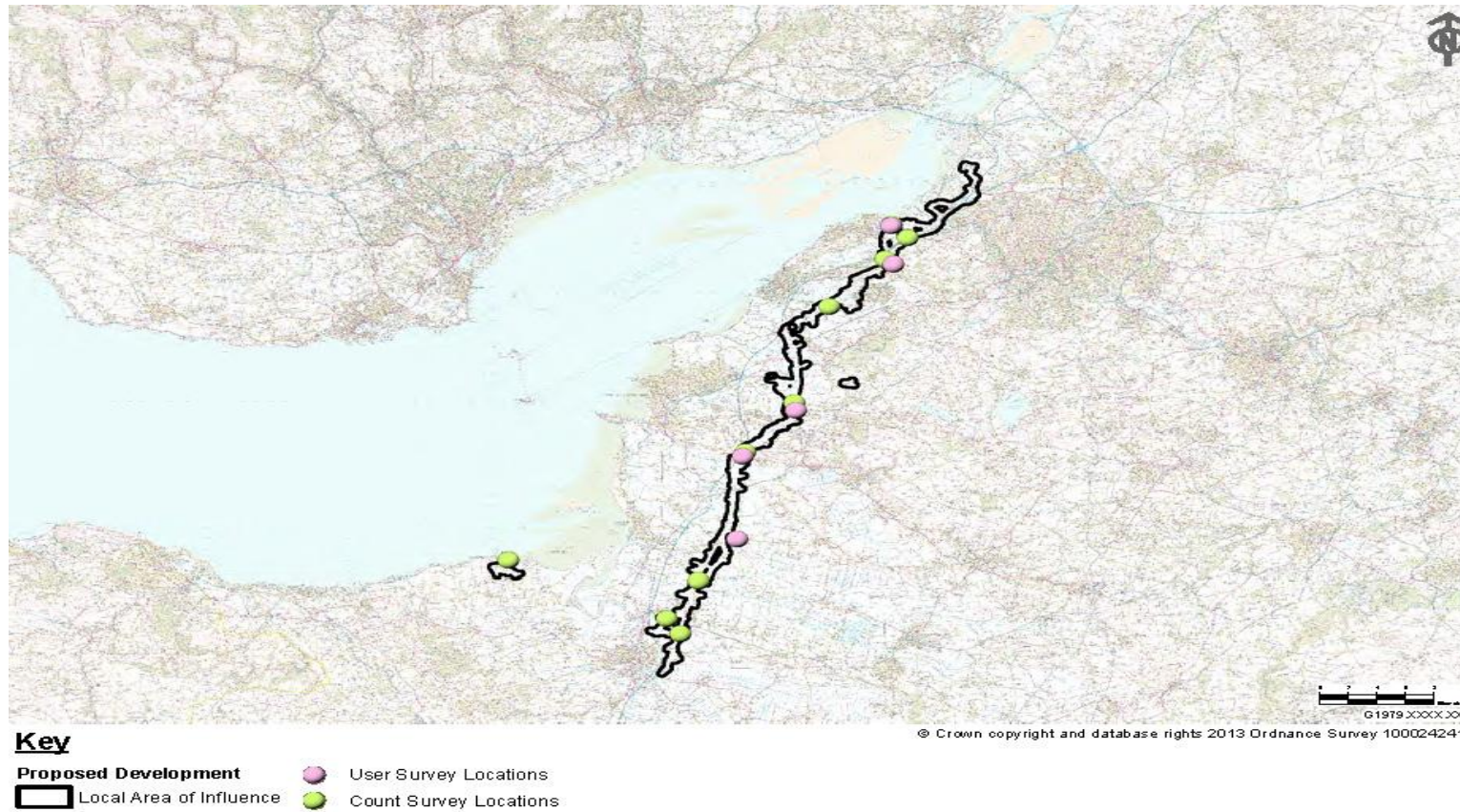
Recreational Users

15.3.17 User surveys were undertaken during the peak tourist season (week day and weekends in August 2013) to ascertain more detailed information on frequency, demographics, spend, awareness of the Proposed Development and perception of effects at five key locations in the Wider Study Area. A total of 246 responses were collected with higher numbers of interviews achieved at locations with greater footfall. The locations of the user surveys were discussed with stakeholders during the socio-economic and land use topic-specific meeting on 6th July 2013, during which it was highlighted that a user survey location at Avonmouth would be likely to capture an unrepresentatively high proportion of local residents. Alternative, more tourist-focused locations were discussed and Noah's Ark Zoo Farm was subsequently selected as access to this location was made available. The questionnaire proforma is available in **Volume 5.15.2, Appendix 15A**. The

locations of user surveys are shown on **Inset 15.1** and **Volume 5.15.3**, **Figure 15.2** and comprise:

- Webbington Hotel;
- Mark Village;
- Sandford/Strawberry Line;
- Portbury Wharf Nature Reserve; and
- Noah's Ark Zoo Farm.

Inset 15.1: Location of User and Count Surveys



Business Surveys

- 15.3.18 D&B Market Insight data (Ref 15.11) was used to identify businesses within a corridor of approximately 2km around the Proposed Development to capture a range of business types and the opinions of commercial activities within proximity to the Proposed Development. In April 2013, telephone surveys of 34 individual businesses of specific Standard Industrial Classifications (SIC) code business types (**Table 15.5**) were undertaken. The businesses interviewed were selected at random from the pool of businesses with the appropriate SIC codes across the whole sample area to ensure an anonymous sample representation. These SICs were selected to present a range of businesses whilst focusing on those within the tourism, recreation and agricultural land use sectors, which had been identified by stakeholders as priority concerns.

Table 15.5 SIC Categories Used to Select Businesses to Survey

UK 2007 SIC
01 - Crop and animal production, hunting and related service activities
02 - Forestry and logging
03 - Fishing and aquaculture
10 - Manufacture of food products
11 - Manufacture of beverages
47 - Retail trade, except of motor vehicles and motorcycles
55 - Accommodation
56 - Food and beverage service activities
77 - Rental and leasing activities
79 - Travel agency, tour operator and other reservation service and related act
90 - Creative, arts and entertainment activities
91 - Libraries, archives, museums and other cultural activities
93 - Sports activities and amusement and recreation activities

- 15.3.19 A further 166 surveys were undertaken in September 2013 across all SIC code business types. To achieve this number of surveys a total of 1336 businesses were contacted, which equated to approximately 20% of the total pool of business details available.
- 15.3.20 The surveys obtained information on current business position and outlook (including employment, years established, and customer base business pressures), awareness of the Proposed Development, perception of potential effects or benefits of the Proposed Development and duration of potential impacts to their business and local area. The questionnaire proforma is available in **Volume 5.15.2, Appendix 15B**.

Identification of Sensitive Receptors

- 15.3.21 The assessment identified the type and magnitude of effects likely to affect the receptor groups in socio-economic and land use terms. The receptor groups comprised:

-
- economic sectors, local labour market and profile of local communities;
 - business operators and economic land uses;
 - agricultural land quality and operations;
 - allocated areas or approved planning sites with potential for creating economic value and inward investment e.g. employment, housing and mineral allocations and approvals;
 - local communities and community facilities (health, education and community gathering); and
 - users of visitor attractions, PRoW, recreational routes, accommodation, and recreational areas.

Significance Criteria

- 15.3.22 The assessment of socio-economic and land use effects within the study area has been undertaken by reference to the likely changes from the baseline conditions and the effects of those changes as a result of the Proposed Development.
- 15.3.23 The significance of an effect is classified from a combination of the receptor sensitivity and effect magnitude, as shown in **Volume 5.5.1**. The socio-economics and land use assessment has followed the approach in **Volume 5.5.1, section 5.6** however a negligible effect has also been included in the effects classification to identify those effects that exist but that do not result in a variation beyond the baseline conditions and/or are unlikely to measurably affect the well-being of businesses and/or people. The socio-economics and land use effects classification matrix is presented in **Table 15.6**, whilst the definitions of sensitivity and magnitude are presented in **Tables 15.7** and **15.8**.
- 15.3.24 There are no published socio-economic standards that define receptor sensitivity or magnitude. The definitions in **Tables 15.7** and **15.8** have been developed and applied to the socio-economic and land use assessment and are based on professional judgement and precedent assessments including those prepared in respect of other NSIPs.

Table 15.6 Definitions of Significance

Definitions of Significance				
Magnitude	Negligible	Low	Moderate	High
Sensitivity				
Negligible	Negligible adverse/beneficial /not significant	Negligible adverse/beneficial/not significant	Negligible adverse/beneficial/not significant	Minor adverse/beneficial – significant
Low	Negligible adverse/beneficial /not significant	Negligible adverse/beneficial/not significant	Minor adverse/beneficial – significant	Moderate adverse/beneficial – significant
Moderate	Negligible adverse/beneficial /not significant	Minor adverse/beneficial – significant	Moderate adverse/beneficial - significant	Major adverse/beneficial – significant
High	Negligible – not significant	Moderate adverse/beneficial - significant	Major adverse/beneficial - significant	Major adverse/beneficial – significant
Very High	Minor adverse/beneficial –significant	Moderate adverse/beneficial - significant	Major adverse/beneficial - significant	Major adverse/beneficial – significant

Receptor Sensitivity

- 15.3.25 Receptor sensitivity is defined as very high, high, moderate, low or negligible as presented in **Table 15.7**. Given the range of receptors considered within the assessment, **Table 15.7** defines the overall principles of sensitivity. **Table 15.7** provides further information on the priorities given to assigning sensitivity for each receptor type.

Table 15.7 Sensitivity of Receptor to Socio-Economic and Land Use Effects

Receptor Sensitivity	
Very high	The receptor is of international importance and/or has little or no ability to absorb change and/or recover or adapt to the change and/or is used by sensitive groups such as older people, children, and people of poor health.
High	The receptor is of national importance and/or has little ability to absorb change and/or recover or adapt to the change and/or is used by sensitive groups such as older people, children, and people of poor health.
Moderate	The receptor is of regional or local importance and/or has medium ability to absorb change and/or recover or adapt to the change and/or is used by sensitive groups such as older people, children, and people of poor health.

Receptor Sensitivity	
Low	The receptor is of local importance and/or has some ability to absorb change and/or recover or adapt to the change and/or is used by sensitive groups such as older people, children, and people of poor health.
Negligible	The receptor is of local importance and/or is able to absorb change and/or recover or adapt to the change and is not specifically for the use by sensitive groups such as older people, children, and people of poor health.

Magnitude of Effect

- 15.3.26 The criteria identified in **Table 15.8** have been established to classify the magnitude of socio-economic and land use effects.

Table 15.8 Magnitude of Socio-Economic and Land Use Effects

Magnitude of Effect	
High	An effect that will dominate over baseline conditions, and/or will be very likely to affect large numbers of businesses and/or people (with number depending on the local context) and/or persists over many years.
Moderate	An effect that can be demonstrated to change the baseline conditions and likely to affect a moderate number of businesses and/or people (with number depending on the local context) and/or is of medium duration.
Low	An effect that will result in a perceptible difference from baseline conditions and is likely to or may affect a small number of businesses and/or people (with number depending on the local context) and/or is of a short duration.
Negligible	An effect that does not result in a variation beyond the baseline conditions and/or is unlikely to measurably affect the well-being of businesses and/or people.

Assessment of Sensitivity and Effects

- 15.3.27 **Table 15.9** indicates how the sensitivity of and effects on the receptors have been assessed through the EIA. The overall assessment of effects has been undertaken in accordance with the significance criteria defined in the preceding sections.

Table 15.9 Assessment Approaches

Receptor	Nature of Assessment	Defining Sensitivity	Method for Effect Assessment
Economic Sectors and Profiles			
Local and wider area (regional and national) construction and supply chain via Proposed Development associated expenditure.	Where supported by evidence, quantitative estimates of likely Proposed Development effect, expressed in terms of effect on local and wider area employment and expenditure.	The sensitivity of these receptors is based on the importance, or scale, at which the receptor are being considered (local, regional or national) and the ability of the baseline to absorb or be influenced by the effects identified.	Review of Proposed Development specific data obtained from National Grid (and its supply chain partners), supplemented by generic/industry standard evidence.
Local labour market	Qualitative assessment, quantitative assessment may also be provided depending on its availability (see above).	The sensitivity of the local labour market as a receptor is based on the ability of the baseline to absorb or be influenced by the effects identified.	Comparison of construction and supply chain related demand with relevant characteristics of the local labour market (e.g. size, qualifications, unemployment levels, sector strengths)

Receptor	Nature of Assessment	Defining Sensitivity	Method for Effect Assessment
Tourism/visitor economy and accommodation	Quantitative where supported by evidence and qualitative assessment of land use effects. Wider tourism economic effects to be considered quantitatively where supported by evidence and receptors are assessed by a qualitative amenity assessment.	<p>The sensitivity of the visitor economy as a receptor is based on importance, or scale, at which the receptor are being considered (local, regional or national) and the ability of the baseline to absorb or be influenced by the effects identified.</p> <p>The availability of visitor accommodation is considered quantitatively together with the likelihood that demand from construction workers would displace tourists from the existing bedstock.</p>	Assessment of Proposed Development effects in the context of the overall tourism market using evidence from user and business surveys. In-combination amenity assessment of effects on socio-economic receptors. Consideration of effects of in-migrating workforce on available accommodation.
Land Uses			

Receptor	Nature of Assessment	Defining Sensitivity	Method for Effect Assessment
Business operators and economic land uses	Quantitative, where evidence supports it and qualitative assessment of land use effects for directly affected properties within the Local Areas of Influence. Qualitative amenity based assessment for receptors outside of Local Area of Influence.	The sensitivity of business operators and economic land uses directly affected has been based on the level of employment generated at the site and therefore contribution to the overall socio-economic context. This is based on EU definitions of SME businesses (micro <10 employees, small <50employees, medium ,250 employees, large >250 employees. The focus being on the employment at the local site directly affected.	Considerations of land take on functionality of the business. Consideration of business survey responses for effects on the Wider Study Area. In-combination amenity assessment of effects on socio-economic receptors.

Receptor	Nature of Assessment	Defining Sensitivity	Method for Effect Assessment
Agricultural land quality and operations	Quantitative, where evidence supports it and qualitative assessment of land use effects for directly affected properties within Local area of Influence.	<p>Agricultural land quality sensitivity is classified in accordance with The Ministry of Agriculture, Food and Fisheries' Agricultural Land Classification and the definition of BMV land being a national asset.</p> <p>The sensitivity of agricultural operators directly affected has been based on the level of employment generated at the site and the contribution to the overall socio-economic context. Like businesses this is based on EU definitions of SME businesses (micro <10 employees, small <50employees, medium,250 employees, large >250 employees. The focus being on the employment at the local site directly affected.</p>	<p>Agricultural Land assessment will consider the quality, quantity and duration of effects.</p> <p>Consideration of land take on functionality of the business.</p>

Receptor	Nature of Assessment	Defining Sensitivity	Method for Effect Assessment
Allocated areas or approved planning sites with potential for creating economic value	Quantitative, where evidence supports it and qualitative assessment of land use effects for directly affected allocations and permissions within the Local Areas of Influence. Qualitative amenity based assessment for receptors outside of Local Area of Influence	The sensitivity of allocated areas and planning approvals is based on the potential economic and employment contribution and the scale at which this is considered to influence socio-economic parameters (local, regional, national).	Consideration of land take on functionality. In-combination amenity assessment of effects on socio-economic and land use receptors.
Local communities and community facilities	Quantitative, where evidence supports it and qualitative assessment of land use effects for directly affected community facilities within the Local Areas of Influence. Qualitative amenity based assessment for identified community receptors.	The sensitivity of community facilities is based on the nature of the users of the facilities, the frequency of use of the facility and the catchment of the receptor on the local, regional or national scale. Settlement or communities considered within the amenity assessment are all considered of moderate sensitivity to the change in amenity.	Consideration of land take on functionality. In-combination amenity assessment of effects on socio-economic and land use receptors.

Receptor	Nature of Assessment	Defining Sensitivity	Method for Effect Assessment
PRoW, recreational routes, visitor attractions, recreational areas and facilities	Quantitative where supported by evidence and qualitative assessment of land use effects. Wider effects to be assessed by a qualitative amenity effect assessment	The sensitivity of recreational and tourism facilities is based on the nature of the users of the receptor, the frequency of use of the receptor, the ability of the receptor to absorb change, primarily determined by the extent of the receptor affected and the activity undertaken and the catchment or designation of the receptor on the local, regional or national scale	Consideration of land take on functionality. In-combination amenity assessment of effects on socio-economic and land use receptors.

Defining Tourism

- 15.3.28 Tourism, including tourism expenditure and employment, has been identified as a potential receptor. In order to consider the effects on this sector it first needs to be defined. The United Nations World Tourism Organisation (UNWTO) definition of tourism, as used by the ONS, has been used in this report and is included in **Volume 5.15.2, Appendix 15C**.

Amenity Value

- 15.3.29 An important influence on the use of socio-economic, and in particular, recreational receptors is the amenity values placed on them by users. Amenity value is the enjoyment and well-being that people gain from a receptor together with its intended function.
- 15.3.30 The assessment is qualitative, using an in-combination appraisal, incorporating factors which could affect the ability to use or enjoy the receptor, such as ability to access a receptor, noise, visual and air quality effects. As an in-combination appraisal, the amenity assessment therefore draws from the *magnitude* of effects identified in some of the other technical assessments (such as transport, noise, landscape and air quality), and considers these effects in the context of the amenity value or *sensitivity*. This means that there may be differences in the classification of effects on the same receptor between ES chapters.

Limitations and Assumptions

- 15.3.31 The following limitations and assumptions should be noted in relation to the socio-economic and land use assessment:
- To gain an understanding of the potential range in use, count surveys have been undertaken during both off-peak (June 2013) and peak (August 2013) tourist seasons including a weekend during the school Summer holidays. The results from the PRoW and recreational route count surveys comprise a 'snapshot' of activity.
 - Surveys of the public and businesses reflect individual perceptions of effects. The surveys were designed by Ipsos Mori in accordance with best practice to avoid bias. Due to routing within the questionnaires (eg only asking respondents who anticipate negative effects what kind of effects they expect would occur), the number of respondents to certain questions is small. Conclusions from responses with small sample sizes have been used to identify commonly occurring themes but cannot be considered representative for the population as a whole.
 - The baseline conditions have been informed through the review of third party data from published sources, which are assumed to be accurate. Local business data have been acquired from D&B's UK Trading File (**Ref 15.11**). This provides access to a reliable, industry leading file of 2.8 million qualified, actively trading and relevant businesses obtained from multiple data sources coupled with D&B call centre verification and manual checks. However, the database is not a definitive list and could be influenced by factors such as registered business addresses being

outside the study area, businesses not being registered within this database and information being based on postcode locations. The assessment has sought to verify and consolidate the D&B data with on the ground survey/knowledge, and consultation with land agents and stakeholders.

- It is recognised that the description of baseline conditions may not list all socio-economic and land use features and events within the study area; however the description includes all features identified from the aforementioned review of third party data and site visits, and is considered representative of the socio-economic and land use conditions in the area.
- Where accurate data are unavailable, the economic assessment has been undertaken using reasonable estimates provided by National Grid engineers and based upon their experience of previous projects.
- For decommissioning, this assessment is undertaken on a consistent basis with the other ES chapters and assumes a scenario where the overhead line pylons would be removed together with foundations up to a depth of 1m, and all cables, CSE compounds and substations would be removed. Whilst this approach represents the worst-case scenario for the majority of ES chapters, it results in employment/economic impacts which are broadly consistent with the construction of the Proposed Development. If a less intensive approach to decommissioning is used the employment or economic effect would be less than those reported here. This limitation is also identified at the relevant point within the chapter.

15.4 Baseline Environment

- 15.4.1 The area within the Proposed Development's Order limits is approximately 1330ha principally extending from North Eastern Bridgwater to Avonmouth. The Proposed Development also includes an area (approximately 38ha) around Hinkley Power Station, and an area (approximately 9ha) near Churchill Substation.
- 15.4.2 The Local Area of Influence for the whole Proposed Development covers an area of approximately 6898ha. The Wider Study Area falls mainly within Somerset, Bristol City, North Somerset and South Gloucestershire and encompasses various wards and SOAs shown on **Table 15.10, Inset 15.2** and **Volume 5.15.3, Figures 15.3** and **15.4**. The Order Limits comprise approximately 1124 ha of agricultural land and 96ha of non-agricultural and urban land.
- 15.4.3 Baseline data pertaining to the wards and SOAs for each indicator are presented in **Volume 5.15.2, Appendix 15D**, with analysis of these data included within this ES chapter.
- 15.4.4 The South West State of the Region Report (2011) (Ref 15.12) states that the economy of the South West is dominated by services (78% of regional output) with primary industries (including agriculture and fisheries)

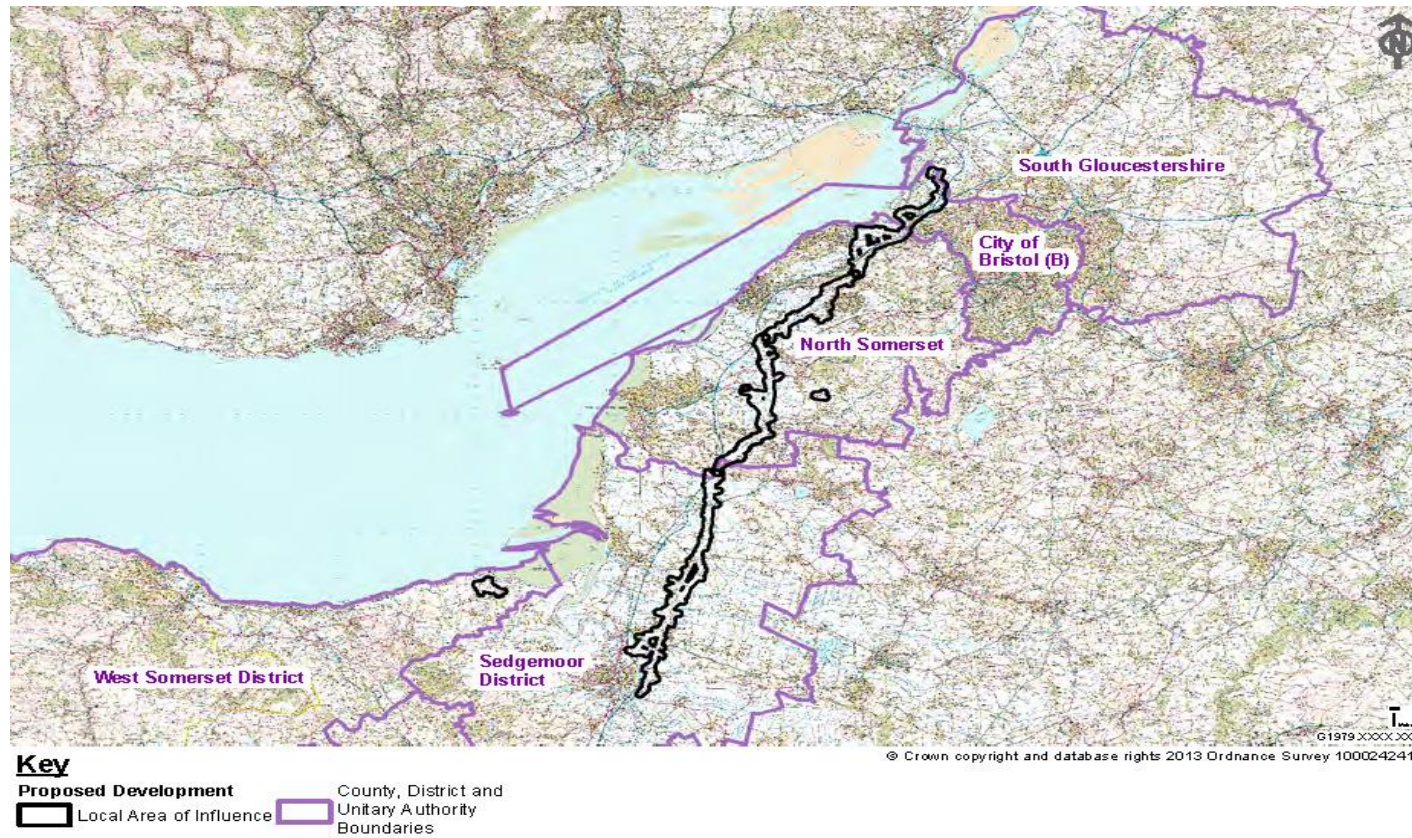
accounting for 1.3% of regional Gross Value Added income. The economy of the South West was dominated by the service sector which accounted for 78% of employment in the region in 2008 (South West Regional Accounts, South West Observatory (Ref 15.13)). In 2012, 24% of the nights stayed by visitors across the UK were within the South West region (GB Tourism Survey 2012 (Ref 15.14)).

Table 15.10 Administrative Areas within Local Area of Influence (see **Inset 15.2** and **Volume 5.15.3, Figures 15.3 and 15.4**)

	Administrative Areas Crossed by Proposed Development and Local Area of Influence (250m Buffer)
County /District /Local Authority	Somerset County, Sedgemoor District, West Somerset District, North Somerset Unitary Authority, South Gloucestershire Unitary Authority, City of Bristol
Wards	Kings Isle, Banwell & Winscombe, Knoll, Puriton & Woolavington, Wedmore and Mark, Axevale, Blagdon & Churchill, Congresbury, Gordano, Kewstoke, Nailsea North & West, Yatton, Wrington, Wraxall & Long Ashton, Portishead East, Almondsbury, Avonmouth, Easton-in-Gordano, Pilning & Severn Beach, Kingsweston, Quantock Vale
Super Output Areas*	6 SOAs in Bristol 2 SOAs in South Gloucestershire 26 SOAs in North Somerset 9 SOAs in Sedgemoor 1 SOA in West Somerset

*Note: SOAs are smaller land parcels than wards with boundaries that are not aligned to ward boundaries.

Inset 15.2: Districts and Unitary Authorities through which the Proposed Development passes



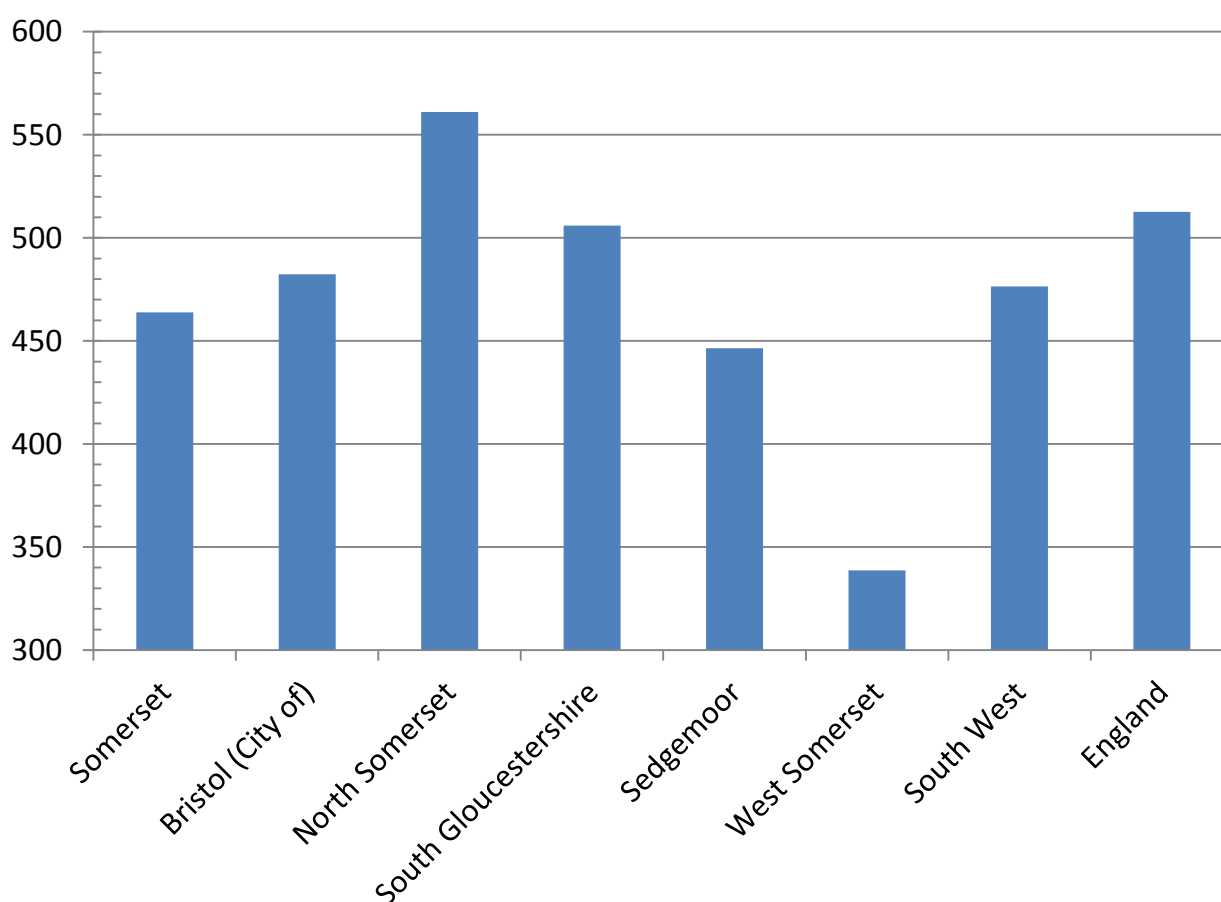
Socio-Economic Context

- 15.4.5 The central and southern parts of the Proposed Development area are predominantly rural. Built development and concentrations of residential, employment and community land uses are principally located along the Severn Estuary to the west of the Proposed Development. The key settlements within the Wider Study Area are Bridgwater, Burnham-on-Sea, Weston-Super-Mare, Nailsea, Clevedon, Portishead, Bristol and Avonmouth. Smaller towns, villages and hamlets are dispersed widely throughout the study area including Woolavington, Puriton, East Huntspill, Mark, Rooks Bridge, Loxton, Sandford, Stone-Edge-Batch and Portbury.
- 15.4.6 A description of the demographic characteristics of the Proposed Development area is set out in **Volume 5.15.2, Appendix 15E**, comprising detailed baseline data relating to trends in population size, age profile, gender, income and qualification attainment levels.

Income

- 15.4.7 Inspection of wages data, which is collected at a more local level than income data, indicates a wide discrepancy at the local authority level (see **Inset 15.3** below). Workers resident in North Somerset typically have the greatest earning power, averaging £561/week (gross), compared to the England average of £513 and the regional average of £476. West Somerset residents tend to earn the least, with a full time median gross wage of £339/week. This is well below the regional average, and is partly explained by the relatively low proportion of the workforce engaged in professional occupations and a higher than average proportion employed in caring, leisure and other service occupations (see **Table 15.11**).

Inset 15.3: Median Full Time Gross Weekly Pay (2012)

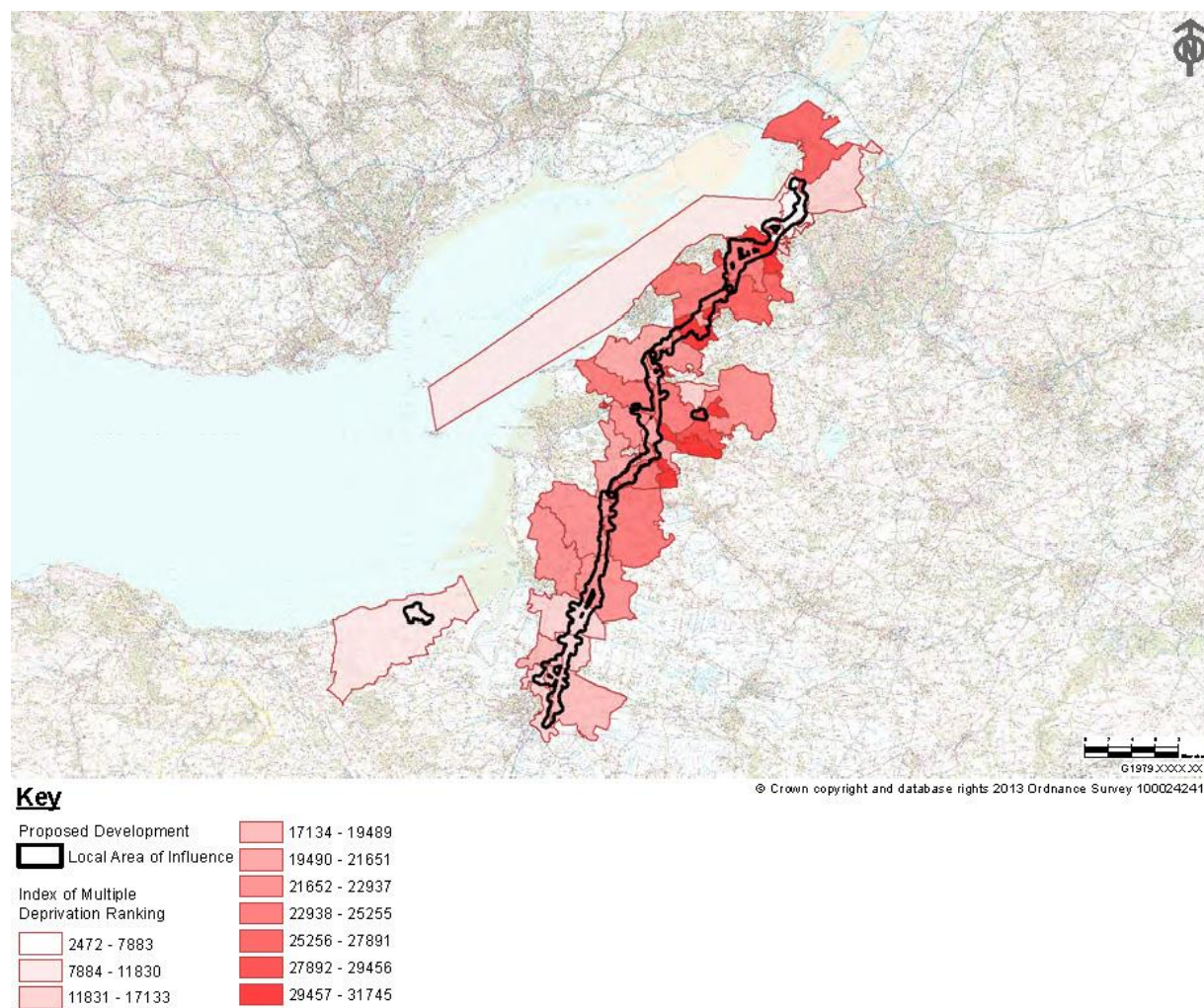


Source: ONS 2011b. Annual Survey of Hours and Earnings, Residence based analysis. Published on nomisweb.co.uk (Ref 15.15)

Index of Multiple Deprivation

- 15.4.8 The Index of Multiple Deprivation (IMD) is a measure of deprivation and is nationally recognised. The IMD 2010 provides a numerical measure of deprivation for each SOA in England. It utilises indicators, combined into seven 'domains': income deprivation, employment, health and disability, education, skills and training, barriers to housing and services, crime; and living environment. Each SOA is allocated an IMD score and ranking that represents a comparative deprivation for the domains, against all SOAs. These are combined into a single, overall deprivation score for each SOA which is also commonly ranked, with lower ranking SOAs being more deprived.
- 15.4.9 **Inset 15.4** graphically represents the IMD ranking of SOAs along the Local Area of Influence. The ranking shows that the most deprived SOAs in the Local Area of Influence are located to the north of Bridgwater, around Hinkley Power Station and in the Avonmouth area. Detailed IMD data for the Proposed Development area are shown in **Volume 5.15.2, Appendix 15F**.

Inset 15.4: Relative Deprivation of SOAs through which the Proposed Development Passes



Employment and Economy

15.4.10 **Table 15.11** shows the percentage of economically active people split by their occupation type.

Table 15.11 Full-time Jobs by Occupation Type, 2011

Industry	Percentage of Residents Aged 16-74							
	Bristol	North Somerset	South Gloucester	Sedgemoor	West Somerset	Somerset	South West	England
1. Managers, Directors and Senior Officials	8.6	12.2	10.4	10.9	12.6	11	11.1	10.9
2. Professional Occupations	22.6	17.2	17.3	13	11.7	14.8	16.5	17.5
3. Associate Professional and Technical Occupations	13.7	13.2	12.3	9.8	8.9	10.9	12.1	12.8
4. Administrative and Secretarial Occupations	11.1	11.6	14.0	10.4	8.5	10.2	11	11.5
5. Skilled Trades Occupations	9.6	11.3	12.3	14.4	18.2	15	13.4	11.4
6. Caring, Leisure and Other Service Occupations	8.5	9.8	8.5	10.6	12.3	10.7	9.8	9.3
7. Sales and Customer Service Occupations	8.7	8.7	9.2	8.2	7.3	8.1	8.4	8.4
8. Process, Plant and Machine Operatives	5.8	6.3	6.3	9.5	6.1	7.9	6.7	7.2
9. Elementary Occupations	11.4	9.6	9.7	13	14.5	11.5	11	11.1
<i>Notes:</i> Totals do not always sum precisely due to rounding. Figures shown are employee jobs; these include full time and part time jobs but exclude self-employment, government supported trainees and HM Forces.								

Source: ONS, 2011 (Ref 15.15)

15.4.11 The proportion of residents of West Somerset District employed in elementary, skilled trades and caring, leisure and other service occupations was notably higher than the other authorities in the Local Area of Influence and the average for England in 2011, and conversely the proportion employed in professional,

associate professional and technical and administrative and secretarial occupations was lower than the average for England. The proportion of residents employed in professional occupations in 2011 was markedly higher in Bristol and markedly lower in Sedgemoor than the average for England.

- 15.4.12 The proportion of residents employed in professional occupations in 2011 was markedly higher in Wraxall and Long Ashton Ward, Easton-in-Gordano Ward, South Gloucestershire 004D SOA (which covers the area around Aust) and North Somerset 006E SOA (which covers the eastern end of Stone-Edge Batch and Wraxall), than the average for England. Conversely, the proportion of residents employed in professional occupations in 2001 in the Bristol and South Gloucestershire SOAs in the Local Area of Influence was notably lower than the average for England.
- 15.4.13 The proportion of residents in the Local Area of Influence who were of the highest social grade, as defined by the 2011 census, was above the national and regional averages for all wards except Puriton and Woolavington, Avonmouth, Pilning and Severn Beach and Quantock Vale. Most of the SOAs were above the national and regional averages; most notable exceptions include Bristol 003C (3.7%) and Bristol 003B (4.3%), compared to a national average of 10.9% and 11.0% for the region. In 2011, the proportion of residents who have never worked and long-term unemployed in the study area was highest in SOAs Bristol 003C (9.0%), Bristol 003E (8.3 %), Bristol 003B (7.8%) and Kingsweston Ward (6.3%), compared to the national average of 5.6%. The proportion in all other wards and SOAs was below the national average.
- 15.4.14 **Table 15.12** shows the distribution of employee jobs by industry sector. These employee jobs include full time and part time positions but they exclude voluntary workers, self-employed and/or working owners who are not paid via PAYE. This table allows comparisons to be made between the distribution of employee jobs across the South West region and England, and the distribution within the particular Local Authority areas directly affected by the Proposed Development, thus enabling a better understanding of the structure of the local economy.
- 15.4.15 The data indicate that the proportion of jobs in West Somerset in the agricultural, forestry, fishing, mining and gas, water and electricity supply sectors is nearly five times the average for England. The reason for this is likely twofold: firstly, the presence of Hinkley Point Power Station and associated power generating activities, and, to a lesser extent, West Somerset's traditional strengths in land based activities, specifically farming and forestry. The latter includes traditional hill farming in the uplands of Exmoor, as well as arable and dairy farming in the better quality agricultural land to the north and east of the National Park.
- 15.4.16 The long tradition of agriculture in West Somerset District has helped to preserve its high quality natural environment, which in turn has contributed to the tourism sector. This is reflected in the relatively high proportion of jobs supported by tourism in the District. **Table 15.12** indicates that approximately 27.5% of jobs in West Somerset are in tourism focused, compared to 9.8% in England and 11.1% regionally. Consistent with this unusually high level of tourism activity is a correspondingly high proportion of employment within West Somerset's accommodation and food service sectors, especially when compared with surrounding Local Authorities. Tourism related employment in West Somerset is

mainly in small enterprises, although Butlins in Minehead is the most significant employer both in the sector and in the District.

- 15.4.17 Sedgemoor, like West Somerset, is also predominantly rural and shares some of the same characteristics. Among both Districts, the largest employers are the education and health sectors, a common feature at Local Authority level. In both Districts food, drink and tourism related activities employ disproportionately high numbers of people, especially in unlicensed cafes and restaurants, camping/caravanning parks, pubs and bars. However, Sedgemoor also has strengths in food and drinks manufacturing, processing and logistics, and has been successful in attracting significant investment from Morrisons supermarkets for a Regional Distribution Centre in Bridgwater, which recently opened. Somerfield had previously operated a similar centre in Bridgwater, which was closed by The Co-operative. These sectors have traditionally provided demand for ancillary business services such as packaging and equipment supply and maintenance which remain significant. Manufacturing is now less important than it has been, though the rate of decline is lower in Sedgemoor than that experienced nationally.
- 15.4.18 North Somerset has common features with West Somerset and Sedgemoor. There is a traditional base in agriculture, in particular of sheep and dairy farming, which has helped to encourage the development of a strong food processing sector. An example of this is the nationally known milk and dairy operator Yeo Valley, whose production is based at Blagdon, in the Mendip Hills. While detailed analysis reveals some distinct patterns within the local economy, for the most part, distribution of jobs by industry sector in the district mirrors the regional and national picture. Perhaps the most notable exception is in the transport sector, which is locally more important than typical. This is largely explained by the presence of Bristol Airport, the south west's largest airport and a major local employer.
- 15.4.19 **Table 15.12** also highlights the size of Bristol's service sector, and in particular finance, IT and other business activities. Banking and financial services are important, with many large companies using the city as their regional headquarters (e.g. Lloyds TSB Group, Royal Bank of Scotland, HSBC Life and, through its takeover of the Bristol and West Building Society, Bank of Ireland). Other financial services firms including Hargreaves Lansdown and Clerical Medical are headquartered in the city. There is a disproportionately large amount of legal activity in the city compared to national and regional averages, reflecting the city's status and mercantile past. The insurance and accountancy sectors are also key employers. The importance of the service sector almost overshadows manufacturing in the city, which at 4.6% makes up only about half that experienced at regional and national level.
- 15.4.20 South Gloucestershire shares some of the strengths of Bristol, for example in financial services. Several financial services companies between them employ many thousands of staff across the authority area. In some cases (e.g. RBS, Allianz Insurance) these are the same large employers as in Bristol, but South Gloucestershire has also attracted its own include large employers including AXA Life, GE Capital Solutions and Friends Life. Together finance, IT and other business activities make up over a quarter of jobs, compared to 18% for the South West as a whole and 21% for England.
- 15.4.21 In addition, South Gloucestershire's manufacturing sector accounts for a larger than typical proportion of employment. Within this, there is a notable strength in aerospace and defence industries, with Airbus, Rolls Royce, MBDA and GKN

Aerospace employing many thousands of staff, mostly at Filton, in the design and manufacture of wings, fuel systems and landing gear and in the fulfilment of specialist defence contracts. Supply side defence capabilities are matched by demand side skills based at the Ministry of Defence (MoD) Abbey Wood, also in Filton, which is the largest MoD site in the UK. Local press report numbers have risen significantly since, but as of August 2010 MoD sources confirmed a staff of 7,000 staff (mostly civilian), focusing on the management of procurement contracts for the Royal Navy, the British Army and the Royal Air Force. Despite this facility, substantial local authority employment and the existence of several other agencies including the Environment Agency and Audit Commission, public administration is still underrepresented in the Unitary Authority, as is tourism, though other strengths, such as in transport, storage, information and communication, are notable.

Table 15.12 Full-time Jobs by Industry Sector, 2011

Industry	Percentage of all Jobs in Each Industrial Sector							
	Bristol	North Somerset	South Gloucester	Sedgemoor	West Somerset	Somerset	South West	England
Agriculture, Forestry, Fishing; Mining; Gas, Water and Electricity Supply	0.9	1.2	1.1	1.2	8.9	2.0	2.4	1.8
Manufacturing	4.6	9.0	12.0	14.1	5.4	13.4	9.6	8.7
Construction	3.6	4.4	5.3	4.9	3.9	4.7	4.5	4.5
Services (Total)	90.9	85.4	81.6	79.8	81.8	79.9	83.4	85.0
Wholesale and Retail Trade	14.8	17.3	14.6	20.9	16.5	18.3	17.0	16.2
Accommodation and Food Services	5.6	7.8	4.5	9.8	23.9	8.0	8.2	6.8
Transport, Storage, Information and Communication	7.7	10.6	10.5	7.3	3.4	5.8	7.1	8.8
Finance, IT, Other business activities	29.5	18.0	25.2	11.0	7.9	14.5	18.3	21.4
Public Admin, Education and Health	29.5	27.7	24.3	27.4	25.0	29.4	28.9	27.2
Other Services	3.8	4.1	2.4	3.3	5.0	3.8	3.9	4.5
Of Total, % of Employee Jobs	8.2	11.6	6.4	12.2	27.5	10.6	11.1	9.8

Industry	Percentage of all Jobs in Each Industrial Sector							
	Bristol	North Somerset	South Gloucester	Sedgemoor	West Somerset	Somerset	South West	England
Which Are Tourism-Related								
<i>Notes:</i> Totals do not always sum precisely due to rounding. Figures shown are employee jobs; these include full time and part time jobs but exclude self-employment, government supported trainees and HM Forces. Tourism related jobs are as defined in Volume 5.15.2, Appendix 15C , but exclude SIC codes 68209 and 68320 relating to letting and management of real estate.								

Source: NOMIS Official Labour Market Statistics, nomisweb.co.uk, Business Register and Employment Survey (2011) (Ref 15.15)

Local Labour Market

- 15.4.22 The proportion of residents who were economically active in 2011 was above the average for England (70%) for all wards within the Local Area of Influence except Kingsweston (68%), Puriton and Woolavington (66%), Congresbury (63%) and Quantock Vale (63%) wards (ONS 2011 census data). The proportion of residents who were economically active in 2011 in Portishead East was notably higher than regional and National averages at 79%.
- 15.4.23 The labour supply in the five districts in 2013 comprised 250,000 economically active people in Bristol, 149,000 in South Gloucestershire, 106,000 in North Somerset, 52,000 in Sedgemoor and 13,500 in West Somerset (see **Table 15.13**). As a proportion of all usual residents aged 16 to 64, the number of economically active people in each administrative area is also shown in **Table 15.13**, together with a (modelled) estimate of the proportion of these who were unemployed.

Table 15.13 Labour Supply, 2012

Geographic Area	Absolute Number (000s)	Percentage of Resident Population Aged 16-64 Who Are Economically Active	Percentage of Economically Active Who Were Unemployed
Bristol	249.6	76.0	7.2
South Gloucestershire	148.8	84.8	5.9
North Somerset	106.4	77.3	6.3
Sedgemoor	51.7	73.2	6.7
West Somerset	13.5	70.1	4.8
South West		78.4	6.0
Great Britain		76.9	7.9
Source: NOMIS, nomisweb.co.uk, ONS Annual Population Survey, 2012 (Ref 15.15)			

- 15.4.24 The economic activity rate measures the proportion of the working age population (aged 16-64) who are active or potentially active members of the labour market. A high economic activity rate means that a high proportion of people are working or available for work or training; a low economic activity rate (or its equivalent, a high level of economic inactivity) indicates that a lower proportion of the working age population is available for work or training. **Table 15.14** indicates that South Gloucestershire had the highest rate of economic activity in 2012, which at nearly 85% was substantially higher than the Great Britain and regional average, while West Somerset had the lowest level.
- 15.4.25 The inactivity rate is the proportion of the working-age population that is not in the labour force. Amongst those who are defined as '*economically inactive*' are students; those looking after family/home; those who are temporarily or long-term sick; those who are retired and those who are 'discouraged'. The latter comprises those not in the labour force, who are available for work but no longer looking for work, because they believe they will not find employment.
- 15.4.26 The number of residents claiming Job Seekers Allowance (JSA) and National Insurance credits is a commonly-used proxy indicator for unemployment levels. JSA is payable to people under pensionable age who are available for, and actively seeking, work of at least 40 hours a week. **Table 15.14** shows total JSA claimants in each of the five districts covered by the study area, together with regional and national comparators.

Table 15.14 Out of Work Benefits Claimants

Geographic Area	Absolute Number	Percentage of Resident Population Aged 16-64 Claiming	Percentage of Male Residents (16-64) Claiming	Percentage of Female Residents (16-64) Claiming
Bristol	11,488	3.9	5.2	2.6
North Somerset	2,956	2.4	3.2	1.6
Sedgemoor	1,945	2.8	3.7	1.8
South Gloucestershire	3,153	1.9	2.4	1.4
West Somerset	369	1.9	2.6	1.2
Somerset	6,667	2.1	2.8	1.3
South West	81,010	2.4	3.3	1.6
England	1,220,365	3.6	4.6	2.5

Source: NOMIS, nomisweb.co.uk, ONS claimant count May 2013 (Ref 15.15)

- 15.4.27 As shown in the first column of **Table 15.14**, across the five Local Authority areas directly affected by the Proposed Development (Bristol, North Somerset, Sedgemoor, South Gloucestershire and West Somerset), there were a total of 19,911 people out of work and claiming benefit. Of these authorities, Bristol is unique in having a proportionately higher rate of people claiming than the average for England as a whole. Relative to the average rate in the south west, both Bristol and Sedgemoor have higher rates, while North Somerset's is similar. Both South Gloucestershire and West Somerset have lower than regional averages.
- 15.4.28 Of the total figure of nearly 20,000, some 96% of claimants have given an indication of the type of work they are seeking (see **Table 15.13**); in nearly all cases, this is also the type of work they were doing before they became out of work. The occupations reported by claimants as being those most commonly sought are sales and retail assistants (35% are seeking these roles), other goods handling and storage occupations (9%) and general office assistants/clerks (6%). This data is sourced from Official Labour Market statistics (ONS, 2013d), as is **Table 15.15** which shows some of the occupations sought (as of May 2013) which are likely to fit best with the opportunities created through the Proposed Development.

Table 15.15 Claimant Count by Selected Occupation Sought, May 2013

Occupation Sought	Bristol	North Somerset	South Glos.	Sedgemoor	West Somerset	Total
Labourers in Building and Woodworking Trades	140	50	40	35	10	275
Labourers in Other Construction Trades Not Elsewhere Classified (n.e.c.)	130	30	40	20	10	230
Gardeners and Grounds People	80	30	25	30	10	175
Security Guards and Related Occupations	100	15	15	10	0	140
Electricians/Electrical Fitters	55	5	10	5	5	80
Civil Engineers	45	10	10	0	0	65
HGV Drivers	30	15	5	10	5	65
Construction Trades n.e.c.	25	5	10	5	0	45
Construction Operatives n.e.c.	15	5	5	10	0	35
Welding Trades	10	10	5	5	0	30
Scaffolders, Stagers, Riggers	20	0	0	0	0	20
Horticultural Trades	5	5	5	0	0	15
Production, Works and Maintenance Managers	0	5	5	0	0	10
Managers in Construction	5	5	0	0	0	10
Electrical Engineers	5	0	5	0	0	10
Engineering Technicians	5	0	0	5	0	10
Electrical/Electronic Engineers n.e.c.	5	0	5	0	0	10
Building and Civil Engineering Technicians	5	0	0	0	0	5
Steel Erectors	5	0	0	0	0	5
Road Construction Operatives	5	0	0	0	0	5
Mobile Machine Drivers n.e.c.	5	0	0	0	0	5

Occupation Sought	Bristol	North Somerset	South Glos.	Sedgemoor	West Somerset	Total
Total	695	190	185	135	40	1,245
<p><i>Note:</i> Data rounded to the nearest 5.</p> <p><i>Source:</i> ONS, 2013d NOMIS Official Labour Market Statistics, nomisweb.co.uk, Claimant Count by sought occupation. (Ref 15.15)</p>						

15.4.30 **Table 15.16** gives an indication as to the number of people with the types of qualifications and skills likely to be needed during the construction and operation of the Proposed Development. Whilst **Table 15.16** is indicative, it suggests that the largest proportion of potentially suitable and currently out of work people are likely to be resident within the City of Bristol, with substantial numbers also resident in North Somerset, South Gloucestershire and Sedgemoor. Much of the construction work associated with the Proposed Development would be highly technical requiring specialist skills that are likely to be brought in from elsewhere in the UK or beyond, nonetheless there is expected to be some work available for local people. The assessment of employment opportunities in relation to the available local labour market is considered further.

15.4.31 As of November 2012 there were over 9,400 job vacancies across the five local authorities whose residents would be directly affected by the Proposed Development (ONS 13e). Nearly half of these (48%) were in Bristol, with some 29% in South Gloucestershire, 14% in North Somerset, and 7% and 1% respectively in Sedgemoor and West Somerset (*ibid*). Those posts most commonly vacant are shown in **Table 15.16**; occupations most likely to be relevant to the Proposed Development and which had at least 50 vacancies are shown.

Table 15.16 Most Common Notified Vacancies by Occupation, November 2012

Occupation	Bristol	North Somerset	South Glos.	Sedgemoor	West Somerset	Total
HGV Drivers	341	44	446	74	0	905
Mobile Machine Drivers and Operatives not elsewhere classified (n.e.c.)	100	42	46	22	1	211
General Office Assistants/Clerks	136	20	20	5	0	181
Labourers in Building and Woodworking Trades	61	47	25	26	14	173

Occupation	Bristol	North Somerset	South Glos.	Sedgemoor	West Somerset	Total
Security Guards and Related Occupations	51	23	25	5	0	104
Carpenters and Joiners	36	16	15	8	9	84
Construction Operatives n.e.c.	28	33	3	5	0	69
Total (All Vacancies)	4,572	1,308	2,782	678	121	9,461
<i>Source: ONS 13e. Nomis, nomisweb.co.uk, Vacancies Notified by Occupation, June 2013 (Ref 15.15)</i>						

Note: n.e.c relates to employees in other types of the specific occupation that are not elsewhere classified.

15.4.32 In addition to the occupations shown above, the following other occupations most likely to be relevant to the Proposed Development also have vacancies:

- scaffolders, staggers and riggers (26 vacancies);
- plant and machine operatives n.e.c (20 vacancies);
- civil engineers (12 vacancies);
- managers in construction (11 vacancies);
- road construction operatives (8 vacancies);
- crane drivers (8 vacancies);
- electrical engineers (7 vacancies);
- welding trades (6 vacancies);
- steel erectors (4 vacancies); and
- quantity surveyors (4 vacancies).

15.4.33 Some of these vacancies are likely to be temporary and caused by churn within the labour market, others may be more structural, suggesting that National Grid would need to look beyond the immediate area for recruitment, and bring in workers from other parts of the country.

Business Establishments by Sector

15.4.34 In order to gain a 'locationally' specific insight into the socio-economic context of the Proposed Development, **Table 15.17** shows the number of businesses (as obtained through the D&B UK Trading file (Ref 15.11)) by SIC code within the Local Area of Influence and the surrounding 2km.

Table 15.17 D&B UK Trading File Businesses by Sector (All Businesses)

Sector	All 250m	All 2km
Unclassified	1	2
A - Agriculture, Forestry and Fishing	69	275
B - Mining and Quarrying		6
C - Manufacturing	106	524
D - Electricity, Gas, Steam and Air Conditioning Supply	2	8
E - Water Supply, Sewerage, Waste Management and Remediation Activities	10	53
F – Construction	126	587
G - Wholesale and Retail Trade and Repair of Motor Vehicles and Motorcycles	210	988
H - Transportation and Storage	97	291
I - Accommodation and Food Service Activities	50	311
J - Information and Communication	39	297
K - Financial and Insurance Activities	34	181
L - Real Estate Activities	33	284
M - Professional, Scientific and Technical Activities	92	578
N - Administrative and Support Service Activities	98	429
O - Public Administration and Defence	2	17
P – Education	30	188
Q - Human Health and Social Work Activities	28	263
R - Arts, Entertainment and Recreation	24	151
S - Other Service Activities	73	434
T & U – Other	1	9
TOTAL	1125	5876

Source: D&B UK Trading File Businesses, January 2014 (Ref 15.11)

15.4.35 The number of businesses with employees within those businesses identified above is shown in **Table 15.18**.

Table 15.18 Number of Employees (All Businesses)

Number of Employees	No. of Businesses within Local Area of Influence	No. of Businesses within 2km
Employees Data Not Present	237	1,129
1 - 9 Employees	690	3,923
10 - 19 Employees	85	401
20 - 49 Employees	67	249
50 - 99 Employees	24	107
100 - 199 Employees	16	42
200 - 499 Employees	4	17
500 - 999 Employees	2	6
>=1000 Employees	0	2
	1125	5876

Source: D&B UK Trading File Businesses obtained in January 2014. (Ref 15.13)

- 15.4.36 The breakdown of those businesses identified as being within the tourism sector is set out in **Table 15.19**.

Table 15.19 Number of Tourism Businesses

Sector	Local Area of Influence	2km
Tourism Businesses	81	436

Source: D&B UK Trading File Businesses obtained in January 2014. (Ref 15.11)

Accommodation

- 15.4.37 Various accommodation facilities (SIC Code 55) are available within the Wider Study Area, comprising hotels and similar accommodation, and holiday and other short stay accommodation as well as camping grounds and caravan parks. A total of 20 accommodation facilities have been identified within the Local Area of Influence (including 7 camp sites, recreational vehicle parks and trailer parks, and 11 hotels/guest houses/Bed and Breakfast facilities). A further 55 were identified within 2km of the Proposed Development (including 8 further camp sites, recreational vehicle parks and trailer parks, and 25 further hotels/guest houses/Bed and Breakfast facilities). These data were collated from the D&B Market Insight data (Ref 15.11). **Tables 15.20 to 15.21** show the number of accommodation establishments and bedspaces at the County and Local Authority level.

Table 15.20 Total Accommodation Stock by Establishment Type

Area	Total Establishments	Serviced Accommm'n	Non-serviced Accommodation ('Collective Accommodation Establishments')		
		Hotels and Similar Establishments	Holiday Dwellings	Tourist Campsites	Other Collective Accommm'n
Bristol	198	152	31	3	12
South Gloucestershire	68	52	15	0	1
Somerset	1970	1113	705	123	29
West Somerset	379	180	163	28	8
Sedgemoor	258	135	81	39	3
North Somerset	169	111	44	14	0

Source: Visit England: Accommodation Stock Audit 2012 (Ref 15.16)

Table 15.21 Total Bedspace Stock by Accommodation

Area	Total Establishments (Bedspaces)	Serviced Accommm'n	Non-serviced Accommodation ('Collective Accommodation Establishments')		
		Hotels and Similar Establishments	Holiday Dwellings	Tourist Campsites	Other Collective Accommm'n
Bristol	11053	10210	404	55	384
South Gloucestershire	8057	5984	93	0	1980
Somerset	98681	25162	21658	48734	3127
West Somerset	16137	2702	8629	4488	318
Sedgemoor	29455	2584	5843	20779	249
North Somerset	9291	4177	3039	2075	0

Source: Visit England Accommodation Stock Audit 2012 (Ref 15.16)

15.4.38 2012 occupancy statistics from Visit England for the South West of England 2012 highlight that during the off peak season (October to March) bedspace occupancy

was 38%. For the peak season (April to September) bedspace occupancy was 55%.

- 15.4.39 Based on the bedspaces identified and the bedspace occupancy estimates for the South West of England, an indication of the number of bedspaces available in each District at peak and off peak times has been calculated, presented in **Table 15.22**.

Table 15.22 Estimates of Bedspaces Available

Area	Total Available Bedspaces		Available Bedspaces in Serviced Accommodation		Available Bedspaces in Non-Serviced Accommodation ('Collective Accommodation Establishments')					
			Hotels and Similar Establishments		Holiday Dwellings		Tourist Campsites		Other	
	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
Bristol	4,974	6,853	4,595	6,330	182	250	25	34	173	238
South Gloucestershire	3,626	4,995	2,693	3,710	42	58	0	0	891	1,228
Somerset	44,406	61,182	11,323	15,600	9,746	13,428	21,930	30,215	1,407	1,939
West Somerset	7,262	10,005	1,216	1,675	3,883	5,350	2,020	2,783	143	197
Sedgemoor	13,255	18,262	1,163	1,602	2,629	3,623	9,351	12,883	112	154
North Somerset	4,181	5,760	1,880	2,590	1,368	1,884	934	1,287	0	0

Land Use Context

Business Operators

- 15.4.40 Business operators located within the Local Area of Influence are shown in **Volume 5.15.3, Figure 15.5**.

Agricultural Land Holdings

- 15.4.41 The Local Area of influence includes approximately 6125ha of agricultural land. The Order Limits include approximately 963ha of agricultural land and limits of deviation include approximately 671ha of agricultural land. Agricultural Land Classification maps group Grades 3a and 3b together as 'Grade 3'. For this assessment, the worst-case assumption that all Grade 3 land is Grade 3a and thus BMV has been used. Both the Order Limits and Local Area of Influence are predominantly composed of Grade 3 land quality as shown in **Table 15.23**). The Local Area of Influence includes approximately 5401ha of BMV agricultural land. **Volume 5.15.3, Figure 15.6** shows the distribution of agricultural land in the Wider Study Area.

Table 15.23 Quality and Areas of Agricultural Land affected

Agricultural Land Grade	Area within Local Area of Influence	Area within Order Limit (ha)	Area within Limits of Deviation (ha)
1	444	108	64
2	594	78	49
3	4363	655	438
4	694	122	67
5	30	0	0
Non Agricultural	66	6	3
Urban	510	73	49

- 15.4.42 Farming operations within the Wider Study Area are mainly livestock, although often mixed, with a small amount of arable agriculture. Within the Local Area of Influence there are 69 agricultural businesses identified on the D&B database and the makeup of agricultural businesses is as below. National Grid Land Agents have engaged with each Person with Interest in Land (PIL) directly affected along the Proposed Development.

Table 15.24 Makeup of Agricultural Operations within SIC codes 01-03 within the Local Area of Influence and 2 km (Ref 15.11)

Agricultural Operations	250m	2km
01.100 - Growing of non-perennial crops	0	4
01.130 - Growing of vegetables and melons, roots and tubers	1	8
01.200 - Growing of perennial crops	0	3
01.400 - Animal production	4	14
01.410 - Raising of dairy cattle	13	47
01.470 - Raising of poultry	0	1
01.490 - Raising of other animals	0	27
01.500 - Mixed farming	15	63
01.610 - Support activities for crop production	16	54
01.620 - Support activities for animal production	0	1
01.621 - Farm animal boarding and care	1	2
01.629 - Support activities for animal production (other than farm animal boarding and care) n.e.c.	1	26
02.000 - Forestry and logging	3	3
02.400 - Support services to forestry	1	12
03.100 - Fishing	1	7
03.200 - Aquaculture	0	3

Planning Allocations

- 15.4.43 Within their development plans, Unitary Authorities, District and County Councils safeguard specific areas for future development through defining planning allocations. These allocations can be for a range of land uses, including housing, employment, utilities, infrastructure and open space. **Volume 5.15.2, Appendix 15G** presents a complete list of the planning allocations within the study area.
- 15.4.44 The allocations that are located within the Local Area of Influence for the socio-economics and land use assessment (from south to north) are as follows:
- **The Royal Ordnance Factory (ROF) at Puriton**, allocated for development as an Energy Park, as described in Puriton Energy Park

Supplementary Planning Document (Sedgemoor District Council, Adopted 28th March 2012 (Ref 15.17)) for the ROF. The masterplan for the allocation splits the area into six zones: commercial, community and recreational uses; manufacturing, research and development; manufacturing, research and development, energy storage and logistics; a solar farm or green buffer/countryside uses; major energy production; and solar power generation. Changes in the UK's energy policies and subsidies available for energy generation have resulted in uncertainty as to the feasibility of development of the solar farm areas of the allocation, and greater area of green buffer may result. Outline planning permissions already submitted (April 2013) for the ROF have been considered within this assessment as the areas for future development, including the access road alignment.

- **Avonmouth and Severnside Enterprise Area**, identified, by the West of England Local Enterprise Partnership, as a strategically important employment location for the West of England (Ref 15.18). In 2012, Bristol City Council and South Gloucestershire Council commissioned a Development Strategy for Avonmouth Severnside (Ref 15.21) to consider opportunities for strategic development of the area which resulted in the designation of the Avonmouth and Severnside Enterprise Area. Much of the Severnside area is subject to an extant planning permission for employment use from 1957/58 when it was owned by ICI Chemical Works. The consent covers approximately 650 hectares of land, much of which is still undeveloped land. The Enterprise Area currently comprises a mix of industrial, storage and distribution, power generation, waste recycling and disposal, sewage treatment and gas storage facilities, the Port of Bristol and agricultural land. Some 14,200 people were employed within the area in 2010 and the Development Strategy study identifies that up 16,890 additional people could be employed within the area, depending on the land use of future development and current constraints being addressed (e.g. flood risk, ecological designations) (Avonmouth Severnside - Outline Development Strategy, 2012 (Ref 15.19)). This Outline Development Plan also underpins the City Regional Deal which the West of England Partnership Authorities signed in July 2013. The implementation of the plan is an ongoing activity with Flood Risk Management Options currently being consulted upon.
- Strategic cycle routes and major recreational routes within North Somerset and South Gloucestershire.

Planning Permissions

- 15.4.45 **Volume 5.15.2, Appendix 15H** presents a complete list of the granted planning permissions (October 2013) within the Local Area of Influence of the Proposed Development. Only those permissions of relevance to the Proposed Development have been included in the appendix, which means permissions that would result in the introduction of a new receptor into the Local Area of Influence. Householder and minor permissions have generally been excluded.

Community Facilities

- 15.4.46 A number of community facilities (comprising health and education facilities and places of community gathering) are present within the Local Area of Influence. These are presented in **Table 15.23**. The sensitivity to effects of the Proposed Development considers the nature of the facility users. These facilities are also shown on **Volume 5.15.3, Figure 15.7**.

Table 15.25 Community Facilities within Local Area of Influence

Facility	Description	Location	Resource Sensitivity
Keys Education	Independent school for children with special educational needs	Bason Bridge	Moderate sensitivity
Mark Harvest pre-school	Nursery/pre-school	Mark	Moderate sensitivity
Mark C of E First School	First School	Mark	Moderate sensitivity
Sandford Physiotherapy Clinic	Health practice	Sandford	Low sensitivity
Yewtree Nursery	Nursery/pre-school	Puxton	Moderate sensitivity
Caffle Nursery	Nursery/pre-school	Hewish	Moderate sensitivity
The Cedars (Weston) Ltd	Residential care home	West Hewish	Moderate sensitivity
Happy Hours	Nursery/pre-school	Yatton and Nailsea	Moderate sensitivity
King's Hill Church of England School	Primary School	Nailsea	Moderate sensitivity
Ravenswood School	Primary and Secondary School	Nailsea	Moderate sensitivity
Nailsea Social Club	Gathering Place	Nailsea	Low sensitivity
Greenslade Playgroup	Nursery/pre-school	Nailsea	Moderate sensitivity
Church of St Quiricus & St Julietta	Gathering Place	Tickenham	Low sensitivity

Facility	Description	Location	Resource Sensitivity
Folly Farm Day Nursery	Nursery/pre-school	Tickenham	Moderate sensitivity
Tickenham Church	Gathering Place	Tickenham	Low sensitivity
Avonmouth Library	Library	Avonmouth	Low sensitivity
Avonmouth Working Mens Club	Gathering Place	Avonmouth	Low sensitivity
Post Office Ltd	Post office	Avonmouth	Low sensitivity
Avonmouth Medical Centre	Medical centre	Avonmouth	Low sensitivity
Hillersden Ltd	Dental practice	Avonmouth	Low sensitivity
Avonmouth Church of England School	Primary School	Avonmouth	Moderate sensitivity

Tourism and Recreation

Visitor Attractions and Areas for Recreation

- 15.4.47 The Visit Somerset Visitor Survey (2009/2010) (Ref 15.20) stated that the Cheddar Caves and Gorge, Wells Cathedral and Clarks Village were the most popular attractions within Somerset. Visits to these attractions contributed approximately 60% of all tourist visits to the top attractions within the County. None of the top attractions listed in the report is located within 2km of the Proposed Development.
- 15.4.48 The Mendip Hills AONB provides the principal focus of tourism and recreation activities within the study area, with the key tourism sites of Cheddar Gorge and Wookey Hole, which are not located within 2km of the Proposed Development. In 2006, the Mendip Hills AONB installed visitor counters at 22 access points on PRoW within the AONB. None of the counter points were within 2km of the Proposed Development. The findings, reported in the State of the AONB Report 2009-2014 (Ref 15.21) were as follows:
- walkers - 139,615 people;
 - mountain bikes - 10,070 people; and
 - horse riders - 6,271 people.
- 15.4.49 A number of locally and regionally valuable attractions (including accommodation and restaurants) and areas for recreation are present within the Local Area of Influence, which are presented in **Table 15.26**.

Table 15.26 Visitor Attractions and Areas for Recreation within Local Area of Influence

Feature	Description and Comments	Location	Resource Sensitivity
Hinkley Point visitor centre	Visitor centre to the power station	Hinkley Point, Bridgwater	Low sensitivity
King's Sedgemoor Drain	Used by anglers	Bridgwater	Low sensitivity
Apple View Bed & Breakfast	Guest House	Bridgwater	Low sensitivity
Bramley Lodge	Chalet	Bridgwater	Low sensitivity
The Knowle Inn	Restaurant	Knowle	Low sensitivity
Cripps Farm Caravan Park	Tourist Accommodation	Highbridge	Low sensitivity
The Basonbridge Inn	Restaurant, Cafe, Coffee Shop	Bason Bridge	Low sensitivity
Mark Moor	Open countryside	Mark	Low sensitivity
B M Puddy	Guest House	Mark	Low sensitivity
Coombes Cider Mill	Camp site	Mark	Low sensitivity
Webbington Hotel	Hotel	Webbington	Low sensitivity
Webbington Farm Holiday Cottages	Tourist Accommodation	Webbington	Low sensitivity
Nailsea, Puxton, Kenn and Tickenham, Wick Moors	Open countryside	Somerset Levels and Moors	Low sensitivity
Mendip Hills AONB	Open countryside	Mendip Hills	High sensitivity
Home Farm Cottages	Holiday homes	Barton	Low sensitivity
Banwell Nature Reserve	Area for nature conservation	Banwell	Low sensitivity
Thatchers Cider Orchards	Visitor Attraction	Sandford	Low sensitivity
Sandford Station Railway Heritage Centre	Visitor Attraction	Sandford	Low sensitivity

Feature	Description and Comments	Location	Resource Sensitivity
Fish and Chip Shop on New Road	Restaurant, Cafe, Coffee Shop	Churchill	Low sensitivity
Miltons Lodge	Tourist Accommodation	Langford	Low sensitivity
Winter Meadows	Caravan Park	Puxton	Low sensitivity
Puxton Park	Visitor Attraction	Puxton	Moderate sensitivity
The Golden Phoenix Restaurant	Restaurant, Cafe, Coffee Shop	Hewish	Low sensitivity
Fish and Chip Shop on Brinsea Road	Restaurant, Cafe, Coffee Shop	Congresbury	Low sensitivity
Bridge Inn Lodge	Hotel	Yatton	Low sensitivity
Merry Farm	Tourist Accommodation	Kingston Seymour	Low sensitivity
Nailsea and Backwell Rugby Football Club	Sports, Recreation and Show Grounds	Nailsea	Low sensitivity
Nailsea Football Club	Sports, Recreation and Show Grounds	Nailsea	Low sensitivity
Howards Bistro Ltd	Restaurant, Cafe, Coffee Shop	Nailsea	Low sensitivity
The White Lion	Restaurant, Cafe, Coffee Shop	Nailsea	Low sensitivity
Tickenham Golf Club	Sports, Recreation and Show Grounds	Tickenham	Low sensitivity
Evergreen Equestrian Centre	Sports, Recreation and Show Grounds	Tickenham	Low sensitivity
Star Inn Public House	Restaurant, Cafe, Coffee Shop	Tickenham	Low sensitivity
North Somerset Showground	Sports, Recreation and Show Grounds	Wraxall	Low sensitivity
Noah's Ark Zoo Farm	Visitor Attraction	Wraxall	Moderate sensitivity
Portbury Wharf Nature Reserve	Area for nature conservation	Portbury/Portishead	Low sensitivity
Gordano R.F.C	Sports, Recreation and Show Grounds	Portbury/Portishead	Low sensitivity

Feature	Description and Comments	Location	Resource Sensitivity
Motocross on Caswell Hill	Sports, Recreation and Show Grounds	Portbury/Portishead	Low sensitivity
Portbury Common	Open countryside	Portbury	Low sensitivity
Elm Tree Park	Recreational vehicle park or trailer park	Portbury	Low sensitivity
The Priory	Restaurant, Cafe, Coffee Shop	Portbury	Low sensitivity
Avonmouth Bowling Club	Sports, Recreation and Show Grounds	Avonmouth	Low sensitivity
Avonmouth Old Boys R.F.C.	Sports, Recreation and Show Grounds	Avonmouth	Low sensitivity
Playground	Sports, Recreation and Show Grounds	Avonmouth	Low sensitivity
Avon Truckstop Ltd.	Hotel and similar accommodation	Avonmouth	Low sensitivity
Avonmouth Guest House	Tourist Accommodation	Avonmouth	Low sensitivity
The Royal Hotel	Tourist Accommodation	Avonmouth	Low sensitivity
Andels Café	Restaurant, Cafe, Coffee Shop	Avonmouth	Low sensitivity
The Avon Lodge	Restaurant, Cafe, Coffee Shop	Avonmouth	Low sensitivity
Balti Raaj	Restaurant, Cafe, Coffee Shop	Avonmouth	Low sensitivity
The Miles Arms Hotel	Restaurant, Cafe, Coffee Shop	Avonmouth	Low sensitivity
Avonmouth Tavern	Restaurant, Cafe, Coffee Shop	Avonmouth	Low sensitivity
The Bradford Hotel	Tourist Accommodation	Avonmouth	Low sensitivity
The Hallen Centre (Hallen Football Club)	Sports, Recreation and Show Grounds	Hallen	Low sensitivity

Public Rights of Way, National Trails and Cycle Routes

- 15.4.50 As described above, the assessment of effects relating to the temporary or permanent severance of access to recreational receptors is presented in **Volume 5.12.1, section 12.5** (Traffic and Transport) of the ES. PRoW and other routes have however been considered in this ES chapter as part of the amenity assessment and therefore information on these routes is also provided for context in the following sections.
- 15.4.51 An extensive network of PRoW, National Routes and National Cycleways exist within the Local Area of Influence, including a total of 217 PRoW, five sections of National Trails and National Cycle Routes and 4 Promoted Walks. Five of these PRoW form links between communities, 28 are Bridleways, 184 are Footpaths and five are Restricted Byways. Within the Avonmouth and Severnside area there are also four Recreational Routes which are allocated within the South Gloucestershire Local Plan.
- 15.4.52 Site visits were undertaken on the 22 and 23 May 2013 and the 6 to 8 August 2013 to check the alignment and condition of the PRoW and recreational routes within the Local Area of Influence.
- 15.4.53 The survey was intended to provide an initial assessment of the nature, condition and use of PRoW in the Local Area of Influence. In total, 154 (approximately 70%) PRoW/recreational routes in the Local Area of Influence were surveyed, of which 139 (approximately 64%) were passable. The findings of the condition survey are presented in **Volume 5.15.2, Appendix 15I** and summarised as follows:
- the majority of PRoW/recreational routes were free from obstructions: 15 routes were obstructed, most commonly due to field gates that were tied or locked shut. The majority of obstructed routes were located to the north of the study area;
 - the condition of accessible PRoW/recreational routes was found to be generally good. The majority of the routes were well maintained; however some were overgrown with vegetation or characterised by fly tipping;
 - PRoW/recreational routes were generally found to be consistent with the definitive maps. Only 19 routes were found to be inconsistent with the definitive map; most commonly a result of a lack of sign or clear pathway indicating the routes' locations;
 - the majority of PRoW/recreational routes were waymarked (67%). The condition and visibility of signage was variable; and
 - 136 of the accessible PRoW/recreational routes were found to have clear evidence of use, including hoof prints and the presence of desire lines. Users were observed on 14 of the PRoW.
- 15.4.54 During June and August 2013, count surveys were conducted at 10 locations within the Local Area of Influence to ascertain an indication of typical off-peak and peak usage, respectively, of the PRoW/recreational routes. Each location was surveyed constantly on one day between 08:00 and 18:00 hrs. The results are set out in **Table 15.27** and **Table 15.28** respectively. In total, 733 users were counted across all locations in June and 1146 were counted across all locations in August 2013.

Table 15.27 Off Peak PRow/Recreational Routes User Count Survey (June 2013)
Results

Location	Adult Pedestrian	Child Pedestrian	Adult Cyclist	Child Cyclist	Adult Equestrian	Child Equestrian	Adult Dog Walker	Child Dog Walker	Total
King's Sedgemoor Drain near Peasey Farm	2	0	0	0	0	0	14	2	18
Puriton Ridge on PRow due north of Knowle	2	0	0	0	0	0	17	0	19
Huntspill Moor on Sustrans route 33	0	0	22	0	0	0	1	0	23
Mendip Way to north of Webbington Hotel on a route from Crooks Peak	23	0	30	0	0	0	1	0	54
Sandford where the Strawberry Line leaves Nye Road	15	0	274	3	0	0	8	0	300
Kenn Moor at junction of PRow and Avon Cycle Ways to NW of Nailsea (Nailsea Wall Lane)	2	0	72	0	2	0	0	0	76
Gordano Round to NW of Noah's Ark	1	0	0	0	0	0	0	0	1
Portbury on the pedestrian bridge over M5 (Station Road Portbury)	38	12	58	0	0	0	5	0	113
Portishead on the PRow giving access to the nature reserve off Sheepway (Wharf Lane)	57	4	36	2	0	0	24	0	123
Hinkley Line Entries, along the West Somerset Coast Path on the alternative PRow route for the coastal path while Hinkley is being constructed	6	0	0	0	0	0	0	0	6
Total	146	16	492	5	2	0	70	2	733

Table 15.28 Peak PRow/Recreational Route User Count Survey (August 2013)
Results

Location	Adult Pedestrian	Child Pedestrian	Adult Cyclist	Child Cyclist	Adult Equestrian	Child Equestrian	Adult Dog Walker	Child Dog Walker	Total
King's Sedgemoor Drain near Peasey Farm	12	0	0	0	0	0	10	0	22
Puriton Ridge on PRow due north of Knowle	20	0	0	0	1	0	15	0	36
Huntspill Moor on Sustrans route 33	0	0	40	0	0	0	0	0	40
Mendip Way to north of Webbington Hotel on a route from Crooks Peak	13	0	3	0	3	0	5	0	24
Sandford where the Strawberry Line leaves Nye Road	36	0	415	18	0	0	3	0	472
Kenn Moor at junction of PRow and Avon Cycle Ways to NW of Nailsea (Nailsea Wall Lane)	20	0	266	0	14	0	1	0	301
Gordano Round to NW of Noah's Ark	4	0	4	0	0	0	0	0	8
Portbury on the pedestrian bridge over M5 (Station Road Portbury)	67	2	203	6	4	0	6	0	288
Portishead on the PRow giving access to the nature reserve off Sheepway (Wharf Lane)	138	8	89	0	0	0	13	0	248
Hinkley Line Entries, along the West Somerset Coast Path on the alternative PRow route for the coastal path while Hinkley is being constructed	8	0	0	0	0	0	0	0	8
Total	318	10	1020	24	22	0	53	0	1146

- 15.4.55 Of the 10 locations surveyed, the greatest number of users was observed on Nye Road in Sandford. 41% of all users counted across all sites were counted at this location during the off peak count and 33% during the peak count. Nailsea Wall Lane, Station Road Portbury and Wharf Lane were also popular cycling and walking routes.
- 15.4.56 97% of the users counted across all locations in June 2013, and 96% in August 2013, were adults. Adult cyclists comprised the majority of users observed: and 67% of all users in June and 70% of all users in August were cyclists. Of particular note was the high proportion of cyclists counted on Nye Road and Nailsea Wall Lane: 92% and 95%, respectively, of all users counted at these locations in June were cyclists and 92% and 88% respectively of users counted at these locations in August were cyclists. No anglers were recorded at the King's Sedgemoor Drain count location during either survey. Across all 10 locations, most users were observed between 11:00 and 12:00 and between 14:00 and 15:00. The time periods in which the lowest number of users was observed were between 08:00 and 09:00 and 17:00-18:00.
- 15.4.57 The national and regional cycle routes and PRow that act as key links between communities within the Local Area of Influence are listed in **Table 15.29**.

Table 15.29 PRow, Cycle Routes and PRow that act as Key Links between Communities within the Local Area of Influence

Route	Function
41 (410)	National Cycle Route - 85 mile circular route around the city of Bristol, also known as the Avon Cycleway (Regional Route 10)
26	National Cycle Route connects from Portishead on the Somerset coast to Portland Bill on the Dorset coast. Part of this route also forms part of the Strawberry Line, a traffic-free path from Yatton to Shepton Mallet using as much dismantled railway track as possible which is actively supported by Sustrans.
3	National Cycle Route, also known as the West Country Way, this route connects Land's End in Cornwall to Bristol. This section of the route is also called the Stop Line Way - a long distance walking and cycling route.
33	National Cycle Route This route runs from Bristol to Seaton. Most of the route awaits development but the section between Bridgwater and Chard is already open. This section of the route is also called the Stop Line Way - a long distance walking and cycling route.
Gordano Round	A 42km figure-of-eight walk passing through Clevedon, Clapton in Gordano and Abbots Leigh.
Severn Way	A 360km route along the Severn Valley from the source on the Plynlimon plateau in Mid-Wales to the Severn Estuary Bristol.
Mendip Way	80 km footpath across the Mendip Hills from Weston-super-Mare to Frome

Route	Function
Butcombe Trail	72 km long Mendip Pub Trail from Hinton Blewett through Axbridge to Compton Martin
West Somerset Coast Path	Approximately 40km route connecting the West Somerset Coast Path to the River Parrett Trail, and will form part of the England Coastal Path when it opens later in 2014.
BW 28/1	Bridleway - link between Puriton and Woolavington
AX 21/3	Footpath - link between Crab Hole and Loxton
LA21/33	Footpath - link between Kenn and West End
LA21/37	Footpath - link between Kenn and West End
WL 23/62	Footpath - link between Wick and Stolford

Events

- 15.4.58 A number of annual events occur within the Local Area of Influence and Wider Study Area and serve as a draw for visitors to the area. **Table 15.30** identifies those events closest to the Proposed Development. The Draft Construction Traffic Management Plan (CTMP) (**Volume 5.26.5**) includes a commitment to keep construction traffic to a minimum during these events.

Table 15.30 Principal Annual Events within the Wider Study Area

Attraction/Event	Approximate Distance from the Proposed Development
North Somerset Show, Wraxall	<1 mile
Various events in Bridgwater including Bridgwater Carnival.	<2 miles
Various events in Weston Super Mare including Weston Air Day, Motocross festival.	4 miles
Various events at Ashton Court Mansion including Bristol International Balloon Fiesta and kite festival.	5 miles
Glastonbury Festival	15 miles

15.5 Prediction and Assessment of the Significance of the Potential Effects

Socio-economic Assessment Parameters

Capital and Operational Expenditure

- 15.5.1 Total cost of the Proposed Development, at the time of preparation of this ES is estimated to be £485 million. As described in **Volume 5.3.1, section 3.3** and section 3.7 (Project Description), two options for the route of Section F are being considered at this stage. The cost below includes an average cost of the two options for the 400kV overhead line for Section F.
- 15.5.2 The Proposed Development would be subject to an on-going maintenance regime and components would be replaced and maintained as necessary during the operational period. Maintenance costs vary significantly depending on the type of technology employed. **Table 15.31** below gives an indicative estimate of the likely annual maintenance costs associated with a project of this type. Maintenance costs are estimated on the basis of the unit maintenance costs set out in column two ('Annual Maintenance Cost per unit') and assume a double circuit system; these figures are based on 2014/15 prices.

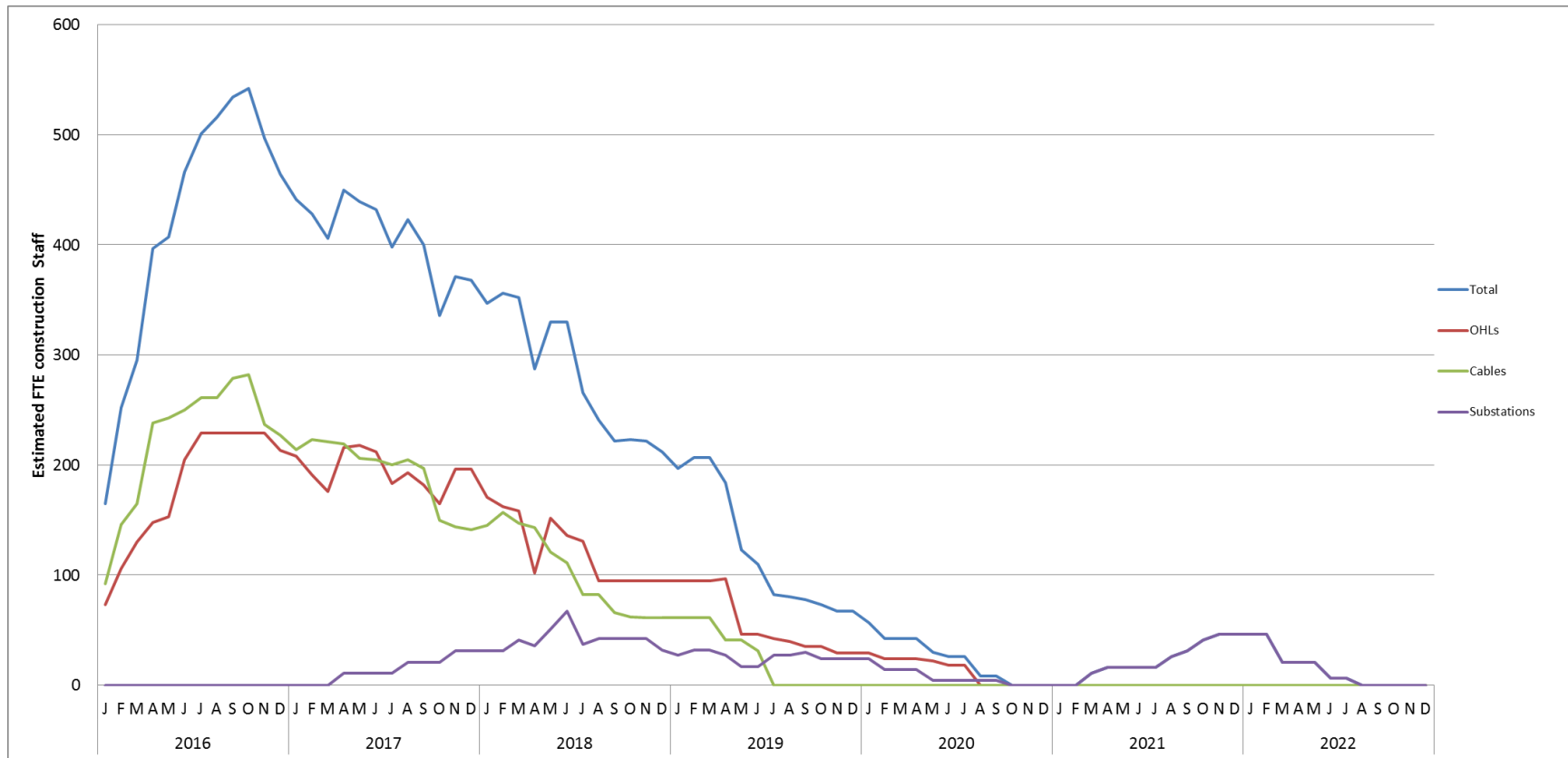
Table 15.31 Annual Operations and Maintenance Costs

Item	Annual Maintenance Cost per Unit	Number of Units	Approx. Annual Maintenance Cost
AC Overhead Line (per two circuit km)	£2,278	47	£107,066
AC Underground Cable (per two circuit km)	£4,800	8.5	£40,800
Reactors	£5,700	2	£11,400
Switching/sub stations	£35,360	1	£35,360
Total	-	-	£194,626
<p>Note: Final AC overhead line length depends on which F Route option is adopted. Adoption of the M5 route for Section F implies total overhead line length of 46.6km, adoption of Portishead route for Section F implies total overhead line length of 47.5km. A 'composite' length of 47km has been adopted to facilitate presentation of a total estimated maintenance figure.</p> <p>Source: National Grid, May2014</p>			

Construction Employment

- 15.5.3 The employment profile of the Proposed Development is set out in **Inset 15.5** below.

Inset 15.5: Total Employment Profile of the Proposed Development



15.5.4 The construction phase of the Proposed Development requires an average of 185 staff¹ a month over the four year construction programme. As **Inset 15.5** identifies, this ranges from periods of fewer than 50 construction staff during the last years of the programme to a peak employment of 545 during October 2016 when the overhead line works and underground and substation works are scheduled to be occurring concurrently. The various components of the Proposed Development are currently estimated to require the following peak and monthly average staff:

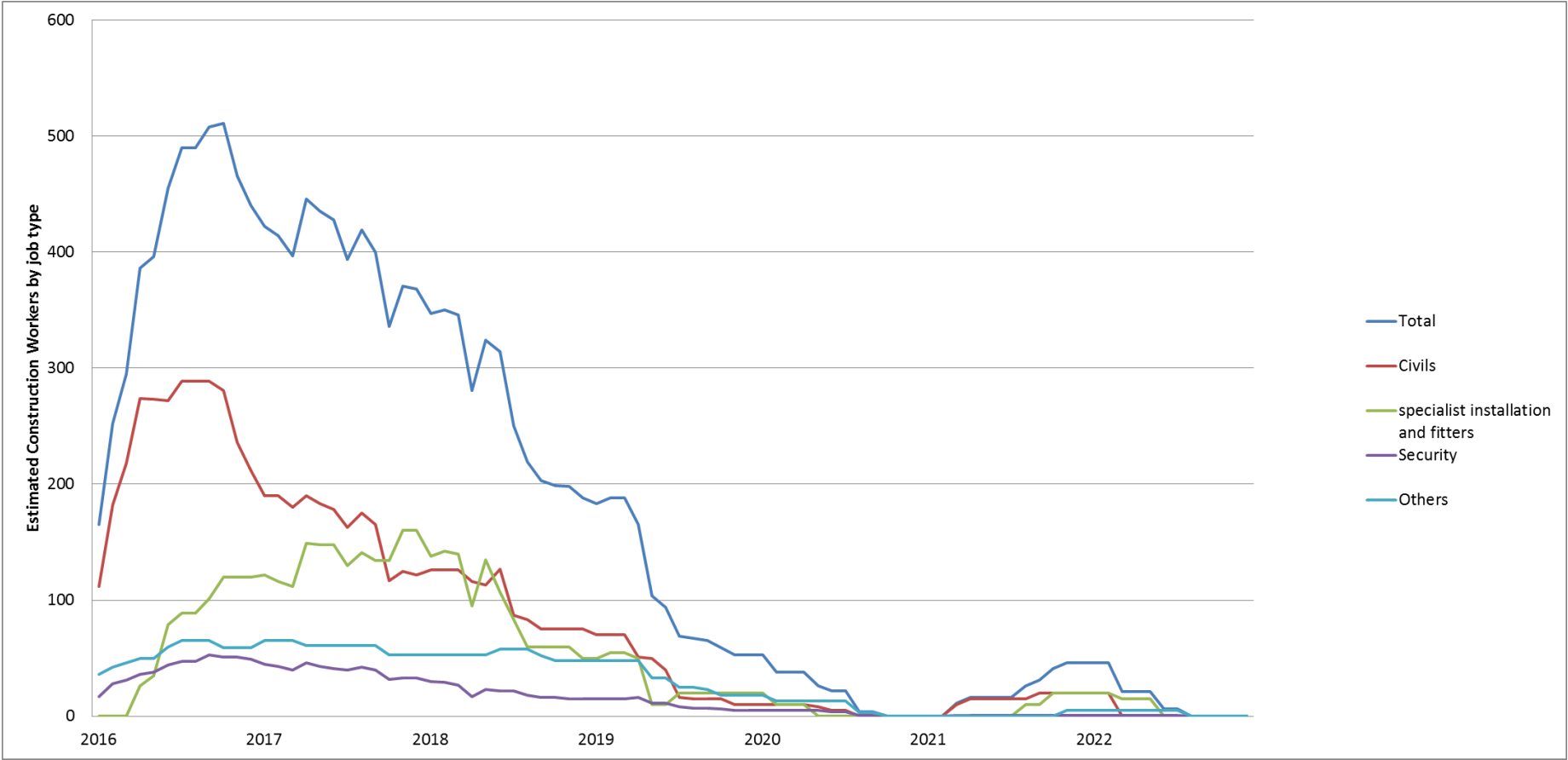
- all overhead line construction and removal;
 - peak staff demand 230 during July to November 2016;
 - average monthly staff demand estimated at 185 people per month (full time equivalent (FTE)) during the 55 months construction programme for this element;
- underground cable and CSE compound construction;
 - peak staff demand 285 during October 2016;
 - average monthly staff demand estimated at 155 people per month FTE during the 42 month construction programme for this element;
- substation construction;
 - peak staff demand 67 during June 2018; and
 - average monthly staff demand of 25 over the construction programme of 64 months for this element.

15.5.5 As construction activities are phased, and spread throughout the Proposed Development area, the number of employees at a single location and point in time would vary depending on the construction activities at that time. The actual number of employees at any one time and location would be very much less than the total number of construction employees.

15.5.6 The employment profile by job type is set out in **Inset 15.6** below.

¹ All employment numbers identified rounded to the nearest 5 as estimated numbers based on National Grid experience.

Inset 15.6: Total Employment Profile by Job Type



Economic Effects

Construction

- 15.5.7 During construction the Proposed Development would require investment in components and labour. These would be sourced from the local area and region as well as elsewhere in the UK and overseas.
- 15.5.8 At this stage of the Proposed Development, the costs are estimated. More detail regarding the geographical source of the labour, plant and capital equipment associated with the Proposed Development would emerge following the tendering and subsequent award of the Proposed Development element Contracts. Nonetheless, based on National Grid's previous experience in electricity infrastructure procurement, a ratio in the order of 65% civil engineering and construction spend to 35% plant and equipment spend can reasonably be expected.
- 15.5.9 The civil engineering and construction elements of the work would include a variety of activities, some of which (such as earthworks and ground preparation) are routine and others (such as cable jointing) are technically demanding and labour intensive. While National Grid cannot rule out the possibility that some overseas labour may be used for specific tasks (especially if an overseas bidder is awarded the contract) the working assumption is that all of these activities would be undertaken by UK based contractors using UK based labour. Amongst these activities are:
- construction of access, working areas and ground preparation, including temporary and permanent road and track building/widening, localised vegetation clearance and drainage and dewatering works;
 - delivery to and assembly of materials on-site;
 - trench and foundation excavation and piling;
 - tower construction, craneage and stringing of conductors;
 - delivery, construction and assembly of substations including switches, transformers and compensation equipment;
 - delivery of backfill and removal of surplus spoil from sites;
 - cable installation and jointing;
 - construction of CSE compounds, including terminal overhead line tower, downloads, access and fencing; and
 - re-instatement and returning of land to original condition.
- 15.5.10 Based on the assumptions set out above and the contract being awarded to UK based contractors and businesses, the Proposed Development is expected to generate a gross economic spend of some £315 million (calculated as being 65% of the total estimated capital cost of £485 million). This expenditure is net additional expenditure: it takes place within the UK, none of it would take place without the Proposed Development (which is location specific) and it would not be

offset by reductions of output elsewhere. Furthermore the economic effect of the investment would be multiplied by knock-on effects taking place within the UK economy. An indirect multiplier effect would be created as the UK businesses in National Grid's civil engineering supply chain spend money further down the supply chain with other firms to fulfil their contractual duties. An income (or induced) multiplier effect would be associated with those who derive incomes from the direct and supply chain effects of the investment spending their earnings elsewhere in the economy. Both of these effects would be positive and may be significant, although they have not been subject to quantitative estimation.

15.5.11 Setting aside construction and civil engineering elements, plant and equipment investment in the Proposed Development would be substantial and would include the following components, all delivered to site:

- tower materials, rolled, drilled and galvanised;
- conductors, optical fibre ground wires and other earth wires, all drummed and delivered to site;
- insulator strings, steel and aluminium conductor fittings, joint boxes;
- substation equipment, including switching, protection and control equipment, transformers, circuit breakers;
- cables, made up of copper core, cross linked polyethylene insulation, seamless corrugated aluminium sheath and PVC outer sheath;
- associated cabling, joints and terminations; and
- reactive power compensation units ('reactors'), at either end of underground cables.

15.5.12 Based on the Proposed Development assumptions, direct expenditure on plant and equipment for the Proposed Development would be expected to be in the region of £170 million (being 35% of the total). Some of this may be spent in the UK, either directly or indirectly, but past project experience suggests that most, if not all, first round suppliers are companies located outside the UK. Based on these assumptions, this expenditure creates no net economic effect either locally or at the UK level as it would pass to overseas beneficiaries.

15.5.13 Assessing the effect of the Proposed Development's construction on the local economy and supply chain, can be considered at the level of SICs (e.g. starting with the construction sector, then drilling down through the civil engineering sector, construction of utility projects, and construction of utility projects for electricity and telecommunications) and also at the national/regional levels. Estimated turnover in these sectors for the most recent year available is given in the **Table 15.32**.

Table 15.32 Turnover within Selected SICs at National and Regional Level, £ million

SIC	National Level (2011)	Magnitude of Effect	South West Region Level	Magnitude of Effect
Construction	£187,574	Negligible	£13,330	low beneficial

SIC	National Level (2011)	Magnitude of Effect	South West Region Level	Magnitude of Effect
Civil engineering	£38,246	low beneficial	£1,832	low beneficial
Construction of utility projects	£2,366	low beneficial	n/a	low beneficial
Construction of utility projects for electricity and telecommunications	£1,479	low beneficial	n/a	low beneficial
Source: Office of National Statistics, 2012 and 2013a. National Figures: Annual Business Survey, Section F Construction, release date November 2012, Regional Figures: Annual Business Survey, Section F Construction, Country and Region by Section and Division, release date July 2013 (Ref 15.15)				

- 15.5.14 The context of the estimated £315m Proposed Development spend within the UK construction sector (and its sub-components) can be seen by reference to the **Table 15.32**. At national level, the magnitude of the effect of the Proposed Development would be judged to be negligible within the construction and civil engineering sectors, and low in the more specialist areas of utilities and utilities for electricity and telecoms. At regional level the magnitude of the Proposed Development would be judged to be low for all sectors. However, in all cases, the sensitivity of receptors (supply chains and industrial sectors) would be considered to be either low or moderate – i.e. they are considered capable of adapting to changes in demand associated with the Proposed Development. This results in a **minor beneficial** effect in all cases excepting national construction, where the assessment is a negligible effect.
- 15.5.15 Contractors employed through the Proposed Development would spend money within the local economy and wider area (induced spend). This additional expenditure brought to the local economy would have positive effects on the economy in general and on those local businesses which are the beneficiaries of the additional spend. Indications from two of National Grid's contractors suggest that a reasonable estimate of daily expenditure (*'per diem'*) for each worker is £50. This money would be spent within the local economy on food, subsistence, accommodation and other out of pocket expenses, and applies only in the case of those non-local workers who are staying overnight in the Proposed Development area. For these workers, this expenditure represents additional spending in the Wider Study Area than would occur without the Proposed Development. For local resident workers, the expenditure is not additional, as their living expenses are incurred regardless of whether they are working on the Proposed Development. For migrant workers who live outside of the Proposed Development area but commute daily, the expenditure is also not additional, and in any case largely takes place outside of the Proposed Development locality, closer to the homes of the migrant workers. Where the expenditure is not additional it does not constitute an economic benefit.

- 15.5.16 For the workers associated with the ‘additional’ spend – i.e. the migrant workers ‘staying over’ rather than commuting in, the Proposed Development is expected to create some 220,000 working days (just short of 1000 man years of work). Applying the £50 per diem gives additional local expenditure of approximately £11 million during construction. This new local spend, would create a multiplier effect as cash is re-spent again and again. Even with the multiplier, expenditure would be small in comparison with existing economic activity (i.e. magnitude is negligible) and the local economy would be able to absorb the change without difficulty (sensitivity is negligible). The effect of this additional spend on local economies would also therefore be **negligible**.
- 15.5.17 At a lower level, for example, that of smaller economic sectors, and in particular, for individual small businesses located such that they might secure some of this additional trade, benefits would be more noticeable. Indicative analysis, using results from the Annual Business Survey (ONS, 2012 (Ref 15.15)), suggest that this order of expenditure (even without the effect of the multiplier) if spent exclusively in the restaurant and mobile food service sector, might support around 65 full time jobs in the locality of the Proposed Development, over the duration of a five year construction period. If spent exclusively in the accommodation and food service sector, almost 60 jobs could be supported. For these more focused activities, the effect of the expenditure would be greater than its effect at the wider economic level.

Operation

- 15.5.18 Once operational, the majority of component parts is expected to be procured from international suppliers, whilst operational works are likely to be specialist tasks which would be contracted to a network of national suppliers. The latter gives rise to the potential for some induced spend when contractors are undertaking works. Overall, the Proposed Development’s operational effects on the local economy are expected to be of negligible magnitude, Development’s operational effects on the local economy are expected to be of negligible magnitude, and as the local economy would have negligible sensitivity to any additional spending, the overall result of the additional spend would be **negligible**.
- 15.5.19 The Proposed Development, once operational, would strengthen the region and the UK’s grid system and provide economic and social benefits through energy security and the maintenance of ongoing and reliable power supplies to both commercial and domestic customers. These benefits are not scoped into this assessment, although further information on the need case is provided in **Volume 5.2.1**.

Decommissioning

- 15.5.20 This assessment is undertaken on a consistent basis with the other ES chapters and assumes a scenario whereby all components of the Proposed Development would be removed. The economic effects would be broadly consistent, though of lesser magnitude, with the construction of the Proposed Development. If a less intensive approach to decommissioning is used the employment or economic effect would be less than those reported here.

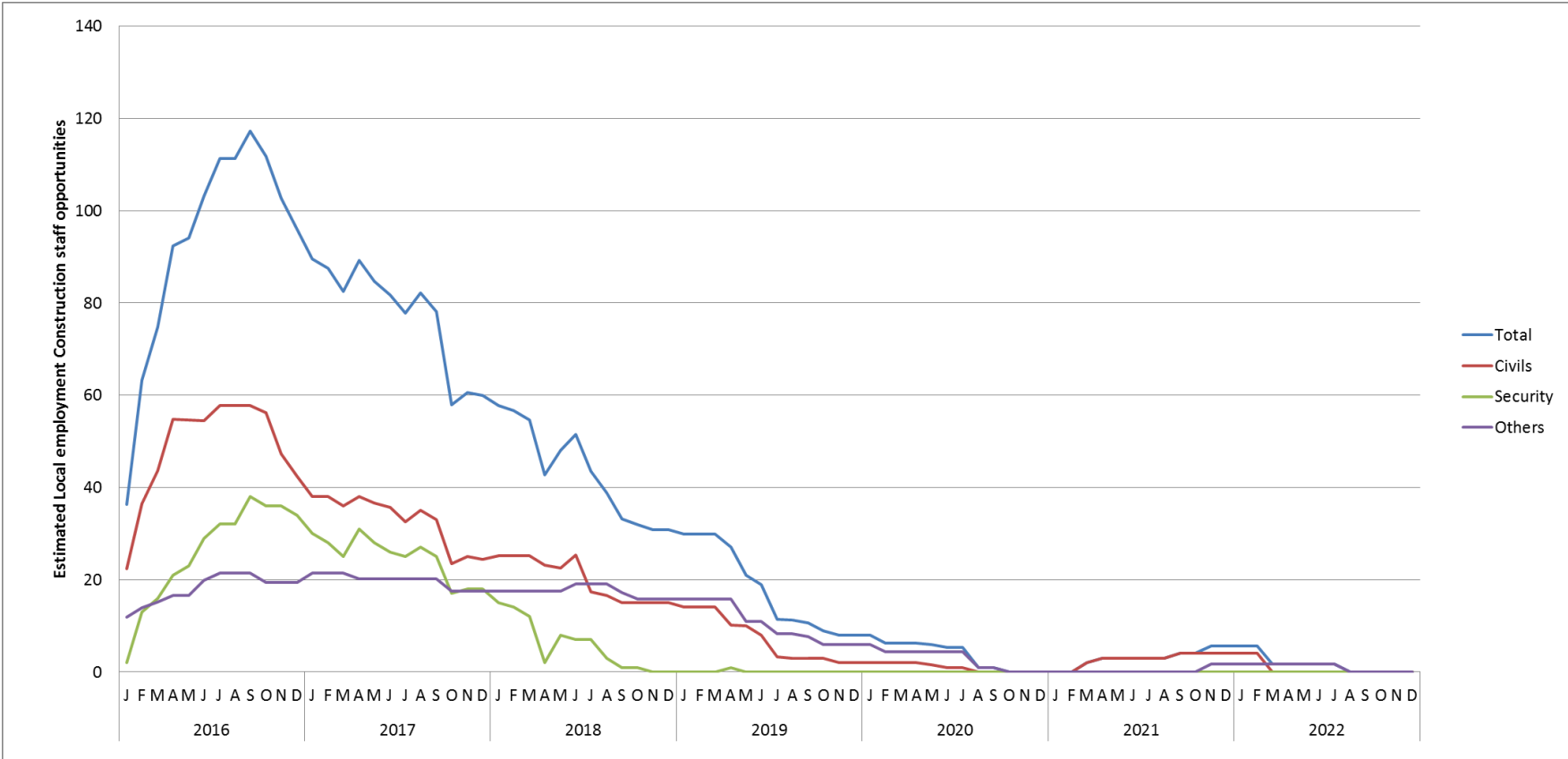
Employment Opportunities and Local Labour Market

- 15.5.21 Details of the local labour market in the Wider Study Area are given in section 15.3 above.

Construction

- 15.5.22 The demand for labour created by the Proposed Development during its construction period is expected to be concentrated over the first 3 years with a proposed start date of 4 January 2016. The majority of employment activities would require trained specialists who are qualified to work on National Grid sites. Therefore these workers are often sourced from an existing pool of approved contractors. These pre-trained specialists are located throughout the UK and move from site to site as new projects are developed. In addition to these staff, whose continued employment would create a positive employment and induced spending effect at the national level, there would be scope for the employment of locally based people in less technically demanding occupations. Based on previous experience, National Grid has identified that in addition to the itinerant workforce (some of whom may by coincidence be resident in the vicinity of the Proposed Development area), there are likely to be a number of employment opportunities for people within the five Local Authorities. A breakdown of where local employment opportunities exist across the employment types shows that on a monthly basis between 8-25% (averaging at 17%) of the workforce onsite could be from the local labour market. This share of employment expected to be distributed amongst local people is equivalent to an estimated 240 person years of work. The breakdown of local employment opportunities over the construction programme, by employment type is shown in **Inset 15.7** below.

Inset 15.7: Indicative Local Employment Profile of the Proposed Development



- 15.5.23 This level of local employment could result in the average monthly local job demand being approximately 60, for the first four years of the Proposed Development, with an estimated peak demand of approximately 120 jobs. Whilst the effect of securing a job could be beneficial at the individual level (see below), this number of jobs would equate to less than 1% of the number of people out of work within the five local authority areas. Sensitivity being judged low and magnitude of the wider labour market being judged negligible, the overall effect on employment across the combined local authorities would be considered **negligible**.
- 15.5.24 An analysis of the type of jobs likely to be available and the type of jobs currently sought by job seekers allowance claimants (Ref 15.15) within the affected Local Authorities indicates a potential 'fit'. For example, there are expected to be an average of 25 security posts to be filled by local people over the first two years of the construction programme. With approximately 140 people reporting they are looking for security work, just under a fifth of these might benefit. Most of the other construction related jobs recruited locally would be in occupations such as labourer in building and woodworking trades (around 275 claimants across the 5 LA areas identified this as their sought after occupation), landscaping (175 said they were looking for gardening and grounds work), HGV driver (65 claimants stated this as their preferred occupation), mobile machinery operator (5 claimants identified this occupation) and carpenters. There may also be opportunities for scaffolders and riggers (20 interested), steel erectors (5 reported this) and other construction trades. **Table 15.15** shows the occupations sought by out of work benefits claimants.
- 15.5.25 In conclusion, while the overall effect on unemployment and the labour market is negligible, the Proposed Development would offer significant opportunities for certain employment types, such as security and labouring in building and woodworking trades. The scale of the local labour market, namely in terms of the number of job seekers across the Proposed Development area results in the labour market being of negligible sensitivity to the potential changes and job creation arising from the Proposed Development. At the level of the individual who is successful in securing a contract, the effect would be a beneficial one, while considering the receptor to be the group of unemployed security workers or building labourers as a whole (some of whom would not be successful in securing work on the Proposed Development) the effect is judged to be **minor beneficial**.

Operation

- 15.5.26 Once operational the Proposed Development is not expected to result in a significant effect on the local employment market. This is due to the small demand for employees and the likelihood that the operational maintenance workforce would be sourced from existing National Grid contractors.

Decommissioning

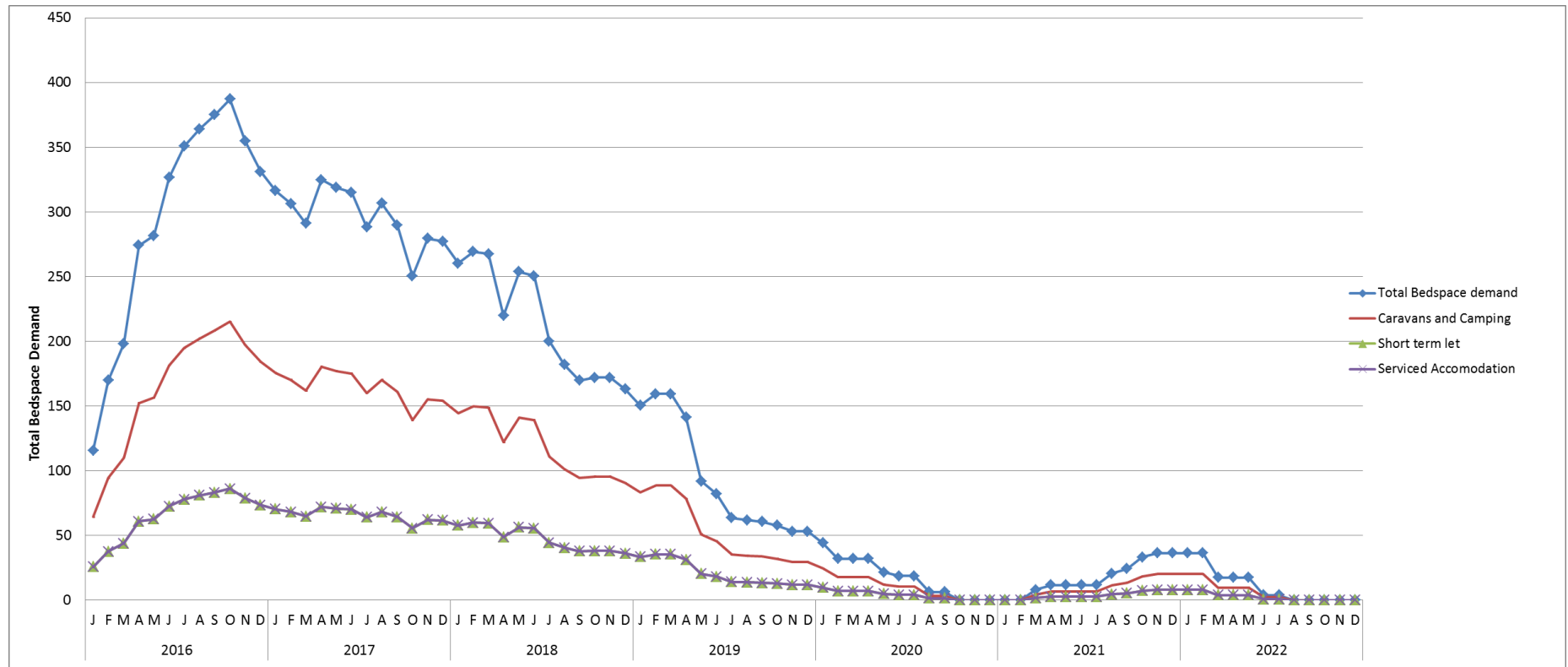
- 15.5.27 Should the Proposed Development be decommissioned, this would require a similar workforce to that for construction, which could be supported by some local labourers. Therefore the same **negligible to minor beneficial** effect is assumed.

Employee Accommodation

Construction

- 15.5.28 The in-migration of staff to work on the Proposed Development would place a demand on accommodation within the Proposed Development area. Available bedspaces, taking into account existing occupancy rates, are identified in section 15.4.
- 15.5.29 From experience, National Grid anticipates that of the non-local staff required during construction of the works, the following percentage breakdown of demand on different accommodation types is likely:
- 50% stay in caravan and camping accommodation;
 - 20% stay in short-term let properties;
 - 20% stay in serviced accommodation (B&Bs, hotels); and
 - 10% travel to the area from home.
- 15.5.30 Based on the employment profile for the Proposed Development the demand on accommodation would be as shown on **Inset 15.8** below.

Inset 15.8: Accommodation Bedspace Demand



- 15.5.31 This identifies a highest overall accommodation bedspace demand of 387 during the off peak month of October 2016. The average overall bedspace demand during the peak tourism season (April to September) during 2016 is 329 and 2017 is 307. Camping and caravan facilities are in greatest demand with the highest demand projected to be 215 and the average peak season bedspace demands projected to be 183 for 2016 and 171 for 2017. **Table 15.33** considers the highest estimated bedspace demand, and highest peak season demand from the Proposed Development against the corresponding available peak season bedspace by accommodation type, having accounted for current occupancy rates.

Table 15.33 Accommodation Bedspace Demand for the Proposed Development compared with Availability of Registered Accommodation

Area	Available Bedspaces in Serviced Accommodation		Available Bedspaces in Non-Serviced Accommodation ('Collective Accommodation Establishments')			
	Hotels and Similar Establishments		Holiday Dwellings		Tourist Campsites	
	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
October 2016 Proposed Development demand	86		86		215	
2016 peak season average	73		73		183	
Bristol	4,595	6,330	182	250	25	34
South Gloucestershire	2,693	3,710	42	58	0	0
West Somerset	1,216	1,675	3,883	5,350	2,020	2,783
Sedgemoor	1,163	1,602	2,629	3,623	9,351	12,883
North Somerset	1,880	2,590	1,368	1,884	934	1,287

- 15.5.32 **Table 15.33** demonstrates that the accommodation demands of the workforce can be satisfied within the existing accommodation stock without displacing existing tourist users. This represents an impact of negligible magnitude. The Proposed Development is considered to have a **negligible** effect on accommodation availability.
- 15.5.33 At the local level, the local authorities of Bristol and South Gloucestershire have very limited availability for tourist campsites. However, the distribution of the workforce throughout the Proposed Development area means this can be effectively managed. Whilst it has not been considered within this assessment, there would likely be some latent availability of informal accommodation where members of the public would be willing to rent space to contractors.

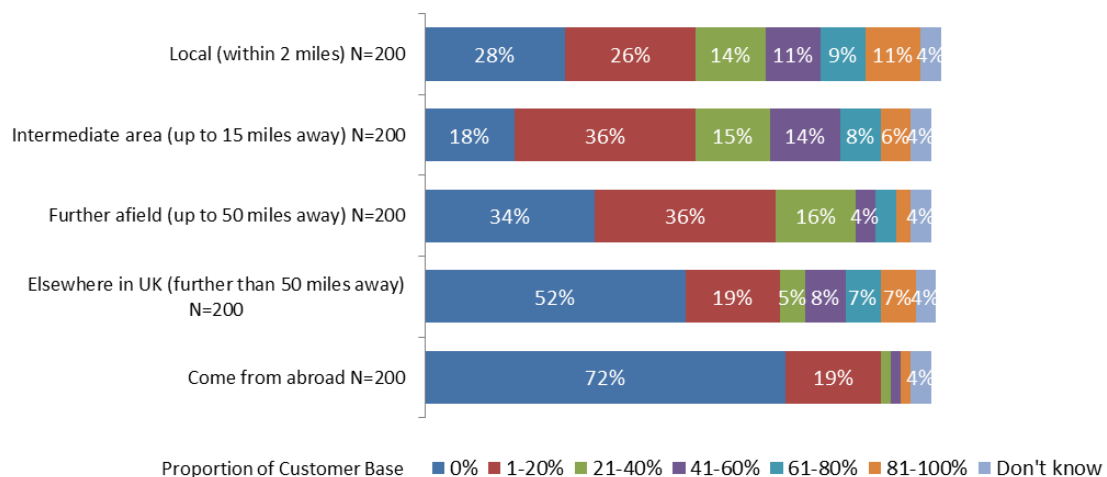
Effects on Local Businesses

- 15.5.34 The Proposed Development has the potential through the investment identified above and through induced expenditure from temporarily resident contractors to result in positive benefits for some local businesses. Equally, concerns have been raised by stakeholders that there could be negative effects on businesses, in particular tourism businesses in the central and southern parts of the study area and employment allocations in the Avonmouth/Severnside area.

Business Survey

- 15.5.35 Two rounds of business surveys have been carried out to better understand the perceptions of business owners and directors whose business operations may be affected by the construction and/or operation of Hinkley C Connection Project. The purpose of the surveys was to establish the businesses' existing awareness of the Proposed Development and their perception of effects, based on any extant knowledge that they had of it (at the time of the survey).
- 15.5.36 The first round was undertaken of 34 randomly selected tourism, agriculture and leisure businesses identified through Dun and Bradstreet (D&B) Market Insight databases (Ref 15.11) as being located within 2km of the Proposed Development. A further round of surveys was undertaken of 166 additional businesses from all industrial classifications (SIC codes) within 2km of the Proposed Development. The questionnaire for the second round was the same as the first. Combined results from these two business surveys are presented in the paragraphs below.
- 15.5.37 Each business was asked about its customer base, to provide information about the reliance of the businesses on customers from the local area (within 2 miles of the business), from the immediate area (up to 15 miles away), from further afield (up to 50 miles away) and from elsewhere in the UK (further than 50 miles away). The aggregated findings for all 200 businesses are presented in **Inset 15.9** below.

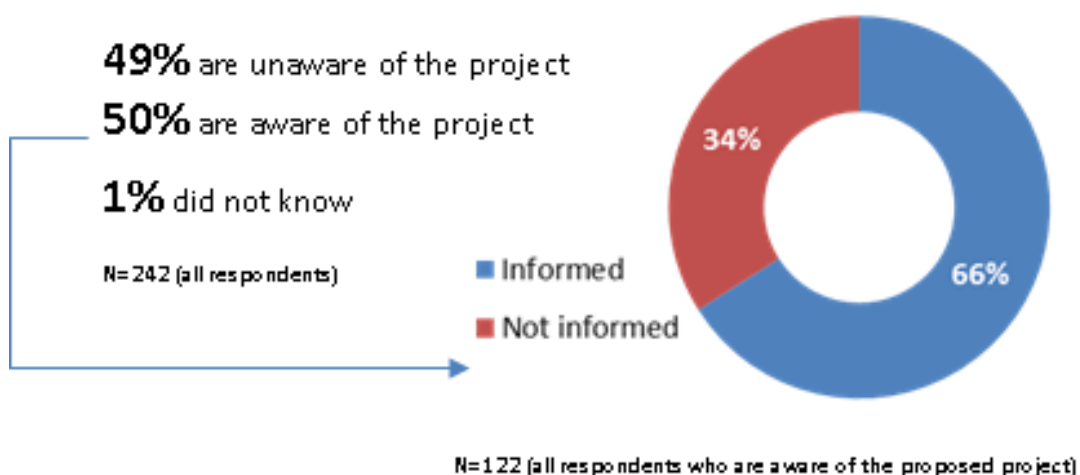
Inset 15.9: Customer Base of Local Businesses (Aggregated findings of the 200 Businesses Surveyed)



N=200 (all respondents)

- 15.5.38 These data show that the majority of businesses are reliant on customers located within 50 miles of the business location. However, although 20% of businesses estimate that 60-100% of their customers come from the local area, there is a wide geographic spread from which businesses' customers come. This indicates that while clearly local customers are of value to the businesses surveyed, many businesses are reliant upon customers from across the UK.
- 15.5.39 68% of all businesses interviewed estimated that 61-100% of their customers are returning or repeat customers.
- 15.5.40 Prior to being told that the survey related to the Proposed Development, businesses were asked to identify the major issues facing their business over the next 12 months. The majority of businesses surveyed cited the UK economy and economic outlook (28%), increased costs (17%) and increased competition (10%). No other key issues emerged. Notably, only one respondent identified National Grid Infrastructure specifically as a major issue facing his/her business over the next 12 months.
- 15.5.41 When prompted in a separate question, 74% of respondents told interviewers that they were aware of the work being proposed, while 27% said they were not aware. 57% of businesses that were aware of the Proposed Development said they felt informed about the Proposed Development. This is shown in **Inset 15.10**.

Inset 15.10: Awareness of the Proposed Development

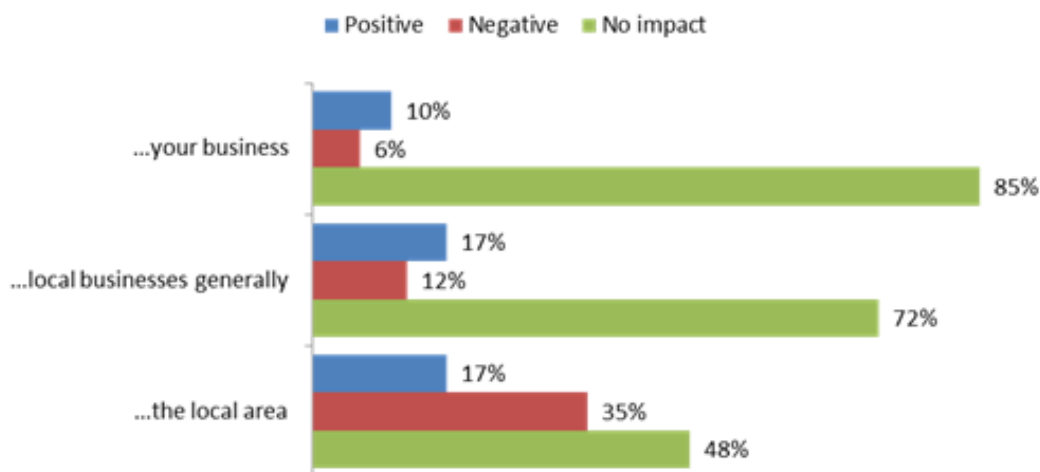


- 15.5.42 Businesses were then asked if they perceived that the Proposed Development would have a positive, negative or no impact on the interviewee's business, local businesses generally and the local area. The results are shown in **Table 15.34** and **Inset 15.11**.

Table 15.34 Findings from Primary Survey Evidence about Local Business Effects

Question	Response	All 200 Surveyed Businesses
If the Proposed Development was built, do you think it would have a positive impact, a negative impact or have no impact on your business?	Positive	10%
	Negative	6%
	No impact	85%
If the Proposed Development was built, do you think it would have a positive impact, a negative impact or have no impact on local businesses generally?	Positive	17%
	Negative	12%
	No impact	72%
If the Proposed Development was built, do you think it would have a positive impact, a negative impact or have no impact on the local area?	Positive	17%
	Negative	35%
	No impact	48%

Inset 15.11: Perceived Effects of the Proposed Development



- 15.5.43 **Table 15.34** and **Inset 15.11** indicate that the majority response to all questions was “no impact”. In relation to impacts on their own business, a greater percentage of respondents thought the Proposed Development could have positive impacts (10%) than negative (6%). This theme was also apparent when considering local businesses generally. When asked what impact the Proposed Development would have on the local area, over a third of respondents thought that the Proposed Development would have a negative impact. This suggests that whilst there is a greater level of concern over impacts to the local area, respondents tend to believe any such impacts would not affect their own business.
- 15.5.44 The most commonly anticipated negative effect from the Proposed Development related to traffic and potential for disruption on roads. This is addressed in **Volume 5.12.1, section 12.5** (Traffic and Transport). The respondents that predicted a negative effect on their business as a result of the Proposed Development most commonly anticipated that it would last while the building work is taking place or for up to three months. The respondents which predicted a negative effect on the local area as a result of the Proposed Development most commonly expected it to last permanently.
- 15.5.45 The most frequently cited positive effect of the Proposed Development was increased jobs in the area. The respondents which predicted a positive effect on their business as a result of the Proposed Development most commonly expected it to last for up to 10 years or permanently. The respondents which predicted a positive effect on the local area as a result of the Proposed Development most commonly expected it to last for the foreseeable future.
- 15.5.46 The survey results imply that whilst there may be some that benefit and others are adversely affected, the most common perception is that the Proposed Development would have no impact on local businesses. Clearly, there are individual business variations but from a broad socio-economic perspective reflecting the diversity of businesses in the local area economy a low sensitivity is considered appropriate.
- 15.5.47 Of the 20 respondents who anticipated direct impacts on their business, the majority predicted that turnover would change by 5% or less. The most commonly

identified durations of negative effect on individual businesses was up to 3 months, whilst building works took place or permanently.

- 15.5.48 Based on the survey results, the Proposed Development would have a **negligible** effect overall on the local economy. The survey highlights that at the individual business level both positive and negative effects could occur, but the overriding perception is that the Proposed Development would not affect individual businesses (i.e. **negligible** effect).

Land Uses

Construction Effects – Business Operators

- 15.5.49 The construction of the Proposed Development would require the temporary use of land for the construction corridor, access roads, construction compounds and lay downs areas. The most sensitive part of the Proposed Development, in terms of effects on non-agriculture and tourism-related businesses is Section G, Avonmouth Severnside. Through the routing process for the Proposed Development, various route options through Avonmouth were considered, and the selection made was based principally on identifying a route which minimises effects on existing and planned business activities within the area. The Avonmouth/Severnside area includes land parcels which have been committed for development of certain land uses and parcels which are covered by the extant 1957/58 planning consent. The Proposed Development route passes through areas of additional development land and one parcel covered by the 1957/58 consent which is currently owned by Severnside Distribution Land Limited. In consultation with the landowners, South Gloucestershire and Bristol Councils, National Grid has sought to identify a 400kV overhead route which minimises effects on these land parcels. In accordance with National Grid's Development Near Overhead Lines information document (July 2008 (Ref 15.22)) for development in the vicinity of overhead lines, the route has been changed to avoid potential effects on the development of this areas coming forward in accordance with the latest masterplan design provided by the landowner..
- 15.5.50 During construction, access is required to the construction footprint with potential temporary effects on directly affected businesses. For the most part, consultation with landowners by National Grid land agents has highlighted that this is not considered to significantly affect the long-term functionality of the businesses. Short-term effects caused by severance or loss of functionality would be compensated in accordance with National Grid statutory obligations; as such a corresponding loss within the local economy would not occur.
- 15.5.51 However, four businesses have the potential to be significantly affected in terms of the business functionality due to the scale of land take in their immediate area. Whilst effects on business operations/functionality would be appropriately compensated, these have been assessed in relation to their potential for indirect effects on local employment as considered further in the following sections.
- Cripps Farm - an agricultural and tourist accommodation business near East Huntspill with four to six employees (plus contractors) (pers comm National Grid Land Agent), which is considered to be of low sensitivity given its scale of employment. Direct consultation has been undertaken with the landowner, and

although the proposed construction corridor would be located directly within the operational grounds of the agricultural part of the business, this represents the landowner's preferred alignment. The temporary disturbances to the agricultural operations are not considered likely to result in a significant effect on current levels of employment. Whilst the construction could temporarily affect the tourism business, this is unlikely to result in a reduced level of employment as the tourism facility can continue to operate and therefore would be subject to an impact of negligible magnitude and a **negligible** effect.

- Paragon Vehicle Services Limited – is a moderately sensitive business (as it employs an estimated 300 people (pers comm. National Grid Land Agent) including contractors) and provides automotive services. This is a locally important business and employment provider. If preferred route (Option A) (Portbury) is selected, impacts on the business are not anticipated (i.e. negligible magnitude) and there would be **negligible** effect. If alternative route (Option B) (Portishead) is selected, the disturbance expected to the business during construction works (as per consultation with the General Manager) presents risk in terms of securing future contracts, and thus continuing with current employment levels. This equates to an impact of moderate magnitude and an effect of **moderate adverse** significance prior to mitigation.
- CJ Associates – a business in Avonmouth with approximately 25 employees (Ref 15.13) is considered to be of low sensitivity given its scale of employment. High magnitude effects would be likely to occur as a result of the Proposed Development being located within the plot of the building that the business owns and directly affecting its ability to function (and therefore continue to provide employment). National Grid's compensation to CJ Associates would enable the relocation of the business elsewhere within the local area which *could* avoid employment loss and consequently there would be **negligible** effect. However, as the effect on employment is reliant on the business operator's decisions, it is not guaranteed. Should employment loss occur, this would equate to an unmitigated effect of **moderate adverse** significance on the functionality of this business.
- Yearsley Group - Premises on Garonor Way in Portbury is a low sensitivity business receptor given its scale of employment. The business has 32 direct employees and the tenants at the site have additional employees (pers comm, Yearsley Group). The Proposed Development may constrain future expansion of the Yearsley Group's activities at this site. There are no current permissions in place for the expansion and therefore this is considered to have an impact of negligible magnitude and likely **negligible adverse** effect on the business and its employment.

15.5.52 Additional direct effects are likely on approximately five of the businesses located along Third Way in Avonmouth. These businesses are of low sensitivity with low magnitude impacts as a result of disruption to access points for their premises. Taking account of compensation from National Grid there would be **negligible adverse** effects.

15.5.53 There are likely to be indirect effects on businesses to the west of Nailsea where the undergrounding of the W Route would be undertaken in the road network.

Roads directly affected include Blackfriars Road (approximately 22 businesses including West End Trading Estate), the west end of North Street (approximately 20 businesses) and the north of Engine Lane (approximately two businesses). The businesses are of low sensitivity. The Proposed Development would maintain access to these businesses throughout construction and therefore temporary effects are considered to be low magnitude and not likely to affect current employment levels and there would be **minor adverse** effects.

- 15.5.54 Notwithstanding the individual effects on the four businesses listed above, within the context of the 1,125 businesses located within the Local Area of Influence and the 5,876 businesses located within 2km of the Proposed Development, the overall socio-economic effect of the Proposed Development on business operators is **negligible**.

Operational Effects – Business Operators

- 15.5.55 Once operational, the quantity of land removed from its current land use is notably reduced compared to the construction phase. Within the overhead line corridor, direct land take would be limited to the footprint of the newly erected pylons. Within the underground cable corridor, the quantity of land directly affected is driven by the area required for the CSE compounds or CSEPPs. The footprint of the three CSE compounds and Sandford Substation would require permanent land take. Where pylons are removed from the F Route land would be returned to its current land use and this may offer minor benefits some business operators. Due to National Grid's compensation mechanism, there are unlikely to be significant effects on the functionality of any businesses, except for CJ Associates, who would have to relocate as a result of the Proposed Development. The impact is high magnitude during construction and therefore a **moderate adverse effect**, which would persist, unless, the business relocates within the area (in which case the operational effects would be **negligible**).
- 15.5.56 For business with permanent infrastructure on-site or oversailed by the Proposed Development, rights would be needed to allow for the installation of the infrastructure and to provide for future access for maintenance. Discussions are continuing to reach agreements with the businesses and landowners. If an agreement cannot be reached then the Development Consent Order (DCO) would provide for the compulsory acquisition of any necessary rights. In acquiring the rights needed, through agreement or compulsorily, restrictions may be placed on what can be developed above (underground cables) or beneath overhead lines e.g. tree planting. Any such restrictions are not expected to limit the current business land use functions along the Proposed Development corridor and the operational effects would be **negligible**.
- 15.5.57 Some business operators on Third Avenue have identified that these restrictions could place limitations on their business or require a change of operational practice; for example through limiting the use of cranes and high lifting equipment near the proposed 400kV overhead lines. National Grid would seek to reach agreement with these businesses to avoid effects that could influence business functionality and the operational effects would be **negligible**.

Construction Effects – Agricultural Land and Operations

- 15.5.58 During construction, access is required to the construction footprint with potential temporary effects occurring to directly affected agricultural operations. In most cases, consultation with landowners by National Grid land agents has highlighted that this is not considered to significantly affect the long-term viability or functionality of the affected operations. Short-term effects caused by severance or loss of functionality would be compensated in accordance with National Grid statutory obligations; as such a corresponding loss within the local economy would not occur.
- 15.5.59 However, three agricultural operations have the potential to be significantly affected in terms of their functionality due to the scale of land take in their immediate area. Whilst effects on agricultural operations/functionality will be appropriately compensated, these have been assessed in relation to their potential for indirect effects on local employment as considered further in the following sections:
- Droveway Farm, an agricultural business with less than five employees (Ref 15.13), located near Sandford is considered to be of low sensitivity due to the scale of employment. High magnitude impacts would be likely as a result of the infrastructure proposed directly over existing farm buildings. **Moderate adverse** effects are therefore expected on the ability of this business to function and continue providing employment. National Grid is exploring options with the landowner to relocate this business and avoid employment loss, which could reduce the effect to **negligible**. However, as the effect on employment is reliant on the operators' decisions, it is not currently guaranteed.
 - Nut Tree Farm, a dairy business with <five employees (Ref 15.13) located near Barton is of low sensitivity due to the scale of employment. Whilst construction of the Proposed Development would be likely to sever the business and its activities, compensation from National Grid (to facilitate a change in farming practices for the three year undergrounding construction period) would maintain the functionality of the business such that there should be impact of negligible magnitude and **negligible** effect on employment. Once the undergrounding is complete, the practices could return to those adopted prior to construction.
 - Webbington Farm, a beef cattle and holiday lettings business with less than 5 employees (pers comm National Grid land agent) (three of whom work part time) and 3 holiday cottages for let (with consent for two further cottages) is of low sensitivity due to the scale of employment:
 - Construction of the Proposed Development would sever the agricultural business and its activities, however compensation from National Grid (to facilitate a change in farming practices for the three year undergrounding construction period) would maintain its functionality such that there would be an impact of negligible magnitude and **negligible** employment effect. Once the undergrounding is complete, the practices could return to those adopted prior to construction.
 - The alternative farming practices employed in the agricultural business (due to the undergrounding) are also likely to adversely influence the popularity of the holiday lets, representing an impact of moderate adverse magnitude. There would be **minor adverse** effects on the viability of this business during construction, if unmitigated.

- 15.5.60 Overall, the socio-economic effect of the Proposed Development on the agricultural sector is **negligible**, when these effects are considered within the context of the 70 agricultural operations located within the Local Area of Influence and the wider agricultural economy of the area.
- 15.5.61 In relation to the potential effect on BMV agricultural land, a worst case scenario would be that all agricultural land within the Limits of Deviation would be temporarily affected during construction. If so, approximately 551ha of BMV would be temporarily affected which is approximately 10% of the BMV land within the Local Area of Influence (250m around the Proposed Development). The proposed construction corridor would temporarily affect approximately 390 ha of BMV land which equates to approximately 7% of the BMV land within the Local Area of Influence. Of the BMV land within North Somerset and Sedgemoor this is a temporary effect to less than 1% of the BMV land grades 1-3 within these two Local Authority areas. Overall, this is considered an impact of negligible magnitude and considered to be a **negligible to minor adverse** land use effect. It should also be noted that landowners would be compensated for the land being taken out of production temporarily, such that there would be **negligible** economic effects.
- 15.5.62 Construction would be undertaken in accordance with the Soil Management Plan produced for National Grid and the CEMP. The reinstatement of land following construction is an integral part of the Proposed Development construction programme. This is considered sufficient to return the land used temporarily and affected by construction to its current quality.

Operational Effects – Agricultural Land and Operations

- 15.5.63 During operation, the area of land subject to permanent change of use is much smaller than the quantum of land required for construction. Within the overhead line corridor, direct land take is limited to the footprint of the newly erected pylons. Within the underground cable corridor the quantity of land directly affected is driven by the area required for the CSE compounds, joint bays and some areas where easements will be implemented. The footprint of the three CSE compounds and Sandford Substation would require permanent land take.
- 15.5.64 Along the route, some agricultural operations would be affected by direct land take once the Proposed Development is operational as a result of the pylon, substation and CSE compound footprints, and others would be oversailed by the Proposed Development. However, much of the remaining land around the direct footprint of the development would be maintained in productive use. Easement arrangements would be agreed to allow access for maintenance. Any direct land take effects, and associated losses in productivity, resulting from the Proposed Development would be compensated in accordance with National Grid's statutory duties. This would mitigate potential financial losses as a result of the Proposed Development and losses connected to land take and associated losses in productivity are therefore not considered likely to have significant effects. Some agricultural operations may also benefit from the removal of the existing 132kV infrastructure.
- 15.5.65 Once operational the Proposed Development is considered to have a continued permanent socio-economic effect on the functionality of one agricultural operation, Droveway Farm, as land essential to the farming practice would be permanently

acquired for a substation and the CSE compounds. The agricultural land which would be temporarily affected during construction would be returned to its current quality. Therefore, once operational, the area of agricultural land affected by the Proposed Development is reduced to the footprint of the pylons, CSE compounds and substations.

- 15.5.66 In relation to agricultural employment, the operation of the Proposed Development is unlikely to have a significant effect. This is because the operations affected are either of a scale that there is sufficient capacity within the remaining farm operation area to maintain the current level of employment for the construction period or they are owner/farmer operations and would be sustained through the construction period by the compensation provided.
- 15.5.67 With respect to the three agricultural businesses identified above, **minor to no significance** effects are anticipated on Nut Tree Farm and Webbington Farm. As discussed above, if Droveaway Farm is not relocated then there could be **moderate adverse** effects on the ability of this business to function and continue providing employment. If the business is relocated then there would be effects of **negligible** significance on this business during the operational phase of the Proposed Development.
- 15.5.68 Overall, the Proposed Development is anticipated to have a **negligible to minor adverse** socio-economic effect on agricultural operations and employment of the area in which the Proposed Development is located.
- 15.5.69 In relation to the potential effect on BMV agricultural land, the mitigation proposed is considered sufficient to return the land affected during construction to its current agricultural quality and there would be **negligible** effect during operation of the Proposed Development.

Planning Allocations and Permissions

- 15.5.70 The Proposed Development could have direct effects on eight Planning Allocations and two of the identified planning permissions. The assessment has addressed the 57/58 planning permission with the Avonmouth and Severnside Enterprise Area. A full breakdown of these is provided in **Table 15.35**. Decommissioning would return directly affected land to the land use appropriate at the time of decommissioning and are considered to have negligible socio-economic effect. This section considers those planning allocations and permissions that would be directly affected by the Proposed Development, whereas other allocations in the Wider Study Area are also considered in the cumulative effects assessment in **Volume 5.17.1, section 17.3**.
- 15.5.71 The Avonmouth and Severnside Enterprise Area is a regionally important allocation which is directly affected by the Proposed Development. The nature and magnitude of the effects within this allocation based on Ref 15.21 is outlined in the following paragraphs to provide context for the assessment in **Table 15.35**.
- 15.5.72 The full extent of the Order Limits has been taken into account in order to make a worst case assessment of the effect of the Proposed Development on the Enterprise Area. Approximately 5% of the total Enterprise Area allocations interact with the Order limits. This is distributed as:
- currently developed land - 25ha of currently developed land falls within the Order Limits, which comprises only 3.1% of the total developed land within the allocation. Approximately 12ha of this is Bristol Ports or related uses (which is

5% of the Bristol Ports area); 10ha is within the area allocated for Mixed B1/B2/B8/*Sui Generis* Developments (2.2% of this use); and the remaining 1ha is an open storage area (or 3% of this use). There are two directly affected planning permissions within this general area which are addressed separately within **Table 15.33**;

- ecological mitigation sites – approximately 11ha (5.8% of this use) are covered by the Order Limits;
- additional development land – approximately 7ha (or 11.1% of this use) are covered by the Order Limits; and
- undeveloped land within 1957/58 Consents – approximately 0.8ha (or 0.2% of this use) are covered by the Order Limits.

15.5.73 There is a small land take within the Enterprise Area overall and each of its component uses/allocations. In reality, a notably smaller area will be required by construction works than represented by the Order Limits. Once operational, the area of land potentially constrained by the Proposed Development will be restricted to that within the easement and the footprint of the pylons within the development areas.

15.5.74 The plots of land most affected by the order limits are Additional Development Land Parcels 3 and 4 and undeveloped parcel of 1957/58 permissions (Ref 15.19, Figure 2.2). These plots will have a single pylon within the areas and the overhead lines. Ref 15.21 highlights density assumptions for development as follows, *“Development across the area will occupy approximately 85% of each development plot”* and building footprint densities of *“1957/57 Consented land – a development density of 35% has been adopted to reflect the density of existing schemes in the area”* and *“Other greenfield development land – a lower density of 30% is assumed to reflect the need to retain important site features, incorporate green infrastructure corridors and provide ecological and flood risk mitigation.”*

15.5.75 Based on the above plot densities the affected parcels of the Avonmouth and Severnside area are likely to include the following amount of building space:

- parcel 3 – 1.7 ha;
- parcel 4 – 1.8 ha; and
- parcel 2S (57/58 consent) – 5.9 ha (although the design has been developed in response to a masterplan design provided by the landowner).

15.5.76 The Proposed Development, which includes a single pylon and the overhead lines within each of these plots, would not preclude development of these parcels or the socio-economic objectives of the Avonmouth and Severnside Enterprise from area being achieved. The Proposed Development is likely to influence the layout of the plots, as National Grid prefers no buildings within the easements of overhead lines. There is considered to be sufficient opportunity for the Proposed Development to be taken into account in the design and layout of these plots which are not expected to come forward until 2027-2030 (Ref 15.23). The Plot 2S (57/58 consent) can be progressed at any time and has therefore been considered in section 15.5 (Construction Effects – Business Operators).

- 15.5.77 Consideration of the effect the Proposed Development could have on Ecological Mitigation areas have been considered in **Volume 5.8.1** (Biodiversity and Nature Conservation).
- 15.5.78 Based on the above assessment, it is considered that the Proposed Development will have a low magnitude impact on the Avonmouth and Severnside Enterprise Area and its ability to achieve the intended socio-economic objectives. The area is considered to be of moderate sensitivity. Consequently, there would be a minor adverse effect (see **Table 15.35**).

Table 15.35 Planning Allocations and Permissions Directly Affected during Construction and/or Operation of the Proposed Development

Planning Allocations/permission	Potential to be Directly Affected	Sensitivity	Nature of Effect Expected	Magnitude	Significance
The Royal Ordnance Factory (ROF) Puriton Energy Park Supplementary Planning Document (SPD) (Sedgemoor District Council, Adopted 28 th March 2012) and subsequent outline planning Applications (April 2013)	The 400kV route and the existing 132kV route currently cross land included within the SPD boundary but not allocated for development. The existing 132kV overhead line oversails one corner of the area included within the outline planning permission boundary	Moderate sensitivity	The existing 132kV overhead line oversails one corner of the land included within the outline planning permission. This corner is currently a pond and vegetative area and is proposed to remain as such in the outline planning permission. Two proposed pedestrian/cyclist recreational routes to the site are oversailed by the existing 132kV line and would be oversailed by the proposed 400kV line. Good construction management would minimise construction and decommissioning effects on these areas. The Proposed Development should not prevent the development of the ROF or constrain potential future land uses. The proposed access road to the south west of the Energy Park (as set out in the April 2013 applications) of would be directly affected by the order limits.	If the recreational routes are developed and in use at the time of construction/decommissioning, a low magnitude adverse effect would be expected. Negligible operational effects are anticipated on the viability to develop this allocation or outline consent.	Minor adverse effects during construction and decommissioning. Negligible effect during operation.
Avonmouth and Severnside Enterprise Area	Overhead lines would be constructed within and	Moderate sensitivity	See analysis above.	Low magnitude effect expected during construction,	Minor adverse effects during construction, operation and

Planning Allocations/ permission	Potential to be Directly Affected	Sensitivity	Nature of Effect Expected	Magnitude	Significance
	once operational oversail development areas and direct land take for pylons			operation and decommissioning based on the current status of the allocation. The Proposed Development is not expected to affect the ability for the site to be developed and the inward investment to the economy.	decommissioning.
T/1 – Portishead to Pill (Portbury) proposed railway line	Overhead and underground lines into Portishead substation cross this allocation (Portishead to Pill).	Low sensitivity	Subject to the option progressed, the allocation area could be oversailed by the 400kV line. The allocated area is currently oversailed by distribution lines and this is not considered to limit the viability of development.	Negligible during construction, operation and decommissioning.	Negligible effects during construction, operation and decommissioning.
CF/4 Safeguarded Site for Proposed Public Utilities/ Services West End – Nailsea	Overhead line directly oversails the site.	Low sensitivity	The Proposed Development would not preclude development of the site for utilities or services. However it could influence the design of any plans (e.g. sufficient height would need to be retained between the overhead cables and land use beneath them).	Low during construction, operation and decommissioning.	Minor adverse effects during construction, operation and decommissioning.

Planning Allocations/ permission	Potential to be Directly Affected	Sensitivity	Nature of Effect Expected	Magnitude	Significance
CF/4 Safeguarded Site for Proposed Public Utilities/Services Portishead Quays	Allocation is for Portishead Substation.	Low sensitivity	The Proposed Development has been designed to avoid effects on the future use of Portishead Substation. Negligible effects are anticipated.	Negligible effects during construction, operation and decommissioning.	Negligible effect.
CF/4 Safeguarded Site for Strategic & structural Open Space Portishead Ashlands	Within Local Area of Influence and crossed by all existing lines into Portishead Substation.	Low sensitivity	The existing lines cross Portishead Ashlands Nature Reserve and Portbury Common. These remain popular recreational areas and therefore no change in effect is anticipated in the long-term. During construction and decommissioning, minor disruption is likely during which time the popularity of the Nature Reserve and Common for recreation may temporarily decrease. However the Proposed Development is not anticipated to affect the popularity of the area during operation.	Low during construction and decommissioning; negligible during operation.	Minor adverse effect during construction and decommissioning, negligible effect during operation.
DM13, BCSS8 Principal industrial and warehousing areas, Avonmouth	Overhead line directly oversails the site.	Moderate sensitivity	The Proposed Development would not prevent these areas from coming forward for development; however the type of land developed within the direct route corridor may be limited to compatible land uses, such as roads, car parking and landscaping.	Low during construction, operation and decommissioning.	Minor adverse effect during construction, operation and decommissioning.

Planning Allocations/ permission	Potential to be Directly Affected	Sensitivity	Nature of Effect Expected	Magnitude	Significance
DM18, BCS17 Important green infrastructure, Avonmouth	Overhead line directly oversails the site and direct land take for pylons.	Low sensitivity	During construction and decommissioning, moderate disruption is likely; however this is not anticipated to affect the ability of the area to achieve the allocation requirements during the operation phase. Direct land take associated with the pylons would reduce the size of the allocation available.	Low during construction and decommissioning and negligible during operation.	Minor adverse effect during construction and decommissioning and negligible during operation.
Global Machine Tools (UK) – application for 14 units. Limited, Third Way Corner St Andrews Road, Avonmouth Bristol AvonBS11 9HL	Direct land take for pylons and oversailed by development.	Low sensitivity	During construction, it would not be possible to progress this site in accordance with the approved development and a high magnitude effect is expected. Once operational the presence of a pylon within the site would prevent the current permission from being developed as approved.	High adverse during construction. Moderate adverse during operation.	Moderate adverse effect during construction and operation. The site is in the process of being purchased by National Grid to compensate the landowner for the identified impact/ loss of value. However this would not reduce the socio-economic loss from development in accordance with the current approvals not progressing.

Planning Allocations/ permission	Potential to be Directly Affected	Sensitivity	Nature of Effect Expected	Magnitude	Significance
<p>The Bristol Port Company – application for open storage area</p> <p>Eastern Arm Royal Edwards Dock Avonmouth Dock Bristol Avon BS11 9DA</p>	Direct landtake for pylons and oversailed by development	Low sensitivity	During construction, it would not be possible to progress the site in accordance with the application drawings and a high magnitude effect is expected. Once operational the presence of a pylon within the site would influence but not prevent the Proposed Development from functioning.	High adverse during construction. Moderate adverse during operation.	<p>Moderate adverse effect during construction and operation. National Grid to compensate for the identified direct impacts to the landowner. However this would not reduce the socio-economic loss from development in accordance with the current approvals not progressing.</p>

Community Facilities

- 15.5.79 The Proposed Development would have no direct land take effects upon community facilities during the construction or operation phases. The amenity assessment considers likely effects of the Proposed Development on the amenity of communities and community facilities located within the Wider Study Area.

Visitor Attractions and Areas for Recreation

- 15.5.80 The Proposed Development is anticipated to have direct effects upon 14 of the visitor attractions and areas of recreation identified within the Local Area of Influence. These receptors and the significance of the effects the Proposed Development could have on their use and functionality are shown on **Table 15.36** below.

Table 15.36 Visitor Attractions and Areas for Recreation Directly Affected during Construction/Operation of the Proposed Development

Receptor	Sensitivity	Nature of Effect Anticipated	Magnitude	Significance
King's Sedgemoor or Drain (noted for angling)	Low	Oversailed by Proposed Development; use not affected during construction, operation or decommissioning although construction activity would be undertaken adjacent to the King's Sedgemoor Drain.	Low magnitude adverse effect on functionality during construction and decommissioning. Negligible effect on functionality during construction or operation	Minor adverse effects during construction and decommissioning and negligible adverse effects during operation.
Nailsea and Blackwell Football Club	Low	Direct land take associated with 132kV take down and W Route undergrounding.	Moderate magnitude adverse effect during construction and decommissioning as construction corridor avoids main playing areas but has direct take within the boundary. Negligible effect on functionality during operation although the existing pylon would be removed from car park.	Moderate adverse effects during construction and decommissioning and negligible beneficial effects during operation.

Receptor	Sensitivity	Nature of Effect Anticipated	Magnitude	Significance
Mark Moor	Low	Direct land take associated with 400kV route and 132kV route take down.	Localised effect on recreational use limited to the construction / decommissioning corridor. Low magnitude adverse effect during construction and decommissioning. Negligible effect on use of the area during operation.	Minor adverse effects during construction and decommissioning and negligible adverse effects during operation.
Nailsea, Puxton, Kenn and Tickenham, Wick Moors	Low	Direct land take associated with 400kV route and 132kV route take down.	Localised effect on recreational use limited to the construction/ decommissioning corridor. Low magnitude adverse effect during construction. Negligible effect on use of the area once operational.	Minor adverse effects during construction and negligible adverse effects during operation.
Cripps Farm Caravan Park	Low	Direct land take associated with 400kV route construction.	High magnitude adverse effect on functionality during construction. Once operational low magnitude negative effect on functionality.	Moderate adverse effects during construction. Minor adverse effects during operation.
Avon Truckstop Ltd.	Low	Direct land take associated with 400kV route construction.	Negligible effect on functionality during construction, operation or decommissioning.	Negligible adverse effects during construction and operation.

Receptor	Sensitivity	Nature of Effect Anticipated	Magnitude	Significance
Mendip Hills AONB	High	Direct land take associated with 400kV undergrounding and 132kV take down.	Localised effect on recreational use limited to the construction corridor. Access and walking routes would be maintained, many of which use the local road network. Low magnitude adverse effect during construction. Negligible effect on use of the area once operational.	Minor adverse effects during construction and negligible beneficial effects during operation.
Coombes Cider Mill	Low	Direct land take associated with 132kV take down.	Moderate magnitude adverse temporary effects during construction. Negligible effect on functionality during operation although the existing pylon would be removed.	Minor adverse effects during construction. Negligible beneficial effects during operation.
Winter Meadows Caravan park.	Low	Direct land take associated with 132kV take down.	Moderate magnitude adverse temporary effects during construction. Negligible effect on functionality during operation although the existing pylon would be removed.	Minor adverse effects during construction. Negligible beneficial effects during operation.
Nailsea Football Club	Low	Direct land take associated with 132kV take down.	Moderate magnitude adverse temporary effects during construction. Negligible effect on functionality during operation, existing pylon would be removed.	Minor adverse effects during construction. Negligible beneficial effects during operation.
Noah's Ark Zoo Farm	Moderate	Direct land take associated with 132kV take down.	Moderate magnitude adverse temporary effects during construction. Negligible effect on functionality during operation, existing pylon would be removed.	Moderate adverse effects during construction. Negligible beneficial effects during operation.

Receptor	Sensitivity	Nature of Effect Anticipated	Magnitude	Significance
Portbury Common	Low	<p>Option A (Portbury): Direct land take associated with 400kV route undergrounding and 132kV take down.</p> <p>Option B (Portishead): Direct land take associated with undergrounding and 400kV route construction and 132kV take down</p>	<p>Localised effect on recreational use limited to the construction corridor. Access and walking routes would be maintained. Moderate magnitude adverse effect during construction and decommissioning. Negligible effect on use of the area once operational; for Option B (Portishead) the 400kV overhead line would cross Portbury Common.</p>	<p>Preferred route (Option A): Minor adverse effects during construction and decommissioning and negligible beneficial effects during operation.</p> <p>Alternative route (Option B): Minor adverse effects during construction and decommissioning and negligible adverse effects during operation.</p>
Motocross on Caswell Hill	Low	Direct land take associated with undergrounding and 132kV take down.	High magnitude adverse effect during construction and decommissioning, as use of the facility would be stopped. Moderate magnitude adverse effect functionality during operation due to restriction of the underground route on this particular recreational use.	<p>Moderate adverse effects during construction and decommissioning. Minor adverse effects during operation.</p>

Receptor	Sensitivity	Nature of Effect Anticipated	Magnitude	Significance
Portbury Wharf Nature Reserve	Low	<p>Preferred route (Option A): Direct land take associated with 132kV take down.</p> <p>Alternative route (Option B): Direct land take associated with undergrounding and 400kV route construction and 132kV take down</p>	<p>High magnitude adverse effect during construction and decommissioning. Negligible effect on functionality during operation. However for the Option B (Portishead), the 400kV overhead line would cross Portbury Wharf Nature Reserve.</p>	<p>Preferred route (Option A): Moderate adverse effects during construction and decommissioning and negligible beneficial effects during operation.</p> <p>Alternative route (Option B): Moderate adverse effects during construction and decommissioning. Negligible adverse effects during operation.</p>

15.5.81 The direct effects of the Proposed Development on the use and functionality of visitor resources and areas for recreation is localised and at its greatest during the construction and decommissioning periods. During operation, the majority of effects become negligible and some of the identified receptors would have existing infrastructure removed. The assessment identifies that there could be long term effects upon the use of the Motocross facility on Caswell Hill.

15.5.82 Analysis of amenity effects on visitor attractions and areas of recreation is presented below.

User Survey

15.5.83 In response to the level of stakeholder concern regarding the tourism and recreational use of the area around the Proposed Development, recreational user surveys were undertaken at five locations during the peak tourist season (week day and weekends in August). Focusing on the summer season places the emphasis on summer visitors, however it also has the effect of maximising the number of interviews that could take place (and hence the amount of data that could be obtained). The purpose of the survey was to understand frequency of visits, demographics, spend, awareness of the Proposed Development and perception of effects. In particular the Applicant's intention in commissioning new primary surveys was to obtain a more specific understanding of local users, their opinions and their spending habits than would have been available from existing non-specific regional or national secondary survey information. The number of interviews conducted was dictated by the footfall in different locations. The interview sites and number of interviews undertaken are shown below:

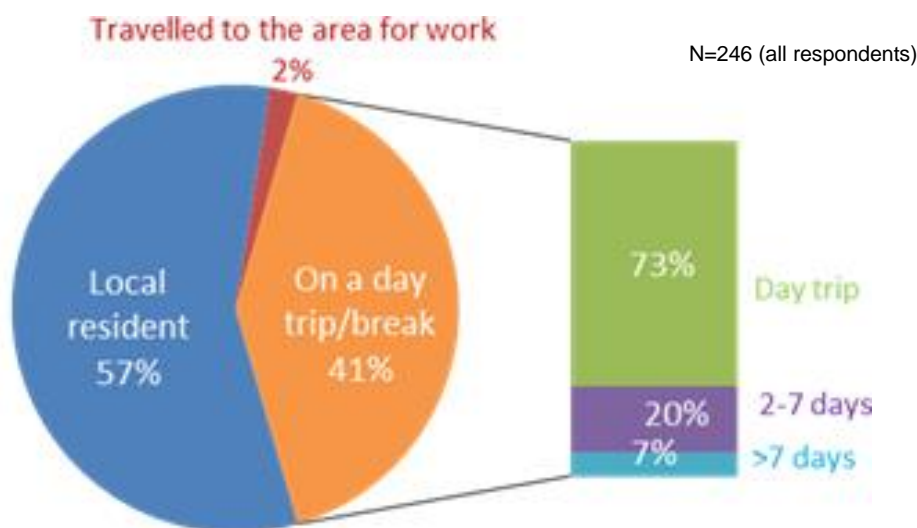
- Webbington Hotel – 25 interviews;
- Mark Village – 18 interviews;
- Sandford/Strawberry Line – 79 interviews;

- Portbury Wharf Nature Reserve – 40 interviews; and
- Noah's Ark Zoo Farm – 84 interviews.

15.5.84 A total of 246 user surveys were carried out. All surveys (bar a census) are subject to a margin of error, but the more interviews that are carried out, the narrower the margin. While this survey cannot claim to be fully representative of all local residents and visitors to the local areas, it does provide a useful insight into the views and perceptions of a significant number of people within the area at the time when the research took place.

15.5.85 The interviews captured a range of types of users of the area in which the Proposed Development is located, as shown on **Inset 15.12**. 57%² of the respondents were local residents, 41% were visitors and a small percentage (2%) had travelled to the area for work. 62% of respondents lived within 10 miles of the interview site.

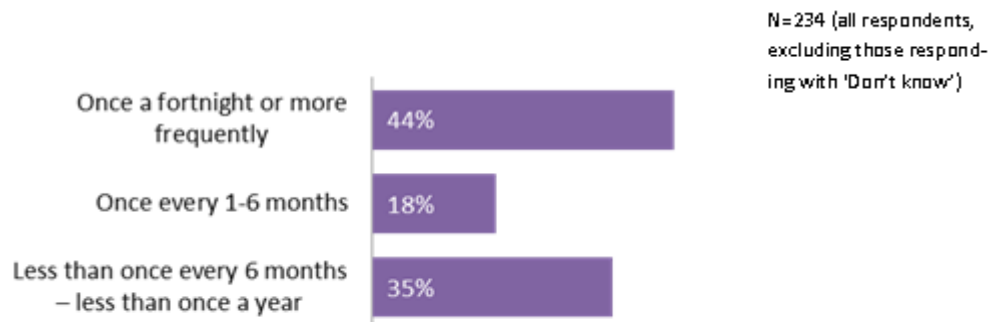
Inset 15.12: Are you a local resident, travelling to the area for work or on a day trip/break?



² All percentage figures are from the base of respondents that answered that specific question.

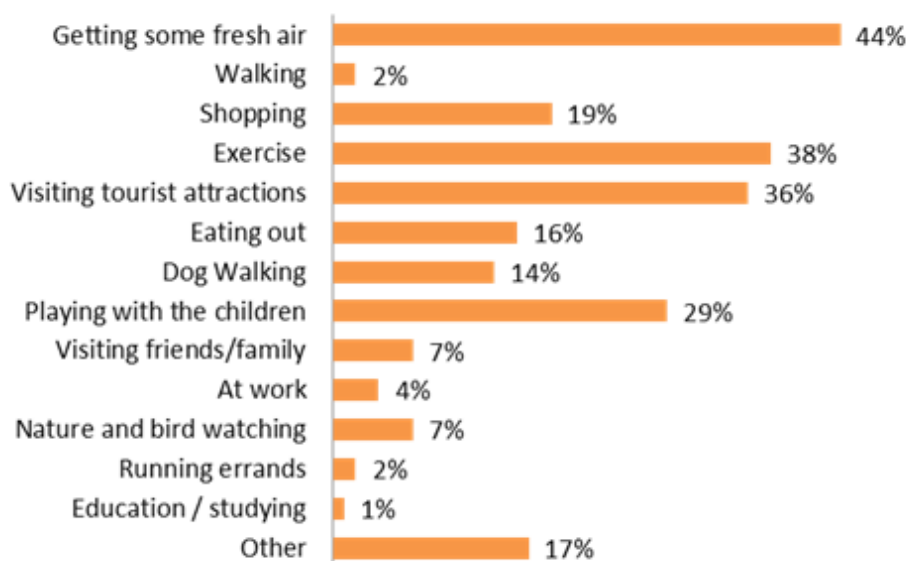
15.5.86 When aggregating group size, a total of approximately 661 visitors were identified through the surveys with 246 respondents (i.e. 37% of all visitors), although each interview was only counted once. Just over half (53%) of visitors go to the interview location less than once a fortnight with 44% going more than once a fortnight (up to half of these every day), with the balance of 3% reporting they did not know (see **Inset 15.13**). The survey results indicate that the area is popular for short breaks and local recreational activities, and the level of activity represented through this survey is undertaken in the current environment, which includes National Grid and Western Power Distribution (WPD) infrastructure.

Inset 15.13: How regularly do you visit the area?



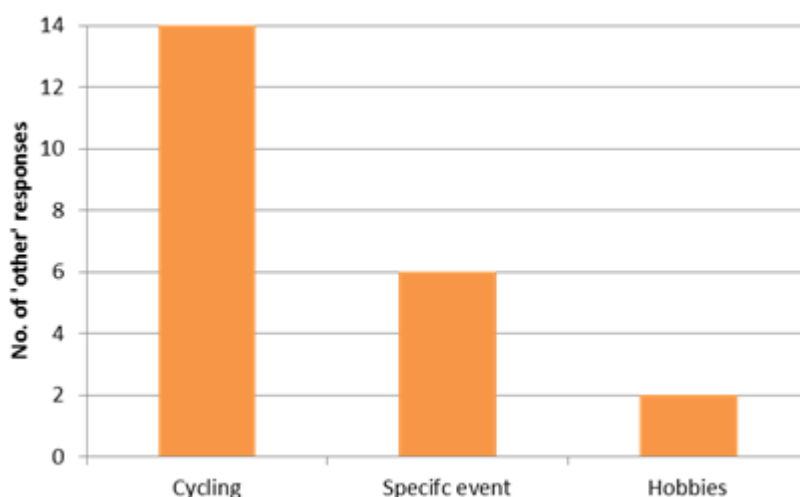
15.5.87 The area around the interview locations is most popular for outdoor recreational activities. The most popular activities undertaken by the interviewees were getting fresh air (44%), exercise (38%), visiting tourist attractions (36%), playing with children (29%), and Shopping (19%). **Inset 15.14** shows all survey responses in relation to activities in the local area.

Inset 15.14: Which activities are you undertaking today?



15.5.88 The 'other' responses offered included the following, some of which could be added to those above but have been reported directly from the survey responses, as shown in **Inset 15.15**.

Inset 15.15: Which activities are you undertaking today; 'other' responses?



- 15.5.89 The survey highlights that the local area is popular for a range of outdoor activities, even with the presence of existing National Grid and WPD infrastructure in the area.
- 15.5.90 Prior to being informed that the survey related to the National Grid Proposed Development, respondents were asked if they considered the area to be getting better or worse as a place to live or visit. The majority of local residents stated that they consider the area to be staying about the same as a place to live (48%) with the second most common response being that the area is getting better as a place to live (31% of local residents). Respondents who identified that the area had got better or worse were asked 'why'; and stated the reasons detailed in **Table 15.37**.

Table 15.37 Survey responses to why the area is getting better or worse as a place to live.

Themes of Responses ³	Number	
Why has the areas has changed	Better	Worse
New footpaths/cycle paths	7	0
Community events/amenities/community spirit	19	3

³ Verbatim responses were taken in the field and have been aggregated into the themes identified. Where one respondent identified two themes, both have been included.

Themes of Responses ³	Number	Number
Housing availability	2	1
Quality of the area/environment (including litter and noise)	6	0
Traffic congestion, parking and public transport	1	9
Availability of shops	13	1
Other ⁴	3	0

15.5.91 The majority of visitors who have visited the area before believe it to be staying the same as a place to visit (63%) with the second most common answer being that the area has got better as a place to visit (33%). Respondents who identified that the area had got better or worse identified the reasons detailed in **Table 15.38**.

⁴ Other included a single response for “business opportunities”, “more visitors” and “wildlife”.

Table 15.38 Survey Responses to why the Area is getting better or worse as a place to visit.

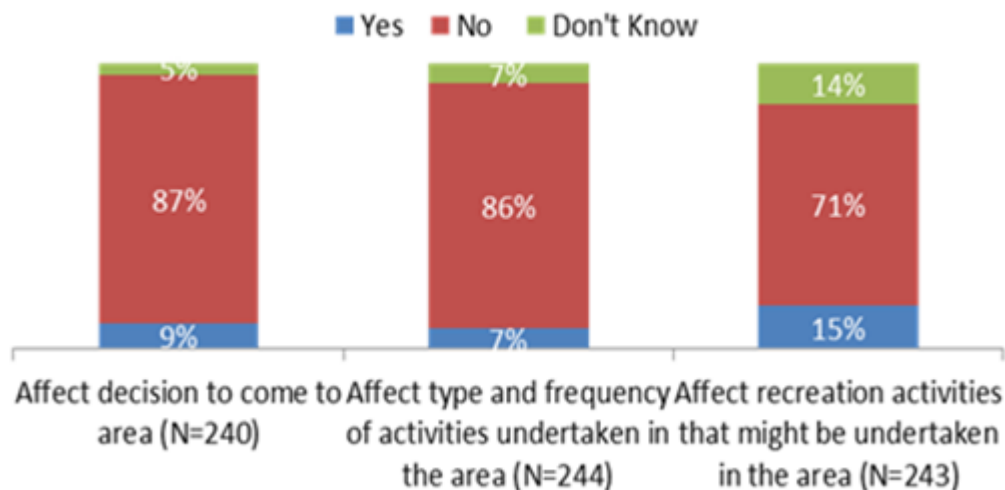
Themes of Responses ⁵	Number	Number
Why the Area has Changed	Better	Worse
Change to Amenities	12	3
Availability of footpaths/ cyclepaths/recreational routes	6	1
Quality of the area/change to the environment	3	1
No change	2	

- 15.5.92 As a perceptions survey, the purpose of the survey was to establish the users' existing awareness of the Proposed Development and their perception of effects, based on any extant knowledge that they had of the Proposed Development (at the time of the survey). Without prompting, none of the respondents made references to the Proposed Development when reflecting on the area. However new developments such as supermarkets and more/better shopping provision were specifically highlighted as having an effect of the area (both positive and negative).
- 15.5.93 When asked and provided with a description of the Proposed Development, 50% of interviewees were aware of it, of which 66% felt well informed about it. Local residents were more likely to be aware of the Proposed Development than visitors.
- 15.5.94 All respondents were asked if they felt the presence of National Grid infrastructure, such as pylons with power lines and substations would affect or influence:
- their decision to come to the area;
 - what they are doing in the area and how often they do it; and
 - the recreational activities they might undertake in the area.
- 15.5.95 The majority of respondents felt that the Proposed Development would have no effect or influence on:

⁵ Verbatim responses were taken in the field and have been aggregated into the themes identified. Where one respondent identified two themes both have been included.

- their decision to come to the area (87%, (88% of local residents and 86% of visitors);
- what they are doing in the area or how often (86% (86% both local residents and visitors); or
- recreational activities they might undertake in the area (71% (70% of local residents and 73% of visitors).

Inset 15.16: Perceived likely effect of the Proposed Development on users' decision to visit the area, current type and frequency of activities undertaken and on recreation activities that might be undertaken



- 15.5.96 Those respondents who stated that there would be an impact or influence on their decisions were asked why or how their decisions would be impacted or influenced.
- 15.5.97 Of the 28 respondents that said it would impact their decision to come to the area, the themes identified in the verbatim responses are shown in **Table 15.39**.

Table 15.39 Survey Responses to why National Grid Infrastructure would Impact on Decision to Visit the Area

Themes of Responses ⁶	Number
Reduced visual amenity/spoils the view	20
Noise (construction and operation)	2
No impact	2
Would not visit	2
Increased traffic	1
More information needed	1

15.5.98 Of the 13 respondents who said it would affect what they were doing and how often, the verbatim response provided the themes identified in **Table 15.40**.

Table 15.40 Survey responses to why National Grid Infrastructure would Influence what Users were doing and how often

Themes of Responses ⁷	Number
Would visit less due to changed/spoilt views or local character	5
Would not visit due to changed/spoilt views	3
Reduced enjoyment of area	3
Change cycling routes	1
Would not visit due to fear of health impacts	1

15.5.99 All respondents who answered ‘yes’ or ‘no’ to the question of whether the presence of National Grid infrastructure might influence the recreational activities they undertake were asked “why do you say that?” The verbatim responses provided the themes identified in **Table 15.39**.

⁶ Verbatim responses were taken in the field and have been aggregated into the themes identified. Where one respondent identified two themes both have been included.

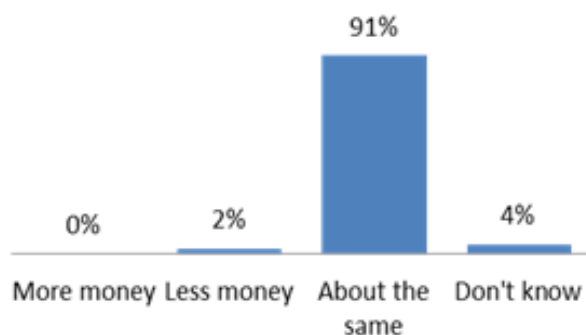
⁷ Verbatim responses were taken in the field and have been aggregated into the themes identified. Where one respondent identified two themes both have been included.

Table 15.41 Survey Responses to why National Grid Infrastructure could Influence Recreational Activities Undertaken

Themes of Responses	Number
Would not visit due to changed views	22
Change cycling routes	1
Wouldn't change activities just because of progress/would do the same thing/wouldn't have an affect	102
Would still visit but less frequently	15
Don't know	8
Would not visit due to fear of health impacts	7
Others ⁸	2
Would not visit (no reason given)	1

15.5.100 Respondents were asked if they thought the presence of National Grid would influence their expenditure in the area (more, less or the same). The majority (91%) of respondents said they would spend the same and 6% said they thought they would spend less or did not know.

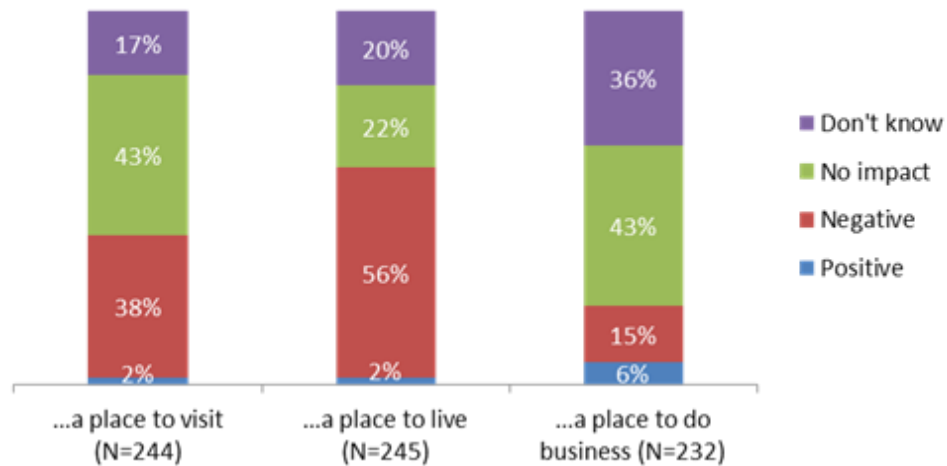
Inset 15.17: Perceived Effect of the Proposed Development on Users' Expenditure



15.5.101 Respondents were also asked about their perception of the effects that the Proposed Development could have on the local area as a place to live, visit or do business. 38% of respondents stated an expectation of negative effects on the area as a place to visit and 56% on the area as a place live. In relation to the impact on the area as a place to do business 15% thought there would be a negative effect. These results are illustrated in **Inset 15.18**.

⁸ Other responses included "may affect balloon festival" and "need more information"

Inset 15.18: Perceived Effect of the Proposed Development on the Area as a Place to Visit, Live and do Business



15.5.102 Local residents were more likely to anticipate negative effects on the area as a place to visit than visitors. Visitors were more likely to anticipate a negative effect on the area as a place to live.

15.5.103 Of those respondents who anticipated negative effects on the local area (133 respondents), 68% anticipated that the effects would last for the foreseeable future. Respondents that anticipated a negative effect on the area were asked why they thought this. Verbatim responses provided were collated into the themes shown in **Table 15.42** and **Table 15.43**.

Table 15.42 Survey Responses to why the Proposed Development would have a Negative Effect on the Area

Themes of Responses ⁹	Number
Visual Impacts	69
Health and safety fears	22
Construction disruption	14
General feelings against pylons	12
Affected house prices	9

⁹ Verbatim responses were taken in the field and have been aggregated into the themes identified. Where one respondent identified two themes this has been included.

Themes of Responses ⁹	Number
Deter tourists/visitors	4
Increased noise during operation	4
Nuclear Waste/ radioactivity	3
Impacts on wildlife	3
Don't know	3
Others ¹⁰	3

Table 15.43 Survey Responses to why the Proposed Development would have a Positive Effect on the Area

Themes of Responses ¹¹	Number
Creation of jobs/attraction of businesses/construction worker spend	9
Acknowledge that infrastructure is needed	1

15.5.104 The survey results show that the most common perception was that the Proposed Development would not influence user decisions in relation to visiting the area and activities undertaken (e.g. 87% of respondents felt that the Proposed Development would have no influence on their decision to come to the area, as discussed above). The main reason expressed for there being an effect on peoples' personal behaviour was the visual effect of the Proposed Development. These have been addressed in detail in **Volume 5.6.1 (Landscape) and Volume 5.7.1 (Visual Effects)**. Most commonly cited reasons for positive effects relate to the inward investment as a result of job creation and associated spend in the local area. This has been assessed in this chapter. The survey indicates that the perception of local residents and visitors is that the Proposed Development is likely to have a low magnitude effect on their use of the local area around the Proposed Development.

15.5.105 The survey asked a variety of questions regarding respondent's expenditure, so as to gain a better understanding of how much those in the area were spending, and on what. Respondents were asked if they were planning to spend (or had spent) money on food and drink, accommodation, shopping, travel and other categories.

¹⁰ Other responses include opening the door to other industrial development, risk of change and stability of property.

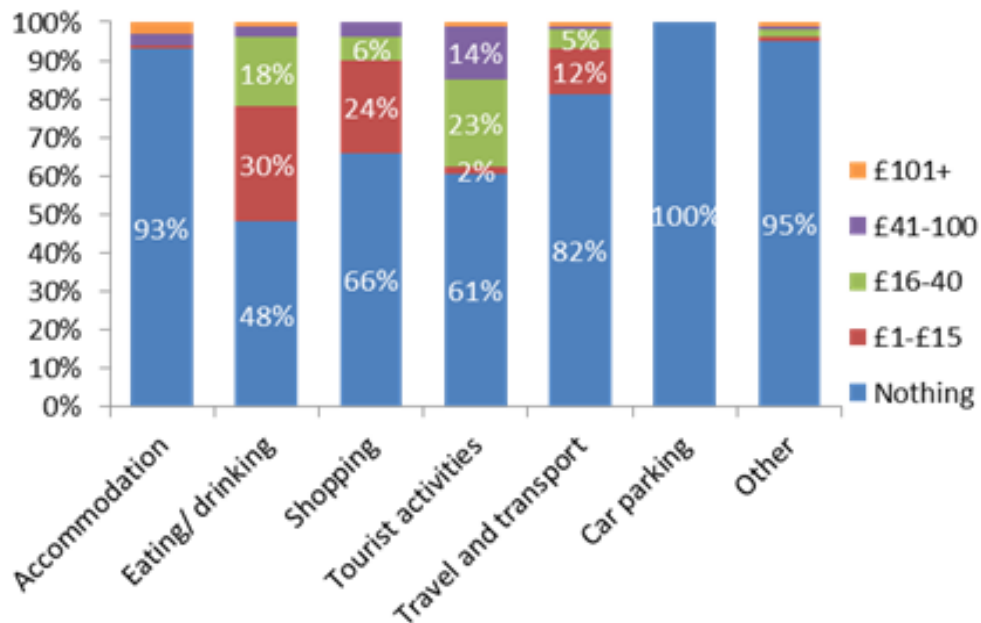
¹¹ Verbatim responses were taken in the field and have been aggregated into the themes identified. Where one respondent identified two themes both have been included.

In all cases bar one, the majority of respondents reported that they were not expecting to spend any money that day (the exception was food and drink). This is consistent with the responses people gave on their purpose for being out that day, which tended to focus on free activities like 'getting fresh air' or 'exercising'. The proportions of respondents reporting that they were expecting to make a purchase on specific items is shown in **Table 15.44** below. Depending on the question, sample sizes varied between 153 and 180. The respondent spend profiles are shown in **Inset 15.19**.

Table 15.44 Likelihood of Respondents Spending Money on Particular Items

Item	Proportion saying they WOULD spend money on these items (%)	Proportion saying they WOULD NOT be spending money on these items (%)
Eating/drinking	52	48
Accommodation	7	93
Shopping	34	66
Travel and transport (e.g. fuel and fares)	18	82
Car parking	0	100
Tourist activities such as local attractions	39	61
Anything else	5	95
Source: Recreational user survey 2013		

Inset 15.19: Typical Expenditure of Users on Certain Items



15.5.106 The survey results also provide an indication of typical spend figures for each category of items, and for each group of respondents (for example residents, day trippers, and those who are staying overnight). Interpretation of the results suggests a typical spend across all groups and item categories of £12.67 per person. The figures also show that total spend appears to be different between groups. Residents reported lower spending (£7.96 per person) than day trippers (£11.24) and those staying overnight (£45.34). Looking at all of the responses, the following patterns of expenditure were reported (see **Table 15.45** below).

Table 15.45 Reported Levels of Expenditure (All Respondents)

Item	Reported Expenditure per person (£)	Percentage of total expenditure on each category
Eating/drinking	3.21	25.3
Accommodation	1.94	15.3
Shopping	1.40	11.0
Travel and transport (e.g. fuel and fares)	0.85	6.7
Car parking	0	0
Tourist activities such as local attractions	4.47	35.2
Anything else	0.79	6.2
Total	12.67	100
Source: Recreational User Survey, 2013		

- 15.5.107 The figures are indicative, but are considered to be representative of spend associated with the 240 people interviewed, and the 661 people they represented. Also, they are specific to the National Grid survey undertaken in connection with the Proposed Development. Because they are location and user specific they are unlikely to reflect findings from other surveys undertaken at wider geographical levels or for specific types of users or visitors (for example, the GBTS, formerly known as the UKTS, which is a national consumer survey measuring the volume and value of overnight domestic tourism trips taken by residents of the Great Britain).
- 15.5.108 It is not possible to undertake a complete and wholly rigorous economic impact assessment of the effect of the proposed project on user and visitor spending in the area because current ('without project') user and visitor spending is not known. Around 9% of all those who responded suggested that the presence of National Grid infrastructure would have impacted on their decision to come to the area that day. Taking a cautious approach, this implies that amongst those interviewed, up to 9% (21 respondents) might have been dissuaded from visiting the area by the presence of Proposed Development. This is a relatively small minority of respondents. Nonetheless, applying this 9% across all those who were interviewed, as well as to those who were part of their parties (a total of 661 people), implies that 60 people would potentially be dissuaded from visiting their area and thus the loss of their associated expenditure. With a typical spend per head of £12.67; this worst case scenario would result in the loss of around £750 to the local economy. The implication of this is that for every 100 visitors who currently visit, up to 9 may be dissuaded. If the typical £12.67 spend applied to these people, there would be an associated loss of revenue of £114.
- 15.5.109 This loss of revenue is equivalent to a loss of just over £1 per head (relative to the current estimate of typical per head spend) for each visitor who continues to come. This 'worst case' view assumes that as well as being dissuaded from being in the place at which they were interviewed, these respondents would not have gone anywhere else locally instead. In the case of those who live at a distance of 11-50 miles away this is a reasonable assumption. However for those who either live closer (3-10 miles), or classified themselves as local residents, the likelihood is that they would choose somewhere else local to visit, in order to exercise, walk their dog or meet their other objectives, rather than travel out of the area¹². In this case

¹² This reasoning is based upon the economic concept of 'displacement', where the benefits of a project are offset through reductions of output, employment, spending or trips offered by similar projects elsewhere. Displacement is highest when local competition from other similar resources is high, and low where services are more unique. Thus, if a footpath is closed, similar local alternatives would be sought first, with alternatives further away being preferred if local alternatives are not available or lack the same qualities.

their expenditure is displaced from the immediate area, but most likely to somewhere else nearby and probably in the same or an immediately neighbouring Local Authority area.

- 15.5.110 Interviewees were also asked, if National Grid infrastructure such as pylons, power lines and substations were in the area, do you think you would spend more, less, or about the same amount of money here? Of the 244 responding, 91% said that they thought they would spend about the same, 2% said they thought they would spend less, and 2% said they did not know.
- 15.5.111 The answers given to these questions suggest that a small minority of respondents (perhaps in a range between 5 - 9%) believe that the Proposed Development would have a tangible (negative) impact on their expenditure in the area, while a much larger majority believe it would not make any difference. It is difficult to make assumptions as to what the economic effect of such reduced spending, were it to arise, might be, and where it might be felt. **Table 15.45** shows that respondents suggested, on average, they spent around a 35% of their money on 'tourist activities, such as local attractions', about a quarter on food and drink and around 15% on accommodation. Some 11% went on shopping with other categories (travel and transport, other) accounting for less than 7% each.
- 15.5.112 Following these responses through, if the Proposed Development were built, and the results of this particular National Grid survey happened to be replicated across the visitor population in general, a typical accommodation business affected by people who had been dissuaded from visiting might expect a reduced turnover of less than 1.5%. This assumption is based on 9% of people staying away (the proportion reporting that the presence of the infrastructure would affect their decision to visit) multiplied by 15% (the amount, on average, these people might have spent on accommodation). Likewise a typically affected local tourist attraction might see a drop in revenue of around 3% (9% of 35%; 35% being the amount people report as spending on tourist attractions).
- 15.5.113 Should visitors withhold expenditure, or not visit at all, then some businesses would be affected more than others. Businesses which have atypical characteristics (an accommodation business, located very close to the Proposed Development, which also serves food and drink, for instance) might experience greater effects, while other, less 'exposed' businesses, might experience less. Some losses may be re-assigned to businesses elsewhere as expenditure is displaced, while genuine losses which are incurred should be set against potential benefits which might arise from additional accommodation and visitor expenditure associated with the Proposed Development's construction¹³.
- 15.5.114 Thus, while it is not possible to identify precisely the effect of the Proposed Development on visitor or user behaviour, it is reasonable to make a qualitative

¹³ Such benefits may include increased expenditure on accommodation, food, drink fuel and other subsistence, see paragraph above.

judgement as to what these effects might be. Informed by professional judgement and experience, local tourism expenditure estimates, as well as the survey results and the small proportion of business and user respondents that identified that they thought the Proposed Development would have an effect, the anticipated effect has been judged to be of low magnitude on a receptor (essentially the ‘tourism’ economy defined in **Volume 5.15.2, Appendix 15C**) of moderate sensitivity. The overall significance of the Proposed Development is assessed as **minor adverse**. At the level of the wider study area (the five local authorities), negligible magnitude and sensitivity together indicate a **negligible effect**.

- 15.5.115 A significant number of the most popular visitor attractions within the Local Authority areas would not be affected by the Proposed Development, such as the Cheddar Gorge, Wookey Hole Caves, Weston Super Mare and various Bristol City attractions. These attractions are destinations in their own right associated with attractors, infrastructure, services and brand. They also support a greater proportion of the tourism businesses within the local economy, when compared with the Local Area of Influence and the assessment has considered likely effects in relation to the wider tourist economy of the Local Authorities in which the Proposed Development is located.

Public Rights of Way, National Trails and Cycle Routes

- 15.5.116 The location of all PRow and recreational routes in the Wider Study Area are shown on **Volume 5.15.3, Figure 15.1**. The Proposed Development would have direct effects on 112 PRow/National Trails.
- 15.5.117 **Volume 5.12.1, section 12.5** (Traffic and Transport) presents the assessment of effects of the Proposed Development on PRow and recreational routes. In summary, the temporary direct effects during construction are expected to range from PRow/recreational route management (i.e. signage, banksmen and closures of short durations) and temporary diversions (closures from 6 months up to the full duration of construction). It is anticipated that there would not be any permanent closures or diversions of PRow. The proposed routing of construction traffic has been identified in response to identifying the shortest route from location to primary distributive road network, avoiding settlements and other sensitive receptors to reduce congestion and minimise effects and minimising travel on established road networks, using haul roads where possible (see **Volume 5.12.1, section 12.5** (Traffic and Transport)).
- 15.5.118 Some temporary scaffolding would be installed during the works as a safety measure to protect roads, railways, PRow/recreational routes and distribution network overhead lines which are crossed by the overhead lines while construction work is ongoing. This minimises the disruption of routes and allows them to continue to operate during construction.
- 15.5.119 Impacts on the amenity value of PRow and recreational routes are considered **Table 15.44**.

Decommissioning Effects on Land Use

- 15.5.120 During decommissioning the land use effects would be similar to those identified for construction. However, following the works all land would be returned to the prevailing land use at that time.

Amenity Effects

- 15.5.121 Amenity value is the enjoyment and well-being that people gain from a receptor together with its intended function. An amenity effects assessment was undertaken which considered effects arising as a result of the inter-relationship of other environmental effects which together could affect the amenity value of receptors during construction, operation and decommissioning.
- 15.5.122 The assessment considered likely amenity effects on over 100 receptors within 250m of the Proposed Development or receptor groups, including:
- visitor attractions, PRow, recreational routes, tourism accommodation and recreational areas; and
 - local communities/settlements and community facilities (including health, education and community gathering).
- 15.5.123 The following process was adopted for the amenity assessment:
- significant residual effects from landscape and visual, air quality, noise and vibration and traffic and transport assessments were reviewed;
 - receptors that were significantly affected by more than one discipline (i.e. landscape, views, air quality, noise, vibration, traffic and transport) were identified and scoped-in to the assessment;
 - sensitivity of the scoped-in receptors was assigned qualitatively based on their amenity value, and the magnitude of effect drawn together from that assigned in each of the relevant disciplines'(landscape, views, air quality, noise, vibration, traffic and transport) conclusions; and
 - significance of amenity effect on each receptor was identified from a combination of sensitivity and magnitude.
- 15.5.124 Potential effects were considered qualitatively with respect to the functionality and enjoyment of existing land uses and business operations, particularly some recreational and tourism resources which are considered to be more sensitive to changes in amenity.
- 15.5.125 The assessment uses an in-combination appraisal, incorporating factors which could affect the ability to use or enjoy the receptor, such as ability to access a receptor, noise, visual and air quality effects. As an in-combination appraisal, the amenity assessment therefore draws from the magnitude of effects identified in some of the other technical assessments (such as transport, noise, landscape and air quality), and considers these effects in the context of the amenity value or sensitivity. This means that in some cases a range has been applied to classify the effects, and also, there may be differences in the classification of effects on the same receptor between ES chapters.
- 15.5.126 **Table 15.46** presents the likely significant amenity effects by receptor type, for those receptors where potential in-combination effects were identified, whilst the full assessment of amenity effects is presented in **Volume 5.15.2, Appendix 15J**. The amenity effects identified are only within 250m of the Proposed Development, so the effects identified on linear features is only within approximately 250m of the Proposed Development, not the entire route of that feature.

Table 15.46 Summary of Amenity Effects

Receptor	Effect Description and Significance
Recreational Routes	
Samaritans Way, South West Long Distance Route	Effects of negligible magnitude are expected in relation to air quality and transport. Negligible to low magnitude visual effects are anticipated during all phases and noise assessments anticipate effects of low magnitude adverse effects in all phases. Consequently, it is considered that there will be negligible to minor adverse effect on the amenity of the route during all phases.
National Cycle Network 3 West Country Way	Effects of negligible magnitude are expected in all topics except noise and visual where there will be low magnitude effects. Overall, there would be a minor adverse effect on the amenity of the route during all development phases.
National Cycle Network 33 Stop Line	Effects of negligible magnitude are expected in all topics except noise and visual where there will be low magnitude effects. Overall, there would be a minor adverse effect on the amenity of the route during all development phases.
PRoW BW2/46, BW28/2 and BW 28/1	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the visual assessments anticipates effects of moderate magnitude and the noise assessment predicts low adverse effects. Consequently, it is considered that there will be a minor adverse effect on the amenity of the route in all phases of the development.
AX23/3	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the visual and noise assessments anticipates effects of low magnitude during all phases, and the visual assessment predicts low magnitude during construction and decommissioning and moderate adverse during operation. Consequently, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.
AX17/12	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessments anticipates effects of low magnitude during all phases and visual assessment predicts moderate adverse magnitude of effects during all phases. Consequently, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.
PRoW running west along Green Drove towards Butt Lake Road (south of Mark Causeway) and AX23/10	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessment anticipates effects of low magnitude during all phases and visual assessment anticipates moderate magnitude during all phases. Consequently, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.

Receptor	Effect Description and Significance
National Cycle Route 33	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessments anticipate effects of low magnitude. In visual terms moderate adverse effects are expected in all phases. Consequently, it is considered that there will be moderate adverse effects on the amenity of the affected section of the route in all phases of the development.
AX2/15, AX21/3	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessment anticipates effects of low magnitude from all phases of development. A low/moderate visual effect is anticipated during operation. The route will be diverted during construction. Consequently, it is considered that there will be negligible to minor adverse effects on the amenity of the route in all phases of the development.
PRoWs AX3/21, AX3/22, AX 3/4 , AX 3/1 AX3/53	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the visual and noise assessments anticipate effects of low magnitude. The low /moderate magnitude effects in visual terms are anticipated to be beneficial when the development is operational, but adverse in the short term during construction and negligible in the decommissioning phase. Consequently, it is considered that there will be negligible to minor adverse effect on the amenity of the route in all phases of the development.
PRoWs AX29/28, AX29/14, AX29/16, AX21/7	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessment anticipates effects of low magnitude. The visual assessment identifies moderate adverse effects during construction which become moderate beneficial when the development is operational. Consequently, it is considered that there will be minor to moderate adverse effect on the amenity of the route during construction and negligible to minor beneficial effects once operational in all phases of the development.
Strawberry Line	Effects of negligible magnitude are expected in relation to air quality and transport. The visual and noise assessments anticipate effects of low magnitude adverse effects in all phases. Consequently, it is considered that there will be minor adverse effect on the amenity of the route during all phases overall.
West Mendip Way Long Distance Route	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the visual and noise assessments anticipate effects of low magnitude. Negligible to low magnitude effects in visual terms are anticipated to be beneficial when the development is operational, but low to moderate adverse in the short-term during construction and negligible in the decommissioning phase. Consequently, it is considered that there will be minor adverse effect on the amenity of the route during construction and operation of the development.

Receptor	Effect Description and Significance
PRoW AX29/48	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessment anticipates effects of low magnitude during all phases and moderate adverse visual magnitudes are expected during all phases. Consequently, it is considered that there will be negligible to minor adverse effects on the amenity of the route in all phases of the development.
PRoW AX 24/11, LA 13/45	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessment anticipates effects of low magnitude during all phases and the visual assessment anticipates moderate adverse effects during all phases. Consequently, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.
PRoW AX 24/7, LA 13/6, LA 13/2	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessments anticipate effects of low magnitude. Moderate adverse effects in visual terms during construction are anticipated to be low beneficial when the development is operational. Consequently, it is considered that there will be minor adverse effect on the amenity of the route during construction and negligible to minor adverse effect during operation and decommissioning of the development.
National Cycle Route 26	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessment anticipates effects of low magnitude during all phases. The visual assessment varies along the route sections and in the worst case is moderate adverse in all phases. Consequently, taking the worst case, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.
National Cycle Route 410 The Avon Cycleway and Regional Cycle Route 10	Effects of negligible magnitude are expected in relation to air quality and transport, whilst noise assessment anticipates effects of low magnitude during all phases. The magnitude of visual impact varies in different route sections from negligible to moderate adverse in all phases. Overall, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.
PRoWs LA16/1, 20/26, 20/84, 15/20	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessment anticipates effects of low magnitude during all phases and there are moderate adverse magnitudes in visual. Consequently, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.
National Cycle Route 334 Clifton Link	Effects of negligible magnitude are expected in all except on noise and visual. There is considered to be minor adverse effect on the amenity of the route in all phases of the development.

Receptor	Effect Description and Significance
PRoWs LA 16/2, LA 16/3, LA 5/4,	Effects of negligible magnitude are expected in relation to air quality and transport, whilst noise assessment anticipates effects of low magnitude during all phases and there are low to moderate adverse magnitudes in visual in all phases. Consequently, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.
Gordano Round Long Distance Route (PRoW LA20/29, LA20/56, LA15/24)	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessment anticipates effects of low magnitude during all phases and visual anticipates moderate adverse effects during all phases. Consequently, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.
National Cycle Network Route 41 Avon Cycleway	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the visual and noise assessments anticipate effects of overall low magnitude during all phases. Consequently, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.
Severn Way Long Distance Route	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the visual and noise assessments anticipate effects of overall low magnitude during all phases. Consequently, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.
PRoW WL23/64	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessments anticipate effects of low magnitude during all phases. The visual assessment has moderate to low adverse during construction and low adverse during operation and decommissioning phases. Consequently, it is considered that there will be minor adverse to negligible effects on the amenity of the route in all phases of the development.
PRoW WL 23/61	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise and visual assessments anticipate effects of overall low magnitude during all phases. Consequently, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.
PRoW WL 23/62	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessments anticipate effects of low magnitude during all phases. The visual assessment has moderate adverse during construction and decommissioning and low adverse during operation and decommissioning phases. Consequently, it is considered that there will be minor adverse to negligible effects on the amenity of the route in all phases of the development.

Receptor	Effect Description and Significance
PRoW WL 23/60	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessments anticipate effects of low magnitude during all phases. The visual assessment has moderate adverse magnitudes in all phases. Consequently, it is considered that there will be minor adverse effects on the amenity of the route in all phases of the development.
Settlements	
Bradney	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the noise assessments anticipate effects of low magnitude during construction. The visual assessment has low adverse during construction, low beneficial during operation and negligible during decommissioning. Consequently, it is considered that overall there will be minor adverse to negligible effects on the amenity during construction.
Woolavington	Effects of negligible magnitude are anticipated across all phases for air quality and during operation and decommissioning for transport and noise. A low adverse effect is anticipated for all phases for visual effects. Moderate adverse transport effects are anticipated during construction and low adverse noise effects during construction. Consequently, it is considered that there will be moderate adverse effect during construction. No significant in-combination effects are expected in the operation and decommissioning phases.
Huntspill Moor (Butler Road)	Effects of negligible magnitude are anticipated across all phases for air quality and during operation and decommissioning for transport. A low adverse effect is anticipated for all phases for visual and noise effects. Low adverse transport effects are anticipated during construction. Consequently, it is considered that there will be moderate adverse effect during construction and minor adverse effects on amenity during operation.
Southwick	Effects of negligible magnitude are expected in all topics except visual and noise during construction Effects of negligible magnitude are expected in all topics except visual during operation and decommissioning. Consequently negligible to minor adverse effects on amenity expected during construction.
Mark Causeway/Dutch Road	Effects of negligible magnitude are expected in relation to air quality and transport, whilst the visual and noise assessments anticipate effects of low magnitude during all phases. Consequently, it is considered that there will be minor adverse effects on the amenity in all phases of the development.

Receptor	Effect Description and Significance
Wellfield Farm/Vole Road (Wellfield Ho)	Effects of negligible magnitude are anticipated across all phases for air quality and during construction and operation for noise and operation and decommissioning for transport. A moderate adverse magnitude is anticipated for all phases for noise effects. Low adverse magnitude is expected for visual during construction, with moderate adverse during operation. Low adverse effects are anticipated during construction for traffic and decommissioning for noise. Consequently, it is considered that there will be moderate adverse effect during construction and negligible to minor adverse effects on amenity during operation and decommissioning.
Vole Road (South of Pill Road)	Effects of negligible magnitude are anticipated across all phases for air quality and during operation and decommissioning for transport and noise. A low to moderate adverse magnitude is anticipated for all phases for visual. Low adverse effects are anticipated during construction for traffic and for noise. Consequently, it is considered that there will be moderate adverse effect during construction and minor adverse effects on amenity during operation and decommissioning.
Tarnock/A38 (south of Biddisham)	Effects of negligible magnitude are anticipated across all phases for air quality and transport effects. A low adverse effect is anticipated across all phases for visual effects. A moderate adverse noise effect is expected for operation phase and low adverse during construction and decommissioning. Consequently, it is considered that there will be minor to moderate adverse effects on the amenity of the settlement during all phases of development.
Crab Hole (Biddisham Lane)	Effects of negligible magnitude are anticipated across all phases for air quality and transport effects. A low adverse effect is anticipated across all phases for noise effects. A moderate adverse visual magnitude is expected for construction and decommissioning and low adverse during operation. Consequently, it is considered that there will be minor adverse effects on the amenity of the settlement during all phases of development.
Webbington	Effects of negligible magnitude are anticipated across all phases for air quality and transport effects. A low magnitude effect is anticipated during the construction for noise effects. A moderate adverse effect is anticipated during the construction for visual effects while low beneficial effects are anticipated during operation. Consequently, it is considered that there will be moderate adverse effects on the amenity of the settlement during construction and only beneficial significant landscape effects are identified during operation.

Receptor	Effect Description and Significance
Sandford (Broadleaze Way/Sandford Road/South Croft)	Effects of negligible magnitude are expected in all topics except transport and visual at Sandford Road/South Croft, where there will be in-combination effects during construction and decommissioning. Impacts of low adverse magnitude are expected on views at this location and impacts of moderate adverse magnitude are expected on transport. Overall, there would be minor adverse effect on amenity during construction and decommissioning and negligible effect during operation.
Sandford (Station Road/Hapil Close)	Effects of negligible magnitude are anticipated across all phases for air quality effects. During construction low magnitude effects is anticipated for noise, visual with a moderate adverse traffic effect. During operation only beneficial visual effects are expected. A moderate adverse transport effect is expected during decommissioning. Consequently, it is considered that there will be moderate adverse effects on the amenity of the settlement during construction and negligible effects during operation and minor adverse effects during decommissioning.
Sandford (Mead Lane)	Effects of negligible magnitude are anticipated across all phases for air quality effects. During construction low magnitude effects is anticipated for noise and traffic with a moderate adverse visual effect. During operation only beneficial visual effects are expected. A low adverse transport effect is expected during decommissioning. Consequently, it is considered that there will be moderate adverse effects on the amenity of the settlement during construction and decommissioning and negligible effects during operation.
Puxton Lane (south of Puxton)	Effects of negligible magnitude are anticipated across all phases for noise or air quality and traffic effects. A low magnitude noise effect is anticipated during the construction. A moderate adverse effect is anticipated during the construction and a moderate beneficial during operation phases for visual effects while low adverse magnitudes are anticipated during decommissioning. Consequently, it is considered that there will be minor adverse effects on amenity during construction with only significant landscape benefits during the operation phase.
Weston Road/A370	Effects of negligible magnitude are anticipated across all phases for air quality and traffic effects. A low magnitude effect is anticipated during all phases for noise and visual effects. Consequently, it is considered that there will be minor adverse effects on the amenity during all phases.
Kingston Bridge	Effects of negligible magnitude are anticipated across all phases for air quality and traffic effects. A low magnitude effect is anticipated during all phases for noise effects. Low to moderate magnitude is expected for visual. Consequently, it is considered that there will be minor adverse effects on the amenity during all phases.

Receptor	Effect Description and Significance
North End	Effects of negligible magnitude are anticipated across all phases for noise and air quality effects. A low magnitude effect is anticipated during the construction and decommissioning phases for traffic effects. A low adverse effect is anticipated across all phases for visual effects. Consequently, it is considered that there will be minor adverse effects on the amenity during construction and decommissioning and only significant visual effects during the operation phase.
Nailsea (western fringes)	Effects of negligible magnitude are anticipated during all phases for air quality. Low magnitude effects anticipated during the construction and decommissioning phases for noise effects. A moderate adverse effect is anticipated during the construction and decommissioning phases for transport effects and low adverse during operation. Low adverse effects during construction while a low beneficial effect is anticipated during operation for visual effects. Consequently, it is considered that there will be moderate adverse effects on the amenity during construction and decommissioning and negligible effects during the operation phase.
Tickenham Hill/Clevedon Road (north of Nailsea)	Effects of negligible magnitude are anticipated during all phases for air quality. Low magnitude effects anticipated during the construction and decommissioning phases for noise effects. A moderate adverse effect is anticipated during the construction and decommissioning phases for transport effects and low adverse effect during operation. Low to negligible adverse effects are anticipated during all phases for visual effects. Consequently, it is considered that there will be minor adverse effects on the amenity during all phases.
Clevedon Road/Cuckoo Lane	Effects of negligible magnitude are anticipated across all phases for air quality effects and transport. A low magnitude adverse effect is anticipated during construction and decommissioning for noise and low adverse effects are anticipated across all phases for visual effects. Consequently, it is considered that there will be minor adverse effects on amenity during construction and decommissioning and only significant landscape effects during the operation phase.
Portishead (eastern fringe)	Effects of negligible magnitude are anticipated across all phases for air quality effects. A low magnitude adverse effect is anticipated during construction and decommissioning for noise and transport, negligible during operation. For visual effects the preferred option has a low adverse effect during construction and a low beneficial effect during operation, whereas the alternative route has a moderate adverse effect during construction and low adverse on operation. Consequently, it is considered that there will be minor to moderate adverse effects on amenity overall during construction and decommissioning (subject to option selected) and only significant landscape effects during the operation phase.

Receptor	Effect Description and Significance
Portbury, Elm, Tree Park and Sheepway (east of Portishead)	<p>Preferred option has low magnitude effects for all phases for noise, with low magnitude effects for visual and transport during construction and decommissioning. Consequently, for this option, a minor adverse effect on amenity is expected during construction and negligible during operation.</p> <p>The alternative option has low magnitude effects during construction and decommissioning for noise and transport with low magnitude visual effects for all phases. Consequently, for this option, a minor adverse effect is expected at all phases.</p>
Avonmouth	Effects of negligible magnitude are anticipated in all phases for air quality effects. A low magnitude effect is anticipated during construction and decommissioning phases for visual and noise effects. A low adverse effect is anticipated for transport effects in the construction and decommissioning phase. Consequently, it is considered that there will be minor to moderate adverse effects on the amenity during construction and decommissioning with only significant visual effects during operation (i.e. negligible in-combination effect).
Moorland Park Traveller Site	Effects of negligible magnitude are anticipated in all phases for air quality effects. Moderate magnitude effects are anticipated during all phases for visual in the operation phase for noise effects and during the construction and decommissioning phases for transport effects. Low magnitude effects expected for noise during construction and decommissioning. Consequently, it is considered that there will be moderate adverse effects during all phases of development on the amenity of the settlement.
Tourism and Recreational/Community Facilities	
The Knowle Inn	Effects of negligible magnitude are expected in all phases for noise and air quality. Moderate adverse visual effects are anticipated during construction along with low magnitude adverse transport effects. Consequently, minor adverse effects on amenity are expected during construction. During operation only significant positive landscape effects are expected and only significant negative transport effects are anticipated during decommissioning.
Caravan & Camping site at Merry Farm	Effects of negligible magnitude are expected in relation to air quality and Transport in all phases. The visual assessment anticipates effects of moderate magnitude across all phases of the development. The low adverse noise effect is expected during operation. Consequently, it is considered that there will be minor adverse effects during the operation phases of development on amenity.

Receptor	Effect Description and Significance
Cripps Farm Holiday Cottages	Effects of negligible magnitude are expected in relation to air quality and Transport in all phases. The visual assessment anticipates effects of moderate magnitude across all phases of the development. The low adverse noise effect is expected during operation. Consequently, it is considered that there will be minor adverse effects during the operation phases of development on amenity.
Acorn Carp Fishery	Effects of negligible magnitude are expected in relation to air quality and noise in all phases. The visual assessment anticipates effects of moderate magnitude during operation and low magnitude during construction and decommissioning. The low adverse transport effect is expected during construction and decommissioning. Consequently, it is considered that there will be minor adverse effects during the construction and decommissioning phases of development on amenity. Only significant adverse landscape effects are identified during operation.
Nailsea and Backwell Rugby Football Club	Effects of negligible magnitude are expected in relation to air quality. Low noise effects are anticipated during construction and decommissioning. The landscape and visual effects are anticipated to be of low adverse magnitude during construction and decommissioning with a low beneficial effect during operation. Transport effects are considered to be moderate adverse during construction and decommissioning and low adverse during operation. Consequently, it is considered that there will be minor to moderate adverse effects during construction and decommissioning phases of development on the amenity of the sports pitch and negligible effects during operation.
The Star Inn public house	Effects of negligible magnitude are expected in relation to air quality. The visual assessments anticipate effects of moderate magnitude across all phases of the development, as does the noise assessment for operation. Low adverse noise and transport effects are expected during construction and decommissioning. Consequently, it is considered that there will be minor to moderate adverse effects during all phases of development on the amenity of the public house.
Noah's Ark Zoo Farm	Negligible effects are anticipated for all phases for air quality and transport and for noise during operation. Visual effects of low adverse are expected for all phases and low adverse noise effects during construction and decommissioning. Consequently it is considered that there will be minor adverse effects during construction and decommissioning with only significant adverse landscape effects during operation.

Receptor	Effect Description and Significance
Portbury Wharf Nature Reserve/SNCI	<p>Effects of negligible magnitude are expected in relation to air quality. Low magnitude effects are anticipated for noise during all phases of the development (for both preferred and alternative option). Visual effects are considered to be low to moderate adverse magnitude during construction and decommissioning for both options, low to moderate beneficial during operation for the preferred option, and low to moderate adverse during operation for the alternative option (except at the Bird Hide South where the magnitude would be low beneficial). Transport effects are expected to be moderate during construction and demolition and low during operations.</p> <p>Overall, it is considered that preferred option will have minor to moderate adverse effects on amenity during construction and decommissioning and negligible effects during operation. The alternative option will have minor to moderate adverse effects during construction and decommissioning and minor adverse effects during operation on the amenity of the nature reserve.</p>

Indicative Access for Future Maintenance

- 15.5.127 National Grid would require access to ensure the Proposed Development could be appropriately maintained. These easement arrangements have been taken into consideration and discussed as part of the operational assessment of the Proposed Development.

Construction Programme Sensitivity Analysis

- 15.5.128 The construction employment profile, and its associated effects on average and peak employment, induced spend and accommodation supply, are the only elements of the assessment that could be affected by a change in construction programme and for which a sensitivity analysis has been provided. The construction assessment is based on National Grid's indicative employment profile, provided as Insets 15.5, 15.6 and 15.7 of this ES chapter, and assumes that construction commences in the first quarter of 2016 and is completed in the third quarter of 2022.
- 15.5.129 Programme 1 assumes that construction commences in March 2016 and is completed in October 2019. This represents a condensed programme when compared to that presented in **Inset 15.5**, which would require the deployment of additional resources. The average and peak employment demand for the Proposed Development would likely be higher than currently assessed. The number of non-local, migrant workers would also be likely to increase and consequently induced spend may be higher (as workers spend food, subsistence, accommodation and other out of pocket expenses), which would be positive for the local economy, albeit perhaps only noticeable at the individual business level. The Proposed Development is considered to have **negligible** effect on accommodation availability. An increase in construction workers would be expected under this scenario, although construction activities would be spread throughout the Proposed

Development area, which could place additional demand on the supply of accommodation.

- 15.5.130 Programme 2 assumes that the start of construction is delayed by three years, but that the overall duration of the programme remains the same. The comments made in respect of Programme 1 would also apply in respect of Programme 2, as this is a condensed programme when compared with **Inset 15.5**.
- 15.5.131 Programme 3 assumes that construction commences in March 2016 and is completed in October 2022. This construction programme closely reflects that presented in **Inset 15.5** and would have no implication for the assessment.

Climate Change Effects

- 15.5.132 Consideration has been given throughout the assessment to the potential effects of climate change on the socio-economics and land use assessment of the Proposed Development. This has been based on the UK Climate Projections 2009 set of scenarios for the southwest of the UK, describing possible future climates for the years 2020s, 2050s and 2080s and the predicted effects of these climate changes as set out by Warming to the idea (Climate South West) (Ref15.24):
- 15.5.133 The construction effects identified would be completed under the current climate baseline scenario so no change to the construction assessment is expected from climate change.
- 15.5.134 The operational life of the Proposed Development would include the 2050 baseline scenario. The predicted changes in precipitation and temperature, whilst having potential economic and social effects, would not be expected to change the socio-economic effects of the Proposed Development.
- 15.5.135 Decommissioning could occur under the 2080 predicted climate change scenario. With this future baseline scenario, there is potential for increased winter precipitation, decreased summer precipitation and higher variation in seasonal temperatures. These factors could influence the time and expenditure required to decommission the project. However, it is unlikely that this would amplify the magnitude of socio-economic effects such that they would be more significant than currently assessed.
- 15.5.136 Consideration has been given to the prediction that agricultural land will be more sensitive under the future baselines to construction activities. The decommissioning phase would affect agricultural land during works. However, it is reasonable to assume that construction soil management techniques, such as those already identified in the current Soil Management Plan, would continue to mitigate the temporary effects of decommissioning to agricultural land and maintain or reinstate the agricultural land to the quality present at that time. This is not considered to significantly change the assessment of effects.
- 15.5.137 It is noted that one of the predicted effects from climate change in the southwest is an increased number of visitors to coastal areas due to hotter drier summers and/or adverse effects from increase storm and flood frequencies. This is not expected to be influenced by the Proposed Development.
- 15.5.138 In summary, the predicted effects of climate change are not expected to have a material influence on the socio-economic effects assessed for the Proposed Development. The Proposed Development is also not considered to have a significant effect on the predicted effects of climate change on the South West.

15.6 Inter-relationship of Potential Effects

- 15.6.1 With regards to socio-economic and land use assessment, the inter-relationship of other environmental effects from the Proposed Development has been accounted for within the amenity effects assessment at **Table 15.46** above.

15.7 Mitigation and Enhancement Measures

Measures Embedded within the Design of the Proposed Development or Committed to as Part of its Delivery

- 15.7.1 Mitigation approaches and measures have been adopted to reduce, remove or compensate the magnitude of anticipated negative effects and enhance anticipated positive effects of the Proposed Development. The mitigation measures (below) have been embedded within the design of the Proposed Development or committed to as part of its delivery. These measures have therefore been assumed to be implemented for the assessment in the assessment of the Proposed Development in the previous sections. Also, it should be noted that National Grid are continuing dialogue with the local Councils on the requirement and agreement of planning obligations.
- 15.7.2 Consultation with all affected landowners has been undertaken by National Grid throughout the Proposed Development to understand the specific requirements of each land use. This informed route design to reduce the effect of the Proposed Development over its whole length. Details of design iteration and responses to consultation requests can be seen in **Volume 5.2.1** and the Consultation Report (**Volume 6.1**).
- 15.7.3 In addition, all directly affected landowners would be appropriately compensated for the disruption that they experience during construction, operation and decommissioning. This is a statutory duty for National Grid and would be undertaken in accordance with National Grid's Land Rights Strategy.
- 15.7.4 National Grid is seeking agreements with businesses and landowners whose land is affected by permanent infrastructure or oversailed by the Proposed Development in order to allow National Grid to install the infrastructure and provide for future maintenance access. In cases where an agreement cannot be reached, the Order would provide for the compulsory acquisition of any necessary rights. Restrictions may be placed on what can be developed directly above (underground cables) or beneath overhead lines e.g. tree planting, however the agreements or acquisitions would not normally limit the current business land use functions along the Proposed Development corridor.

Supplementary Mitigation and Enhancement Measures

- 15.7.5 Whilst no mitigation is required for the negligible or beneficial effects expected on the local economy, opportunities to maximise the procurement of materials and employees from within the South West would be sought.

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- 15.7.6 Consultation will be undertaken with the relevant authorities prior to each stage of construction commencing to identify and understand any constraints in the area that will need to be accounted for.
- 15.7.7 A Soil Management Plan will be prepared (in accordance with the Draft CEMP, **Volume 5.26.1**) that commits to, and provides relevant guidance in relation to the reinstatement of agricultural land to maintain existing agricultural land quality.
- 15.7.8 In terms of amenity, it is assumed that the mitigation measures identified in the component disciplines (i.e. landscape, views, noise, vibration, air quality, traffic and transport) would be adopted. These measures would contribute to mitigating and/or enhancing the amenity.
- 15.7.9 The PRow Management Plan (**Volume 5.26.6**) is an appendix to the Draft CEMP and would be implemented (via a DCO Requirement). The PRow Management Plan seeks to minimise the extent to which usage of PRow is disrupted and includes the following mitigation approaches:
- PRow would be kept open via management. Staff would be at the crossing points where construction works affect a PRow. Users would be instructed to cross the PRow when the PRow is safe to use. Signage would be used confirming dates and hours of working;
 - where a PRow has been identified for temporary closure, a temporary diversion would be established where practicable. Where temporary diversions are required these would be negotiated with the local PRow officer and the landowners involved. Signage would be used confirming dates and hours of working;
 - signs would be erected warning PRow users of the presence of construction work. Information signs detailing works would be maintained along the construction site;
 - the location of signs providing information of temporary diversions and closures would be discussed with the PRow Officers;
 - suitable fencing would be erected where appropriate to form a safe corridor for users of the PRow. The type and size of fencing would be agreed with the individual landowners and PRow Officers;
 - pre-commencement condition surveys would be undertaken of the PRow prior to the commencement of construction. The surveys would include photographic records and written descriptions; and
 - PRow would be reinstated to the same condition as was recorded prior to the commencement of construction.

15.8 Residual Effects

- 15.8.1 The mitigation measures have been embedded within the design of the Proposed Development or committed to as part of its delivery (i.e. they are guaranteed). These measures have been taken into account in the assessment of the Proposed Development in the previous sections and also in the assessment of residual effects. The supplementary mitigation measures identified in section 15.7 cannot be guaranteed at this stage and therefore have not been taken into account in the residual effects assessment.

Construction

- **Minor beneficial** effect on regional (south west) and local (five Local Authority areas affected by the Proposed Development) economies and negligible **beneficial** effect on the national economy through gross expenditure.
- **Negligible beneficial** economic effects through direct and indirect expenditure by employees and contractors in the local area and in the UK.
- **Negligible to minor beneficial** effect on providing employment opportunities within the local area.
- **Negligible adverse** effect on tourist accommodation availability within the local area.
- No significant effects on the functionality and employment of current businesses and agricultural operations as a result of direct landtake except: **moderate adverse** significance effects on Droveway Farm (2 employees) and Paragon Vehicle Services Limited (up to 300 employees with contractors) if Option B (Portishead) is selected, Cripps Farm (4-6 employees), CJ Associates (25 employees) and Nut Tree Farm (2 employees) and negligible effects on Yearsley Group (32 employees plus employees of tenants). However, compensation is expected to reduce these to a **negligible** socio-economic effect, despite these businesses not being able to continue as currently operated e.g. the compensation could facilitate the relocation and continued employment of Droveway Farm.
- **Negligible to minor adverse** significance effect on BMV agricultural land whilst it is temporarily used during construction.
- **Negligible adverse** overall effect on the local economy and business operators on the whole within the local area of influence and Wider Study Area.
- **Minor adverse** significance effect as result of direct land take within the Royal Ordnance Factory and Avonmouth, Severnside Enterprise Area, CF/4 Safeguarded Site West End (Nailsea) and Portishead Ashlands, DM13, DM18 allocated areas. **Negligible** effects for T/1 Portishead to Pill railway line and CF/4 Portishead Quays allocations. The Proposed Development is not anticipated to prevent the development of these allocations from coming forward and being realised in the future. Moderate adverse effects for Global Machine Tools and The Bristol Port Company planning approvals, where the development of these current planning consents would be affected.
- **Negligible to moderate** adverse effects on fourteen visitor attractions or areas of recreation, comprising negligible effects at Avon Truckstop; minor adverse effects at King's Sedgemoor Drain, Mark Moor, Nailsea, Puxton, Kenn and Tickenham Wick Moors, Mendip Hills AONB, Coombes Cider Mill, Winter Meadows Caravan Park and Portbury Common; moderate adverse effects at Nailsea and Blackwall Football Club, Cripps Farm, Noah's Ark Zoo Farm, Motocross on Caswell Hill and Portbury Wharf Nature Reserve.
- The residual amenity effects are presented in Table 15.44. **Minor adverse** construction amenity effects have been identified on 41 recreational routes, 12 settlements and two tourism or recreational/community facilities. **Moderate**

adverse construction amenity effects have been identified on five recreational routes, 12 settlements and three tourism or recreational/community facilities.

Operation

- There are not considered to be significant effects on the functionality of any businesses, except for CJ Associates and Droveaway farm, who would be required to relocate as a result of the Proposed Development.
- **Negligible beneficial** effects on the local area economies as a result of expenditure required for the maintenance and operation of the Proposed Development.
- **Negligible adverse** effect on the quantity of BMV agricultural land as a result of operational landtake for the Proposed Development (e.g substation area).
- **Negligible beneficial** effects to six to eight visitor attraction or areas for recreation as a result of removed existing infrastructure, comprising Nailsea and Blackwell Football Club, Mendip Hills AONB, Coombes Cider Mill, Winter Meadows Caravan park, Nailsea Football Club, Noah's Ark Zoo Farm, Portbury Common (Route Option A), Portbury Wharf Nature Reserve (Route Option A).
- **Negligible adverse** effects to four to six visitor attractions or areas for recreation as a result of operational landtake for the Proposed Development, comprising King's Sedgemore Drain, Mark Moor, Nailsea, Puxton, Kenn and Tickenham Wick Moors, Avon Truckstop, Portbury Common (Route Option B), Portbury Wharf Nature Reserve (Route Option B).
- **Minor adverse** effects on two visitor attractions or areas of recreation (Cripps Farm and Motocross) as a result of restrictions from the operational landtake of the Proposed Development. Compensation is again expected to reduce these to a **negligible adverse** socio-economic effect.
- No greater than **minor adverse** effects on the local visitor economy.
- **Negligible adverse** significance effect as result of direct landtake within the six allocated areas. This is not anticipated to prevent the development of these areas from coming forward and being realised in the future. Continued **minor adverse** effect on the two planning approvals (Global Machine Tools and The Bristol Port Company) affected.
- **Negligible adverse** effect on PRow, National Trails and Cycle Routes within the Local Area of Influence in the context of all PRow within the Local Area of Influence.
- The residual amenity effects are presented in **Table 15.44. Minor adverse** operational amenity effects have been identified on 41 recreational routes, 10 settlements and four tourism or recreational/community facilities. **Moderate adverse** operational amenity effects have been identified on one recreational routes, two settlements and one tourism or recreational/community facility.

Decommissioning

- 15.8.2 Residual decommissioning effects are expected to be similar to those identified for construction. However the assessment has recognised that if a less intensive approach to decommissioning is used the employment or economic effect would be less than reported. A **moderate adverse** effect on BMV, as consistent with construction effects, is a worst case assessment as decommissioning will not require disturbance to the underground cable route. The effects to all businesses and agricultural operations would be **negligible** as disturbance would be temporary and land restored to the relevant land use at that time.

15.9 Cumulative Effects

- 15.9.1 The cumulative assessment is provided at **Volume 5.17** and includes potential cumulative effects of the Proposed Development together with other major development proposals.

Construction Employment

- 15.9.2 The construction phase of the Proposed Development requires an average of 185 staff a month over the seven year construction programme. It is estimated that Bridgwater substation (Project ID 6), Bridgwater to Hinkley overhead line reconductoring (Project ID 7), the N Route reconductoring (Project ID 34) and WPD crossing works (Project ID 99) would employ approximately 20 construction staff each, whilst the Helius Energy Project (ID 59) would provide from 38 to 264 full time equivalent construction jobs. There is significant demand for employment through the Hinkley Point C project with the application documents identifying that there are likely to be at least 20,000 to 25,000 different individual posts in the main 108 month construction period, with a peak head count of 5,600 in 2016. Collectively it is considered that these developments will have a cumulative effect ranging from **negligible to moderate beneficial** significance on unemployment and the labour market.

Accommodation Availability during Construction

- 15.9.3 The demands of the Proposed Development workforce can be satisfied within the existing accommodation stock without displacing existing tourist users and the Proposed Development is considered to have negligible effect on accommodation availability. It is considered that the cumulative demand of the Bridgwater substation project (ID 6), the Bridgwater to Hinkley overhead line reconductoring project, the N Route reconductoring project, Helius Energy project and WPD crossing works can also be satisfied within the existing accommodation stock without displacing tourist users, and Hinkley Point C will provide accommodation in the area for its workforce. There will be **negligible** cumulative effect overall.

Amenity Effects

- 15.9.4 Amenity effects have been assessed where receptors are significantly affected by more than one discipline (i.e. landscape, views, air quality, noise, vibration, traffic and transport). While there will be significant cumulative landscape effects (which have been assessed by that topic), significant noise, air quality or traffic cumulative

effects have not been identified, as such no cumulative amenity effects have been identified.

Long-term Effect on Visitor Economy

- 15.9.5 The Bridgwater substation project (ID 6), Bridgwater to Hinkley overhead line reconductoring project (ID 7), N Route reconductoring project (ID 34), Helius Energy project (ID 59) and WPD crossing works (ID 99) were scoped out from the assessment of effects on local visitor economy and are not considered here.
- 15.9.6 The Proposed Development is considered to be likely to have minor adverse to minor beneficial cumulative effects with the Steart Peninsula (Project IDs 91 & 92) owing to the likely overlap in receptors, whilst the Proposed Development is considered likely to have a minor adverse to negligible cumulative effect with the Hinkley Point C Public Information Centre (Project ID 96). It is considered that collectively there would be minor adverse to major beneficial cumulative effect based mainly on the assessment that the positive effects expected from the Hinkley C visitor centre would not be affected by the Proposed Development.

Mitigation and Residual Effects

- 15.9.7 No mitigation measures, above those set out for the Proposed Development in isolation, are proposed. The effects identified paragraphs 15.9.2 to 15.9.6 above therefore also represent the residual effects.

15.10 Conclusions

- 15.10.1 The likely residual effects of the Proposed Development on socio-economics and land use are summarised below.

Construction

- 15.10.2 In relation to economic sectors and profiles, The Proposed Development is expected to have **minor beneficial** effect in terms of inward investment to the local economies through the supply chain and **negligible to minor beneficial** effect through the creation of employment opportunities within the local labour market during construction.
- 15.10.3 The assessment has considered the potential for effects on tourism expenditure, employment and accommodation as well as business operators in the local area of the Proposed Development more generally. Surveys of business operators and recreational users have provided evidence to suggest that the Proposed Development would have no more than a **minor adverse** effect on the visitor economy. The Proposed Development would require the short-term in-migration of construction workers. This is considered to have a **negligible** effect on the availability of tourism accommodation.
- 15.10.4 In relation to land uses directly affected during construction, consideration has been given to the potential to have effects on existing business and agricultural operations. Within the context of the overall economy the number of business and agricultural operators directly affected is minor. The assessment has identified the potential to have effects on the functionality of four business and three agricultural operations during construction. These businesses would be compensated for the direct effects of the Proposed Development. However the potential indirect employment effects have been assessed. The effects on CJ Associates, Paragon

Vehicles Services and Droveaway Farm have been assessed to have the potential to affect current employment levels. The effect on Paragon Vehicle Services would only occur if Option B is progressed. In overall socio-economic terms for the Wider Study Area, the level of employment put at risk through this Proposed Development is assessed as **minor adverse**. Avonmouth and Severnside and Puriton Energy Park are key allocated planning areas for economic growth along the route of the Proposed Development. The Proposed Development has been assessed to have a **minor adverse** effect on the Avonmouth and Severnside area during construction. However it is not considered to present limitations on the future development plans for the area which would limit the employment and economic potential of the area being achieved. In relation to the Puriton Energy Park the assessment identified that there is minimal interaction with the Proposed Development, mainly due to the removal of 132kV lines. A **minor adverse** effect has been identified during construction. Two planning approval for development would be adversely affected during construction at Avonmouth. The landowners would be directly compensated where this occurs, however, there would be **minor adverse** socio-economic effects from these developments not being able to progress in accordance with the current plans.

- 15.10.5 The construction of the Proposed Development would have a **moderate adverse** effect on BMV land during construction.
- 15.10.6 The assessment has identified that there are individual recreational and visitor attractions which would have **negligible to moderate adverse** effects during construction.
- 15.10.7 The assessment has also considered the effects of the Proposed Development on the amenity of recreational route, settlements and recreational/community receptors. There are a range of effects across the length of the Proposed Development with the construction period having localised effects on amenity for a number of receptors and settlements. Cumulative amenity effects have not been identified that would have a significant effect.

Operation

- 15.10.8 In relation to economic sectors and profiles, The Proposed Development is expected to have **negligible** effect during operation.
- 15.10.9 Surveys of business operators and recreational users have provided evidence to suggest that the Proposed Development would have no more than a **minor adverse** effect on the visitor economy during operation.
- 15.10.10 Once operational, the businesses significantly affected during construction, may have already relocated or the direct effects on the businesses would be compensated. Some businesses on Third Avenue have identified there could be limitations on their current functionality during operation. National Grid would seek to reach agreement with these businesses to avoid effects that could influence business functionality and the operational effects would be **negligible**.
- 15.10.11 Avonmouth and Severnside has been assessed to be subject to a **minor adverse** effect during operation. However it is not considered to present limitations on the future development plans for the area which would limit the employment and economic potential of the area being achieved. In relation to the Puriton Energy Park the assessment identified that there is minimal interaction with the Proposed

Development and a **negligible** effect is identified during operation. The two planning approval adversely affected during construction at Avonmouth would not be able to progress in accordance with the current plans so the **minor adverse** effect is considered to continue through operation.

- 15.10.12 Effects to BMV land following reinstatement of works areas to the current quality, would reduce to a **negligible**.
- 15.10.13 Once operational, some individual recreational and visitor attractions would benefit from the removal of existing 132kV infrastructure. For others, the adverse effects would continue.
- 15.10.14 The assessment of amenity effects of the Proposed Development on the amenity of recreational route, settlements and recreational/community receptors. There are a range of effects across the length of the Proposed Development with the construction period having localised effects on amenity for a number of receptors and settlements. Cumulative amenity effects have not been identified that would have a significant effect.

Decommissioning

- 15.10.15 Residual decommissioning effects are expected to be similar to those identified for construction. However the assessment has recognised that if a less intensive approach to decommissioning is used the employment or economic effect would be less than reported. A moderate adverse effect on BMV, as consistent with construction effects, is a conservative assessment as decommissioning will not require disturbance to the underground cable route. The effects to all businesses and agricultural operations would be negligible as disturbance would be temporary and land restored to the relevant land use at that time.

References and Data Sources

- 15.1 Department of Energy and Climate Change. Overarching National Policy Statement for Energy EN-1. London: The Stationery Office, 2011
- 15.2 Department of Energy and Climate Change. National Policy Statement for Electricity Network Infrastructure (EN-5). London: The Stationery Office, 2011
- 15.3 Department of Communities and Local Government, National Planning Policy Framework, London, March 2012
- 15.4 West Somerset Council, West Somerset District Local Plan, 2006
- 15.5 Sedgemoor in Somerset, Local Development Framework Core Strategy, Shaping the Future of Sedgemoor 2006-2027, May 2013
- 15.6 North Somerset Council, Core Strategy, version following high court judgement High Court Judgement 2013, Adopted April 2012,
- 15.7 North Somerset Council, North Somerset Replacement Local Plan, adopted 2007
- 15.8 South Gloucestershire Council, South Gloucestershire Local Plan Core Strategy 2007-2027, Adopted December 2013
- 15.10 Bristol City Council, Bristol Development Framework Core Strategy, Adopted June 2011
- 15.11 Dun and Bradstreet UK, Market Insights, Purchased data request January 2014, www.dnb.co.uk
- 15.12 South West Observatory, SW State of the Region, 2011, <http://www.swo.org.uk/state-of-the-south-west-2011/>
- 15.13 South West Observatory, South West Regional Accounts 2011 release, <http://economy.swo.org.uk/south-west-regional-accounts/>
- 15.14 Visit England, Great British Tourism Survey 2012, http://www.visitengland.org/insight-statistics/major-tourism-surveys/overnightvisitors/GBTS_2012/GBTS2012.aspx
- 15.15 Office of National Statistics, Nomis, Official Labour Market statistics, <https://www.nomisweb.co.uk/>

- 15.16 Visit England, UK Accommodation Stock Audit 2012,
<http://www.visitengland.org/insight-statistics/major-tourism-surveys/accommodations/AccommodationStock/>
- 15.17 Sedgemoor in Somerset, Puriton Energy Park, Supplementary Planning Guidance, adopted March 2012,
<http://www.sedgemoor.gov.uk/index.aspx?articleid=7411>
- 15.18 West of England Local Enterprise Partnership, Avonmouth and Severnside,
<http://www.westofenglandlep.co.uk/business/projects/ea-avonmouth-severnside>
- 15.19 Amion Consulting and White Young Green, Avonmouth Severnside Outline Development Strategy, Final Report 2012,
http://www.bristol.gov.uk/sites/default/files/documents/planning_and_building_regulations/planning_policy/local_development_framework/Avonmouth%20Severnside%20Development%20Strategy%20Report.pdf
- 15.20 The Somerset Tourism Partnership by the South West Research Company, Somerset Visitor survey 2009/10, November 2010,
- 15.21 Mendip Hills AONB, State of the AONB Report 2009-2014, Mendip Hills AONB, http://www.mendiphillsaonb.org.uk/wp-content/uploads/2010/11/up_160129_state_of_mendip_hills_aonbr.pdf
- 15.22 National Grid, Development Near Overhead Lines, Planning and Amenity Aspects of high voltage electricity transmission lines and substations, July 2008
- 15.23 Avonmouth and Severnside Development Board: Flood Risk Sub-Group (Atkins), Avonmouth and Severnside Flood Management Optioneering, November 2013
- 15.24 South West Climate, Warming to the Idea, Building resilience to extreme weather and climate change in the south west, 2010.
<http://climatesouthwest.org/library/Resources/warming-to-the-idea-2010sml.pdf>

Data and research sources used to inform the socio-economic assessment to date are presented in **Table 15.47** below.

Table 15.47 Data and Research Sources

Data	Source	Spatial Extent
Economic Profile	<ul style="list-style-type: none"> • 2011 Census Data (Office for National Statistics, 2011); • Family Spending, Table A41. Income and Source of Income by UK Countries and Regions, 2009-2011, (Office for National Statistics, 2011a) • Annual Survey of Hours and Earnings, Office for National Statistics, 2011b, obtained from nomisweb.co.uk • Office of National Statistics, 2012. National Figures: Annual Business Survey, Sections F Construction and I Accommodation and Food Service, release date November 2012. • Office of National Statistics 2013a. Regional Figures: Annual Business Survey, Section F, Construction, release date July 2013. • Official Labour Market Statistics (Office for National Statistics, 2013). • Local Impact Assessment Reports produced for the Development Consent Order for a New Nuclear Power Station at Hinkley Point • Changing State of the South West 2012 (South West Observatory) • State of the South West 2011 (South West Observatory) • Regional Economic Strategy for South West England 2006-2015 (South West Regional Assembly) • Bristol: State of the City (Bristol City Council 2012) • West of England Key Statistics 2008 (Intelligence West) • West of England Local Economic Assessment December 2011 (West of England Local Enterprise Partnership) • West Somerset Housing Strategy 2009-2012, West Somerset Council, 2009. • West Somerset Council, undated. West Somerset Economic Strategy – Responding to Change. Online at http://www.westsomersetonline.gov.uk/getattachment/Business/Economic-Strategies/West-Somerset-Economic-Strategy-Responding-to-Change.pdf.aspx 	Various from Super Output Area to County level
Business Operators (Excluding Agriculture)	<ul style="list-style-type: none"> • Ordnance Survey Address Base Plus Data (Office for National Statistics, 2013); • Dun & Bradstreet Market Insight data (D&B Market Sales & Marketing Solutions, 2014). • Local Impact Assessment Reports produced for the Development Consent Order for a New Nuclear Power Station at Hinkley Point • Leaflet about the Avonmouth Severnside Enterprise Area 	Wider Study Area
Agricultural Land and Operations	<ul style="list-style-type: none"> • Dun & Bradstreet Market Insight data (D&B Market Sales & Marketing Solutions, 2014) • Details of Persons with an Interest in Land via National Grid Land Agents; • Multi-Agency Geographic Information Centre (MAGIC) (Natural England, 2012). 	Local Area of Influence

Allocated Areas or Approved Planning Sites	<p>Council planning registers and various planning documents including:</p> <ul style="list-style-type: none"> • Somerset Waste Core Strategy Somerset County Council, 2013) • Somerset Minerals Local Plan (Somerset County Council, 2004) • Somerset Strategic Site Assessment (Land Use Consultants on behalf of Somerset County Council, 2011) • North Somerset Core Strategy (North Somerset Council, 2012, revised March 2013) • North Somerset Sites and Policies Development Plan Document, Consultation Draft (North Somerset Council, 2013) • South Gloucestershire Council, Policies, Sites and places Development Plan Document • West Somerset District Local Plan (West Somerset District, 2006) • Hinkley Point C Supplementary Planning Document (West Somerset & Sedgemoor District, 2011) • Bristol City Council Adopted Core Strategy (Bristol City Council, June 2011) • Bristol City Council Site Allocations and Development Management Policies (Bristol City Council, March 2013) • Final Sustainability Appraisal Report for the Puriton Energy Park Supplementary Planning Document (Sedgemoor District Council, March 2012) • The West Somerset Local Plan 2012 to 2032, Draft Preferred Strategy (West Somerset Council, February 2012) • Avonmouth Severnside Outline Development Strategy (AMION Consulting, 2012) • Avonmouth and Severnside Study, Bristol City and South Gloucestershire Councils Commitments and Consents (WYG, March 2011) • Avonmouth and Severnside Study, Bristol City and South Gloucestershire Councils Development Options (WYG, January 2012) • The Regional Spatial Strategy for the South West 2006-2026 (South West Regional Assembly, 2007) • South West Regional Development Agency Economic Development Guide (South West Regional Development Agency, 2011) • Spatial implications of economic potential in the South West (South West of England Regional Development Agency, 2006) • West Somerset Council (2009) West Somerset Economic Strategy – Responding to Change • South Gloucestershire (2013) Core Strategy in incorporating Post-Submission Changes • Sedgemoor District Council (2011) Local Development Framework Core Strategy – Shaping the Future of Sedgemoor 2006-27 • Sedgemoor District Local Plan 1991-2011 (Sedgemoor District Council, 2004) • South Gloucestershire Adopted Local Plan (South Gloucestershire, 2006) • Hinkley Point C Local Impact Report (Somerset County Council, West Somerset Council and Sedgemoor District Council, 2012) • Technical and Environmental Appraisal: Resolving technical issues in the South Wales and Gloucestershire Regions, in support of Hinkley Point C Connection Project (National Grid, 2012) • Hinkley Point C Connection Project Stage 1 Consultation Feedback Report (National Grid, 2011) 	Local Area of Influence
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Community Facilities Including Health, Education and Places of Community Gathering	<p>General web searches including review of:</p> <ul style="list-style-type: none"> • Direct-Gov Schools finder website • NHS Choices Website • Council websites • Specific information gathered about local community facilities from stakeholder engagement 	Wider Study Area
PRoW, National Trails and Other Rights Of Access and Non-Designated and Local Walkways and Cycle Routes	<ul style="list-style-type: none"> • Council Definitive Maps • Somerset and Gloucestershire Council Rights of Way Improvement Plans 	Wider Study Area
Recreational areas e.g. Green Infrastructure, informal Recreation, CROW Land, Formal Recreation Areas, Common Land and Village Greens	<ul style="list-style-type: none"> • Council websites and planning documents (listed above) • Multi-Agency Geographic Information Centre (MAGIC) (Natural England, 2012) • Specific information gathering about locally valuable recreational areas identified from stakeholder engagement 	Wider Study Area

Tourism and Recreation Attractions and Events	<ul style="list-style-type: none"> • Post Office Database • Ordnance Survey Address Base Plus Data • OpenStreetMap data • Dun & Bradstreet Market Insight data (D&B Market Sales & Marketing Solutions, 2014) • Monitor of Engagement with the Natural Environment: National Survey on People and the Natural Environment, Annual Report 2011-2012 (Natural England, 2012) • Local Impact Assessment Reports produced for the Development Consent Order for a New Nuclear Power Station at Hinkley Point • National Character Area Profile 141: Mendip Hills (Natural England, March 2013) • Annual Survey of Visits to Visitor Attractions (VisitEngland, 2011) • State of the Mendip Hills AONB Report: 2009-2014 (Mendip Hills AONB) • Somerset Visitor Survey 2009/2010 (VisitSomerset, November 2010) • Farm Tourism within the Context of Rural Tourism, and Development Plan 2002-2007 (South West Tourism, 2002) • Towards 2015 – Shaping Tomorrow's Tourism (South West Tourism, 2005) • North Somerset Council STEAM Report (Global Tourism Solutions (UK) Ltd, 2011) • Somerset Visitor Survey 2009/2010 (The South West Research Company, 2010) • State of Tourism South West (The Tourism Company, 2003) South West Visitors Survey Full Report 2009 (South West Tourism, 2010) • The Value of Tourism to the South West Economy in 2001 (South West Regional Research Group, 2001) • The Value of Tourism 2008 (South West Tourism, 2009) • Somerset Activities and Attractions (The South West Research Company, 2009) • North Somerset STEAM Report, 2011 <p>General web searches including review of:</p> <ul style="list-style-type: none"> • Visit Somerset website www.visitsomerset.co.uk • Mendip Hills AONB website www.mendiphillsaonb.org.uk • National Trust website www.nationaltrust.org.uk • English Heritage website www.english-heritage.org.uk 	Wider Study Area
Accommodation	<ul style="list-style-type: none"> • Visit Britain website www.visitbritain.com • Post Office Database • Ordnance Survey Address Base Plus Data • Open Street Map data • Dun & Bradstreet Market Insight data (D&B Market Sales & Marketing Solutions, 2014) • Visit Somerset website www.visitsomerset.co.uk 	Wider study area