

Island Infrastructure Investment Plan Final Report

Solent Local Enterprise Partnership

May 2018

LICHFIELDS

LICHFIELDS

Lichfields is the pre-eminent planning and development consultancy in the UK

We've been helping create great spaces
for over 50 years.

lichfields.uk

© 2018 Nathaniel Lichfield & Partners Ltd, trading as Lichfields. All Rights Reserved. Registered in England, no. 2778116. 14 Regent's Wharf, All Saints Street, London N1 9RL
Formatted for double sided printing.
Plans based upon Ordnance Survey mapping with the permission of Her Majesty's Stationery Office.
© Crown Copyright reserved. Licence number AL50684A
OurRef 14757894v5

Executive Summary

This report has been prepared by Lichfields on behalf of the Solent Local Enterprise Partnership (LEP). The purpose is to provide an identification of the future infrastructure needs of the Isle of Wight across a range of “economic infrastructure” categories. This is in the context of the need to support sustainable economic growth on the Isle of Wight, and having regard to national and local priorities.

The brief is set against the backdrop that it is widely recognised that access to good quality infrastructure is an essential ingredient for a competitive economy. Accordingly, infrastructure investment is recognised as one of the 5 ‘foundations of productivity’ set out within the Government’s Industrial Strategy. However, infrastructure can present high initial costs and long-return periods on investment which can lead to instances of market failure and, consequently, the rationale for public sector intervention.

Within the context of a constrained public sector funding environment, it is therefore essential that potential projects and investments are considered carefully in terms of their ability to directly support economic growth objectives whilst also taking account of standard appraisal approaches for public sector projects relating to deliverability, value for money and timeframes. The report focuses on unlocking sites for development which can achieve delivery of new housing and jobs, employment space, skills opportunities and leveraging of private sector investment.

Isle of Wight Economy

The Isle of Wight’s economy has performed reasonably strongly in recent years, including growth in a number of specialist higher value sectors particularly where the Island benefits from the presence of leading international businesses. However productivity levels are generally below the mainland, and there are challenges in terms of educational attainment and skills levels. The population of the Isle of Wight has been increasing, mainly amongst older age groups, and the Island fails to retain people in younger age groups. Forecasts indicate these population shifts are set to continue leading to a contraction of the working-age population. As an Island economy, the labour market is relatively self-contained with most residents working locally and very few in-commuters from the mainland.

Physical separation of the Island from the UK mainland is reported to have a negative effect on the Island’s economy in a number of ways, not least through the ‘Island premium’ which represents the additional cost of conducting business on and with the Isle of Wight. This premium not only encapsulates higher transportation costs, but also the limited opportunities for optimal economies of scale, due to reduced competition and the size of the market.

Latest economic forecasts commissioned by the Solent LEP indicate that employment on the Isle of Wight is expected to increase by 4,600 jobs between 2015 and 2036, a growth rate of nearly 8% which is broadly similar to the LEP average. Most growth is anticipated in health and social care, admin and support services, construction and recreation, reflecting both the ageing population trend and tourism sectors. More traditional sectors such as manufacturing and agriculture are expected to decline in overall terms.

The Isle of Wight Core Strategy and the Council’s Regeneration Programme set out potential to achieve higher levels of growth and to support regeneration of the Island’s communities and increase prosperity. Development sites and opportunity areas have been identified across the Island. It is estimated that the Regeneration Programme could deliver a total of 12,000 new jobs, 1,700 homes and increase the Council’s annual revenue by £15 million over the period 2017-2028. Delivery of additional growth is contingent on significant infrastructure investment to enable the identified opportunities to be realised and for the Island’s economy to be supported.

Key Infrastructure Issues

This report presents a detailed review of existing evidence and consultation with stakeholders to identify key issues for each of the main infrastructure categories included within the remit of the study. A headline summary for each infrastructure category is provided in Table ES.1.

Table ES.1 Summary of Infrastructure Gaps and Constraints

Infrastructure Theme	Emerging Gaps and Constraints to Growth
Water, Waste and Flood Defence	<ul style="list-style-type: none"> Requirements vary from site to site but water utilities provision generally funded by developers/consumers Scope for better early stage engagement and planning between Southern Water and developers Flood and coastal defence 'high risk' areas and projects identified to reduce or respond to specific risks
Energy	<ul style="list-style-type: none"> Local grid capacity improvements required to support future development Short-medium term scope for greater self-sufficiency through more effective on-Island storage and use of oversupply energy (e.g. public transport)
Transport	<ul style="list-style-type: none"> Scope for strengthened connectivity across the Solent Road network congestion and capacity constraints (particularly Newport to Ryde/Cowes) Scope for local improvements – including Ryde Interchange, junctions, bus priority signalling and smart ticketing
Telecommunications	<ul style="list-style-type: none"> Localised superfast broadband limitations and Three 4G mobile network signal Scope for satellite and local radio mast coverage for more peripheral rural areas and 'black holes'
Human Capital / Skills	<ul style="list-style-type: none"> Demographic constraints (ageing population and declining working-age resident base) and below average indigenous workforce skills Scope for dedicated Higher Education offer to retain young people and align with business needs
Housing / Business Premises	<ul style="list-style-type: none"> Affordable housing need – reflecting low incomes of residents and young people Viability challenges in providing modern, good quality business space Scope for public sector led investment in high quality employment space and marine infrastructure

Source: Lichfields analysis

Future Infrastructure Investment Priorities

Against a backdrop of limited committed/funded infrastructure projects on the Island, a 'long list' of 45 infrastructure projects has been compiled from a range of sources including evidence base reports, the Council's Regeneration Programme, the Island Infrastructure Task Force report, and through consultation with a range of stakeholders.

The key focus of infrastructure projects identified through the Island Infrastructure Investment Plan (IIIP) is upon unlocking new public and private development sites for housing and employment uses. Potential infrastructure projects have been appraised on their ability to secure direct jobs, new homes, new employment space, new skills opportunities and private sector investment. The appraisal process has identified an overall prioritisation of potential projects, as shown in Table ES.2 overleaf, focusing on three broad timescales; short-term to 2021, medium term to 2026 and longer term to 2040.

In total, the identified projects have the potential to directly unlock development sites which together could deliver over 8,500 new jobs and 2,500 new homes across the Isle of Wight.

Table ES.1 Project Prioritisation by Timescale

Project	Overall Priority	Timing of Development
East Cowes Regeneration Area - Highways infrastructure works	High	Short
HMP Camp Hill - Utilities network upgrades required within the site	High	Short
East Cowes Regeneration Area - Flood risk prevention measures	High	Short
HMP Camp Hill - Energy network upgrades required within the site	High	Short
Stag Lane - land decontamination required to bring forward development	High	Short/Med
Land to west of Westridge ('Pennyfeathers') - Road infrastructure improvements	Med	Short
Land to south of Clayton Road - Improvements to immediate surrounding local road network	Med	Short
Land at Little Kitbridge - Improvements to surrounding local road network	Med	Short
Land adjoining Lushington Hill & Hunters Way - Improvements to Lushington Hill / Palmers Road junction	Med	Short
Land at Rosemary Vineyard & Sharon Orchard, Ashley Road - Improvements to surrounding road network	Med	Short
Land west of Sylvan Drive - Anticipated impact on wider road infrastructure of Newport	Med	Short
Newport Harbour and County Hall car parks - Flood risk requires mitigation	Med	Short
Newport Harbour and County Hall car parks - Dredging and harbour wall maintenance	Med	Short
Kingston Marine Park - Hoist dock to facilitate access to deep water	Med	Short
Ryde Esplanade Interchange Improvements	Med	Short
Environmentally sensitive dredging of key waterways and harbours	Med	Short
Industrial Estate Extension (Nicholson Rd) - Transport and traffic access mitigation	Med	Short/Med
Industrial Estate Extension (Nicholson Rd) - utilities infrastructure	Med	Short/Med
Industrial Estate Extension (Nicholson Rd) - Flood risk mitigation	Med	Short/Med
East of Pan Lane - off-site infrastructure required to connect to the nearest point of adequate capacity	Med	Short/Med
Sandown Industrial Area - Flood mitigation work required	Med	Short/Med
Radio broadband coverage	Med	Short/Med
Integrated Transport Network	Med	Medium
Satellite broadband coverage for rural areas	Med	Med/Long
Provision of dedicated Higher Education facility (inc degrees)	Med	Med/Long
Island Line - sustainable investment option	Low	Short
Electric car and cycling charging points	Low	Short
Real Time information at bus stops	Low	Short
SCOOT review with bus signal priority	Low	Short
Signalised bus gate on the inbound section to Newport after St Mary's junction	Low	Short
Newport - Medina Way/Forest Road/Parkhurst Road - ability for buses to turn right	Low	Short
Cycle access to IW College at Whippingham	Low	Short
Newport - Freshwater shared cycle/walk route	Low	Short
Cowes and Yarmouth Temporary Flood Barriers	Low	Short/Med
Cowes and East Cowes Property Level Protection areas	Low	Short/Med
Bus Rapid Transit - lite bus priority measures Ryde-Newport-Cowes	Low	Medium
Shanklin/Sandown Park and Ride	Low	Medium
Gurnard to Cowes refurbishment	Low	Medium
Bouldnor Road refurbishment	Low	Medium
Using surplus energy to power public transport	Low	Medium
High voltage undersea interconnector	Low	Med/Long
Large scale battery storage facilities	Low	Med/Long
Fixed link across the Solent (road/tunnel)	Low	Long
Immersed tube pedestrian subway connecting east and west Cowes	Low	Long
Medina Bridge	Low	Long

Source: Lichfields analysis

It should be noted that these appraisals are based on existing project information where this is available. For some projects, particularly those at pre-feasibility stage, there is limited current information or other evidence available. The appraisals of individual projects may therefore be subject to change if more detailed feasibility work or related evidence becomes available. Whilst projects have been appraised against the availability of a range of public sector funding sources as identified in section 11.0 of this report, this does not obviate the need for the private sector to contribute in whole or in part, subject to market demand and viability.

Furthermore, it should be emphasised that some strategic projects not identified as directly delivering significant additional outputs or outcomes (i.e. new housing and jobs) based on current information tend to

be given lower priority through the appraisal notwithstanding that they may play an important wider enabling role. For example, improvements to Ryde Esplanade Interchange and the Island Line could be considered in this context.

Actions in Support of Future Delivery

As noted above, existing plans and programmes identify significant future growth potential on the Isle of Wight including a range of housing and commercial development opportunities in the pipeline. However, there are currently only a small number of committed investment projects to support delivery. This report identifies a series of practical infrastructure interventions that could help to bring sites forward and stimulate economic growth.

The appraisal and prioritisation presented in this report is inevitably a snap-shot in time, and starting point for future updating and progression. In particular, the Solent LEP and its partners should focus on:

- a moving projects up the priority list to 'high' (recognising resource constraints);
- b being realistic about projects for addition to, or removal from, the list; and
- c having the flexibility to combine/disaggregate projects in response to specific funding opportunities as they arise, subject to inter-dependencies.

This will require a more coordinated and streamlined approach across public and private partners to build evidence and make the strongest case for investment. Suggested actions and next steps are as follows:

- 1 Using the IIIP as a starting point for discussions across public and private sectors, and maintaining an up-to-date long list to ensure ready monitoring and progression of identified priorities, and ensuring more projects become 'bid ready'.
 - 2 Improving the availability and quality of technical evidence in relation to individual projects in terms of potential scheme design and costings. With the exception of some larger projects that have been under active consideration for a number of years (and accordingly have a degree of supporting technical work) for many projects there is a lack of technical information that could form the basis for discussion with either public or private sector partners or competitive funding bids.
 - 3 Linking future progress to the review of the Island Plan (underway since August 2017) to ensure alignment of evidence and prioritisation, shared assumptions about growth potential and delivery timescales, and to provide policy support for funding bids once adopted in due course.
-

Contents

1.0	Introduction	1
	Background	1
	Methodology and Basis for Assessment	2
	Structure of the Report	3
2.0	Island Economic Context	4
	General Overview	4
	Population Trends	4
	Employment Trends and Productivity	5
	Business Floorspace	10
	Business Base and Demography	11
	Growth Sectors / Key Sectors	13
	Labour Market	14
	Commuting Flows	16
	Impact of Physical Separation	17
	Key Findings	18
3.0	Economic Growth Potential	20
	Supporting the Island’s Growth	20
	National Industrial Strategy	20
	Local Evidence Base	22
	Economic Forecasts	25
4.0	Water, Waste and Flooding	27
	Existing Provision	27
	Constraints to Growth	33
	Key Messages	34
5.0	Energy	36
	Existing Provision	36
	Constraints to Growth	38
	Key Messages	39
6.0	Transport	40

	Existing Provision	40
	Constraints to Growth	43
	Key Messages	45
7.0	Telecommunications	46
	Existing Provision	46
	Constraints to Growth	48
	Key Messages	50
8.0	Human Capital and Skills	51
	Existing Provision	51
	Constraints to Growth	52
	Key Messages	53
9.0	Housing and Business Premises	54
	Existing Provision	54
	Constraints to Growth	57
	Key Messages	59
10.0	Planned Investments and Gap Analysis	60
	Island Growth Objectives	60
	Potential Development Opportunities	60
	Committed Infrastructure Investments	62
	Gaps in Infrastructure Provision	63
11.0	Future Infrastructure Investment Priorities	66
	Identification and Prioritisation of Projects	66
	Funding Options and Opportunities	73
12.0	Conclusions and Recommendations	76
	Context	76
	Isle of Wight Economy	76
	Key Infrastructure Issues	77
	Future Infrastructure Investment Priorities	80
	Actions in Support of Future Delivery	82

Appendices

Appendix 1: Consultees

Appendix 2: Business Survey Questions

Appendix 3: Business Survey Feedback Summary

Appendix 4: Mapping

Appendix 5: Infrastructure Project Descriptions

1.0 Introduction

- 1.1 The Solent Local Enterprise Partnership (LEP) commissioned Nathaniel Lichfield & Partners (“Lichfields”) to prepare an Island Infrastructure Investment Plan (IIIP) for the Isle of Wight. The purpose of the IIIP is to identify the key deliverable infrastructure investments to support sustainable growth of the Isle of Wight (IOW, “the Island”) economy and enable it to contribute further to the broader Solent and UK economies.
- 1.2 The brief for the commission includes the following requirements:
- 1 Provide an Isle of Wight infrastructure plan for the period to 2040;
 - 2 Identify and prioritise infrastructure investment packages in the short term (up to 2021) for delivery and the medium term (to 2026). This needs to include identifying and confirming sources of investment as appropriate and identifying gaps in investment where they exist;
 - 3 Identify infrastructure investment priorities for the longer term period between 2026-2040; and
 - 4 Strengthen the pipeline of infrastructure projects in support of economic growth on the Isle of Wight.
- 1.3 Infrastructure projects identified through this commission will focus on unlocking new public and private development sites for employment and housing and will be driven by securing:
- a direct jobs;
 - b new homes;
 - c new employment space;
 - d new skills opportunities; and
 - e private sector investment.
- 1.4 The brief requires the commission to align with the Government’s National Industrial Strategy – published as a Green Paper in January 2017 and followed by a White Paper in November 2017 – which sets out Government’s plan to boost the productivity and earning power of people throughout the UK, by capitalising on the country’s economic strengths, addressing its weaknesses and helping businesses create better, higher-paying jobs through investment in the skills, industries and infrastructure of the future. The investment plan should be deliverable and should build on committed investments across the public and private sectors.

Background

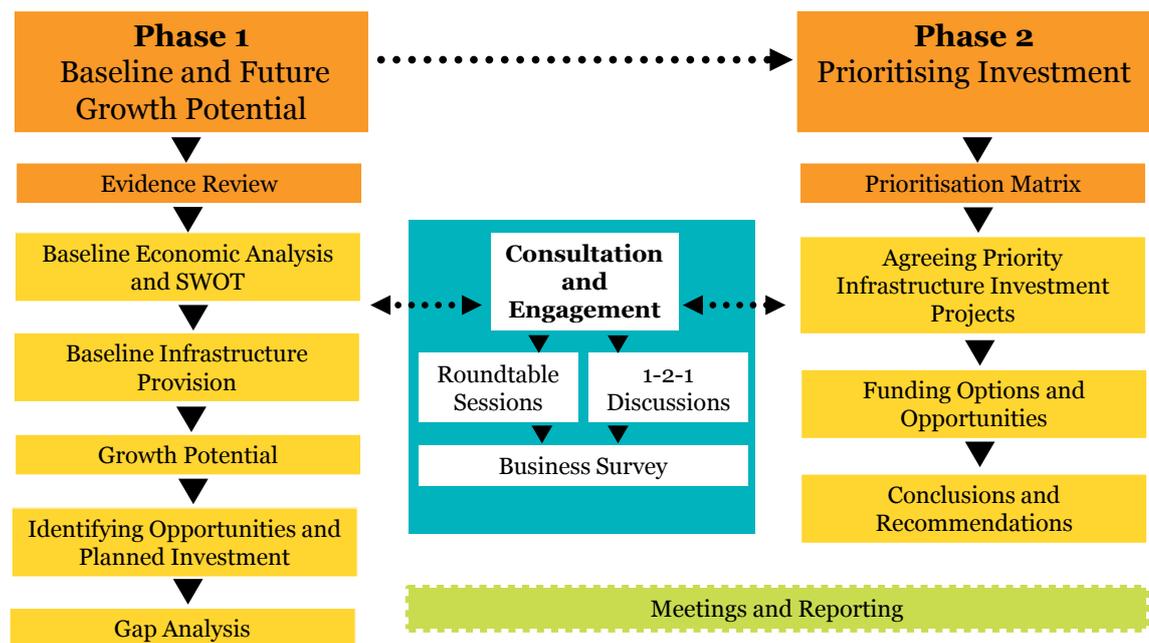
- 1.5 Provision of good quality infrastructure is an essential ingredient for a competitive modern economy. Research indicates that well-designed infrastructure investments deliver long-term economic benefits including increased economic growth, productivity and positive spill-over effects. However, what distinguishes infrastructure from other forms of investment is its typically high-risk, long-term, capital-intensive nature, with high initial sunk costs and relatively long return periods on investment. This can lead to instances of market failure and, consequently, the potential rationale for public intervention.
- 1.6 In this context, it is recognised that infrastructure investment on the Isle of Wight needs to be strengthened to support future economic growth. In particular, there are a range of development sites with potential to bring forward new housing and employment floorspace some of which are identified in the Island’s Local Plan. However, many of these sites need infrastructure investment to unlock and accelerate their potential and improve viability for

private sector investment. Therefore, there is a need for a dedicated IIIP to provide the Solent LEP with an evidence base to help frame its investment priorities.

Methodology and Basis for Assessment

- 1.7 Preparation of this report has followed a two-phase methodology as set out in Figure 1.1 below, comprising a review of baseline infrastructure conditions and the Island’s future growth potential, followed by identification and agreement of priority infrastructure investment projects and potential funding sources.

Figure 1.1 Study Methodology



Source: Lichfields

- 1.8 The findings of the Phase 1 work are presented within Sections 2.0 to 10.0 of the report, with Sections 11.0 to 12.0 capturing the Phase 2 elements of the work.

Definition of Economic Infrastructure

- 1.9 For the purpose of the IIIP, the following infrastructure categories required to support the day-to-day functioning of an economy have been considered:

- 1 **Water, waste and flood defence** – including water, waste disposal, flood and coastal defences;
- 2 **Energy** – generation and distribution;
- 3 **Transport** – roads, railways, ports, ferries, airports and cycle paths;
- 4 **Telecommunications** – broadband, telephone, mobile and radio;
- 5 **Human capital and skills** – skills and access to education and training provision; and
- 6 **Housing and business premises** – accommodating population and business growth needs.

- 1.10 These categories reflect the definition of “economic infrastructure” adopted by the National Audit Office¹ and the Government’s Industrial Strategy but are expanded to include human capital and skills, and housing and business premises, which are also regarded as important to supporting economic growth.

Consultation

- 1.11 The project has been informed by consultation with a range of individual stakeholders detailed in Appendix 1, and a stakeholder workshop was held in Cowes in July 2017. An electronic survey of businesses was undertaken in June 2017, and circulated via a number of organisations including the Island Chamber of Commerce and Federation of Small Businesses. The survey questionnaire and a summary of key feedback are provided in Appendix 2 and 3 respectively.

Limitations

- 1.12 It is important to note that this report represents a point-in-time assessment. The analysis incorporates the latest data and other evidence available at the time of preparation during 2017 but will be subject to change. The accuracy of data derived from third party sources has not been checked or verified by Lichfields.
- 1.13 For a number of infrastructure themes, potential interventions for addressing infrastructure gaps have been identified through the review of evidence and the consultation process. Where interventions are noted, they are not necessarily exhaustive and are likely to be subject to more detailed scrutiny and review in due course.
- 1.14 In particular, the status of individual projects and investments is likely to change on an ongoing basis, for example as particular developments are completed and funding becomes available/is announced. For this reason, it is recommended that individual projects and interventions are reviewed and updated regularly.

Structure of the Report

- 1.15 This report is structured as follows:
- **Section 2.0** provides an overview of the Island economy and key strengths, weaknesses, opportunities and threats.
 - **Section 3.0** examines the drivers for future economic growth on the Isle of Wight, including planning and regeneration policies.
 - **Sections 4.0 – 9.0** review each infrastructure category in turn, including existing provision, constraints and priorities, and planned investments.
 - **Section 10.0** details planned development opportunities and committed infrastructure investments on the Isle of Wight before considering the key gaps in provision.
 - **Section 11.0** identifies and prioritises future infrastructure investments and considers funding options and opportunities.
 - **Section 12.0** draws together overall conclusions.

¹ Planning for economic infrastructure, National Audit Office, January 2013
<https://www.nao.org.uk/wp-content/uploads/2013/03/Economic-infrastructure-full-report.pdf>

2.0 Island Economic Context

2.1 This section establishes the baseline economic context of the study and summarises the economic trends on the Isle of Wight. It identifies the Island's strengths and weaknesses and considers what socio-economic challenges the Island faces to unlock future growth. This is considered in the context of the three challenges set out in the Government's Industrial Strategy², namely:

- Building on our strengths and extending excellence into the future;
- Closing the gap between the UK's most productive companies, industries, places and people and the rest; and
- Making the UK one of the most competitive places in the world to start or grow a business.

General Overview

2.2 The Isle of Wight covers an area of 147 square miles, with a coastline that runs for 57 miles. The Island is separated from the mainland of England by a stretch of water known as the Solent, but is connected to the ports of Lymington, Southampton and Portsmouth on the mainland's south coast by passenger and vehicle routes.

2.3 The Island features a wide variety of natural, rural and urban landscapes. Over 50% of the Island is designated as an Area of Outstanding Natural Beauty (AONB) and 28 miles of coastline is designated as Heritage Coast. In addition, the Island also includes a very high number of internationally, nationally and locally important nature conservation sites.

2.4 Whilst the overriding character of the Island is rural, about 60% of the Island's population live within the main towns of Newport, Cowes, East Cowes, Ryde, Sandown and Shanklin. Newport is the County Town of the Island and is the main employment centre. Outside of these settlements there are around 30 villages and hamlets.

2.5 The structure of the local economy is changing with retailing, manufacturing, construction, health and business services being the five largest employment sectors. Traditionally, the largest sectors were tourism, manufacturing and agriculture.

Population Trends

2.6 The Isle of Wight's resident population over the decade between 2005 and 2015 expanded from 137,200 to 139,400 people, equivalent to a compound aggregate growth rate (CAGR) of 0.2%³. The increase was driven by an expansion in the number of residents aged 65 and over (30,500 to 37,000 residents). During the same period the population of residents aged 0-15 and working age (residents aged 16-64) population decreased (-1,900 and -2,500 people respectively). As shown in Table 2.1 overleaf, the Island's current population (26.5% residents aged 65 and over) is proportionally older than the Solent LEP area and England average (20.1% and 17.7% respectively).

2.7 The Office of National Statistics (ONS) projects that between 2016 and 2036 this pattern will continue. The population aged over 65 is forecast to increase by 44.1% over the time period, equivalent to an additional 16,600 people⁴. This trend is in line with the Solent LEP and England, which are forecast to expand in 65+ population terms at a faster rate than the Island

² Industrial Strategy White Paper November 2017

³ONS, Mid-Year Population Estimates (2016).

⁴ONS, Population Projections (2015).

(47.9% and 48.5% respectively). The working age population on the Island is forecast to continue to decline by a further -4,200 residents; while the number of residents aged 0-15 is expected to remain steady at 22,900 people in 2036.

Table 2.1 Population Age Structure and Change

Variable	Population Group	Isle of Wight	Solent LEP	England
Number of Residents 2015	Aged 0-15	22,100	260,300	10,405,100
	Aged 16-64	80,200	914,500	34,669,600
	Aged 65 and over	37,000	115,200	9,711,600
	Total	139,400	1,469,900	54,786,300
% Total Residents 2015	Aged 0-15	15.9%	17.7%	19.0%
	Aged 16-64	57.5%	62.2%	63.3%
	Aged 65 and over	26.5%	20.1%	17.7%
Number of Residents 2036	Aged 0-15	22,900	279,400	11,320,300
	Aged 16-64	76,100	926,600	36,392,400
	Aged 65 and over	54,100	444,400	14,691,200
	Total	153,000	1,650,400	62,403,900
% Total Residents 2036	Aged 0-15	15.0%	16.9%	18.1%
	Aged 16-64	49.7%	56.1%	58.3%
	Aged 65 and over	35.3%	26.9%	23.5%

Source: ONS (2016) / Lichfields (numbers may not sum due to rounding and Solent LEP includes full population of part Districts)

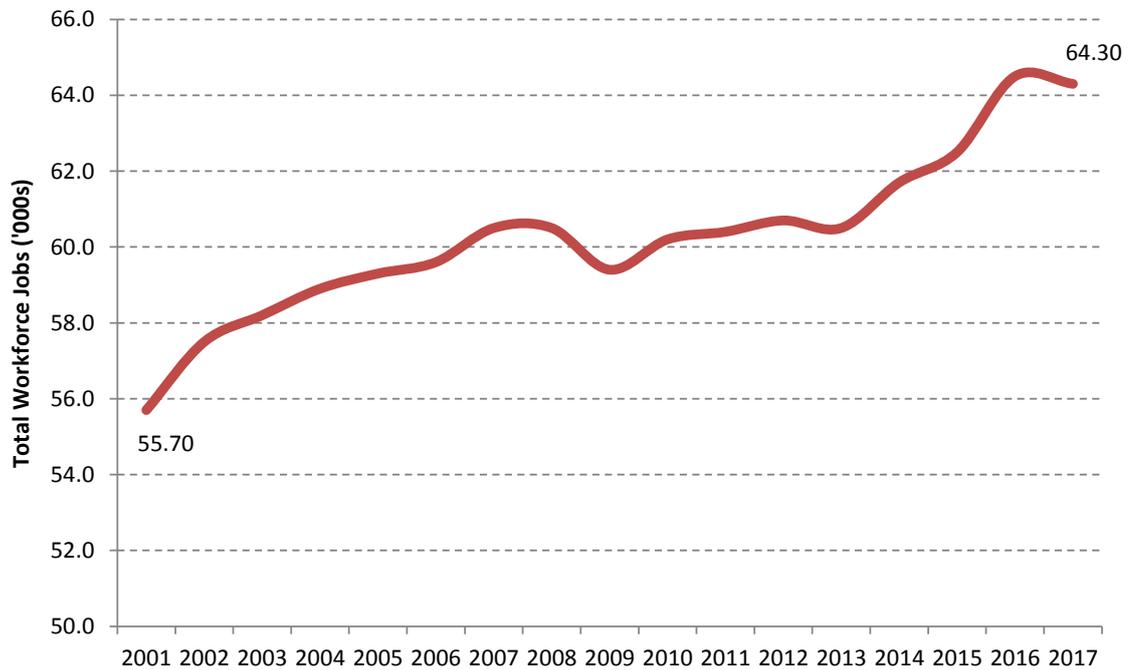
- 2.8 ONS internal migration statistics provide a picture of where people are moving to and from in the UK. In 2015⁵, 4,470 people moved from elsewhere in the UK to the Isle of Wight, while 3,730 people moved from the Island to live elsewhere in the UK. Migration from the wider Solent LEP area accounted for 720 out of the total 4,470 (16.1%) moving to the Island. The most common local authorities of origin within the LEP were Portsmouth, Southampton, New Forest and Fareham (160, 150, 70 and 70 people respectively). The most common local authorities of origin elsewhere in the country were Wiltshire, Chichester and Bristol (90, 70 and 60 people respectively).
- 2.9 Of the 3,730 people that left the Isle of Wight in 2015, 820 or 22.0% moved to live in the Solent LEP authorities. Southampton and Portsmouth were most the popular destinations (200 and 160 people respectively), while Fareham, New Forest and Winchester each received 80 people. The most popular destinations outside of the Solent LEP were Brighton and Hove, Birmingham and Cornwall (70, 70 and 60 people respectively).
- 2.10 Recent population change and the population projections suggest that the Island has been successful at attracting people aged 65 and over to retire, and that this trend is likely to continue in the future. The higher inflow than outflow of people migrating to the Island suggests an increasing number are moving there, and based upon ONS population projections this trend is likely to continue in the future with more residents aged 65 and over.

Employment Trends and Productivity

- 2.11 Figure 2.1 presents an overview of total workforce employment change on the Isle of Wight and the South East from 2001 to 2017. Over this time period, workforce jobs increased by around 8,600 on the Island, equivalent to an increase of 15.4%. This rate of employment growth matched that recorded across the South East as a whole over this period (15.5%).

⁵ ONS, Internal Migration (2016)

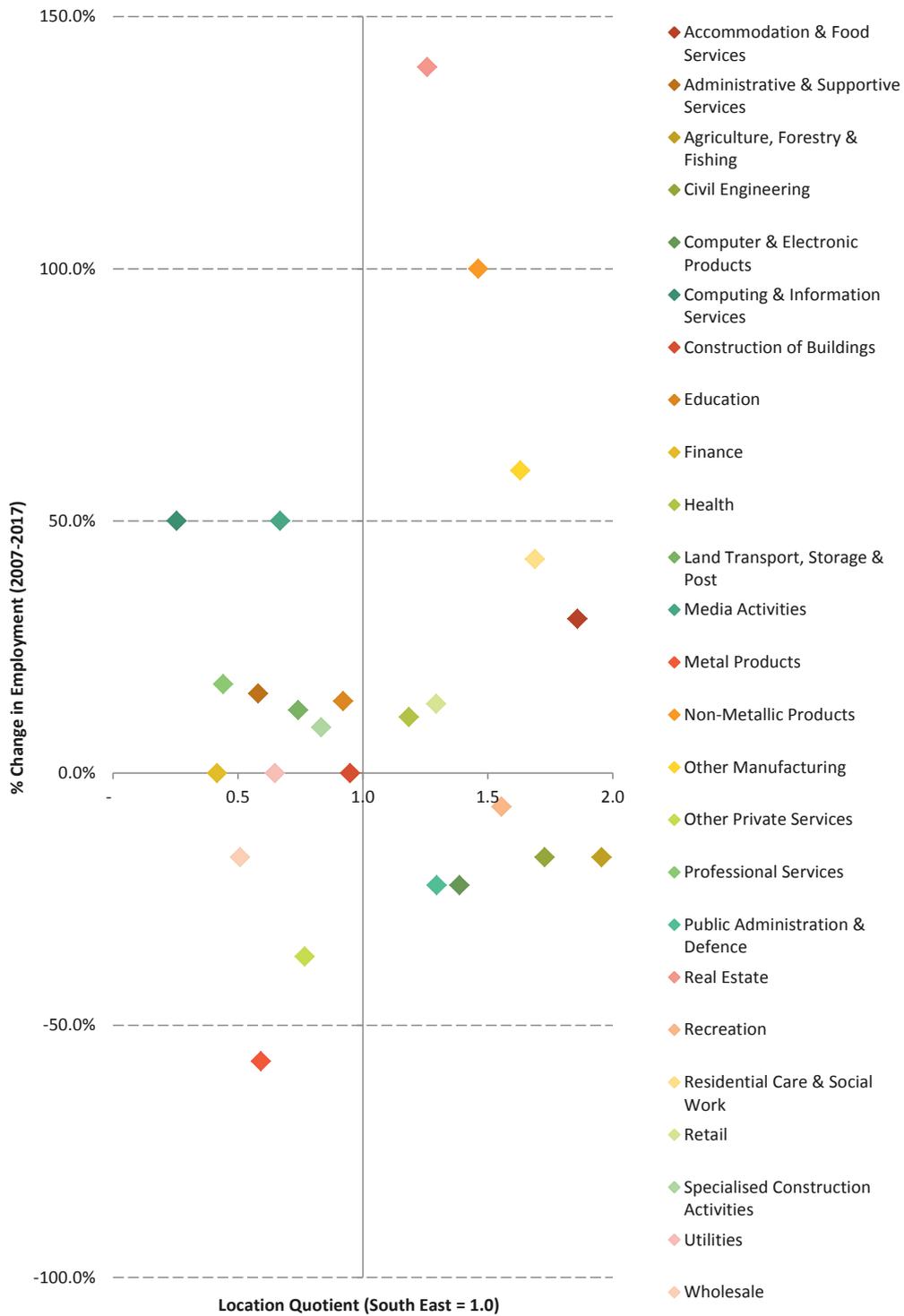
Figure 2.1 Change in Employment, Isle of Wight 2001-2017



Source: Experian (2017) / Lichfields analysis

- 2.12 Employment growth has been driven by the accommodation and food services, education, social care, admin and support and real estate sectors, while sectors which experienced the largest decreases in employment between 2001 and 2017 include manufacturing (of computer, electronic and metal products), wholesale and other private services.
- 2.13 These patterns suggest the Island’s economy is strengthening in sectors related to an increasingly elderly population (residential care and social work), tourism (accommodation and food services) and some parts of the public sector (education). However, many of these are less productive sectors of the economy in terms of economic output. Those on the decline are more closely linked to industrial land uses (such as manufacture of computer and electronic products, metal products and wholesale).
- 2.14 Figure 2.2 presents location quotients (LQs) for the size of the Island’s sectors in 2017 against the South East and shows how employment changed in the sectors from 2007-2017. The sectors on the Island with the largest location quotients are: manufacture of transport equipment (LQ 5.0); agriculture, forestry and fishing (LQ 2.0); accommodation and food services (LQ 1.9); civil engineering (LQ 1.7); and residential care and social work (LQ 1.7). Out of these, employment increased in the transport equipment, accommodation and food services and residential care and social work sectors from 2007-2017 (38.5%, 30.6% and 42.4% respectively). Employment in agriculture, forestry and fishing and civil engineering decreased over the period at the same rate (-16.7%).

Figure 2.2 Isle of Wight Sector Location Quotients



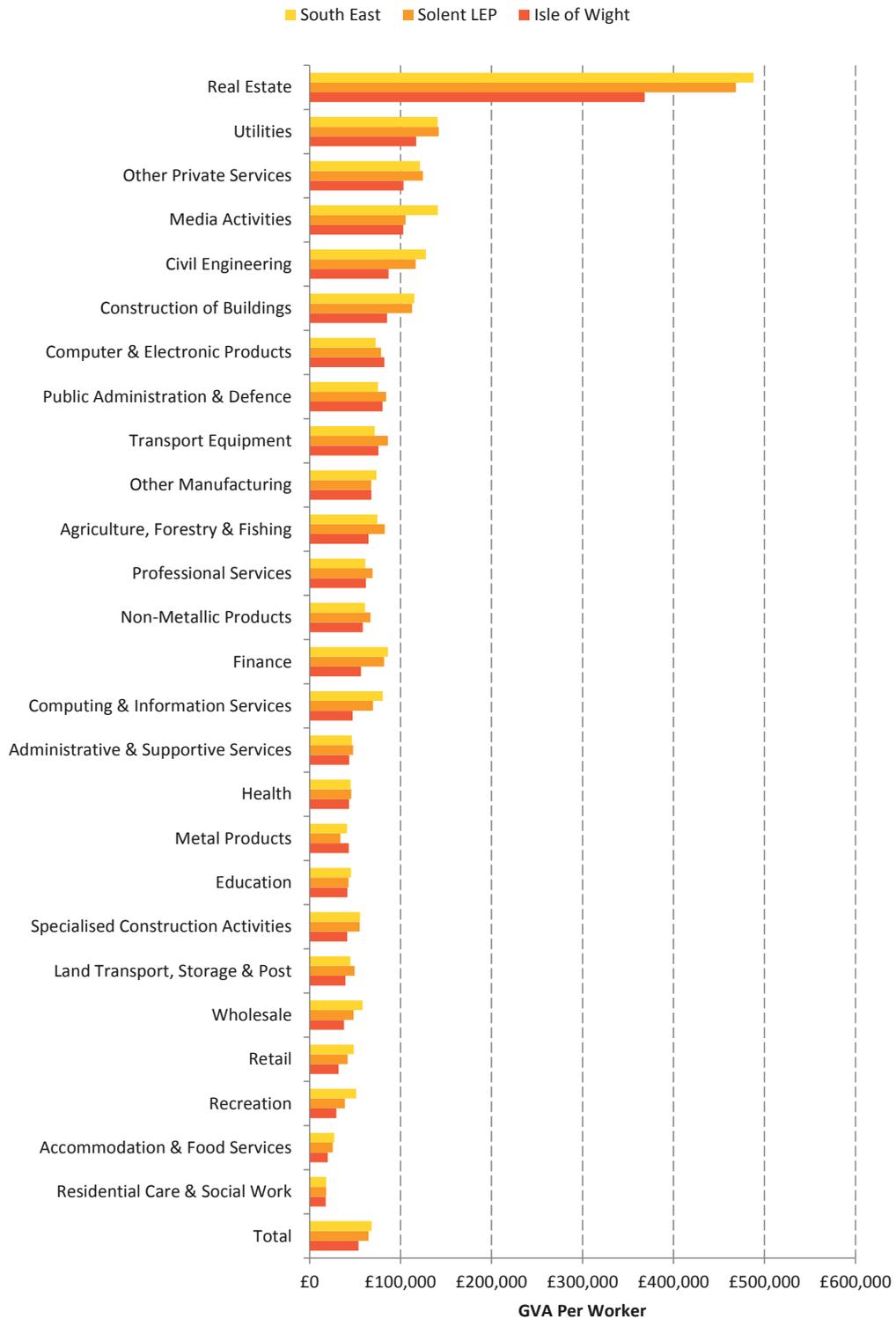
Source: Experian (2017) / Lichfields analysis

Note the graph excludes: air and water transport; chemical manufacturing; extraction and mining; food, drink and tobacco manufacturing; fuel refining; insurance and pensions; machinery and equipment manufacturing; pharmaceutical manufacturing; printing and recorded media manufacturing; telecoms; textiles and clothing manufacturing; and wood and paper manufacturing. This is due to the Island having a minimal workforce in these sectors based upon the Experian statistics.

- 2.15 Figure 2.3 highlights that Isle of Wight workers are less productive in most sectors than the Solent LEP and South East and have a lower average value of productivity per worker (£53,656, £64,818 and £68,213 respectively)⁶. Out of all sectors, the Island is more productive in the manufacture of computer and electronic products and the manufacture of metal products than the Solent LEP and South East.
- 2.16 Total economic output (as measured by Gross Value Added) generated by the Island currently stands at £2.5bn (in 2017). According to Experian data, this figure has increased by £521m or 26.0% over the 16 years from 2001. In percentage terms, this growth rate fell behind the South East average of 32.5% over this time period.

⁶ Experian, GVA per Local Authority (2017).

Figure 2.3 Sector Productivity



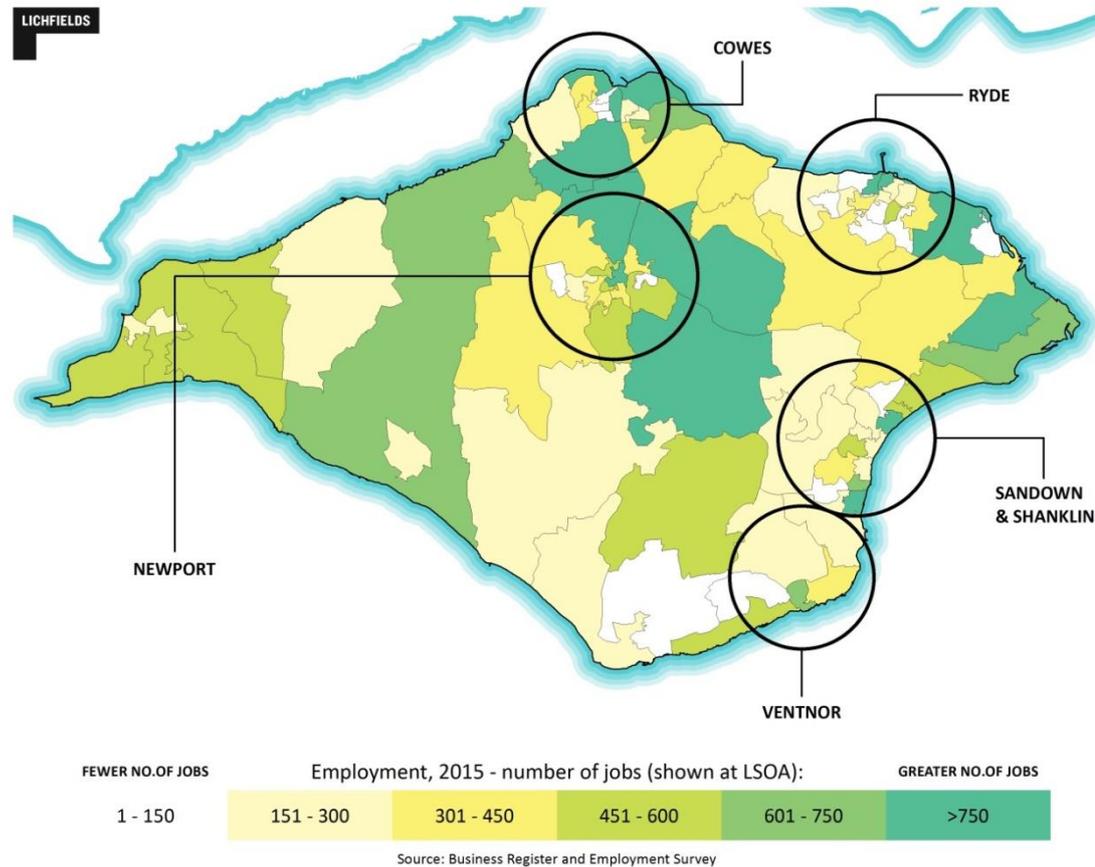
Source: Experian (2017) / Lichfields analysis

Note the graph excludes: air and water transport; chemical manufacturing; extraction and mining; food, drink and tobacco manufacturing; fuel refining; insurance and pensions; machinery and equipment manufacturing; pharmaceutical manufacturing; printing and recorded media manufacturing; telecoms; textiles and clothing manufacturing; and wood and paper manufacturing. This is due to the Island having a minimal workforce in these sectors based upon the Experian statistics.

2.17

Figure 2.4 below shows the distribution of employment across the Island in 2015. This confirms the main concentrations of employment around the Island’s main towns, notably Newport, and also along the Medina Valley into Cowes.

Figure 2.4 Distribution of Employment



Source: ONS BRES 2015 / Lichfields analysis

Business Floorspace

2.18

Valuation Office Agency (VOA) statistics provide an indication of how much office, retail and industrial floorspace is on the Isle of Wight. Table 2.2 presents the stock of business floorspace on the Island in 2015/2016 and how stock has changed over time. In 2015/16 the Island had 74,000m² of office floorspace, 276,000m² of retail floorspace and 541,000m² of industrial floorspace. Stock of all three types grew over the period between 2000/01 and 2015/16. Office floorspace grew at the fastest CAGR (1.1%), while industrial experienced the absolute largest increase (at 37,000m²).

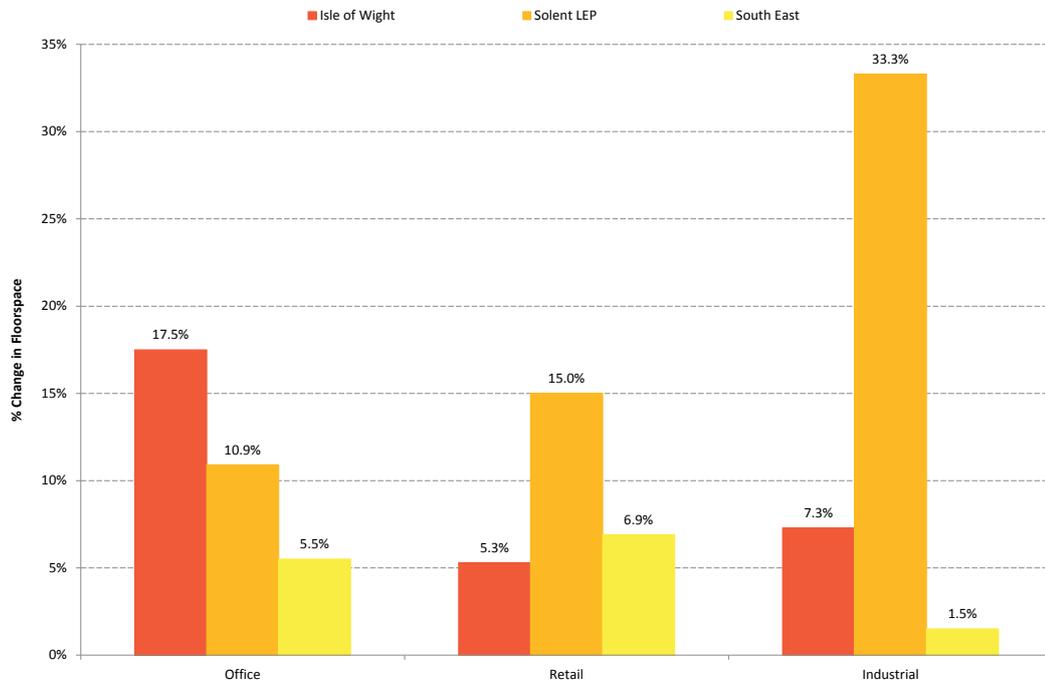
Table 2.2 Isle of Wight Business Floorspace Stock

Floorspace Type	Floorspace (m ²) (2015/16)	Absolute Change (2000/01 to 2015/16)	% Change in Total Floorspace	CAGR (2000/01 to 2015/16)
Office	74,000	11,000	17.5%	1.1%
Retail	276,000	14,000	5.3%	0.3%
Industrial	541,000	37,000	7.3%	0.5%

Source: Valuation Office Agency (VOA 2016) / Lichfields analysis

2.19 In comparison to the Solent LEP area and South East, the Island experienced faster growth (as shown in Figure 2.5) in office floorspace albeit from a lower base. Industrial floorspace on the Island expanded more than the South East in proportionate terms, but at a lower proportionate rate than the Solent LEP area in overall terms.

Figure 2.5 Change in Business Floorspace (2000/01 to 2015/16)



Source: VOA (2016) / Lichfields analysis

Business Base and Demography

2.20 In 2015, the Isle of Wight had 4,555 enterprises. The majority of enterprises (85.5%) were micro in scale (0-9 employees)⁷; in line with the Solent LEP, South East and England as the most numerous size group. The Island’s business demography differs to the wider areas as it has a higher proportion of small scale enterprises (12.6%), and lower proportions of micro, medium and large enterprises (85.5%, 2.6% and 0.2 respectively). Table 2.3 shows the proportions of enterprises in each size group.

Table 2.3 Enterprise Size Profile (2015)

Enterprise Size (No of Employees)	Isle of Wight	Solent LEP	South East	England
Micro (0 to 9)	85.5%	88.3%	89.8%	89.3%
Small (10 to 49)	12.6%	9.8%	8.3%	8.8%
Medium-sized (50 to 249)	1.6%	1.6%	1.5%	1.6%
Large (250+)	0.2%	0.3%	0.4%	0.4%

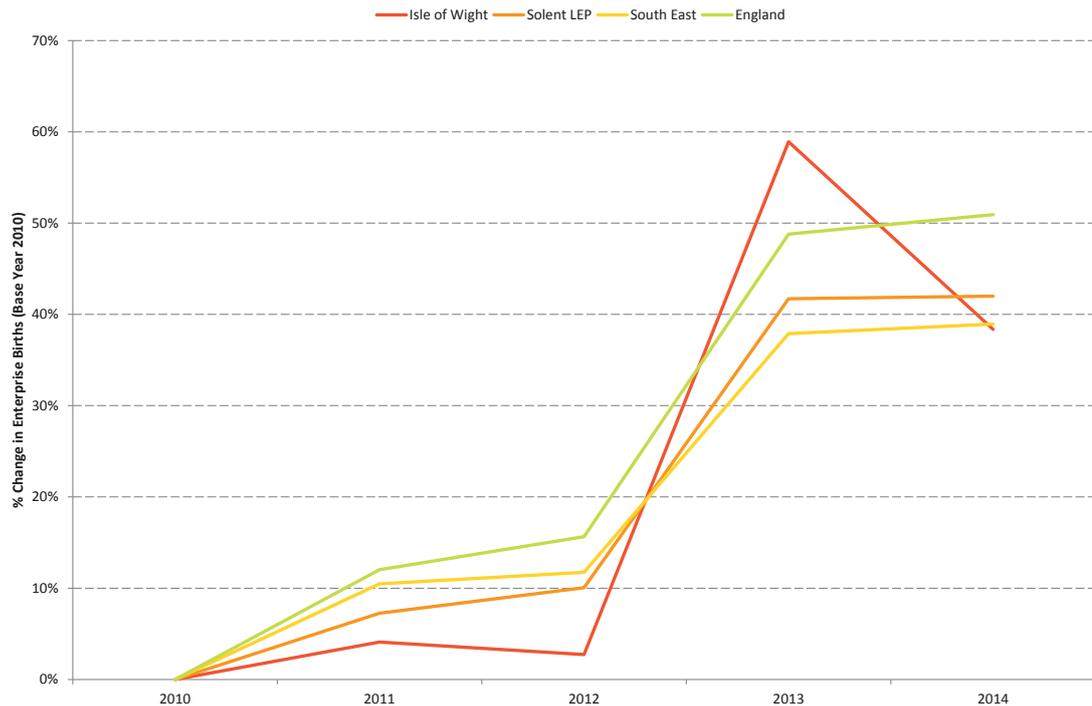
Source: ONS (2016) / Lichfields analysis

⁷ ONS, Business Counts (2016)

2.21

Figure 2.6 shows the proportional business birth change in the Isle of Wight, Solent LEP, South East and England, using the number of enterprises born in 2010 as a base⁸. All of the areas have experienced an increase in the number of businesses annually after 2010. The Solent LEP, South East and England follow a similar trend in terms of increases in business births. The Island differs as its increase in enterprise births during 2011 and 2012 was smaller, but in 2013 increased at a substantially higher rate (58.9% above the number of enterprises born in 2010) than any of the areas experienced between 2010 and 2014. The rate of increase subsequently dropped below the other three areas in 2014.

Figure 2.6 Business Births (2010-2014)



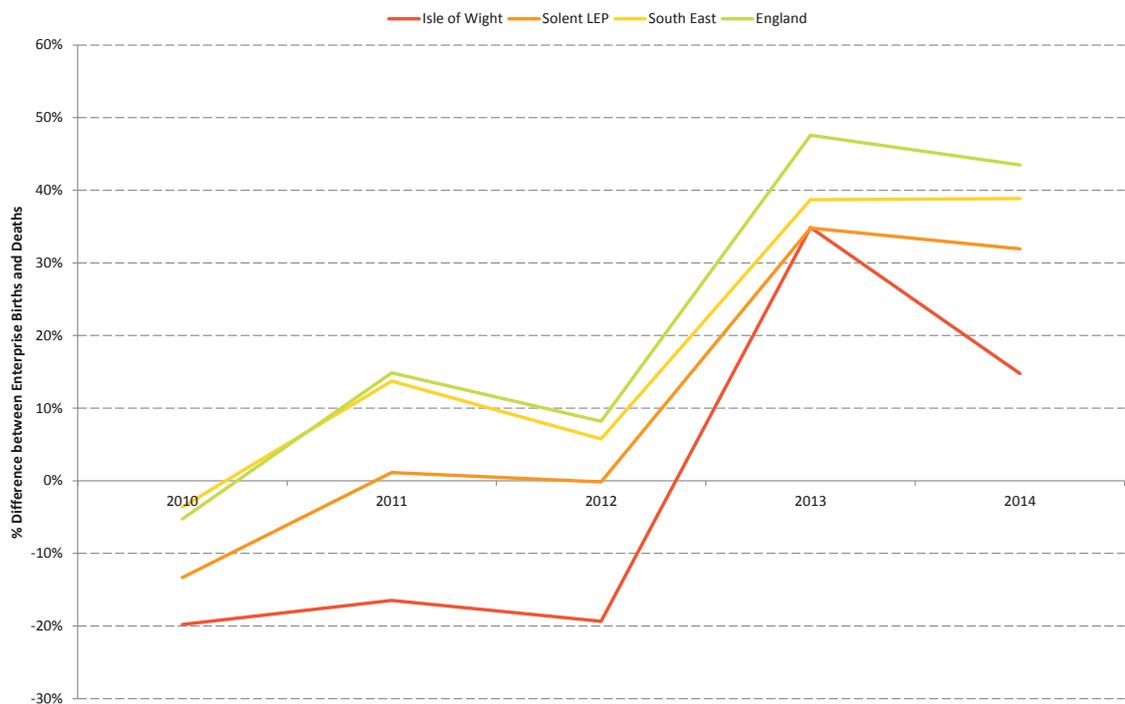
Source: ONS (2016) / Lichfields analysis

2.22

Figure 2.7 presents proportional differences between enterprise births and deaths. The Isle of Wight from 2010 and 2014 as shown by the chart had a higher number of deaths than births for three of the years (2010-2012). In comparison the Solent LEP, South East and England had higher numbers of births than deaths in all years except from 2010.

⁸ ONS, Business Demographics (2016)

Figure 2.7 Difference between Enterprise Births and Deaths



Source: ONS (2016) / Lichfieldsanalysis

2.23

Table 2.4 shows the proportion of enterprises born in 2010 that survived over a five year period. All four areas had similar survival rates, with the Island having a slightly higher proportion (43.8%) of enterprises surviving than the Solent LEP, South East and England (42.7%, 43.4% and 41.4% respectively). However, Figure 2.6 and Figure 2.7 show that birth rates between 2010 and 2014 were not as high as the other areas and did not counter the Island’s death rate. To counter the death rate the Island needs to maintain a higher and more consistent rate of enterprise births. The increase in 2013 was substantial, but the fall in 2014 suggests the birth rate could fluctuate considerably in the future if trends continue.

Table 2.4 Enterprise Survival Rate

Years Survived From Birth	Isle of Wight	Solent LEP	South East	England
One	87.7%	86.7%	87.9%	86.8%
Two	72.6%	73.1%	74.5%	72.5%
Three	58.9%	58.3%	59.5%	57.1%
Four	49.3%	49.6%	50.3%	48.1%
Five	43.8%	42.7%	43.4%	41.4%

Source: ONS (2016) / Lichfields analysis

Growth Sectors / Key Sectors

2.24

The Solent LEP Strategic Economic Plan (SEP) (2014) outlines the LEP’s strategic sectors as being: advanced manufacturing and marine cluster; the visitor economy; low carbon economy; and transport and logistics⁹. The Isle of Wight economy best aligns with the former three of the sectors. The Island is home to a number of advanced manufacturing firms, of whom some are

⁹ Solent LEP, Strategic Economic Plan (2014).

involved in the marine and maritime sector and low carbon economy. These firms include MHI Vestas who manufacture wind turbine blades just outside Newport, GKN Aerospace in Cowes and BAE systems near Northwood. There are also measures being put forward to help drive growth in advanced manufacturing in the future, with the development of a Centre of Excellence for Composites, Advanced Manufacturing and Marine (CECMM) at the Isle of Wight College.

2.25 Other parts of the maritime sector are also prominent on the Island. The Medina Valley is the main hub and was included in the Solent LEP's Waterfront Sites (2015) study¹⁰. On the mouth of the Medina in Cowes and East Cowes, there are a number of boat yards, marinas and boat retailers. There are also several marinas located elsewhere on the Island in Ryde, St Helens and Yarmouth.

2.26 The Island's visitor economy is also strong as shown by Table 2.5. In 2016 the total value of the visitor economy equated to £563.7m, an increase of 31.2% over 2007. This growth was driven by large increases in direct value and secondary spend per visitor, which mitigated the slight decrease in overall footfall (-5.3%).

Table 2.5 Visitor Economy Value

Variable	2007	2016	% Change (2007-2016)
Direct Value (£)	£239,587,000	£297,851,000	24.3%
Secondary Spend (£)	£190,133,000	£265,767,000	39.8%
Total Value (£)	£429,720,000	£563,618,000	31.2%
Visitor Footfall (Number of Visitors)	2,534,000	2,401,000	-5.3%
Direct Value per Visitor (£)	94.55	124.08	31.2%
Secondary Spend per Visitor (£)	75.03	110.71	47.6%

Source: Visit Isle of Wight (2016)

Labour Market

2.27 The Isle of Wight labour market is characterised by a similar working age economic activity level as the England average (78.3% and 78.1% respectively), the Solent LEP and South East both have higher economic activity (81.0% and 80.0% respectively)¹¹. The Island also has a higher proportion of working age residents (2.1%) claiming jobs seekers allowance than the England average (1.9%)¹².

2.28 The level of working age residents on the Island with degree or higher level qualifications (National Vocational Qualification Level 4+ (NVQ4+)) is relatively low in comparison to the wider area. 29.2% are qualified to an NVQ4+ standard, less than the Solent LEP, South East and England averages (36.5%, 41.4% and 37.9% respectively). Out of the Solent LEP local authorities, the Island has the lowest level apart from Gosport (29.2% and 23.1% respectively).

2.29 In comparison to the Solent LEP and South East, the Isle of Wight has a higher proportion of working age residents with no qualifications (6.8%, 5.5% and 5.8% respectively). However, the proportion is lower than the England average (7.8%) and East Hampshire, Gosport, New Forest, Portsmouth and Southampton also have higher levels (7.7%, 8.1%, 8.8%, 7.2% and 7.1% respectively).

¹⁰ Solent LEP, Maritime Futures: Solent Waterfront Sites (2015)

¹¹ ONS, Annual Population Survey (2016)

¹² ONS, Claimant County (March 2017)

Table 2.6 Key Characteristics of the Labour Market

		Isle of Wight	Solent LEP	South East	England
Economic Activity Rate Age 16-64		78.3%	81.0%	80.0%	78.1%
Out-of-Work Benefits Claimant Count (March 2017)		2.10%	-	1.20%	1.9%
Resident Qualification Level Age 16-64 (Dec 2016)	NVQ4 and Above	29.2%	36.5%	41.4%	37.9%
	NVQ3 and Above	52.0%	59.5%	60.3%	56.7%
	NVQ2 and Above	73.8%	76.5%	77.5%	74.2%
	NVQ1 and Above	88.8%	88.9%	88.8%	85.5%
	Other Qualification	4.4%	5.4%	5.8%	6.7%
	No Qualifications	6.8%	5.5%	5.4%	7.8%
Resident Occupation Group (Dec 2016)	SOC Major Group 1-3	38.3%	44.7%	49.7%	45.8%
	SOC Major Group 4-5	21.7%	21.5%	20.6%	20.4%
	SOC Major Group 6-7	22.6%	17.2%	16.0%	16.4%
	SOC Major Group 8-9	16.7%	16.2%	13.6%	17.0%
Median Gross Weekly Earnings by Residence (2016)		492.5	536.5	582	544.7
Median Gross Weekly Earnings by Workplace (2016)		501.7	549	566	544.2

Source: ONS (2017) / Lichfieldsanalysis

Note: 1 SOC 2010 Major Group 1 - 3 includes managers, directors and senior officials; SOC 2010 Major Group 4 - 5 includes administrative and trade occupations; SOC 2010 Major Group 6 - 7 includes service and sales occupations; and SOC 2010 Major Group 8 - 9 includes machinery, plant & process operatives and elementary occupations.

- 2.30 The lower level of Isle of Wight residents in SOC groups 1-3 corresponds with its level of residents qualified to an NVQ4+ standard. The Solent LEP, South East and England all have higher proportions as shown in Table 2.6. The Island has higher proportions in SOC groups 4-5 and 6-7, correlating with the high proportion of residents having NVQ1 and NVQ2 level qualifications.
- 2.31 Resident earnings on the Island are lower than in the Solent LEP, South East and England. This reflects less residents being in the SOC group 1-3, which are typically associated with higher value jobs. The median gross weekly income for residents is £492.50, £44 less than the Solent LEP average, and over £50 less than the South East and England averages (£582.00 and £544.70 respectively)¹³.
- 2.32 Workplace wages on the Island are slightly higher than what residents earn (£501.70 versus £492.50). Given the Island's high level of self-contained labour (96.3% of the workforce is composed of residents^{14,15}); this suggests that residents occupy a higher proportion of the lower

¹³ ONS, Annual Survey of Hours and Earnings (2017).

¹⁴ ONS, Census 2011: Origin and Destination (2011).

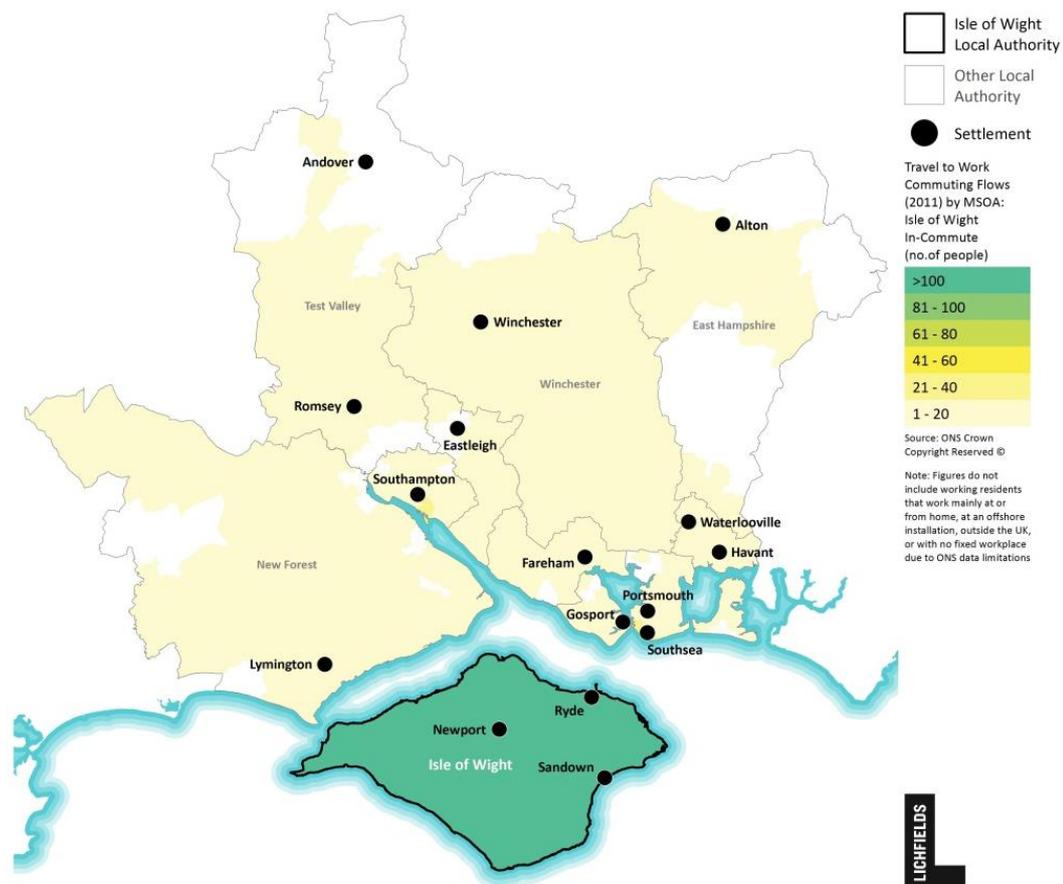
¹⁵ Proportion includes residents that mainly work at or from home, have no fixed place of work and work offshore.

paid jobs on the Island than people that commute from the mainland. The Solent LEP, South East and England all have higher levels of workplace earnings (£549.00, £566.00 and £544.20 respectively), corresponding with the Island’s smaller proportions of jobs in higher value sectors.

Commuting Flows

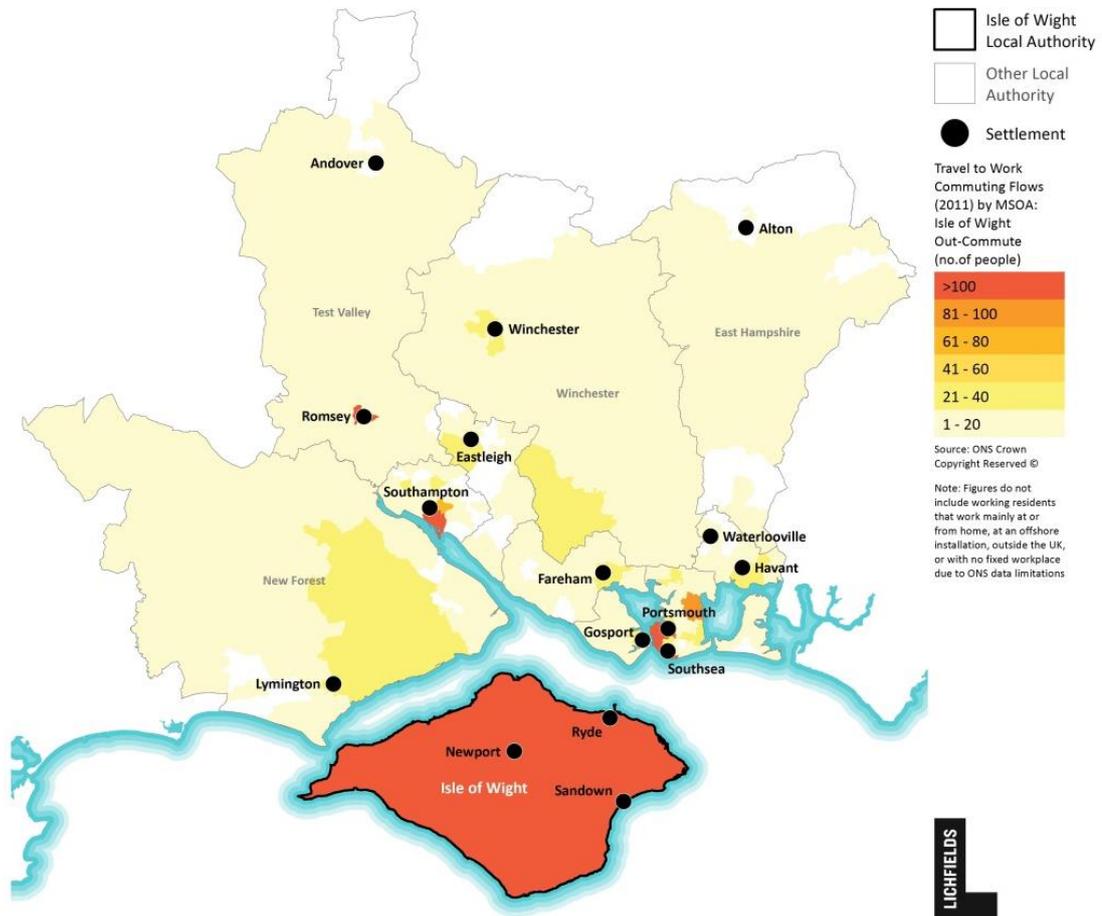
- 2.33 Resident commuting on the Isle of Wight is mostly self-contained, 92.2% of the 59,700 residents who were in work during 2011 did so on the Island. The most popular work destinations on the mainland were Portsmouth, Southampton and Test Valley (1.2%, 0.9% and 0.6% respectively). 3.8% of residents commuted to one of the other Solent LEP local authorities.
- 2.34 Out of the Island’s workforce, 96.3% is composed of residents. The most common local authorities for workers on the main land to commute from are Southampton and Portsmouth (0.5%, 0.3% and 0.3% respectively). 13.0% of the workforce consists of residents who mainly work at or from home, suggesting a high amount of home working on the Island. Figure 2.8 and Figure 2.9 below highlight how self-contained commuting is on the Island. Very few people commute from middle super output areas (MSOAs) in the other Solent LEP authorities, and while there is a slight amount of out-commuting to some of the MSOAs, Figure 2.9 clearly indicates the number of commuters is low in absolute terms.

Figure 2.8 Isle of Wight In-Commuting



Source: ONS (2011) / Lichfields analysis

Figure 2.9 Isle of Wight Out-Commuting



Source: ONS (2011) / Lichfields analysis

Impact of Physical Separation

- 2.35 Isle of Wight Council recently commissioned the University of Portsmouth to develop a two phased scope of work to provide an independent and objective assessment of the most significant factors and consequences resulting from the physical separation of the Island from the UK mainland, identifying a prioritised long-list of separation related issues that have a direct impact on the delivery of public services.
- 2.36 The final report¹⁶ summarises a number of different ways in which insularity has a negative effect on the economy of the Island, as follows:
- 1 Firstly, forced self-sufficiency reflects the lack of spillover from neighbouring authorities; research shows local governments benefit from their population being able to use public services provided by neighbouring local government area. This so-called public goods spillover is efficient if each area by itself would be too small as to provide these public services at an efficient scale.
 - 2 Secondly, the Island premium represents the additional cost of conducting business on and with the Isle of Wight. This premium not only encapsulates higher transportation costs, but

¹⁶ University of Portsmouth, Impact of physical separation from the UK mainland on Isle of Wight public service delivery, 2016

also the limited opportunities for optimal economies of scale, due to reduced competition and, quite simply, the size of the market.

- 3 Thirdly, dislocation represents the actual or perceived distance, geographical or social, from the mainland. Insularity may bear many positives, but it will impose a negative effect on the general attractiveness principles of the dominant development model, characterised by mass production of standardised goods and the knowledge intensive and multi-specialised urban economies. Whilst dislocation affects several economic dynamics, the social element is probably the key and critical one. Lack of attractiveness may act as deterrent for skilled labour to relocate to the Island and as a motivation for it to seek employment on the main land, in a context of higher wages and wider choices.

2.37 A range of evidence points at a number of characteristics of the Island which not only exacerbate the underlying trends but also act as a catalyst for them by driving the economy in a perilous, inward spiralling process:

- A range of economic concerns relate to the general composition of the Island economy which has historically been dominated by public service and seasonal tourism related activities, with very few large employers in operation. Despite a few large employers in sectors of advanced manufacturing, the local economy is fragile and lacks resilience to exogenous shocks. The contribution deriving from business rates is very limited.
- The labour market suffers from a relatively small workforce, with the added disadvantage of even less available jobs. Seasonal unemployment shows sensible fluctuations between cycles, showing limited counter seasonal job opportunities. In a context of visibly low earning (on any comparison), the Island has a high index of deprivation and benefit dependency. The education system suffers from a variety of negative factors: difficulty in recruitment and retention of teaching staff; retention of those students who enter Higher Education; lack of Higher Education facilities and very limited access to Further Education institutions. Low skilled labour cannot access upskilling programs held on the mainland, contributing to the stationary concentration of low skills on the Island.
- Finally, the housing market is epitomised by increasing private renting and high levels of second home ownership for holiday purposes rather than work. In stark contrast to neighbouring Hampshire and much of the South East, property values are more in line with the national average. Accessibility to housing is therefore made more difficult to the low earning workforce.

Key Findings

2.38 Based upon the analysis above, the key findings can be summarised as follows:

- 1 The Island's population has increased in recent years, with the largest increase in residents aged over 65. This population is projected to continue to grow in the future and while those aged over 65 are expected to be the main driver of growth, the Island's population of young people (aged 0-15) is forecast to decrease. Overall, suggesting the Island's population will continue to age into the future.
- 2 The Island's employment base has grown over recent years, increasing at a similar rate to the South East. Employment growth has been driven by a variety of sectors including those that the Island has traditionally been strong in (e.g. accommodation and food services) and others which it is less known for (e.g. real estate). Overall workforce productivity is lower in comparison to the mainland and could be improved in the future.
- 3 Business floorspace has increased on the Island from 2000-2016. Office uses grew at the fastest rate and industrial by the largest absolute amount. Growth in floorspace in

comparison to the Solent LEP differed as the LEP saw a smaller proportional increase in office floorspace, and larger expansions in industrial and retail floorspace.

- 4 The majority of enterprises on the Island are of micro scale with small, medium and large scale enterprises making up only 14.4% of the total number of enterprises. The Island has experienced similar levels of enterprise births to the mainland in recent years, but also has had a higher death rate.
- 5 The Island has a less highly skilled resident population and lower proportions of residents in higher occupation groups than the Solent LEP and South East, while wages are higher for workers on the Island than residents.
- 6 In labour market terms, the Island’s workforce is mostly self-contained with very few people commuting from the mainland to work on the Island and commuting from the Island to work on the mainland.

2.39 Table 2.7 presents a summary SWOT analysis of the Island’s economic characteristics.

Table 2.7 Isle of Wight Economic Characteristics SWOT

Strengths	<ul style="list-style-type: none"> • Good employment growth in sectors which are already strong on the Island. • Some higher value sectors growing quickly (e.g. real estate and computer and information services). • High workforce self-containment. • Safe and high quality natural environment. • Proximity to key economic assets in wider Solent area including Ports of Southampton and Portsmouth.
Weaknesses	<ul style="list-style-type: none"> • Less highly qualified workforce than other areas of the country, particularly at NVQ4 level and above. • Smaller working age population than other areas. • Lower workforce productivity and lower than average wages. • Higher level of out-of-work benefit claimants. • Low in-commuting from the mainland, suggesting the Island is not an attractive working destination.
Opportunities	<ul style="list-style-type: none"> • Ageing population presents opportunity to grow associated sectors such as residential care. • Increased number of residents will generate higher levels of consumer spending. • Location of growth sectors on the Island could generate additional high value jobs. • Planned investment to increase skills and qualifications on the Island.
Threats	<ul style="list-style-type: none"> • Growth sectors do not grow as expected and provide additional high value jobs. • Barriers to commuting created by reliance on ferry services to the mainland. • Forecast decrease in working age population shrinking the Island’s workforce. • Residents are not up-skilled to take advantage of potential advanced jobs in the future. • Insularity through physical separation to UK mainland poses threats to significant economic growth and change in future.

3.0 Economic Growth Potential

3.1 This section examines the economic growth potential of the Isle of Wight in order to understand the future scale of economic change and growth that could take place over the coming years, and the associated increase in demand for the Island's infrastructure to be able to practically support this growth.

Supporting the Island's Growth

3.2 Analysis presented in the previous section underlines a range of economic challenges that the Island faces in terms of achieving economic growth, and it is recognised that the Isle of Wight needs growth and investment to address and support the future economic prosperity of the Island.

3.3 Whilst economic growth and prosperity is ultimately driven by a wide range of factors and interventions, the key focus of the IIIP is upon infrastructure projects that have the potential to unlock new public and private development sites for housing and employment and in doing so, securing direct jobs, new homes, new employment space, new skills opportunities and private sector investment to respond to the place-based opportunities and challenges of the Island.

3.4 In particular, the IIIP is intended to support and stimulate sustainable economic growth on the Isle of Wight within the context of the recently published national Industrial Strategy which aims to boost productivity of the UK's companies, industries, places and people and enhance economic competitiveness.¹⁷

3.5 There are a range of development sites with potential to bring forward new housing and employment floorspace on the Island and thereby stimulate economic growth. However, many of these sites need infrastructure investment to unlock or accelerate their potential and improve viability for private sector investment, recognising that construction projects on the Island attract a premium.

3.6 From a housing market perspective, demand for housing on the Island remains high yet availability of affordable housing remains an issue and this presents a particular challenge for the Island, accentuated by physical severance from the mainland housing markets. From a commercial property market perspective, rental values make development on the Island largely unviable, resulting in a lack of speculative development of new employment space over recent years and this presents challenges for the Island to remain an attractive business location.

3.7 The responsibility for setting the Island's growth agenda and for planning to achieve its growth potential rests with Isle of Wight Council, and this planning approach is set out within, and is guided by, the Council's planning policy evidence base as summarised below.

National Industrial Strategy

3.8 In January 2017, the Government published a Green Paper setting out how it proposes to build a modern industrial strategy for the UK. The 'Building our Industrial Strategy' Green Paper sets out an objective to improve living standards and economic growth by increasing productivity and driving growth across the whole country.

3.9 In order to achieve this objective, the Green Paper notes that there are a number of key challenges that the UK must face up to, now and in the years ahead:

¹⁷ Building our Industrial Strategy, Green Paper, BEIS, January 2017 (supplemented with a White Paper in November 2017)

- Building on our strengths and extending excellence into the future;
- Closing the gap between the UK's most productive companies, industries, places and people and the rest; and
- Making the UK one of the most competitive places in the world to start or grow a business.

3.10 These three challenges provide an important policy context for the IIIP, and the brief notes that the focus of the work should be shaped by the publication of the National Industrial Strategy and its three challenges.

3.11 Following consultation on the Green Paper, the Government published the final Industrial Strategy (White Paper) in November 2017, 'Building a Britain fit for the future'. It sets out Government's plan to boost the productivity and earning power of people throughout the UK and identifies five 'foundations of productivity' for a transformed economy, summarised in Figure 3.1 below.

Figure 3.1 Industrial Strategy 5 Foundations of Productivity



Source: HM Government, Industrial Strategy: Building a Britain fit for the future, November 2017

3.12 These five foundations of productivity are considered by Government to represent the essential attributes of every successful economy and form the overall basis for the various policies included in the Industrial Strategy to boost productivity and earning power throughout the UK.

3.13 Of particular relevance to the IIIP is the 'Infrastructure' foundation which acknowledges that infrastructure is the essential underpinning of our lives and work, and having modern and accessible infrastructure throughout the country is essential to our future growth and prosperity. The Industrial Strategy notes that much of this investment is, by its nature, large scale and long term, and represents one of the most significant ways the Government can influence the economy – from transport and housing through to the roll-out of digital networks.

3.14 The Industrial Strategy confirms that the National Productivity Investment Fund (NPIF) will be extended up to 2022/23, with funding increased to £31bn for transport, housing and digital

infrastructure that will boost productivity. Meanwhile, the Transforming Cities Fund provides £1.7bn for projects that improve connectivity and reduce congestion, transforming local productivity by linking the towns and hinterland around our cities.

- 3.15 A more strategic approach will be taken to infrastructure investment, taking greater account of economic disparities between places. A ‘Rebalancing Toolkit’ will help to improve the focus, quality and transparency of ‘rebalancing’ evidence in strategic business cases, particularly to support high value transport investments in less productive parts of the UK.
- 3.16 Within the context of the Isle of Wight, this places even greater focus upon the ability of the Island’s infrastructure provision to facilitate and support economic growth. The Solent LEP’s latest Productivity and Growth Strategy Update¹⁸ recognises that infrastructure investment on the Island needs to be strengthened and there are a range of development sites with potential to bring forward new housing and employment floorspace (Including Homes and Communities Agency (HCA) assets such as the former HMP Camphill, as well as key regeneration areas at the Medina Valley, Ryde and The Bay.
- 3.17 It also acknowledges that many sites need infrastructure investment to unlock and accelerate their potential and improve viability for private sector investment, recognising that construction projects on the Island attract a premium. The need to provide the Solent LEP with an evidence base to help frame its investment priorities has led to the commissioning of this dedicated IIP.

Local Evidence Base

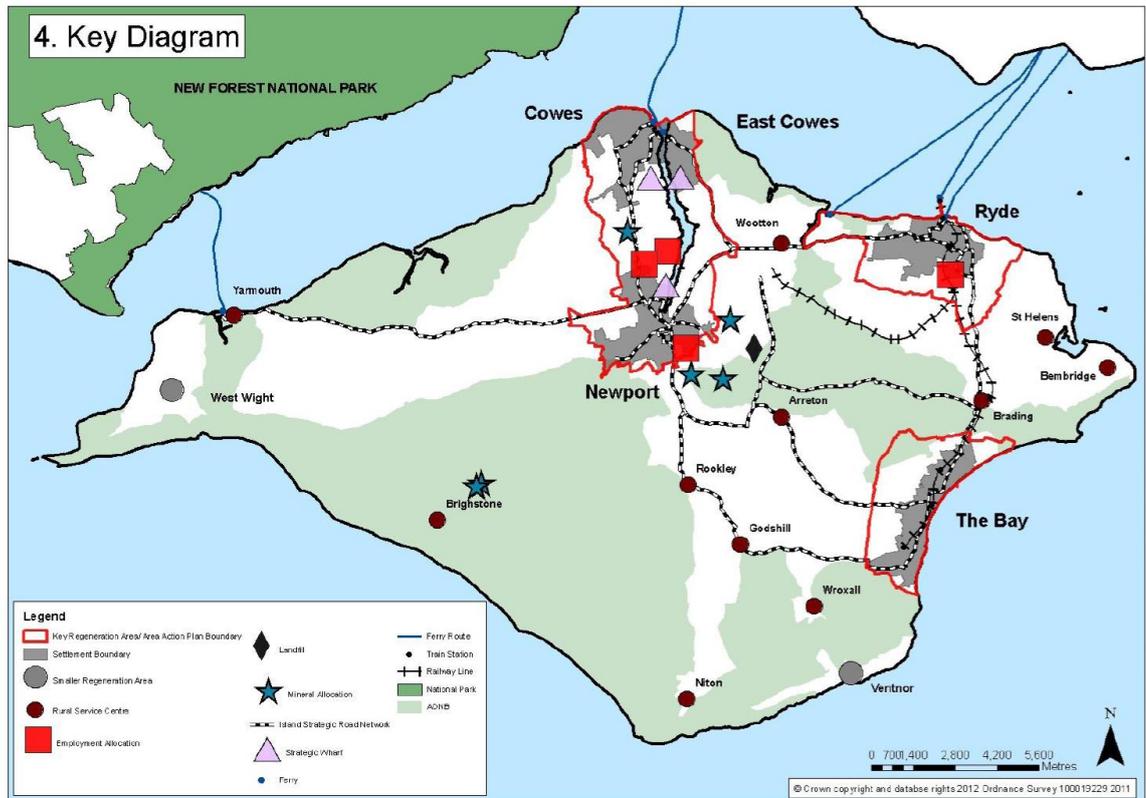
Isle of Wight Core Strategy

- 3.18 The Isle of Wight Core Strategy¹⁹ (‘Island Plan’) was adopted by the Council in March 2012 and sets out the Council’s spatial vision and objectives for the Island and the strategic policies designed to help deliver them. The Core Strategy sets out the overall quantum of growth that will be planned for over the period to 2027 and the broad spatial distribution of this growth. This includes provision for 8,320 new dwellings between 2011-2027 (an average of 520 dwellings per year) and a job growth target of around 7,550, focused upon employment, retail and high quality tourism. The strategy allows for at least 42 hectares of new economic development land to be delivered over the plan period, to help to accommodate this scale of job creation.
- 3.19 The overall Spatial Strategy supports development on appropriate land within or immediately adjacent to the defined settlement boundaries of a number of the Key Regeneration Areas, Smaller Regeneration Areas and Rural Service Centres, prioritising the redevelopment of previously developed land where such land is available, suitable and viable for the development proposed (Figure 3.2).

¹⁸ Solent LEP, Transforming the Solent: Productivity and Growth Strategy Update, February 2017

¹⁹ (including Waste and Minerals) and Development Management Development Plan Document

Figure 3.2 Key Diagram for Strategic Planning



Source: Isle of Wight Local Plan Core Strategy 2012

3.20 Three Key Regeneration Areas provide the focus for growth and development activity, comprising Medina Valley, Ryde and The Bay. They cover the main urban areas on the Island which, in terms of population and size, are Cowes, Newport, East Cowes, Ryde, Sandown and Shanklin. The Key Regeneration Areas are wide areas within which regeneration is encouraged, as it would result in development in the most sustainable locations, generally within and immediately adjacent the settlement boundaries of these key towns.

Isle of Wight Regeneration Programme

3.21 More recently, the Council has embarked upon a Regeneration Programme for the Island to identify potential opportunities to improve Island prosperity and sustainability, designed to bring key investment, jobs and other financial and community benefits to the Island over a ten year period.

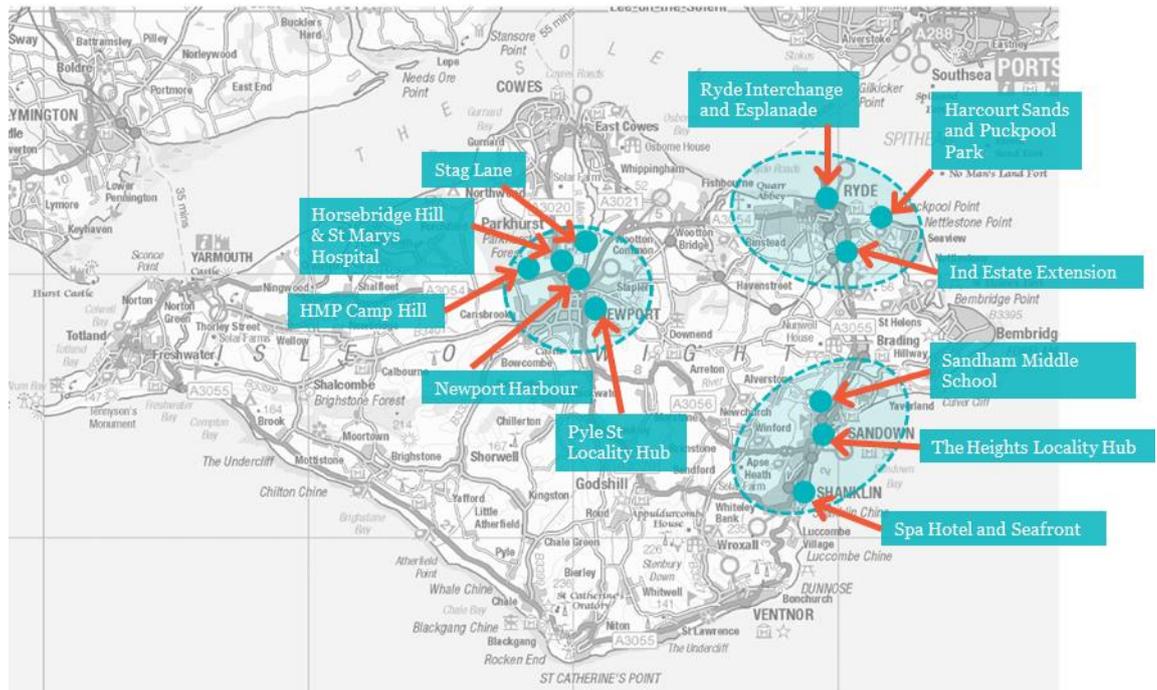
3.22 Through the Regeneration Programme the Council recognises that proactive and effective regeneration activity at scale can attract inward investment and the development of new homes and businesses on the Island. Background work undertaken as part of the Programme revealed that the Island has a number of barriers to achieving growth, related in part to the ‘Island factors’ of separation from the mainland and high cost of delivering services, but also a sustained lack of investment in its tourist offer, issues with the transport infrastructure and reduced economic activity resulting from the ageing demographic and a working-age population reliant on low-skilled, seasonal employment.

3.23 The lack of recent market investment means that the Isle of Wight Council must lead this regeneration activity with public and private sector stakeholders. The Council recognises that

intelligent use of its land and assets offers an opportunity to drive growth to ensure the long-term sustainability of Council services and the economic prosperity of the Island.

- 3.24 Through the Regeneration Programme, eleven priority projects have been identified in the three ‘opportunity areas’ of Newport, Ryde and The Bay which focus on growth aligned to Council and community aspirations for the places and build on the opportunity areas’ existing identities and strengths. The location of these priority projects is shown in Figure 3.3 below.

Figure 3.3 Regeneration Programme Opportunity Areas and Priority Projects



Source: Isle of Wight Council, Regeneration Programme, December 2016 / Lichfields

- 3.25 The Council estimates that the Regeneration Programme could deliver a total of 12,000 new jobs, 1,700 new homes and an increase in revenue income for Isle of Wight Council in the order of £15 million per annum over the period 2018–2027.
- 3.26 In Newport, the focus is on growth of employment space for high-tech industry and housing growth linked to new employment, as well as enhancements to the harbour to link in with the established industrial uses. From Cowes to Newport, the Medina Valley should be seen as a prime location to set up advanced manufacturing or high-tech marine business and attract further inward investment.
- 3.27 In Ryde and The Bay, the focus is primarily on improving the tourist and leisure offer to enhance the experience for residents and visitors and diversify the nature of the visitor market. In addition, the interchange and seafont facilities at Ryde will be transformed to create a fitting gateway to the Island.
- 3.28 The priority projects and sites are characterised by a range of infrastructure issues and barriers to development and these have been identified as part of background work on the Regeneration Programme, ranging from decontamination and flood protection works to cliff stability and harbour dredging. Some of these are referred to later in the report by infrastructure theme.

Economic Forecasts

- 3.29 Against the backdrop of a changing macroeconomic climate and shift in policy, the Solent LEP recently commissioned Oxford Economics (OE) to prepare an updated assessment of the LEP economy and a new baseline outlook for the economy over the next 20 years to 2036 which incorporates the likely impact of Brexit. This new work will be used as part of the evidence base to inform the refreshed Strategic Economic Plan. The outputs from this work were published in January 2017, based on forecast data produced by OE in June 2016, and cover the whole of the Solent LEP area as well as constituent local authority areas.
- 3.30 The resulting employment growth for the Isle of Wight implied by these latest economic forecasts is presented in Table 3.1 covering the period 2015 to 2036. This implied job growth can be used as a proxy to understand the scale of economic change and growth that could take place over the coming years, and the associated increase in demand for the Island's infrastructure to be able to practically support this growth.

Table 3.1 Key Economic Growth Indicators

2015-2036 Projections	Isle of Wight	Solent LEP
Total Employment Change	4,600 (7.7%)	47,300 (7.8%)
Fastest Growing Sectors (employment)	Health and social care, admin and support services, construction, recreation	Admin and support services, professional services, health and social care
Fastest Declining Sectors (employment)	Manufacturing, agriculture forestry and fishing, public admin	Manufacturing, public admin
Total GVA Change	£1.1bn (48.3%)	£14.2bn (51.2%)
Working-age Population Change	-5,300 (-6.6%)	-11,700 (-1.5%)

Source: Oxford Economics June 2016 Forecasts (From 'Solent LEP Baseline Forecasts and the Implications of Brexit', January 2017)

- 3.31 In overall terms, workforce jobs on the Island are expected to increase by 4,600 between 2015 and 2036. This represents a 7.7% increase in proportionate terms, which is broadly in line with the pace of employment growth expected across the LEP area as a whole over this time period (Table 3.1). This implies that the Isle of Wight's relative contribution to Solent-wide growth is expected to be maintained in future. Economic output (as measured by Gross Value Added) generated by the Island's economy is also expected to grow, by approximately £1.1bn over this time, representing an increase of just under 50%.
- 3.32 Key sectors expected to drive employment growth include health and social care, admin and support services, construction and recreation, reflecting the demographic profile of the Island (with an ageing population), strength of the Island's tourism economy as well as general demands upon business services activities. At the same time, employment is expected to decline within the Island's manufacturing, agriculture and public admin sectors over the period to 2036, broadly echoing forecasts for employment decline across the Solent LEP area as a whole (Table 3.1).
- 3.33 From a population perspective, the latest economic forecasts suggest that the Island's working age population is expected to continue to decline over the coming years, by around 5,300 between 2015 and 2036. The Island is anticipated to account for nearly half of all working age

population decline projected across the LEP area, placing pressure upon the Island's indigenous labour supply to meet the growing demand for employment and business growth.

Implications for Infrastructure Demand

- 3.34 The economic forecasts summarised above provide a 'business as usual' view of the Island's economic growth potential, broadly assuming that past trends and sector specialisms continue in future, albeit framed within the context of ongoing macro-economic uncertainty brought about by Brexit. It is clear that the scale and scope of employment growth implied by the Council's emerging Regeneration Programme could deliver a significant step-change in the Island's economic evolution and growth, significantly out-pacing the OE job growth projections by approximately 7,400 jobs if the full scale of development and regeneration can be achieved and maximised over the shorter term period to 2027.
- 3.35 The trajectory of future economic growth of the Island will have significant implications for infrastructure requirements to, from and on the Isle of Wight, with a growing business and employment base increasing the demand for all types of economic infrastructure to support the day-to-day functioning of the Island's economy. The forecasts do however point to shifting requirements in terms of the nature of business premises and skills required to accommodate economic growth, for example with declining demand for manufacturing space and skills (in some but not all manufacturing sub-sectors), growing anticipated demand for high quality premises to accommodate business service sector growth, and a growing need for construction skills to meet the needs of an evolving industry. At the same time, the changing population structure (i.e. a declining working-age population and growing ageing population) will have significant implications for the Island's housing market and the mix of accommodation types and tenures required.
- 3.36 Feedback from local Island businesses collected as part of this study also identifies an appetite for growth and expansion amongst the Island's business community, but also that businesses face a number of barriers and issues in operating on the Island, predominately related to mainland access. More detailed feedback from the business survey is included at Appendix 3.
- 3.37 As noted above, the key focus of the IIIP is upon supporting and stimulating the Island's sustainable economic growth through enhancing competitiveness and productivity. In order to achieve this agenda, infrastructure priorities will inevitably vary by economic sector, for instance with the tourism sector placing particular value upon transport accessibility and connections to and from the Island, while telecommunications and digital infrastructure will be particularly key for the Island's business services sector which is expected to record employment growth over the next 20 years. The type of infrastructure required to support economic growth will therefore look different across these sectors.

4.0 Water, Waste and Flooding

4.1 This section provides an overview of existing water, waste and flood defence provision on, to and from the Isle of Wight and the key issues and gaps associated with this strand of economic infrastructure supporting the growth of the Island economy. The findings are based upon a review of existing data sources and evidence, as well as discussions with a number of stakeholders and operators currently active on the Island and wider Solent area (Appendix 1).

4.2 For the purposes of the study, this strand of infrastructure is defined as including:

- Water supply;
- Waste water;
- Waste disposal; and
- Flood defences.

Existing Provision

4.3 Water, waste and flood defence infrastructure generally has acceptable provision on the Isle of Wight, is sufficient to meet existing needs as well as having capacity to accommodate growth.

Water Supply

4.4 Existing provision of water supply and treatment is spread across the Isle of Wight. Approximately 30% of the Isle of Wight's current water supply is provided by the cross-Solent main, a fresh water pipeline connection between Gurnard and Lepe on the mainland which has capacity for 20 million litres per day. Nearly half the supply comes from ground water reserves abstracting from the chalk aquifer (47%) and the remaining 23% is provided by local fresh water rivers²⁰.

4.5 Sandown effluent treatment centre accommodates the majority of the Isle of Wight's waste water treatment capacity, which is reported by the Partnership for Urban South Hampshire to have surplus capacity and could accommodate increased demand. The key growth areas in the Isle of Wight are expected to drain to one of the 11 existing waste water treatment works. These do not have any significant constraints that would prevent future growth but are understood to require some improvement works as summarised below²¹:

- Capacity upgrades at seven of the waste water treatment works;
- New ammonia or phosphate permits needed at ten of the waste water treatment works;
- Sewer network upgrades at one of the waste water treatment works;
- Short term measures to reduce the current catchment of nitrate sources for eight waste water treatment works; and
- Measures to reduce future predicted increases in nitrate for seven waste water treatment works.

4.6 In some areas of the Isle of Wight there are localised issues where properties are not connected to the sewerage network, for example sink aways. This results in localised pinch points which suffer from insufficient water run-off catchment where they are not supported by the sewerage network, or where there is insufficient capacity. However such cases are reported to affect

²⁰ Partnership for Urban South Hampshire (2017) Integrated Water Management Study

²¹ ibid

'handfuls' of properties rather than extensive areas or neighbourhoods, and typically only occur following severe rainfall events.

- 4.7 These localised pinch points are prioritised for intervention based on the number of affected properties and solution costs. Southern Water (the main provider of water supply and wastewater treatment services across the Isle of Wight) confirmed that as a whole the Isle of Wight is low down its maintenance priority list. This is because the majority of its pinch points and constraints are very localised and affect small numbers of properties. Southern Water has a set maintenance budget each year, and pinch points are addressed by priority. This means that localised pinch points in the Isle of Wight's waste water and sewerage network will be addressed on an ongoing basis, but their low priority reflects the relatively limited nature of the constraints.
- 4.8 The Partnership for Urban South Hampshire recently commissioned an Integrated Water Management Study to plan for future housing and economic growth up to 2040. This highlighted that whilst the Isle of Wight's Water Resource Zone is anticipated to be in deficit, a number of intervention options are proposed which will ensure there is sufficient supply. One of the key interventions to ensure sufficient supply is to fully utilise the capacity of the cross-Solent main. This would increase its current flow of 12 million litres per day to 20 million, although it is not clear if and when this intervention will be taken forward.
- 4.9 Consultations with stakeholders highlighted that the fresh and waste water infrastructure in particular have sufficient capacity to accommodate further growth. This is largely attributable to the fresh water pipeline connection to the mainland which has capacity for 20 million litres per day, and surplus capacity at the Sandown effluent treatment centre.

Waste Disposal

- 4.10 Being an island authority affects the opportunities available to the Isle of Wight to treat waste. For instance, the Solent hinders both the movement of waste between authorities for treatment (such as bulking prior to processing or recycling) and the sharing in the investment of waste infrastructure. This severance factor has a significant influence on how waste is and will be treated in the future.
- 4.11 Waste represents a key part of our local, national and global economy. Through the economic activity of residents, businesses and industry, waste is produced. This waste has traditionally been treated as a problem with a heavy reliance on landfill for disposal, creating a large cost burden for local authorities.
- 4.12 The Isle of Wight Council has set out clear economic aspirations to achieve a stronger and greener economy for the Island through the Sustainable Communities Strategy (Eco-Island), the Isle of Wight Economic Strategy 2008 - 2020 and the Island Plan Core Strategy. Indeed a key objective of the Core Strategy is to manage the Island's waste in a sustainable and environmentally sensitive way. Core Strategy Policies SP8 and DM19 set out the Council's strategic planning approach to waste management and disposal, considering first avoidance, followed by recycling and other treatment methods aside from landfill. The policies make a provision for future landfill through a specific allocation at Standen Heath, which is allocated as the Island's strategic landfill facility to accommodate a maximum of 770,000 cubic metres of net void space capacity through to 2027.
- 4.13 The Council noted within its 2012 Core Strategy that it was approaching a critical stage in the management of waste on the Island, with the existing municipal waste collection, treatment and disposal contracts terminating in 2015. It was also anticipated that the Council's landfill site will reach capacity at or around that date and other treatment and sorting facilities belonging to the

Council or third parties will be in need of reinvestment. Key waste issues are identified as: ensuring that there is adequate landfill capacity over the short-term, whilst planning to increase diversion from landfill in the medium to longer term; and planning to provide adequate provision for as yet unidentified waste technologies.

- 4.14 This presented the Council with the opportunity to review its existing arrangements and evaluate all available options and technologies, both through its Procurement Strategy for the Future of Waste (traditionally referred to as a Municipal Waste Management Plan) and subsequent decisions on waste management including any future waste contract arrangements. The Procurement Strategy for the Future of Waste was subsequently developed and a Business Case was prepared to consider the various options available for the Council to provide waste services on the Island going forward.
- 4.15 Aside from the landfill facility allocation at Standen Heath, there are also plans currently being implemented to create state-of-the-art waste treatment facilities at the existing Forest Park waste site to the west of Newport, which will allow the Island to manage its own waste for years to come. In partnership with Amey, the Council is building a new mechanical treatment plant, and a new energy recovery facility. When complete, all collected recycling and waste will be handled at the Forest Road Waste Management Park. The facility will also be able to accept local commercial and industrial recycling and waste.
- 4.16 The energy recovery facility will create energy from waste that cannot be recycled, generating 23,000 megawatt hours of energy per year which will be exported to the National Grid. Together, these technologies will help to ensure more than 90% of the Island's household waste does not end up being landfilled.

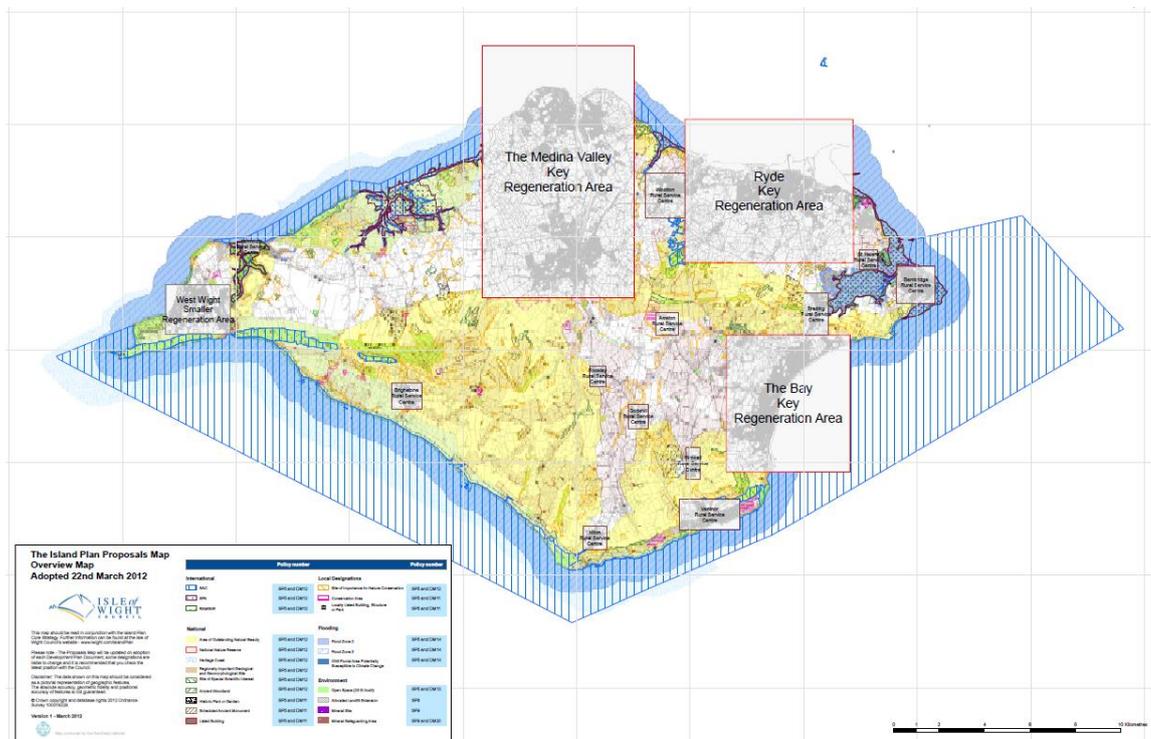
Flood Defences

- 4.17 As an Island, the Isle of Wight faces a wide variety of flood risks from fluvial flooding, tidal (or coastal), ground water, surface water, sewers and reservoirs. The Isle of Wight Council recently introduced the Isle of Wight Local Flood Risk Management Strategy to set out how the Council as a Lead Local Flood Authority will work alongside other risk management authorities to prioritise and invest money in flood risk management for local benefit.
- 4.18 The flooding experienced on the Island during the winter of 2013/14 highlighted many of the planning and emergency response challenges that the Island faces. The unprecedented rainfall as well as the exceptionally high tides was a real test on all risk management authority resources and further underlined the need for responsibilities to be identified and acted on, and that the local authority should be investing in flood risk projects wherever possible to reduce the impact to the people who live, work and visit the Island. This unprecedented rainfall demonstrated that while traditionally flooding is attributed to rivers and the sea, surface water flooding is causing just as much impact to local communities.
- 4.19 Fluvial flooding (flooding from rivers) occurs when the watercourse is unable to contain the volume of water which is draining into it from the surrounding area. The majority of watercourses are in the northern half of the Island and discharge into the Solent. The Isle of Wight's largest river is the Eastern Yar (a Main River) and this discharges into the Solent at Bembridge. A history of flooding is well documented along the lower reaches of this watercourse. The majority of the Main Rivers on the Island flow in a northerly direction and as a result of this drainage pattern, which is a function of the underlying geology, the main estuarine environments are on the northern shores of the Island.
- 4.20 Flooding from the sea (tidal flooding) tends to occur as a result of high tides, surges in sea water and strong winds which raise the sea level above the ground level of the coast or the defences

that protect it. Tidal flooding also brings challenges in respect of combined flood risks. The majority of tidal flood risk is on the more low-lying northern shores of the Isle of Wight. This includes existing and future tidal flood risk in the towns and villages of Yarmouth, Gurnard Luck, Cowes and East Cowes. Additionally, the two low lying valleys of the Western Yar (from Freshwater to Yarmouth) and the Eastern Yar (from Yaverland, Sandown to Bembridge) are both at tidal flood risk and are currently protected by defences preventing tidal flooding. Isolated marginal properties bordering the Media and Newtown Estuaries may also be affected by future tidal flooding (including Newport Harbour).

- 4.21 The Local Flood Risk Management Strategy notes that the risk of flooding to the Isle of Wight into the future is likely to increase, mainly as a result of climate change; however other factors such as new development or works to/mismanagement of watercourses, if uncontrolled, have the potential to negatively impact on flood risk.
- 4.22 The Council’s Core Strategy includes specific policies covering flood risk and development and is supported by a Strategic Flood Risk Assessment that indicates when a development proposal should undertake a flood risk assessment. Policy DM14 ‘Flood Risk’ states that development proposals will be expected to reduce the overall and local risk of flooding on the Island.
- 4.23 The Council has adopted the predicted 1 in 200 year tidal flood map for the year 2115 as a replacement to the current tidal Flood Zone 3. It has also adopted the predicted 1 in 1000 year tidal flood mapping for the year 2115 as a replacement to the current tidal Flood Zone 2. These adopted Flood Zones are shown below on the Proposals Map along with fluvial areas which are potentially susceptible to climate change. This approach ensures that the possible impacts of climate change are incorporated into the spatial planning process.

Figure 4.1 Island Plan Core Strategy Proposals Map

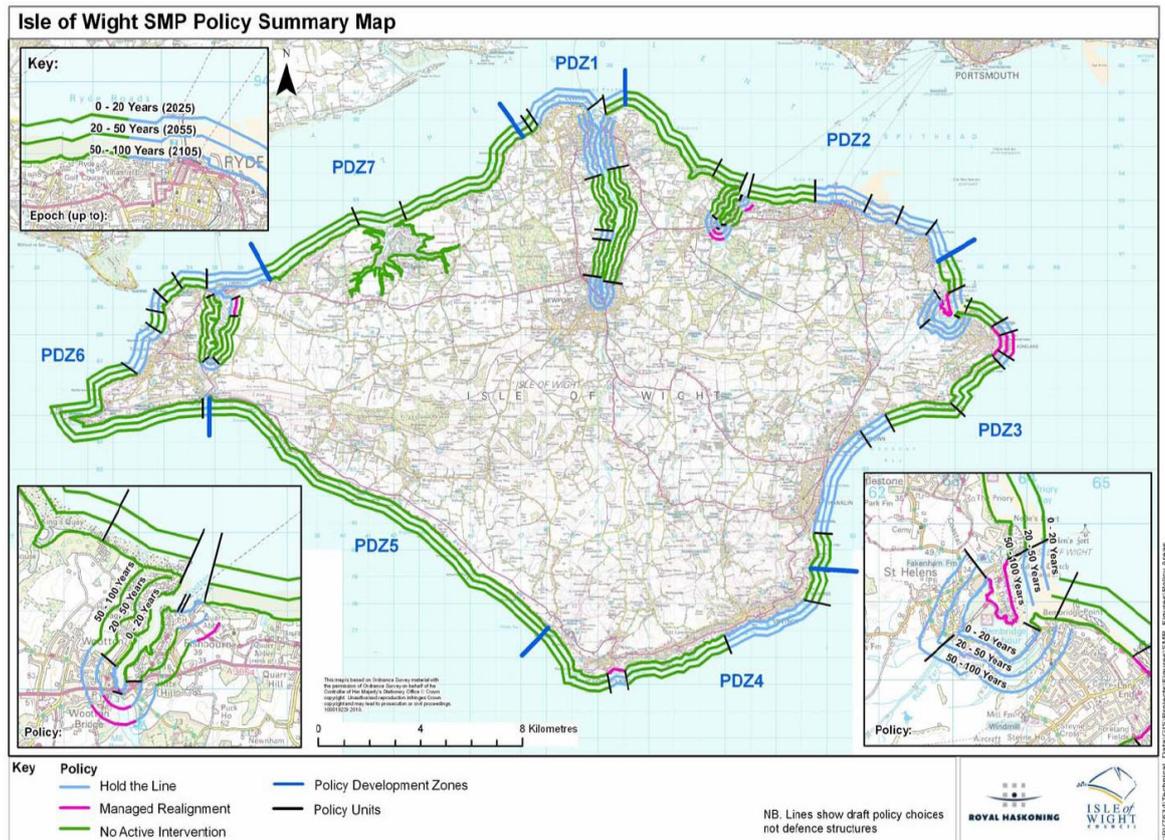


Source: Isle of Wight Council 2012

Coastal Management

- 4.24 Parts of the Island have a long history of coastal erosion, pre-dating human influence. Many settlements on the Island have evolved from small-scale beginnings on sites located in areas vulnerable to flooding and erosion, such as by the coast or an estuary. This historic settlement pattern is now faced with the new challenges of rising sea levels and increased storm and rainfall events.
- 4.25 A key issue going forward is to plan to avoid, mitigate and adapt to flood risk and coastal erosion and look to plan positively and identify opportunities to benefit local communities and businesses and adapt to coastal change.
- 4.26 Core Strategy Policy DM15 'Coastal Management' sets out the Council's approach to managing development in coastal areas affected by coastal change. The Council is making stronger links between the management of the coastline, set out in the Shoreline Management Plan (SMP), and hierarchical risk-based sequential approach to planning informed by the Strategic Flood Risk Assessment (SFRA).
- 4.27 The Council is the lead agency in the production of the SMP, which covers the coast around the Island. This document identifies management approaches and policies for defending the coastline of the Island over the next 100 years and these will have implications for coastal development. It also identifies locations for coastal protection and flood defence works, including areas where contributions are required to construct new defences. The SMP sets policy for the management of coastal flooding and erosion risks for a pre-determined length of coast. It aims to balance risks with natural processes and the consequences of climate change.
- 4.28 The SMP notes that the Isle of Wight coast will change over the next 100 years due the impacts of marine erosion, ground instability and flooding by the sea. Current levels of risk are likely to increase through greater human activity and development in coastal areas and as a result of the predicted impacts of climate change. Responsibility for management of the Island's coastal defences against erosion and sea flooding is shared between the Isle of Wight Council and the Environment Agency. The SMP is the means by which these organisations determine the best way to look after the coast in a sustainable way for the next 100 years.
- 4.29 The SMP highlights the importance of appropriate coastal policy decision-making for the Island which is heavily reliant on its shoreline for tourism and marine industries as well as being home to many coastal towns and villages. The SMP proposes focusing future expenditure on defences for communities at significant risk from future coastal flooding and erosion to seek a sustainable future for the Isle of Wight and address the risks of climate change predicted sea level rise. In securing the future of vulnerable coastal communities, the SMP also aims to sustain key road infrastructure and ferry transport links.
- 4.30 The proposals contained in the SMP include addressing the potential tidal flood risk to the low-lying valleys of the Western and Eastern Yar rivers, supporting the communities directly at risk and also those reliant on the transport links that cross the valleys to West Wight, Bembridge and Forelands. Significant tidal flood risk to the communities and infrastructure of Yarmouth, Cowes and Ryde is recognised and addressed, as is the risk of erosion to a number of coastal communities including Ventnor. It is also a key outcome of the SMP to recognise the important and scenic natural landscape and shoreline of the Isle of Wight coast and estuaries, valued by residents and visitors alike, including allowing natural change to continue uninterrupted along long stretches of the south-western and northern coasts and supplying sediment to local beaches. The SMP provides a summary of the preferred plan and policy choices, as summarised in Figure 4.2 below.

Figure 4.2 SMP Policy Summary Map

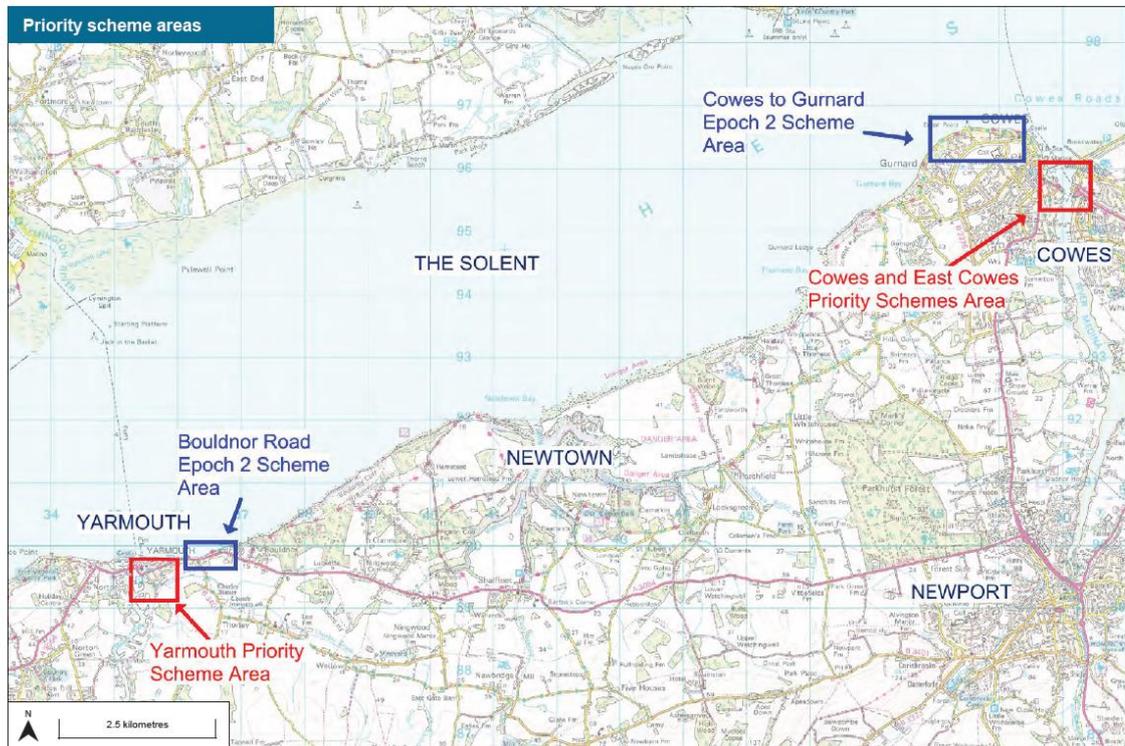


Source: Isle of Wight Shoreline Management Plan, December 2010

- 4-31 The Isle of Wight Council and the Environment Agency recently developed a Coastal Strategy for the Isle of Wight coast from Freshwater to East Cowes. The 'West Wight Coastal Flood and Erosion Risk Management Strategy' recommends the preferred approaches needed to reduce or adapt to future coastal flood and erosion risks for an 84km frontage of the Isle of Wight coast from Freshwater Bay to East Cowes. This includes the towns of Yarmouth, Cowes, East Cowes, Freshwater, Totland, Colwell, Newport Harbour, and surrounding areas.
- 4-32 The Strategy includes proposals for future priority schemes, and examines how they could be funded. A summary of the priority scheme areas is shown in Figure 4.3 below.
- 4-33 Other localised coastal infrastructure requirements include a replacement breakwater at Yarmouth Harbour to replace the existing structure which is reported to be nearing the end of its useful life²². The cost of replacing the breakwater is estimated to be around £10million and is intended to help cope with the predicted sea level rise this century, providing enhanced flood protection to the Western Yar Estuary and Yarmouth Town.

²² <http://www.islandecho.co.uk/news/harbour-announces-plans-replacement-breakwater>

Figure 4.3 Priority Scheme Areas



Source: West Wight Coastal Flood and Erosion Risk Management Strategy 2016

4-34 It should be noted that the Isle of Wight Council is currently undertaking two Flood and Coastal Erosion Risk Management (FCERM) studies to understand the future coastal erosion and coastal flood defence needs of Sandown Bay and Ventnor. Following this, the Environment Agency anticipates that FCERM schemes will come forward in the future, although significant partnership funding will be required to supplement central government funding for these schemes to be realised.

Constraints to Growth

4-35 Water, waste and flood defence infrastructure is fundamental to supporting new development which underpins economic development and housing provision. For example, without fresh water and waste water infrastructure new housing developments cannot be provided, which means that construction and supply chain jobs are not created. It is therefore important that this type of infrastructure is provided in a timely manner to support new development on the Isle of Wight to support economic growth. Current provision on the Isle of Wight is generally good however, and future priorities are improving the timeliness of providing new infrastructure to support development and growth.

4-36 The most significant constraint to fresh and waste water infrastructure is the timescales involved to provide new infrastructure, rather than the cost or capacity to accommodate the increased provision. This is because Southern Water is statutorily required to prepare five year business plans to provide fixed annual costs for consumers that take into account planned maintenance and infrastructure to support new development.

4-37 Maintenance costs are factored into consumer bills and infrastructure to support new development is funded by the developer. This means that funding is not an issue for fresh and waste water infrastructure. However, stakeholders highlighted that some sites which require

grant funding would be delivered faster if funds were directly paid to utilities infrastructure providers rather than paying a third party developer to then transfer the funds.

- 4.38 Water companies' five year business plans only factor in sites with planning permission or allocations in Local Authorities' Local Plans. For example the HMP Camp Hill site (proposed for strategic allocation) is known by Southern Water and is expected to be included in the next five year business plan though its current infrastructure needs are unknown. Sites without planning permission or unallocated sites therefore typically have increased delays in delivery as they will not be factored in to Southern Water's five year business plans. In some cases this can cause significant delays to development projects as they cannot be supported with new infrastructure until they are reflected in the next business plan.
- 4.39 More broadly, some sites that benefit from planning permission have also faced delayed delivery because of timescales required to provide onsite utilities infrastructure and connection to the wider network. Such delays increase costs for developers as they need to store materials whilst construction is delayed.
- 4.40 From a waste disposal perspective, existing infrastructure gaps and pressures are expected to be addressed through the allocation of a new landfill facility at Standen Heath and plans for a state-of-the-art waste treatment facility at the existing Forest Park waste site to the west of Newport. With regard to flood and coastal defences, a range of high risk areas and projects have been identified through recent evidence base work, alongside some initial prioritisation work.
- 4.41 The Isle of Wight Council's Regeneration Programme highlights that some of the strategic sites suffer from utilities constraints. In particular this includes coastal and flood defence issues at Ryde Interchange, Shanklin Spa and Sandown Bay. Local interventions are required to support the delivery of these strategic sites, and further investigation is required to determine the costs and deliverability of the schemes.

Key Messages

- 4.42 Water, waste and flood defence infrastructure provision on the Isle of Wight is generally good; there are few constraints in the existing infrastructure and constraints that do exist are relatively small scale in nature and low priority. Most water supply and treatment facilities have sufficient capacity to support future growth, or require limited improvements to increase their capacity. However, the timescales in providing new infrastructure frequently delays development, and this is a significant risk for development sites that are not factored in to Southern Water's five year business plans. The greatest priority for water, waste and flood defence infrastructure on the Isle of Wight going forward is therefore to ensure that Southern Water is able to take into account proposed development sites at the earliest opportunity, in order to facilitate and speed up development.
- 4.43 For some development sites that require grant funding for infrastructure to unlock delivery it would be more timely for public sector organisations to directly pay Southern Water to provide and/or adopt new supporting infrastructure (subject to state aid considerations), rather than transfer the funds via a third party developer. This could help accelerate delivery and minimise delays on development sites across the Island.
- 4.44 Given the unique challenges and risks posed to the Island from a flood and coastal defence perspective, a range of flood defence and coastal management works have been identified to enable the Island to plan to avoid, mitigate and adapt to these risks cover the coming years. The Council has completed or is in the process of undertaking a number of Flood and Coastal Erosion Risk Management studies including West Wight, Sandown and Ventnor. These indicate that a number of communities are at risk of flooding and coastal erosion and new and upgraded

defences will be required. Partners will need to work closely in the coming years within the context of a challenging funding environment to ensure that these risks are adequately planned for and managed.

5.0 Energy

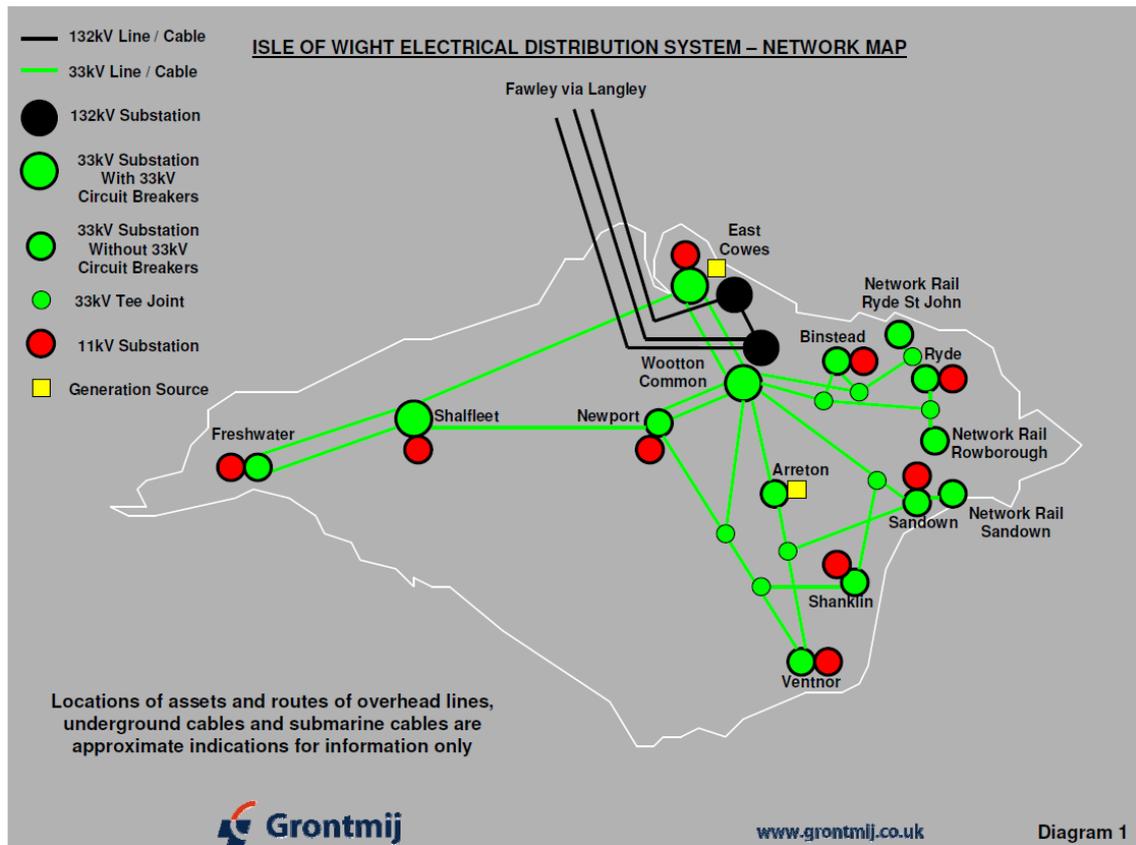
- 5.1 This section provides an overview of existing energy provision on, to and from the Isle of Wight and the key issues and gaps associated with this strand of economic infrastructure supporting the growth of the Island economy. The findings are based upon a review of existing data sources and evidence, as well as discussions with a number of stakeholders and operators currently active on the Island and wider Solent area (Appendix 1).
- 5.2 For the purposes of the study, energy infrastructure is defined as:
- generation and distribution of conventional electricity;
 - renewable energy sources.
- 5.3 The study takes account of existing technical evidence studies where available²³, and it should be noted that the Solent LEP has recently been awarded funding from the Department for Business, Energy and Industrial Strategy (BEIS) for the development of a Solent Energy Strategy and therefore more detailed and updated evidence will be prepared on this issue in due course.

Existing Provision

- 5.4 The Island is not characterised as being particularly self-sufficient in terms of energy provision and is largely dependent upon this being provided from the mainland. Whilst this raises issues over the Island's dependency upon others to provide essential utilities and infrastructure, the ability of the Isle of Wight Council and its partners to take direct action over the provision of energy services is limited given that this is controlled by commercial operations (as is the case elsewhere). However, the Council does have greater scope to influence policy in respect of renewables, local energy networks and infrastructure for smart grid operation, including potential investments in storage and electric vehicle charging infrastructure.
- 5.5 The main suppliers of the Island's energy include Scottish and Southern Energy Networks (SSEN) for electricity and British Gas for gas. Through the Infrastructure and Development Theme Group of the Local Strategic Partnership, Isle of Wight Council is in regular discussion with the statutory undertakers who provide energy supplies on the Island. These providers have indicated that the quantum and distribution of development set out in the Island Local Plan (Core Strategy) would not create a need for new investment that would be sufficient to prevent delivery over the plan period to 2027.
- 5.6 The public electricity supply on the Isle of Wight is the responsibility of SSEN, as statutory distribution network operator. SSEN own and operate the 132kV, 33kV and 11kV distribution infrastructure, with the exception of the assets associated with East Cowes Power Station (RWE npower ownership) and Arreton Nurseries combined heat and power plant (Wight Salads ownership). Figure 5.1 shows the general locations of the various substations and a simplified single diagram of the existing network on the Island.

²³ For example, Isle of Wight Renewable Energy Resource Investigation (Grontmij, 2011)
<https://www.iwight.com/azservices/documents/2782-Grid%20Connection%20Study%20-%20Mar%202011.pdf>

Figure 5.1 Isle of Wight Electrical Distribution Network Map



Source: Grontmij 2011 (Isle of Wight Renewable Energy Resource Investigation)

- 5.7 In terms of on-Island energy generation, the East Cowes Power Station (run by RWE Generation UK) is the only major power station on the Isle of Wight. The station is integrated into the National Grid System enabling it to export electricity to the mainland as well as providing greater security of electricity supply on the island. The power station provides power to the national grid in the peak lopping mode, and as such, the periods of operation are typically short.
- 5.8 The second main source of energy generation on the Isle of Wight comprises the Schmack Biogas plant which is configured for an output of five megawatts of gas power, with a 250 kW combined heat and power unit for its own supply.²⁴
- 5.9 The Isle of Wight is supplied from the SSEN primary substation at Fawley, via an intermediate substation at Langley, by three 132kV circuits. Each of the three 132kV circuits comprises a submarine cable section beneath the Solent, with an underground cable section on the Isle of Wight and an overhead line section on the mainland. The Island's demand typically varies between a minimum of approximately 40MVA and a maximum of approximately 130MVA, which normally results in the Isle of Wight importing electrical power from the mainland.
- 5.10 The Solent LEP's Strategic Economic Plan also notes that the Isle of Wight is a centre for renewable energy activities and a technology hub for composite materials and their application in marine technology, renewable energy and aerospace. Capitalising upon these sector strengths and specialisms, one of the key objectives within the Island's Core Strategy is to provide renewable sources of energy that contribute to the Island being self-sufficient in renewable electricity production. It also recognises the need to promote and continue to expand the

²⁴ <http://www.schmack-biogas.com/en/press/schmack-biogas-versorgt-isle-of-wight-mit-biomethan.html>

development of clusters in knowledge driven and high technology industries and associated service sector employers on the Island, in particular renewable energy activities with emphasis on wind and tidal power and any associated supply chains.

- 5.11 The Council's commitment is demonstrated through Policy SP6 of the Core Strategy which states that: *"a range of renewable energies will be encouraged across the Island to meet its target of up to 100 MW installed capacity as the on-shore contribution to becoming self-sufficient in renewable electricity production."*
- 5.12 The Council supports domestic and medium scale, localised provision across the Island and recognises the need for large-scale, grid-connected renewable energy schemes. These schemes will be expected to contribute to the economic development and regeneration of the Island and help it meet its target of becoming self-sufficient in renewable electricity production.
- 5.13 Furthermore, Eco Island, the Island's Sustainable Community Strategy, has the ambition for the Island to be self-sufficient in the generation of renewable electricity by 2020. For this to be realised in practice, it means generating enough electricity from renewable sources on the Island to meet its annual electricity consumption.
- 5.14 A range of renewable sources have been recently developed on the Island and now contribute to generation including a number of operational solar farms, energy from waste, landfill gas and combined heat and power. In addition, opportunities for tidal energy are being jointly investigated by the Council and private sector but the strike price for energy means that it is presently difficult for tidal energy to be competitive.
- 5.15 Whilst energy consumption on the Island may reduce over time through the introduction of efficiency measures, this is expected to be counterbalanced by a number of factors, which include: additional housing, commercial/industrial development planned for in the Core Strategy; and a shift to electric vehicles and electric forms of heating (e.g. heat pumps) in off-gas areas.

Constraints to Growth

- 5.16 A key issue in terms of energy generation and distribution relates to how energy produced locally – known as "distributed energy" – can be fed into the national grid. The local grid is reported by SSEN to be operating at full capacity, with severe capacity constraints. The local network is not always capable of taking significant amounts of renewable electricity and this is identified by Isle of Wight Council as providing a major constraint on the Island's renewable energy ambitions, unless current constraints can be overcome.
- 5.17 Connecting new developments to the local grid can provide a key constraint and is reported by stakeholders to cause significant delays in developments coming forward and completing. Delays and constraints in linking new development to the grid also has the potential to restrain the Island's ability to achieve its growth potential over the coming years if essential energy supply cannot be provided.
- 5.18 As noted above, the Island currently relies upon importing electrical power from the mainland via a series of three high voltage undersea interconnectors, all of which are reported to be operating at maximum capacity. In order to alleviate capacity constraints and ensure a continuing reliable supply of electricity to the Isle of Wight, stakeholder consultees referred to the need for an additional interconnector to be provided, whilst recognising that this represents a relatively expensive and potentially longer term solution.

- 5.19 In the more immediate short to medium term, there could be scope for the Island to become more self-sufficient in terms of energy generation and distribution, given the significant opportunities that exist on and close to the Island particularly from a renewables perspective.
- 5.20 Options could include storing more of the Island's energy within large scale batteries, similar to those already in use by domestic users, whereby electricity is diverted to charge batteries when a system detects that less is being used than generated. This could be linked to wider development of a smart grid comprising storage capacity and sophisticated control systems to better match demand patterns with generation.
- 5.21 Alternative, cheaper and more flexible transport modes, that exploit the Island's electricity surplus, such as electric bikes, hydrogen buses and hire cars, might also contribute to a greater variety of options for residents and visitors, enhance the quality of travel and generate economic profits. Such an approach would apply innovative solutions to use surplus energy to power other parts of the economy, supporting the wider ambition of sustainable growth on the Island.

Key Messages

- 5.22 The Isle of Wight is not currently self-sufficient when it comes to energy generation and distribution, and is largely dependent upon supply being piped over from the mainland. SSEN own and operate the three undersea interconnectors, and there are currently two sources of on-Island energy generation via the East Cowes power station and Arreton Nurseries combined heat and power plant. Given that the provision of energy services is controlled by commercial operations, limited opportunity exists for the local Council and partners to influence this provision. Progress has been made in terms of developing a range of renewable sources on the Island which now contribute to generation, for example a number of operational solar farms.
- 5.23 As an enabling driver of economic growth, energy generation and distribution has an important role to play in supporting future development on the Island, and a number of potential solutions could be considered to relieve current capacity constraints and pressures and help the Island to become more self-sufficient. These include the more effective use of on-Island storage solutions (such as large scale batteries) and using the latest technology to support more flexible transport modes.
- 5.24 The process of relieving local grid capacity constraints also provides opportunities for the renewable energy sector, where the Island already has strengths and key competitive advantages. This is identified as a key growth sector for both the Island the wider Solent LEP area, with local targets set within the Island Local Plan for a much greater reliance upon renewable electricity production which in turn will contribute to the economic development and regeneration of the Island.
- 5.25 The forthcoming Solent Energy Strategy will provide further updated evidence on this issue in due course.

6.0 Transport

- 6.1 This section provides an overview of existing transport provision on, to and from the Isle of Wight and the key issues and gaps associated with this strand of economic infrastructure supporting the growth of the Island economy. The findings are based upon a review of existing data sources and evidence, as well as discussions with a number of stakeholders and operators currently active on the Island and wider Solent area (Appendix 1).
- 6.2 For the purposes of the study, transport infrastructure is defined as:
- Roads, including bus, cycle and pedestrian priorities and the public realm;
 - Port facilities for trade and passenger/goods ferries;
 - Rail infrastructure and services, including disused rail alignments;
 - Airport facilities; and
 - Ticketing infrastructure and technology.
- 6.3 There is merit in distinguishing between the following transport infrastructure categories:
- a Cross-Solent connectivity (i.e. ferries, air, hovercraft, a potential fixed link); and
 - b On-Island transport (i.e. roads, rail, bus, other (inc cycle paths)).
- 6.4 The Island Regeneration Programme identifies ‘the prospect of improved connectivity’²⁵ as a key factor in the successful regeneration of coastal communities. This is critical to the task at hand, since the remit of this infrastructure investment plan is to unlock regeneration and remove impediments to the delivery of the Island’s development plans.

Existing Provision

Cross-Solent Connectivity

- 6.5 There is a comprehensive choice of ferry and hovercraft services to/from the Island, as summarised in Table 6.1. These routes are operated solely by private sector operators and are not subject to a public service obligation, making the Island unique within the UK context.

Table 6.1 Cross-Solent Transport Connections

Mainland	Island	Vessel	Peak frequency	Journey Time	Operator
Southampton	East Cowes	Vehicle, freight and passenger ferry	Hourly	55-60 minutes	Red Funnel
Southampton	West Cowes	Fast passenger ferry	Half hourly	25 minutes	Red Funnel
Portsmouth	Ryde	Fast passenger ferry	Twice hourly	22 minutes	Wightlink
Portsmouth	Fishbourne	Vehicle, freight and passenger ferry	Half hourly	45 minutes	Wightlink
Lymington	Yarmouth	Vehicle, freight and passenger ferry	Hourly	40 minutes	Wightlink
Southsea	Ryde	Hovercraft	Every 15 minutes	10 minutes	Hoverspeed

Source: Lichfields analysis

²⁵ Isle of Wight Regeneration Programme. Inner Circle Consulting. December 2016. P 11.

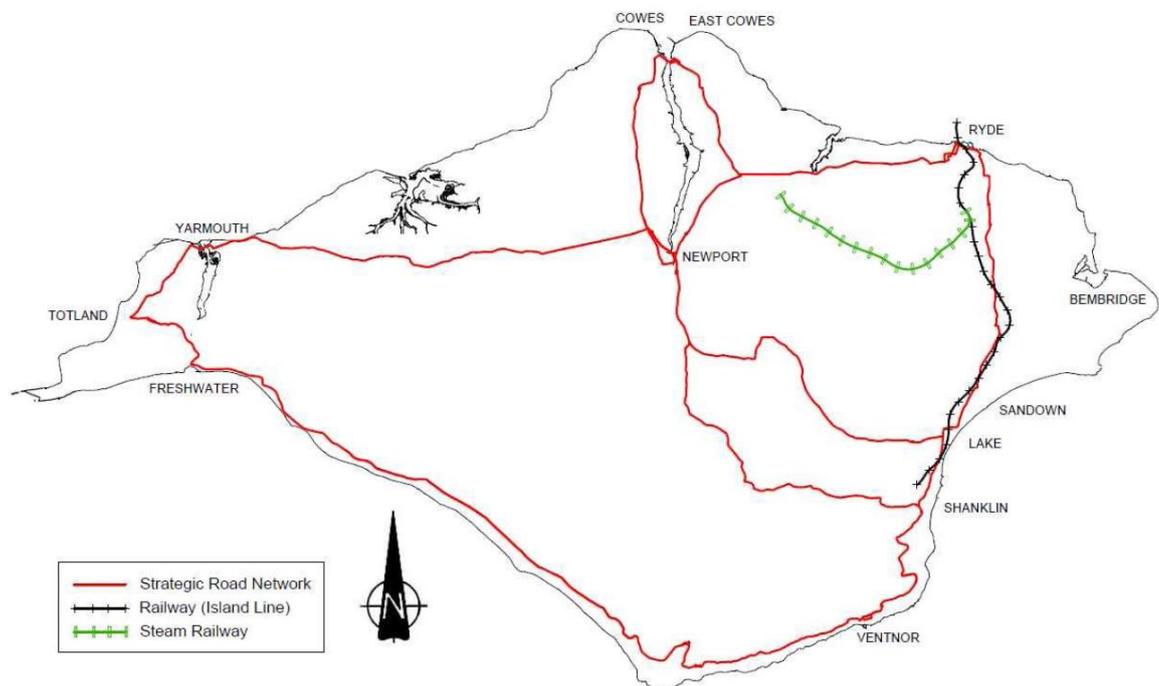
- 6.6 There are no scheduled air services to/from the Island. Private aircraft strips operate at Bembridge (concrete and grass) and at Sandown (grass only) for light aircraft. Neither airfield is currently licensed by the Civil Aviation Authority for public transport of passengers.

On-Island Transport

Road network

- 6.7 The Island’s strategic road network radiates from Newport to a number of the main coastal settlements including Cowes, East Cowes, Ryde, Bembridge, Sandown, Lake, Shanklin Ventnor, Freshwater and Yarmouth (Figure 6.1). These key corridors, supplemented by smaller roads, form a total network of over 500 miles (800km).

Figure 6.1 Island Principal Road Network



Source: Island Transport Plan Background Paper, 2011

- 6.8 The layout and location of the road network brings a range of challenges, particularly at Newport – where all roads interchange – and on the coast where some sections of road are under threat from land instability and increasingly from climate change and resulting rise in sea level.

Bus services

- 6.9 Buses meet ferries at all terminals and provide a comprehensive service across the Island. There are bus stations at Newport, Ryde and Yarmouth as well as a Park and Ride facility for Cowes. All public services are operated commercially by Southern Vectis, a subsidiary of the Go Ahead Group. Additional school services are subsidised by the Council. Bus fares are cheaper for regular users, with a pack of 5 single day tickets costing £5 each. Single day tickets aimed more at tourists are twice that price.

Rail services

- 6.10 The Island Line rail service operates between Ryde-Shanklin twice per hour but on uneven headways; only one service connects with the ferries. Both fixed infrastructure and rolling stock are in need of significant investment if the service is to be sustainable. In March 2017, the franchise for Island Line was awarded to First Group/MTR as part of the wider South Western franchise.

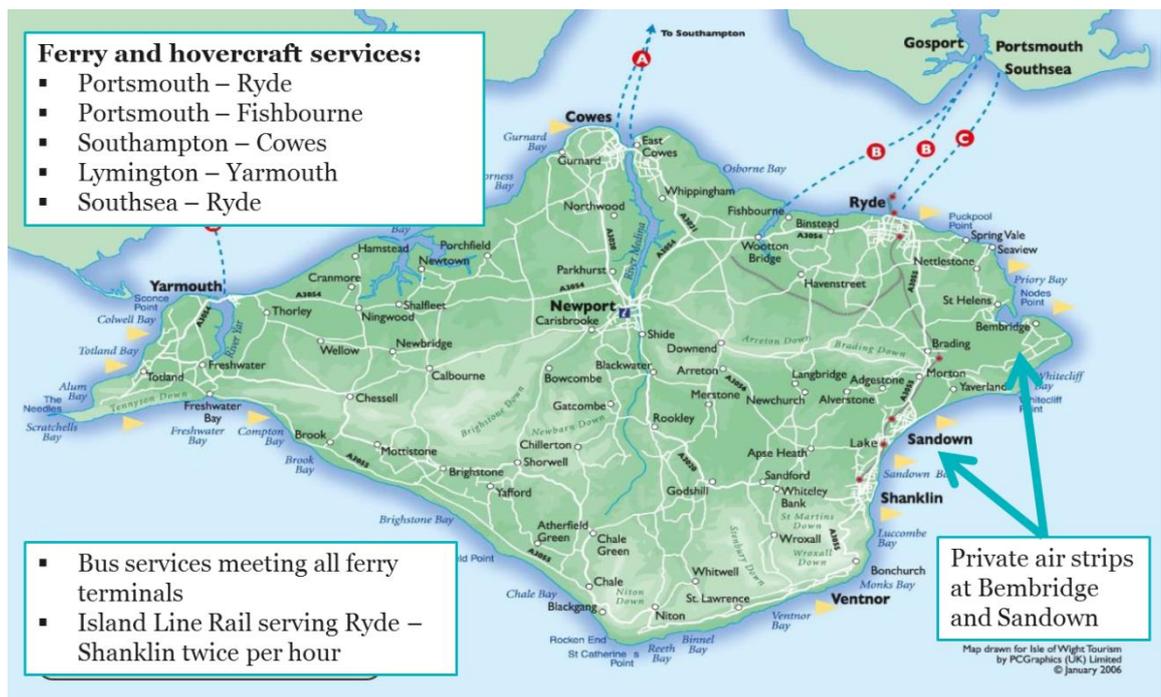
Walking and cycling

- 6.11 The Island has 517miles (827 km) of public rights of way linking towns and settlements and giving access to the countryside and coast. There are over 200 miles of cycle routes with dedicated off road cycle routes linking the major towns. Recognised as part of the National Cycle Network (NCN), routes link Cowes to Newport, and Newport to Sandown (NCN 23). Some parts of NCN22 are also in place linking Ryde to Newport and Yarmouth to Freshwater.

Cowes Floating Bridge

- 6.12 The Cowes Floating Bridge provides an important local link across the Medina River between Cowes and East Cowes for both vehicle and foot traffic, avoiding a lengthy diversion via Newport. It operates 365 days a year for around 18 hours each day.

Figure 6.2 Overview of Island Transport Connections



Source: Lichfields analysis

Constraints to Growth

Cross-Solent Connectivity

Ferry Services

- 6.13 As set out above, there is a comprehensive choice of ferry and hovercraft routes to/from the Island. A new ferry will be introduced by Wightlink on the Fishbourne-Portsmouth route in 2018 which will add additional capacity, alongside new loading ramps at Fishbourne and improved terminal facilities at Gunwharf Quays.²⁶
- 6.14 Ticket prices vary significantly, starting at around £10 for a single foot crossing. This is to be expected, given the seasonal nature of demand and the ability of operators to price discriminate and optimise yields. Ticket discounts are available for Island residents and through advanced purchases and season tickets.
- 6.15 The strategic issues that have emerged from this stage of the work, in relation to waterborne transport, include:
- Interchange facilities at port terminals are sub-optimal in places: notably, issues with queuing traffic to access Red Funnel vessels at East Cowes, and difficulties of interchange between the Hoverport and Ryde Esplanade.
 - Evening frequencies on the ferries are inconvenient to those travelling later in the day.
 - Ferry fares are perceived as expensive by some, particularly for small businesses and also for tourists who travel independently or use small accommodation providers (who are unable to negotiate bulk discounts).
 - Independent freight operators also have concerns about ferry freight rates and capacity at peak times.
- 6.16 A range of ferry infrastructure enhancements are either underway or are planned to alleviate existing cross-Solent connectivity and capacity constraints. As noted above, WightLink are currently in the process of delivering a £45m investment package to build a new environmentally friendly ferry to serve the Portsmouth – Fishbourne route as well as improving port facilities on the route by building a new terminal at Portsmouth and two-tier boarding ramps on both sides of the Solent.
- 6.17 There are also major proposals by Red Funnel to deliver new state of the art ferry terminals at Trafalgar Dock in Southampton and East Cowes on the Isle of Wight, which was allowed on appeal in August 2017 following an earlier refusal of planning permission by Isle of Wight Council. As well as creating the public infrastructure needed to re-locate the Red Funnel Ferry terminals on each side of the Solent, the scheme also offers the potential to unlock two major employment sites at Royal Pier and East Cowes.

Fixed Link

- 6.18 There are proposals to investigate the case for a fixed link between the Island and the mainland.²⁷ However these have not been subject to any detailed feasibility analysis or investigation as to the economic and business case for such an investment. The 2017 Island Infrastructure Task Force report noted:

²⁶ <http://www.wightlink.co.uk/pressrelease/wightlink-invests-45-million-new-ship-port-facilities/>

²⁷ <http://solentfreedomtunnel.co.uk/>

"Whilst a fixed link would address issues about connectivity and scheduling experienced with the ferry services, there are as yet a number of unknown issues in relation to the potential impact of a bridge or tunnel on the Island."²⁸

On-Island Transport

Road network

- 6.19 Local highway congestion is perceived as worsening and acting as a constraint on labour market flexibility. This is localised to specific pinch-points, with those cited including:
- Newport-Cowes route, especially around the St Mary's roundabout;
 - Newport-Ryde route.
- 6.20 Recent investment has been secured for junction and highway improvements in Newport to help facilitate planned growth identified in the Core Strategy Local Plan. A 25-year Private Finance Initiative (PFI) funding framework commenced in 2013 which will see most of the Island's roads resurfaced and upgraded, with most works profiled to take place in the first seven years. However, more generally highway capacity and reliability is acting as one constraint to commercial and housing development in the Cowes-Newport corridor, where there are competing demands on attractive sites.

Bus services

- 6.21 An emerging issue is concern about the cost of fares for those seeking work and those travelling for training and education. Southern Vectis is set to introduce 'touchless' bankcard technology on board buses. There is a case to extend this facility for inter-modal travel on ferries and trains. There is scope to introduce bus priority measures at key locations, such as in the Cowes-Newport corridor, and to introduce selective vehicle priority for buses at traffic lights. Specific priority schemes are being taken forward by the Council.
- 6.22 More ambitiously, the Solent Strategic Transport Investment Plan²⁹ raised plans to consider converting former rail alignments to busways between Ryde, Newport and Cowes, to combine the benefits of segregation with the flexibility of routing that buses offer.

Rail services

- 6.23 The First Group/MTR franchise commenced in August 2017, branded as "South Western Railways". There is a franchise commitment to consult widely on options for investment to put the Island Line on a sustainable footing. This represents an important opportunity to secure the future of the line and to consider whether there is a case to extend services, such as along disused former alignments to, for example, Ventnor. Conversion to a technology that is cheaper to operate and more attractive to passengers such as light rail, has been previously suggested and could be considered further.³⁰
- 6.24 First Group/MTR is committed to putting a single investment option to the DfT, for business case scrutiny. Unanimity in stakeholder support for the emergent option will be one factor that the DfT is likely to take into account in scrutinising the case, as will the prospect of a local funding contribution. The Island will need to consider how best to work closely with First

²⁸ Report of the Island Transport Infrastructure Task Force, July 2017 <https://www.iwight.com/azservices/documents/1190-TITF-Report-FINAL.PDF>

²⁹ Solent LEP, Solent Strategic Transport Investment Plan, May 2016

³⁰ The Future of Island Line - Options Report, Christopher Garnett, January 2016

Group/MTR over the next year to help secure a successful outcome to this process, balancing development plans with the need to keep the service running in the future.

Walking and cycling

- 6.25 The Isle of Wight Council is already working with Sustrans and local cycling groups to improve the cycle network on the Island, notably the development of an off road route between Sandown and Newport (part NCN23), enhancement of a route between Wootton and Newport (part NCN22) and upgrading of the existing Cowes to Newport cycle track (NCN23) and improvements to the Newport to East Cowes route. Extension of the Newport to East Cowes route through to Whippingham is considered a priority to give access to Isle of Wight College and help encourage take-up of cycling by students.

Key Messages

- 6.26 Transport infrastructure relating to the Isle of Wight can be broadly distinguished between cross-Solent connectivity and on-Island transport. In terms of cross-Solent connectivity, the Island is served by a range of ferry and hovercraft routes with varying frequencies and journey times for vehicles, freight and passengers. Issues have been particularly identified concerning the cost of fares, and frequency of services outside of peak periods. The quality and efficiency of terminals and interchanges is also an area where improvements are required, to help encourage intermodal connections, improve the visitor experience and reduce 'bottleneck' effects.
- 6.27 Proposals have been put forward to investigate the potential for a fixed link to the mainland, potentially via a tunnel with toll-charging, but these have not been subject to feasibility analysis and there is no current evidence available on the economic implications for the Island if such a link were to be developed.
- 6.28 In terms of on-Island transport infrastructure, the main constraint relates to roads. New investment has been secured which will help alleviate some of the current issues, but it is evident that there remain longer-term capacity and reliability concerns regarding the network that impact the ability to deliver larger development sites and accommodate future demand. The Regeneration Programme identifies Newport highway improvements needed by 2020 to accommodate predicted growth and unlock new development at Coppins Bridge gyratory, St Mary's roundabout, Medina Way and Hunnyhill / Hunnycross & Riverway junction.³¹ Existing cycle provision is generally good, and has been subject to recent investment.
- 6.29 A better integrated public transport system, with simpler ticketing options and more priority over the private car, could encourage those seeking jobs or considering a job move to look further afield across the island, and therefore extend the flexibility of the labour market, without adding to car congestion. Similar strategies are also required in terms of visitors to the Island, for example the Travel Ambassador scheme³² introduced in 2015 is reported to have been successful in encouraging visitors to use sustainable transport options during their stay.

³¹ Regeneration Programme, Isle of Wight Council, December 2016, pg.19

³² <http://visitwightpress.com/industry-news/visit-isle-of-wight-launch-travel-ambassador-scheme/>

7.0 Telecommunications

7.1 This section provides an overview of existing telecommunications provision on, to and from the Isle of Wight and the key issues and gaps associated with this strand of economic infrastructure supporting the growth of the Island economy. The findings are based upon a review of existing data sources and evidence, as well as discussions with a number of stakeholders and operators currently active on the Island and wider Solent area (Appendix 1).

7.2 For the purposes of the study, telecommunications infrastructure is defined as:

- Broadband;
- Telephone;
- Mobile; and
- Radio.

Existing Provision

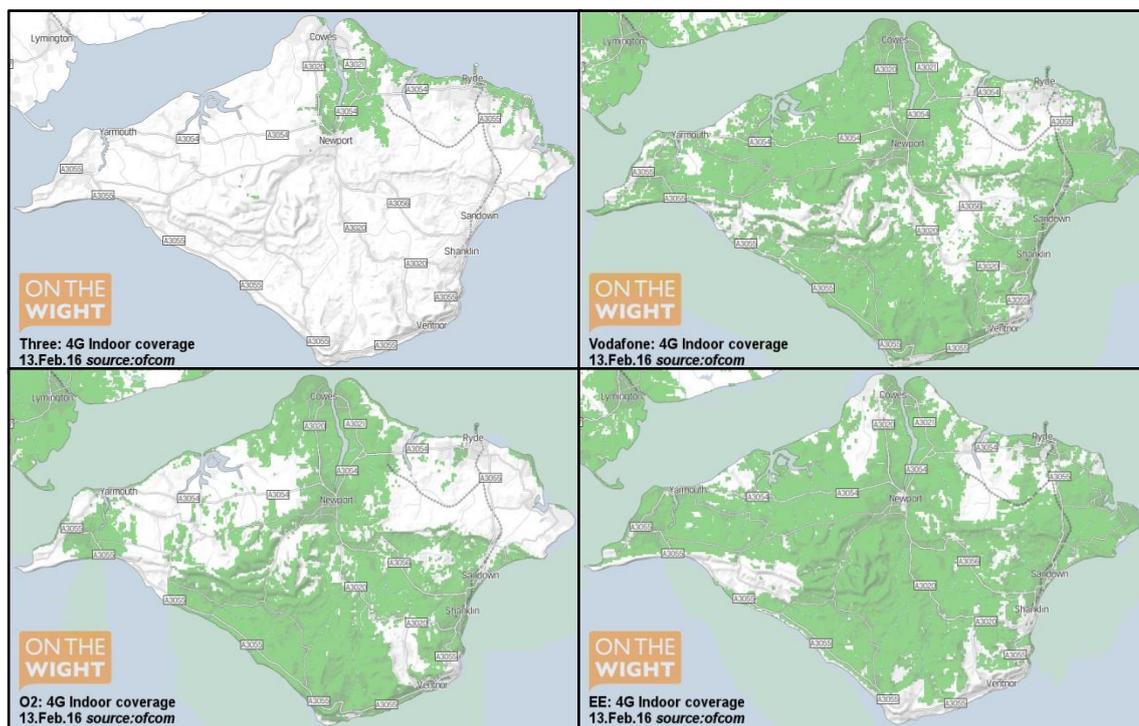
7.3 Existing telecommunications provision on the Isle of Wight is generally comparable and competitive to the mainland in terms of coverage and speeds available. As well as hosting multiple mobile network masts and radio masts at Chillerton Down and Rowridge the Isle of Wight benefits from a mainland cable connection which accommodates broadband and telephone communications.

7.4 Figure 7.1 shows the approximate broadband speed and coverage across the Isle of Wight. This shows that for much of the Island, and especially the main settlements of Newport, Ryde, Cowes, Shanklin and Sandown, provision of superfast broadband (24 MBps and above) is good and comparable to the mainland. It is worth noting that the broadband coverage data is predominantly provided by BT, and that there are caveats to areas marked as having superfast broadband coverage. Most notably, the way in which the data is recorded means that a local area can be classed as having superfast broadband if 30%+ properties have access to it. In some cases when the 30% threshold is hit new properties requesting superfast broadband are added to a waiting list to receive it, though the extent of such cases is unknown.

7.5 Beyond the main settlements broadband speeds drop notably and there are many peripheral locations which have a maximum speed of 10 MBps. By modern standards this is considered to be a very poor level of provision. Some locations have benefitted from BT's rural broadband programme to increase coverage and speeds. This typically increases connections of 10 MBps up to 20-30 MBps, which is good for today's standards but does not future proof connections for future demand.

7.6 Additionally, approximately 25% of premises on the Isle of Wight benefit from a hybrid fibre broadband connection provided by WightFibre. The partially built network covers most of the main settlements and was originally developed in the early 2000s. This 'Competitive Local Loop' network means that consumers have greater choice and competition for line rental and broadband providers rather than solely relying on providers that use BT's infrastructure. Whilst the broadband speeds offered by this connection are not quite as fast as a full fibre network WightFibre currently offers up to 1,000 MBps; significantly faster than copper networks. Whilst there is reported to be currently no demand for such speeds by local businesses or residents, as online web browsing, shopping and streaming becomes more data intensive it will be required. In response to the competition offered by the WightFibre network BT has accelerated improvements to its own network.

Figure 7.2 Mobile network indoor 4G coverage (February 2016)



Source: Ofcom (2016) Indoor 4G Mobile Coverage

Constraints to Growth

- 7.9 Access to competitive broadband and mobile services has become an expectation for businesses and residents in the UK. It is increasingly essential for the day-to-day operations of most businesses, particularly those in the 'knowledge economy', as businesses increasingly host their operations on 'the cloud' and exchange ever increasing volumes of data with customers and suppliers. In particular online retail has seen remarkable growth in recent years. Because it plays an important role in supporting economic growth, it is identified as a key priority in the Solent LEP's recent Productivity and Growth Supplement.
- 7.10 Whilst telecommunications connectivity does support economic growth it is often viewed as an enabler of growth rather than directly generating it. For example, people now take into account broadband accessibility into their decision making when purchasing homes; vibrant and desirable places to live therefore need to have competitive broadband connectivity. Without this connectivity then the labour market will ultimately suffer as people choose to locate in other areas. In contexts like the Isle of Wight it is important that telecommunications provision stays competitive with the mainland to prevent people from being discouraged to live there.
- 7.11 As described above broadband and mobile infrastructure constraints are predominantly limited to rural and peripheral locations on the Isle of Wight; the main settlements generally have comparable provision to the mainland. Broadband speeds drop significantly compared to urban areas and there are also some 'black spots' where mobile network coverage is poor.
- 7.12 In the short to medium term the most significant telecommunications infrastructure priority for the Isle of Wight is the proposed expansion of WightFibre's network. This would connect 53,000 of the c.61,000 premises on the Island with the operator's hybrid fibre network, significantly expanding the availability of ultrafast broadband. This proposed expansion is commercially

viable and therefore not currently expected to require public sector intervention. It would help facilitate business growth and improve the attractiveness of connected locations as places to live.

- 7.13 The most significant telecommunications constraint is the c.8,000 premises in rural and more peripheral locations that would not be connected by the proposed WightFibre expansion. These premises are 'hard to treat' and see diminishing returns as the costs to connect them increase significantly whilst the number of premises benefitting decreases significantly. For example it would likely require an equivalent capital investment to connect the remaining c.8,000 premises as it would the 53,000 most readily connected premises. And of the c.8,000 premises there would be disproportionate costs to connect the final 1,000 premises that are furthest from the existing network. The increasing costs to connect the most peripheral premises are driven by the length of cabling required which influences the length of roads that need to be excavated and then re-laid.
- 7.14 Without intervention rural areas will see stable or marginally improving broadband connectivity whilst urban areas will see rapidly improving broadband speeds. There are solutions to address rural broadband connectivity issues which are beginning to be implemented on the Isle of Wight and elsewhere in the UK. However these are emerging technologies and solutions which have limitations: satellite and local radio broadband.
- 7.15 Satellite broadband is a solution to rural broadband constraints where it is excessively costly to directly connect premises with fibre to the main network. It involves one or more satellites that beam broadband connectivity to receivers on the ground which then connect to local premises. As the technology is in its infancy it is being led by UK Government, and is likely to be more relevant and trialled in more peripheral locations such as Cumbria, Wales and the Scottish highlands. Additionally existing technology can provide broadband speeds to meet current standards of 24 MBps, but this will not future proof provision. It is therefore unlikely to be a realistic solution for the Isle of Wight in the short term.
- 7.16 Radio broadband coverage is already being implemented in some parts of the Isle of Wight by WightFibre. It involves a fibre connection to a single local radio transmitter, which then provides broadband connectivity to nearby properties with radio transceivers. This can be an effective solution to address local 'black spots' with poor coverage, though it is limited by the availability of a fibre connection to the radio transmitter and will only be a viable solution in some locations of the Isle of Wight. Additionally the technology will only provide a standard broadband coverage of 24 MBps. To futureproof such connections would require a significant increase in the number of local radio transmitters. Further investigations are required to understand the extent to which the technology can provide a solution to rural broadband connectivity on the Isle of Wight.
- 7.17 Due to the significant costs associated with providing universal high speed broadband access to rural areas, there needs to be a degree of pragmatism in terms of the resources available to the Isle of Wight to address the issue and the timescales involved. It is likely that UK government and broadband providers will need to play a significant role. In the short term, expansion of the WightFibre network and radio transmitted rural broadband should be the focus for improving telecommunications infrastructure on the Isle of Wight.
- 7.18 As highlighted above telephone services are provided via a fixed cable link to the mainland, and radio masts are located at Chillerton Down and Rowridge. There are no known constraints or capacity issues with these types of telecommunications infrastructure.

Key Messages

- 7.19 Telecommunications provision is generally good across the Isle of Wight, with broadband speeds and mobile 4G coverage comparable to the mainland in key settlements. However, in rural and more peripheral locations broadband speeds reduce significantly, and in many places are considered very poor by today's standards (10 MBps or less). There are some mobile network black spots though in general these are limited in extent, except for the Three network which has poor coverage across the majority of the Isle of Wight.
- 7.20 Improvements to telecommunications infrastructure should prioritise the proposed WightFibre expansion to cover 53,000 of the c.61,000 properties on the Isle of Wight. This is commercially achievable and partners should support its expansion where possible. For example developers of each of the Regeneration Programme's strategic sites should ensure that they facilitate WightFibre's proposed expansion of fibre broadband. This is a realistic proposition as each strategic site is located within or in close proximity to existing urban areas which benefit from the best available broadband coverage on the Isle of Wight.
- 7.21 Rural broadband connectivity is a particular issue in some parts of the Isle of Wight. However, there are diminishing returns when investing to improve the broadband coverage of premises in rural locations that suffer from poor broadband connectivity. The Isle of Wight should therefore be pragmatic in terms of the feasibility of providing universal access to superfast broadband in rural areas given its available resources. Where possible it needs to collaborate with partners such as UK Government, BT and WightFibre to ensure that there is continued investment and attention to improving broadband coverage in rural parts of the Isle of Wight. Radio broadband coverage is currently the most effective solution, though it has its limitations and further investigation is required to determine the extent that it could be implemented.

8.0 Human Capital and Skills

8.1 This section provides an overview of existing skills and human capital provision on, to and from the Isle of Wight and the key issues and gaps associated with this strand of economic infrastructure supporting the growth of the Island economy. The findings are based upon a review of existing data sources and evidence, as well as discussions with a number of stakeholders and operators currently active on the Island and wider Solent area (Appendix 1).

8.2 For the purposes of the study, skills infrastructure is defined as:

- Further education facilities;
- Higher education (i.e. NVQ Level 4 and above) facilities.

8.3 Primary and secondary education provision is not specifically considered because these are within the statutory role of the Isle of Wight Council as local education authority, albeit it must be recognised that schools provision and performance does influence further and higher education outcomes.

Existing Provision

8.4 The Isle of Wight College serves as the Island's major provider of further education and training. It is a general further education college with a broad curriculum to reflect the needs of the Island community, with the main campus sited on the outskirts of Newport. The College was founded in 1951 initially with a focus on construction and engineering courses, but now offers a range of vocational courses, apprenticeships, traineeships, bespoke courses for employers and higher education. The College was graded 'good', with adult provision and provision for students with high needs as 'outstanding' at its last Ofsted inspection in 2017.³³ The College commenced delivery of higher education programmes in partnership with the University of Bournemouth during the 1990s, and currently delivers higher education courses in partnership with the Universities of Chichester and Portsmouth.

8.5 The College has undertaken significant recent investment in accommodation and upgraded facilities. The latest development comprises the Centre of Excellence for Composites, Advanced Manufacturing and Marine (CECamm) which will accommodate up to 550 students and opened in September 2017. The centre is located on the Island Technology Park in East Cowes and is adjacent to the GKN, a major partner in the development of the centre.³⁴ The new facility totals nearly 3,000 sq.m, comprising of 1,850 sq.m of specialist, industry standard workshop space with the remainder being high quality classrooms and learning spaces. The total investment value of the project is £11.4m, funded by the Solent LEP in 2014 as part of the Solent Local Growth Deal. Extensive consultation was undertaken with a cross section of local employers and stakeholders to ensure that CECamm creates a clear pathway for developing local skills and employment on the Island, including opportunities to upskill the local and regional workforce to the highest standards.

8.6 The college offers a range of higher education programmes developed over a number of years to closely match the needs of local industry. These courses are offered in partnership with the University of Portsmouth and the University of Chichester. Courses are available in five areas: engineering, computing, early years, graphic design and business, and comprise of full-time HNDs and part-time HNCs and foundation degrees which build on linkages with existing universities on the mainland and offers employer-linked degree courses.

³³ Ofsted Inspection Report, June 2017

³⁴ <https://www.cecamm.co.uk/>

- 8.7 Students who successfully complete these programmes are able to enrol part way through a full degree, at the partner university on the mainland. This enables them to ‘top up’ the qualification they achieved on the island to a full degree, in a reduced time span. Students completing the Foundation Degree in Early Years can continue studying on the island to achieve the full degree. The college also offers a range of other courses at level 4, 5 and 6 in addition to those offered through the partner universities. These are in areas such as health and social care, leadership and management and construction.
- 8.8 In addition to the Isle of Wight College, Platform One College of Music is an independent organisation that works in partnership with the Isle of Wight College and the University of Chichester in order to provide high quality music and music technology provision at all levels. The courses include a BTEC Extended Diploma in Music and BA (Hons) Commercial Music.

Constraints to Growth

- 8.9 As noted in section 2.0, the Island has a significant skills deficit with a less qualified population in terms of higher-level qualifications when compared to the mainland. School performance has gradually been improving although this has generally been in line with national improvements. The broad issue that needs addressing is increasing the aspirations and educational attainment of young people on the Island as well as retaining and attracting more young people to the Island to boost its working age population going forward.
- 8.10 Feedback indicates a general view that lack of access to full-time higher education on the Island can be a factor in causing some young people to leave the Island to access this elsewhere, or providing a disincentive to reach educational attainment levels required to access Higher Education.
- 8.11 Alongside the need to increase access, choice and participation levels within the Higher Education sector on the Island, enhanced Higher Education provision is relevant to retaining a younger demographic on the Isle of Wight. It is also vital for securing a reliable source of skilled workers for the Island’s key industries, both existing and in terms of potential inward investment, as an ageing workforce requires renewal and for upskilling to reflect advances in technology. This applies particularly to specialist industries such as marine, but also to the visitor economy sector where formal higher-level qualifications (e.g. hospitality management) could support future growth and investment in the sector.
- 8.12 Whilst existing provision on the Island is highly rated, a key factor to support future growth of the Island’s economy is the potential to expand and broaden access to Higher Education on the Isle of Wight. This will help with retention of younger age groups, as well as directly and indirectly supporting the Island’s key sectors. Whilst formation of a dedicated new university structure is considered unlikely given the size of the Island’s population, a key objective of relevant stakeholders is to investigate the potential for a dedicated, separately branded Higher Education facility that builds on linkages with existing universities on the mainland and offers employer-linked degree courses.
- 8.13 It should be noted that a number of related initiatives have or are already being delivered, such as the ‘Aim Higher’ programme, designed to encourage and support participation in higher education and skills provision, and a more recent programme targeting the development of STEM skills linked to key economic sectors on the Island. Isle of Wight Council is also working with the Southern Universities Network as part of the National Collaborative Outreach Project (NCOP) launched in 2017.³⁵

³⁵ https://www.sunoutreach.org/news/multi-million-pound-project-laun?members_login=1

Key Messages

- 8.14 The deficit of higher-level skills on the Isle of Wight relative to the mainland is a long-standing issue. Ensuring skill levels (and improving educational attainment) is vital to provide an appropriately skilled workforce to attract higher-value inward investment and ensure existing businesses remain competitive and can graduate up the value chain. Many of the Island's leading industries face both rising skills needs and the effect of an ageing workforce that needs renewal. More broadly, a broader higher education offer is an important part of helping to retain a greater proportion of young people on the Island.
- 8.15 Existing provision is rated highly, and recent investment such as CECAMM will further enhance what is available. However, the view of relevant stakeholders is that the Island's Higher Education offer needs a dedicated focus – for example through provision of employer-linked degree courses – to leverage further investment and to build on the existing linkages with mainland universities.

9.0 Housing and Business Premises

- 9.1 This section provides an overview of existing housing and business premises provision on the Isle of Wight and the key issues and gaps associated with this strand of economic infrastructure supporting the growth of the Island economy. The findings are based upon a review of existing data sources and evidence, as well as discussions with a number of stakeholders and operators currently active on the Island and wider Solent area (Appendix 1).
- 9.2 For the purposes of the study, housing and business premises infrastructure is defined as the space required to accommodate population and business growth needs. This includes:
- Residential development (primarily C3 but also social housing and care homes);
 - Traditional B-Class employment space (B1 office/light industrial, B2 industrial and B8 logistics and warehousing); and
 - Other non B-Class employment space such as retail and leisure uses.
- 9.3 As an economic infrastructure theme, housing and business premises is considered worthy of specific consideration given the important role that this provision has to play in driving economic growth on the Island (as noted in Section 3.0).

Existing Provision

Housing

- 9.4 Newport, Cowes and Ryde attract the overwhelming majority of private sector led housing delivery where there is best accessibility to the mainland. Housing delivery over recent years has been driven by Barratt David Wilson, although the national housebuilder's delivery rates have been declining more recently. There are a number of smaller local developers based on the Island and it also attracts off-Island developers from across the wider region / sub-region.
- 9.5 Barratt David Wilson currently has two active sites on the Isle of Wight which together will deliver a total of 800 dwellings; delivery is expected to complete in c.10 years. The housebuilder is currently operating at capacity and not looking for additional sites for the next c.4 years. This means there is a housebuilding capacity issue for the Isle of Wight.
- 9.6 The view amongst some locally-based housing developers is that the geographical location makes the Isle of Wight market relatively peripheral. Whilst it adjoins the Central South, South East and South West markets, the economics of operating on the Island are very different to these areas, in particular with regards to sale prices (which are much lower on average per sq.m/sq.ft), rate of sale (which is slower than neighbouring areas) and build costs which are reported to be at least 7% higher than on the mainland. Furthermore, the housing developer market is considered to lack a range of competitive and capable principal contractor firms able to undertake larger scale works, and the Island's geographical limitations mean that it is often unable to attract mainland firms to trade.
- 9.7 Whilst there are active social housing providers on the Isle of Wight, most affordable housing is currently being delivered by private developers. The majority of this is being provided by Barratt David Wilson; its active sites have front loaded affordable homes with latter delivery being market only. This means that in the medium term the majority of new housing delivery on the Isle of Wight will only be market, unless new schemes come forwards to provide affordable homes.

Commercial Space

- 9.8 Figure 9.1 highlights the key designated and proposed employment sites on the Isle of Wight, based on information provided by Isle of Wight Council. It shows that similar to housing, the focus for commercial space on the Isle of Wight is in Newport, especially to the north and east of St Mary’s roundabout, and in Ryde, and Cowes. In general, sites with greatest proximity to labour market catchments and ferry links to the mainland are most attractive to occupiers.
- 9.9 Much of the existing employment stock is poor quality and often dated premises, especially in the industrial stock. These premises typically serve the lower end of the market and attract lower rents; this has a relationship with the quality of employment opportunities and typically lower incomes. But there are exceptions to this; many of the larger strategic employers occupy high quality and modern premises. For example, BAE Systems, GKN Aerospace and MHI Vestas all accommodate relatively modern or new build premises.

Figure 9.1 Key Employment Sites and Allocations



Source: Isle of Wight Council, Lichfields analysis

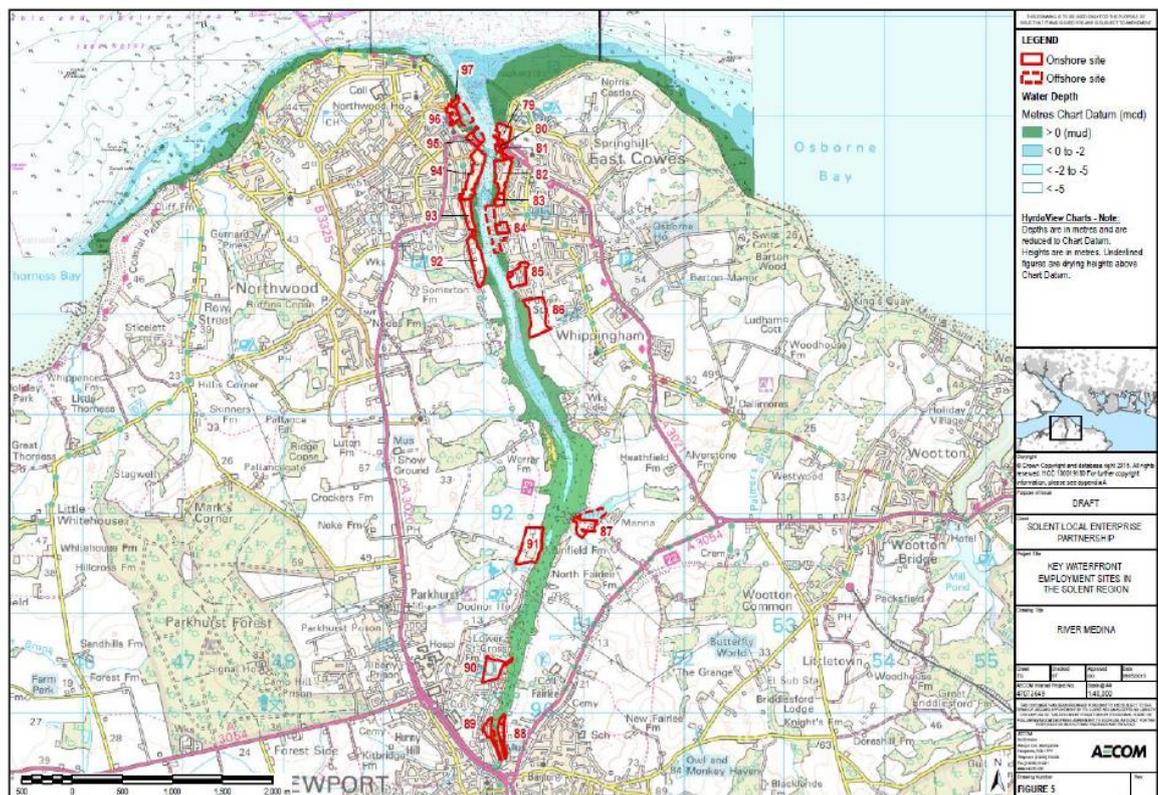
- 9.10 The Isle of Wight’s most recent Employment Land Study³⁶ reports that both the office and industrial markets are relatively small and predominantly cater to local businesses. The office market is driven by Newport, and purpose built office spaces such as St Cross Business Park, though businesses typically require small premises of up to 1,000 sq ft (93 sqm). Average annual take up of office space on the Isle of Wight is reported to be just 4,908 sq ft (456 sqm). The industrial market is spread more evenly across the Isle of Wight and is similarly driven by a demand for smaller premises up to 3,000 sq ft (279 sqm), and particularly 500-1,000 sq ft (46-93 sqm). There is a shortage of industrial space on the Isle of Wight, and particularly in Ryde and Lake.
- 9.11 In addition to a number of designated employment sites set out in the Medina Valley, Ryde and the Bay Area Action Plans, Kingston Marine Park and Island Technology Park are expected to be

³⁶ GL Hearn, Employment Land Study, Isle of Wight Council, March 2015

key locations for future employment space. Given their proximity to existing high value employers, these two sites are anticipated to appeal to new and existing high value employers, for example those working in the engineering, aerospace, marine and renewables sectors. Both sites were identified in the recent Solent LEP Investment Regeneration Options to Unlock Sites report. This is because they offer significant regeneration potential and could generate sizeable employment opportunities, but require public sector led delivery or gap funding. For example the Kingston Marine Park has the potential to accommodate in the region of 450 jobs, but requires improvements to the harbour wall and installation of a hoist dock for which there is reported to be limited evidence of market demand.³⁷

9.12 The Solent Waterfront Sites Study (2015)³⁸ underlines the important role that the River Medina plays in supporting and facilitating access to employment sites (Figure 9.2). It notes that sites along the River Medina are amongst the most intensively used across the Solent. They accommodate a significant presence of marine and maritime businesses and associated activities, as well as non-marine and maritime uses such as office, general industry, warehousing and open storage.

Figure 9.2 Waterfront Sites along the River Medina



Source: Solent Waterfront Sites Study 2015

9.13 The study also identifies a wide range of site-specific constraints to development including flooding issues and environment designations, which in turn inhibit enhancement of marine accessibility, for instance if constraints on dredging exist. It also notes that investment is required to improve or maintain access to water, through for example improvements to the integrity / strength of quay walls and dredging of channels.

³⁷ Advice on Investment Regeneration Options to Unlock Sites, AECOM for Solent LEP, December 2016

³⁸ https://solentlep.org.uk/media/1340/maritime_futures_-_executive_summary_-_169_15_.pdf

- 9.14 Beyond traditional B-Class employment space, much of the Isle of Wight's commercial space is focused towards the visitor economy. As well as having attractive town centres and sea fronts with retail and leisure space there are a number of larger visitor attractions and accommodation providers on the Isle of Wight which provide significant employment opportunities. This includes a number of Holiday Parks, Blackgang Chine and Isle of Wight Zoo.

Constraints to Growth

- 9.15 Providing new housing and employment space that meets the needs of modern businesses is key to supporting economic growth. New housing plays a key role in creating attractive and vibrant places to live, which influences labour markets in terms of the size of the catchment population and their demographic characteristics. For example, a significant shortage of homes catering to first time buyers could result in greater outwards migration of young people which are vital to replacing retiring workers. Providing sufficient employment space in the right locations and of the right type is vital to allowing businesses to expand, new business to take-up their first premises, and providing employment opportunities for the local labour market catchment.
- 9.16 Delivery of housing and employment space therefore plays an important role in supporting economic growth, directly creating job opportunities during construction and occupation (of employment space), as well as indirect benefits such as supply chain spending. The Isle of Wight needs to ensure that constraints and barriers to delivery are addressed and prioritised accordingly, including a clear and efficient planning process in order to give greater certainty to potential investors at the earliest stage.

Housing

- 9.17 There are a number of constraints to housing delivery on the Isle of Wight, as well as structural issues in the market. Demographically, housing delivery is challenged by an acute need for both first time buyers and an ageing population which will have increasing care needs. Looking ahead the Isle of Wight needs to balance provision of first time and affordable housing to meet the needs of its younger population, but also cater to the ballooning ageing population.
- 9.18 The affordable housing need is driven predominantly by the relatively lower incomes compared to the mainland, and is a particular issue for first time buyers. Stakeholders reported that this was one of the greatest challenges facing the Isle of Wight and should therefore be prioritised accordingly. Increasing the provision of affordable housing and retaining and attracting higher-value employment opportunities will be vital to addressing the issue.
- 9.19 The Isle of Wight has become increasingly less attractive to national housebuilders compared to the mainland in recent years. This is driven by the increased timescales and, as noted above, higher costs for developers. Costs are increased by the dependency on ferry services to transport materials in bulk and to store larger volumes of materials to provide resilience to any disruptions to ferry services. Timescales for housing delivery are generally longer on the Isle of Wight than the mainland which in some cases reflects planning decision-making (see below) and also by the reliance on ferries to transport materials. On the mainland where there are no constraints to accessing materials most housing developers operate on a 'just-in-time' basis to minimise storage costs and timescales. However this is not feasible on the Isle of Wight.
- 9.20 Increased costs and timescales to deliver housing projects reduce the return on investment for developers. This has led to the Isle of Wight becoming less attractive to national housebuilders and creating a capacity constraint to housing delivery. This is exacerbated by a limited number of local developers on the Isle of Wight and lack of capacity and skills shortages in the construction sector. There is reported to be a lack of local principal contractors with the necessary resources to undertake larger housing projects on a competitive basis. One specific

issue is health and safety qualifications and training which can prevent local workers from accessing employment opportunities on many construction projects. This can cause delays to projects as labour needs to be trained or alternative sources (such as contractors from the mainland) need to be found which adds to the costs.

- 9.21 Some local developers indicate that the Isle of Wight could improve its attractiveness to housebuilders and capacity for housing delivery by improving the efficiency of the planning decision-making process³⁹. A lack of access to detailed cost information from Island Roads early in the planning process as to the scale of accrual payments for highways works has also been identified as creating some uncertainty regarding site viability and delivery.

Commercial Space

- 9.22 One of the greatest constraints to the provision of commercial space on the Isle of Wight is the challenging viability of providing new and good quality space. This is driven by low rents and yields for developers, and the market is driven by occupier led development rather than speculative. Sites with infrastructure constraints or physical barriers push viability challenges further. There is consensus amongst stakeholders that the public sector has a strategic role to play in supporting the delivery of new employment space, for example by funding infrastructure works to unlock site delivery. Viability is a constraint to both office and industrial space.
- 9.23 Whilst the industrial market is more evenly distributed across the Isle of Wight it suffers from low vacancy rates of c.2% which is driven by a severe shortage of stock and new development sites. This is despite the quality of existing stock being dominated by second hand and poorer quality premises; there is a particular need for Grade A and refurbished employment space. Stakeholders highlighted that as much of the existing industrial stock is becoming economically obsolete and making refurbishment costs unviable in many premises, there is an economic ‘time bomb’ if new space is not provided. Ultimately this could lead to businesses relocating to the mainland or at least preventing their growth and expansion, which would negatively affect employment opportunities for local residents and pressure incomes further. However, it also needs to be recognised that higher quality modern space would likely have higher rental levels which may not be accessible to local businesses. Affordability considerations are therefore also relevant and may require initiatives such as subsidised rents.
- 9.24 The Isle of Wight needs to ensure that it provides good quality and affordable employment space to retain and attract high performing businesses that generate higher income employment opportunities. This is a structural priority for the Isle of Wight given its low wage economy.
- 9.25 An additional constraint for commercial space and particularly the marine sector is the need for continued long term investment in water (dockside) and land infrastructure (such as quayside cranes). Because the sector predominantly operates on a contract basis it is difficult for businesses to make the investment case for infrastructure improvements. But to remain competitive in the long term the sector needs to continually invest. However whilst the sector has an historic significance to the Isle of Wight the cost of public sector led infrastructure investment needs to be weighed against the economic benefits that would be generated in terms of job safeguarding, growth and spending.

³⁹ Examples cited by third parties of development projects that have been refused planning permission but later granted on appeal include Red Funnel Terminal East Cowes, Place Road West Cowes (80 dwellings), Arreton (80 dwellings) and Blanchards, Brighstone (50 dwellings).

Key Messages

- 9.26 Provision of housing and employment space play a key role in supporting economic growth. Sufficient housing of the right type and in the right location is needed to meet the needs of the local population, with affordable and first time buyers having a particular need on the Isle of Wight. Providing sufficient employment space that meets the needs of businesses is vital to allowing them to expand, helping new business to take-up their first premises, and providing employment opportunities for the local labour market catchment.
- 9.27 One of the greatest structural challenges relating to both housing delivery and employment space on the Isle of Wight is the low incomes of residents. This is a particular concern for housing delivery as it can suppress the rate of market delivery and risks increasing outward migration of young people. As much of the existing employment stock is poor quality it accommodates lower value businesses and creates a potential affordability barrier to upgraded or new-build premises (notwithstanding evidence that this is being sought by businesses).
- 9.28 Because viability is a significant constraint to delivering commercial space on the Isle of Wight there is a need for the public sector to play a strategic role to supporting the delivery of new employment premises. It is particularly important that new good quality employment space is provided to meet the needs of modern businesses and to attract and retain higher value employers. In turn this will help support wage growth for local residents which will support the demand for housing and subsequent market delivery.
- 9.29 More generally, feedback indicates that the Isle of Wight could improve its attractiveness to potential investors and housebuilders by improving the efficiency of the planning decision-making process and upskilling and expanding the local construction workforce and business base.

10.0 Planned Investments and Gap Analysis

10.1 This section reviews future growth objectives and planned developments on the Isle of Wight, and then considers committed public and private sector infrastructure investments. In this context, the main gaps in provision that could act as constraints to future growth are identified to help inform the identification and prioritisation of projects in section 11.0.

Island Growth Objectives

10.2 The Solent LEP seeks to create a step-change in economic growth and wealth creation and a rise in productivity levels across the Solent area, and through its Strategic Economic Plan (SEP) published in March 2014, sets out how it intends to create the conditions that support growth. This includes:

- investing in economic infrastructure;
- developing the skills that the economy needs to succeed;
- ensuring that ideas and knowledge are at the forefront of its approach, supporting businesses to innovate, export and grow; and
- building on sectoral strengths and recognising the area's comparative advantage.

10.3 The SEP notes that the Isle of Wight has a key role to play in supporting LEP wide growth ambitions, both through the growth potential of its indigenous sectors (such as advanced manufacturing and marine technology) but also by overcoming challenges to economic prosperity such as well below average levels of GDP generated by its workforce.

10.4 As noted in Section 3.0, the Council's spatial vision and objectives are set out in the 2012 Island Plan. This includes provision for 8,320 new dwellings between 2011-2027 (an average of 520 dwellings per year) and a job growth target of around 7,550. The strategy allows for at least 42 hectares of new economic development land to be delivered over the plan period, to help to accommodate this scale of job creation.

10.5 More recently, the Council has embarked upon a Regeneration Programme for the Island to identify potential opportunities to improve Island prosperity and sustainability, designed to bring key investment, jobs and other financial and community benefits to the Island over a ten year period.

10.6 A range of housing and commercial/employment sites have been identified by Isle of Wight Council and promoted by landowners as offering potential to accommodate business and economic growth over the coming years. Specific sites are supported by a number of Key Regeneration Areas and Opportunity Areas that together represent key locations for growth and development across the Island.

10.7 These opportunities are summarised in turn below, providing a baseline to frame subsequent analysis of economic infrastructure investments that are required to support and stimulate sustainable economic growth on the Isle of Wight over the short, medium and longer term.

Potential Development Opportunities

10.8 Figure 10.1 below provides a summary of potential development opportunities across the Island. These focus on residential and commercial/employment uses and have been identified through a range of sources including:

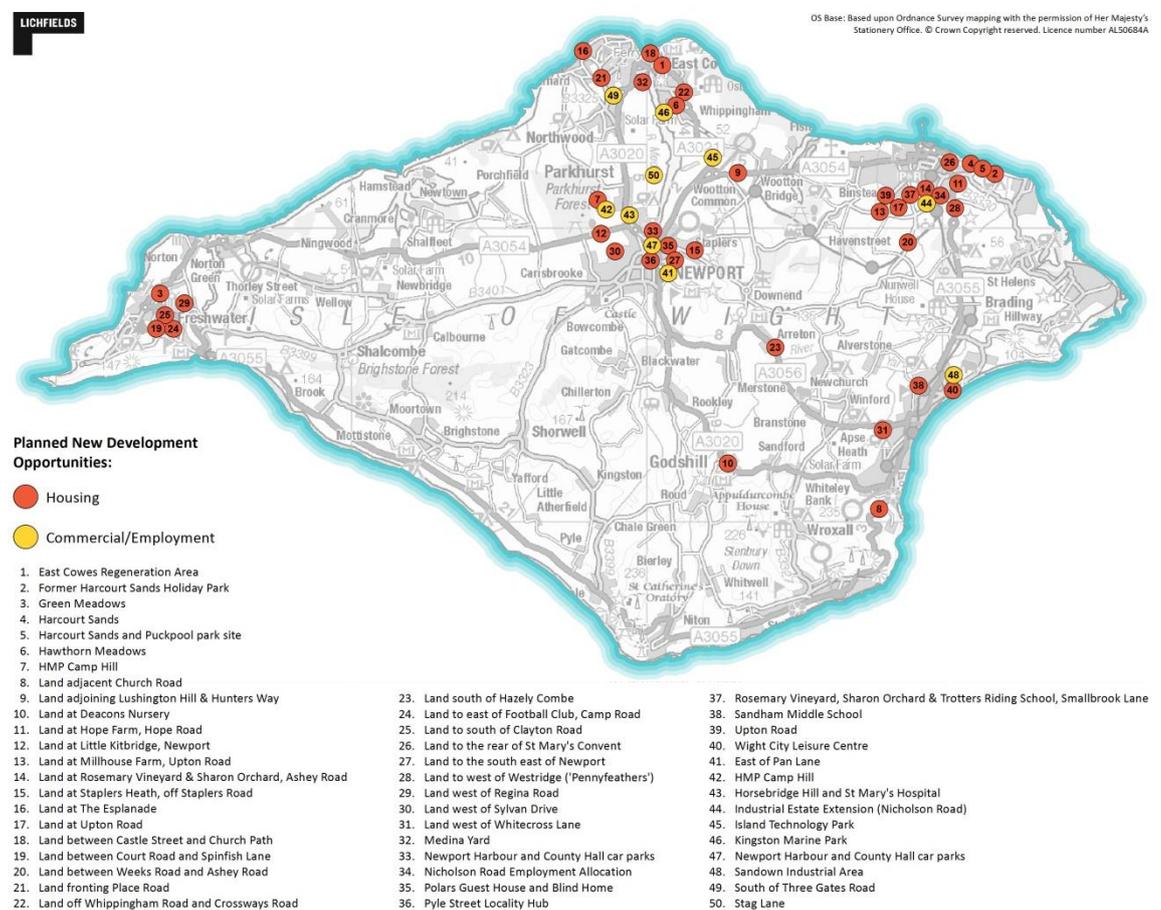
- The Island Plan (Isle of Wight Core Strategy) (March 2012), Isle of Wight Council;

- Area Action Plans for Medina Valley and Ryde (Consultation Drafts November 2015), Isle of Wight Council;
- Regeneration Programme (Final Report December 16), Isle of Wight Council;
- Five Year Land Supply Update 2017 and Strategic Housing Land Availability Assessment (for housing sites), Isle of Wight Council;
- Isle of Wight Employment Land Study (March 2015), GL Hearn; and
- Though consultation with various stakeholders, including land owners and developers.

10.9

These sites are identified as having potential for development, subject to planning and other consent procedures where necessary. Not all sites have a formal policy status. A minimum size threshold of 25 dwellings has been applied in the case of housing sites.

Figure 10.1 Potential Development Opportunities



Source: Lichfields, drawing on various sources

Note: sites are identified as having potential only and may be subject to planning and other consent procedures where relevant; minimum size threshold of 25 dwellings applied for housing sites.

10.10

Larger version of this map and the map below are included at Appendix 4.

10.11

This analysis shows that new development opportunities are dispersed across the Island, but with particular concentrations in and around the main towns of Newport, Ryde and Cowes. The smaller settlements of Freshwater and Sandown/Shanklin also accommodate a handful of new development opportunities and sites although these tend to be predominately housing in nature and focus.

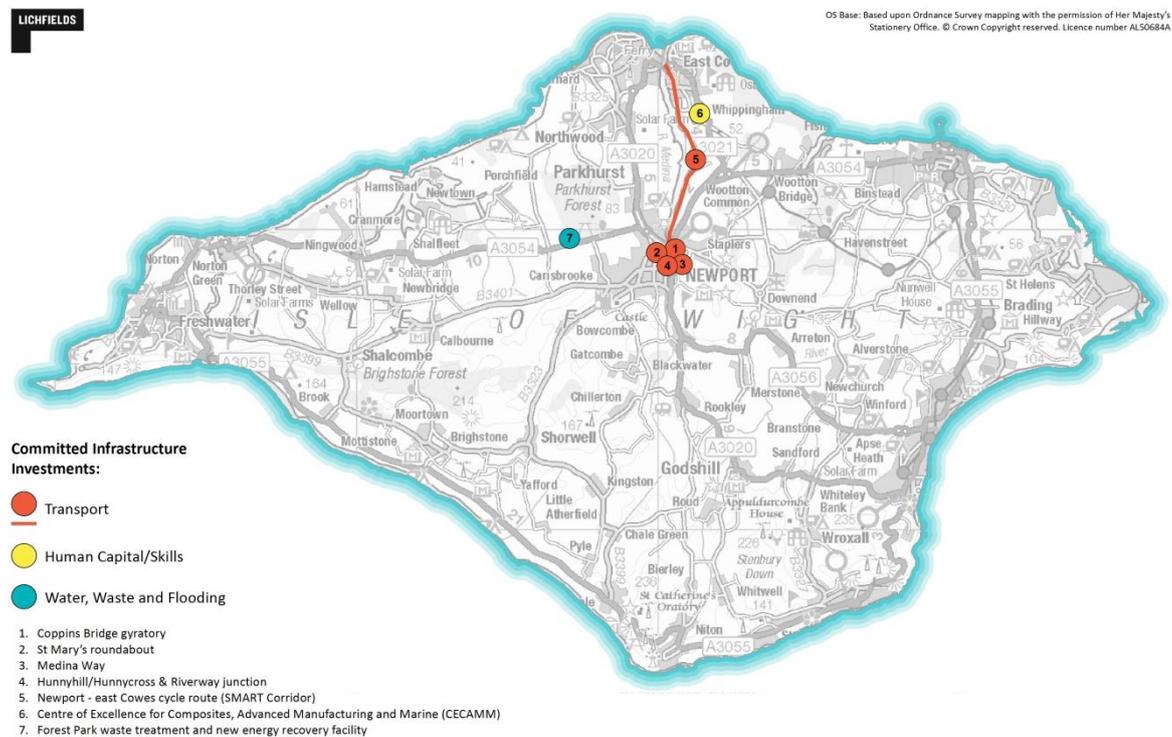
10.12 Commercial development sites tend to be located adjacent or near to the Island’s key road networks and largely within the Isle of Wight’s main business and commercial centres of Newport and Cowes. In overall terms, development site opportunities tend to be clustered to the north and east of the Island; this is unsurprising given that these areas attract the greatest levels of market demand for both housing and commercial uses.

Committed Infrastructure Investments

10.13 Through the research undertaken as part of the IIIP, it has been possible to identify a number of infrastructure investments that are already planned to take place on the Isle of Wight by both the public and private sectors, over the short term period to 2021. At the time of analysis, these investments have secured and/or been awarded funding, and are therefore associated with some level of certainty of delivery over the next few years.

10.14 Figure 10.2 below presents an overview of these committed infrastructure investments by theme.

Figure 10.2 Committed Infrastructure Investments



Source: Lichfields, drawing on various sources

10.15 The committed investments relate to the infrastructure themes of transport, water, waste and flooding and human capital/skills; comparatively limited investment is currently committed to overcome challenges associated with energy and telecommunications, although it should be noted that improvement works are currently underway by Southern Water to the Island’s waste water and sewerage network to address localised ‘pinch points’, while WightFibre is currently expanding its ultrafast broadband network across parts of the Island (albeit these investments are more difficult to ‘map’).

10.16 Meanwhile, our research has identified a range of site specific infrastructure issues and barriers that would need to be overcome in order to unlock development sites across the Island over the

coming years, such as land decontamination works, utilities and road servicing. Some of these site specific barriers are explored in further detail in the following section.

- 10.17 From a geographical perspective, all of the committed infrastructure investment is concentrated within the Cowes to Newport corridor which aligns with a significant proportion but not all of the potential development opportunities (as shown on Figure 10.1).

Gaps in Infrastructure Provision

- 10.18 Analysis undertaken as part of this study points to a mixed picture in terms of economic infrastructure provision and capacity to, from and on the Island, based on a review of existing data sources and evidence, as well as discussions with a number of stakeholders and operators currently active on the Island and wider Solent area.
- 10.19 Whilst some types of infrastructure – such as water supply and telecommunications – tend to be relatively well catered for with limited potential to hold the Island back from achieving sustainable economic growth over the short, medium and longer term horizon, others – such as energy and human capital – are characterised by more immediate capacity issues and ‘pinch points’. If left unchecked, these short term capacity issues pose much more of a threat to stifling the longer term sustainable economic growth of the Island.
- 10.20 The latest ‘business as usual’ economic forecasts for the Solent LEP area identify a strong potential and basis for economic growth on the Isle of Wight over the next 20 years and have significant implications for infrastructure requirements to, from and on the Isle of Wight, with a growing business and employment base increasing the demand for all types of economic infrastructure to support the day-to-day functioning of the Island’s economy. An even more ambitious Regeneration Programme being developed by the Isle of Wight Council could further add to this pressure if the planned scale of growth and development is achieved.
- 10.21 The Government’s recently published Industrial Strategy provides an important backdrop to the development of an IIIP for the Isle of Wight, in particular its identification of a number of key challenges to driving economic growth across the whole country. Key to this is improving competitiveness and productivity; recent evidence suggests that productivity in the Solent lags behind the South East and national average and this trend is particularly pronounced on the Island. In response to this, the LEP is seeking to create a step-change in economic growth and wealth creation and a rise in productivity levels, and this renewed focus on driving productivity underpins the LEP’s work across all strategic priority areas.
- 10.22 Against this backdrop, Table 10.1 overleaf summaries the emerging key issues, gaps and priorities associated with each strand of economic infrastructure, framed within the context of their ability to support the economic growth of the Island economy. It builds upon the key themes and ‘foundations of productivity’ set out in the Government’s Industrial Strategy and contextualises them in terms of unlocking the economic potential of the Isle of Wight.
- 10.23 In some cases, specific interventions, projects and proposals have been identified to address infrastructure gaps, pinch points and weaknesses, while in other cases these responses tend to represent wider aspirations or longer term objectives.

Table 10.1 Emerging Infrastructure Gaps and Constraints

Infrastructure Theme	Emerging Gaps and Constraints to Growth
Water, Waste and Flood Defence	<ul style="list-style-type: none"> • Requirements vary from site to site but water utilities provision generally funded by developers/consumers • Scope for better early stage engagement and planning between Southern Water and developers • Flood and coastal defence 'high risk' areas and projects identified to reduce or respond to specific risks
Energy	<ul style="list-style-type: none"> • Local grid capacity improvements required to support future development • Short-medium term scope for greater self-sufficiency through more effective on-Island storage and use of oversupply energy (e.g. public transport)
Transport	<ul style="list-style-type: none"> • Scope for strengthened connectivity across the Solent • Road network congestion and capacity constraints (particularly Newport to Ryde/Cowes) • Scope for local improvements – including Ryde Interchange, junctions, bus priority signalling and smart ticketing
Telecommunications	<ul style="list-style-type: none"> • Localised superfast broadband limitations and Three 4G mobile network signal • Scope for satellite and local radio mast coverage for more peripheral rural areas and 'black holes'
Human Capital / Skills	<ul style="list-style-type: none"> • Demographic constraints (ageing population and declining working-age resident base) and below average indigenous workforce skills • Scope for dedicated Higher Education offer to retain young people and align with business needs
Housing / Business Premises	<ul style="list-style-type: none"> • Affordable housing need – reflecting low incomes of residents and young people • Viability challenges in providing modern, good quality business space • Scope for public sector led investment in high quality employment space and marine infrastructure

- 10.24 In this context, it is clear that the small number of committed infrastructure investments noted above will help to address some of these identified gaps but that significant issues remain outstanding if the growth objectives for the Isle of Wight are to be realised. Furthermore, there are a significant number of site-based opportunities for new housing and employment growth that have been identified (as set out in Figure 10.1) but may require intervention in order to stimulate development or accelerate delivery.
- 10.25 Feedback from local Island businesses collected as part of this study identifies an appetite for growth and expansion amongst the Island's business community, but also that businesses face a number of barriers and issues in operating on the Island, predominately related to mainland access. A range of measures were suggested by businesses to help overcome identified barriers, including improvements to cross-Solent access and ferry services. Scope for improved training provision was also identified.
- 10.26 In terms of economic infrastructure considered to be most significant in enabling future growth, quality of broadband/mobile, port infrastructure and roads were rated by local business respondents as being most important. Rail and airport infrastructure were regarded as least important, while roads, utilities/energy, skilled labour and access to training providers fell in between. More detailed feedback from the business survey is included at Appendix 3.

10.27 On this basis, a pipeline of deliverable infrastructure investments needs to be identified and prioritised which forms the focus of the next section of the report.

11.0 Future Infrastructure Investment Priorities

- 11.1 The overarching aim of the IIIP is to consider the key deliverable economic infrastructure investments that are required to support and stimulate sustainable economic growth on the Isle of Wight through improved competitiveness and productivity, and enable it to contribute further to the broader Solent and UK economies and mitigate some of the place-based challenges associated with an Island economy. This section identifies and prioritises infrastructure investment projects based on their ability to stimulate economic growth over the short term (to 2021), medium term (to 2026) and longer term period (to 2040).
- 11.2 Preparation of the IIIP is timely given the context of the Government’s recently published national Industrial Strategy and key consideration needs to be given to potential funding sources for these infrastructure projects in light of strong competition nationwide for a set amount of public funding.

Identification and Prioritisation of Projects

- 11.3 A ‘long list’ of 45 infrastructure projects has been compiled by Lichfields from a range of sources including a literature review of the Island’s Local Plan evidence base (including the 2015 Employment Land Study), the Council’s emerging Regeneration Programme, key findings from the Island Infrastructure Task Force report⁴⁰, and through focused consultation and discussions with Isle of Wight Council’s planning policy team and wider stakeholders. A summary description of each project is provided in Appendix 5.
- 11.4 The key focus of infrastructure projects identified through the IIIP is upon unlocking new public and private development sites for housing and employment uses. Infrastructure projects should be appraised on their ability to secure direct jobs, new homes, new employment space, new skills opportunities and private sector investment, and in doing so, help to respond to the place-based opportunities and challenges of the Island. To inform this assessment, a ‘prioritisation matrix’ has been compiled that focuses on identifying and bringing forward deliverable infrastructure proposals that can support the economic growth of the Island in this way.
- 11.5 The framework prioritises future infrastructure projects based on their ability to support economic growth of the Island through unlocking new development sites for employment and housing and stimulating private sector investment and economic growth, focusing on three broad timescales; short-term to 2021, medium term to 2026 and longer term to 2040.

Appraisal Criteria

- 11.6 A series of criteria have been identified for the purposes of appraising the ‘long list’ of potential infrastructure projects against their ability to stimulate economic growth on the Island. These criteria draw upon guidance set out by Solent LEP for ensuring value for money from investments it allocates public funds to – including the Solent LEP Prioritisation Matrix⁴¹ – as well as Lichfields’ own experience of economic appraisal.
- 11.7 The IIIP brief is clear that the prioritisation process is influenced by the availability of funding opportunities as well as alignment of specific projects with the National Industrial Strategy,

⁴⁰ Report of the Island Transport Infrastructure Task Force, July 2017 <https://www.iwight.com/azservices/documents/1190-TITF-Report-FINAL.PDF>

⁴¹ Solent LEP, Assurance Framework (Updated August 2017) <https://solentlep.org.uk/media/1956/solent-lep-assurance-framework-august-2017.pdf>

while projects should also be deliverable and build on committed investments across the public and private sectors. The appraisal criteria applied are set out in Table 11.1 below.

Table 11.1 Appraisal Criteria

Appraisal Criteria	Description	
Strategic Fit	National	Alignment with / supporting Government's national Industrial Strategy (including 5 'foundations of productivity')
	Sub-Regional	Alignment with / supporting LEP growth sectors, SEP priorities, 5 areas critical to raising productivity levels in the Solent (transport, digital communications, skills, R&D, housing)
	Local	Alignment with / supporting Island Local Plan, Economic Development Strategy and Action Plan
Economic Outcomes & Growth Potential	Directly unlocks development	Scope for unlocking development sites for housing and employment, securing these outputs/outcomes. Focus on type and scale of outcomes (including scope to unlock more than one development site)
	Direct jobs	
	New homes	
	New employment space	
	New skills opportunities	
	Leveraging private sector investment	
Deliverability	Planning permission / planning policy status	Allocated / unallocated / permission / none etc
	Project status	Pre-feasibility, feasibility, outline design etc
	Evidence of market demand	Including scale / type of market demand
	Likely to provide Value for Money?	Broadly based on HMT thresholds. Intended to be indicative and is not based on definitive estimates of costs and benefits
	Likely to be contentious?	Is the project expected to be contentious (publically, environmentally etc)
	Evidence of 'Showstopper' constraints	Risks to timely delivery, other constraints beyond LEP control
Timing of Development	Short term (to 2021)	Anticipated timescales associated with infrastructure proposals / projects
	Medium term (to 2026)	
	Long term (to 2040)	
Additionality	Deadweight	Extent to which benefits will be realised without funding / intervention
	Displacement	Extent to which funding / intervention will shift economic activity from other areas
	Speed of delivery	Impact of funding / intervention on the speed of delivery of economic benefits
Potential Funding Availability	High match	Extent to which proposal could align with / meets criteria associated with funding opportunities available now / in future, having regard to the above factors
	Low/no match	

Source: Lichfields, drawing on various sources

Project Assessment Overview

- 11.8 A summary of the outputs from the project prioritisation assessment is shown in Table 11.2 overleaf. The overall level of priority is identified for each of the 45 'long list' infrastructure projects, taking into account the relative performance across the key appraisal themes of strategic fit, economic outcomes & growth potential, deliverability, additionality and potential funding availability. An indication of anticipated project delivery timescales is also provided, although this could be subject to change and is therefore not appraised per se.
- 11.9 These projects have the potential to directly unlock development sites which together could deliver over 8,500 new jobs and 2,500 new homes across the Isle of Wight over the short, medium and longer term.
- 11.10 It should be noted that these appraisals are based on existing project information where this is available. The accuracy of third party information has not been checked or verified by Lichfields. For some projects, particularly those at pre-feasibility stage, there is limited current information or other evidence available. The appraisals of individual projects may therefore be subject to change if more detailed feasibility work or related evidence becomes available. Whilst projects have been appraised against the availability of a range of public sector funding sources, this does not obviate the need for the private sector to contribute in whole or in part, subject to market demand and viability.
- 11.11 It is also important to highlight the limitations of conventional appraisal criteria, particularly in relation to more strategic projects that might not be identified as directly delivering significant additional outputs or outcomes (e.g. new housing and jobs), but may play a wider enabling role and thereby can also make an important wider contribution to delivering growth. The specific circumstances of being an Island economy can also create additional challenges when accessing funding sources which apply standardised criteria that do not fully capture local factors.

Table 11.2 Project Prioritisation Summary

Project	Location	Project Type	Strategic Fit	Economic Outcomes & Growth Potential	Deliverability (excl market demand)	Additionality	Potential Funding Availability	Overall Priority	Timing of Development
Island Line - sustainable investment option	Ryde to Shanklin	Transport	High	High	High	High	High	Low	Short
Ryde Esplanade Interchange Improvements	Ryde	Transport	High	High	High	High	High	Med	Short
Bus Rapid Transit - lite bus priority measures Ryde-Newport-Cowes	Ryde to Newport/Cowes	Transport	High	High	High	High	High	Low	Medium
Integrated Transport Network	Cross Island	Transport	High	High	High	High	High	Med	Medium
Fixed link across the Solent (road/tunnel)	Island to Mainland	Transport	High	High	High	High	High	Low	Long
Immersed tube pedestrian subway connecting east and west Cowes	Cowes (East to West)	Transport	High	High	High	High	High	Low	Long
Medina Bridge	Cowes (East to West)	Transport	High	High	High	High	High	Low	Long
Electric car and cycling charging points	Cross Island	Transport	High	High	High	High	High	Low	Short
Shanklin/Sandown Park and Ride	Shanklin and Sandown	Transport	High	High	High	High	High	Low	Medium
Real Time information at bus stops	Cross Island	Transport	High	High	High	High	High	Low	Short
SCOOT review with bus signal priority	Cross Island	Transport	High	High	High	High	High	Low	Short
Signalised bus gate on the inbound section to Newport after St Mary's junction	Newport	Transport	High	High	High	High	High	Low	Short
Newport - Medina Way/Forest Road/Parkhurst Road - ability for buses to turn right	Newport	Transport	High	High	High	High	High	Low	Short
Cycle access to IW College at Whippingham	Whippingham	Transport	High	High	High	High	High	Low	Short
Newport - Freshwater shared cycle/walk route	Newport to Freshwater	Transport	High	High	High	High	High	Low	Short
Industrial Estate Extension (Nicholson Rd) - Transport and traffic access mitigation	Ryde	Transport	High	High	High	High	High	Med	Short/Med
Kingston Marine Park - Hoist dock to facilitate access to deep water	East Cowes	Transport	High	High	High	High	High	Med	Short
Land to west of Westridge ('Pennyfeathers') - Road infrastructure improvements	Ryde	Transport	High	High	High	High	High	Med	Short
Land to south of Clayton Road - Improvements to immediate surrounding local road network	Freshwater	Transport	High	High	High	High	High	Med	Short
Land at Little Kitbridge - Improvements to surrounding local road network	Newport	Transport	High	High	High	High	High	Med	Short
Land adjoining Lushington Hill & Hunters Way - Improvements to Lushington Hill / Palmers Road junction	Wootton Bridge	Transport	High	High	High	High	High	Med	Short
Land at Rosemary Vineyard & Sharon Orchard, Ashley Road - Improvements to surrounding road network	Ryde	Transport	High	High	High	High	High	Med	Short
Land west of Sylvan Drive - Anticipated impact on wider road infrastructure of Newport	Newport	Transport	High	High	High	High	High	Med	Short
East Cowes Regeneration Area - Highways infrastructure and related public realm works	East Cowes	Transport	High	High	High	High	High	High	Short
Cowes and Yarmouth Temporary Flood Barriers	Cowes and Yarmouth	Water, Waste and Flooding	High	High	High	High	High	Low	Short/Med
Cowes and East Cowes Property Level Protection areas	Cowes (East and West)	Water, Waste and Flooding	High	High	High	High	High	Low	Short/Med
Gurnard to Cowes refurbishment	Gurnard to Cowes	Water, Waste and Flooding	High	High	High	High	High	Low	Medium
Bouldnor Road refurbishment	Yarmouth	Water, Waste and Flooding	High	High	High	High	High	Low	Medium
Environmentally sensitive dredging of key waterways and harbours	River Medina/various harbours	Water, Waste and Flooding	High	High	High	High	High	Med	Short
HMP Camp Hill - Utilities network upgrades required within the site	Newport	Water, Waste and Flooding	High	High	High	High	High	High	Medium
Newport Harbour and County Hall car parks - Flood risk requires mitigation	Newport	Water, Waste and Flooding	High	High	High	High	High	Med	Short
Newport Harbour and County Hall car parks - Dredging and harbour wall maintenance	Newport	Water, Waste and Flooding	High	High	High	High	High	Med	Short
Stag Lane - land decontamination required to bring forward development	Newport	Water, Waste and Flooding	High	High	High	High	High	High	Short/Med
Industrial Estate Extension (Nicholson Rd) - Flood risk mitigation	Ryde	Water, Waste and Flooding	High	High	High	High	High	Med	Short/Med
East of Pan Lane - off-site utilities infrastructure	Newport	Water, Waste and Flooding	High	High	High	High	High	Med	Short/Med
Sandown Industrial Area - Flood mitigation work required	Sandown	Water, Waste and Flooding	High	High	High	High	High	Med	Short/Med
East Cowes Regeneration Area - Flood risk prevention measures	East Cowes	Water, Waste and Flooding	High	High	High	High	High	High	Short
High voltage undersea interconnector	Island to Mainland	Energy	High	High	High	High	High	Low	Med/Long
Large scale battery storage facilities	Cross Island	Energy	High	High	High	High	High	Low	Med/Long
Using surplus energy to power public transport	Cross Island	Energy	High	High	High	High	High	Low	Medium
HMP Camp Hill - Energy network upgrades required within the site	Newport	Energy	High	High	High	High	High	High	Medium
Industrial Estate Extension (Nicholson Rd) - utilities infrastructure	Ryde	Energy	High	High	High	High	High	Med	Short/Med
Satellite broadband coverage for rural areas	Cross Island	Telecoms	High	High	High	High	High	Med	Med/Long
Radio broadband coverage	Cross Island	Telecoms	High	High	High	High	High	Med	Short/Med
Provision of dedicated Higher Education facility (inc degrees)	Cross Island	Human Capital / Skills	High	High	High	High	High	Med	Med/Long

Source: Lichfields analysis

11.12 Table 11.3 below shows how the overall level of identified priority is split by infrastructure theme. This illustrates that water, waste and flooding projects represent some of the highest overall priority projects, followed by energy projects. Transport investment projects tend to score slightly lower, with many of these identified as being of medium or low overall priority.

11.13 Across all 45 long list projects, just under half (20 projects) fall within the low overall priority category, partly reflecting their relatively low scores in relation to strategic fit and economic growth outcomes. Just 5 projects (11%) are considered to have a high overall level of priority (Table 11.3).

Table 11.3 Project Prioritisation by Infrastructure Type

Project	Overall Priority	Project Type
East Cowes Regeneration Area - Highways infrastructure works	High	Transport
HMP Camp Hill - Network upgrades required within the site	High	Water, Waste and Flooding
Stag Lane - land decontamination required to bring forward development	High	Water, Waste and Flooding
East Cowes Regeneration Area - Flood risk prevention measures	High	Water, Waste and Flooding
HMP Camp Hill - Network upgrades required within the site	High	Energy
Industrial Estate Extension (Nicholson Rd) - utilities infrastructure	Med	Energy
Integrated Transport Network	Med	Transport
Industrial Estate Extension (Nicholson Rd) - Transport and traffic access mitigation	Med	Transport
Kingston Marine Park - Hoist dock to facilitate access to deep water	Med	Transport
Land to west of Westridge ('Pennyfeathers') - Road infrastructure improvements	Med	Transport
Land to south of Clayton Road - Improvements to immediate surrounding local road network	Med	Transport
Land at Little Kitbridge - Improvements to surrounding local road network	Med	Transport
Land adjoining Lushington Hill & Hunters Way - Improvements to Lushington Hill / Palmers Road junction	Med	Transport
Land at Rosemary Vineyard & Sharon Orchard, Ashley Road - Improvements to surrounding road network	Med	Transport
Land west of Sylvan Drive - Anticipated impact on wider road infrastructure of Newport	Med	Transport
Ryde Esplanade Interchange Improvements	Med	Transport
Newport Harbour and County Hall car parks - Flood risk requires mitigation	Med	Water, Waste and Flooding
Newport Harbour and County Hall car parks - Dredging and harbour wall maintenance	Med	Water, Waste and Flooding
Industrial Estate Extension (Nicholson Rd) - Flood risk mitigation	Med	Water, Waste and Flooding
East of Pan Lane - off-site infrastructure required to connect to the nearest point of adequate capacity	Med	Water, Waste and Flooding
Sandown Industrial Area - Flood mitigation work required	Med	Water, Waste and Flooding
Environmentally sensitive dredging of key waterways and harbours	Med	Water, Waste and Flooding
Satellite broadband coverage for rural areas	Med	Telecoms
Radio broadband coverage	Med	Telecoms
Provision of dedicated Higher Education facility (inc degrees)	Med	Human Capital / Skills
Island Line - sustainable investment option	Low	Transport
Bus Rapid Transit - lite bus priority measures Ryde-Newport-Cowes	Low	Transport
Fixed link across the Solent (road/tunnel)	Low	Transport
Immersed tube pedestrian subway connecting east and west Cowes	Low	Transport
Medina Bridge	Low	Transport
Electric car and cycling charging points	Low	Transport
Shanklin/Sandown Park and Ride	Low	Transport
Real Time information at bus stops	Low	Transport
SCOOT review with bus signal priority	Low	Transport
Signalised bus gate on the inbound section to Newport after St Mary's junction	Low	Transport
Newport - Medina Way/Forest Road/Parkhurst Road - ability for buses to turn right	Low	Transport
Cycle access to IW College at Whippingham	Low	Transport
Newport - Freshwater shared cycle/walk route	Low	Transport
Cowes and Yarmouth Temporary Flood Barriers	Low	Water, Waste and Flooding
Cowes and East Cowes Property Level Protection areas	Low	Water, Waste and Flooding
Gurnard to Cowes refurbishment	Low	Water, Waste and Flooding
Bouldnor Road refurbishment	Low	Water, Waste and Flooding
High voltage undersea interconnector	Low	Energy
Large scale battery storage facilities	Low	Energy
Using surplus energy to power public transport	Low	Energy

Source: Lichfields analysis

11.14 However, as noted at paragraph 11.11 above, some strategic projects not identified as directly delivering significant additional outputs or outcomes (i.e. new housing and jobs) based on current information tend to be given lower priority through the appraisal notwithstanding that they may play an important wider enabling role. For example, improvements to Ryde Esplanade Interchange and the Island Line could be considered in this context.

- 11.15 A similar cut of analysis is shown in Table 11.4 with regards to anticipated timing of delivery by project. This shows that all of the high overall priority projects are expected to be able to be delivered over the short (i.e. to 2021) or medium term (i.e. to 2026), while longer term projects (i.e. to 2040) tend to be characterised as being of lower overall priority. Notwithstanding this general correlation, Table 11.4 does also point to a number of short term projects representing low and medium overall priority.

Table 11.4 Project Prioritisation by Timescale

Project	Overall Priority	Timing of Development
East Cowes Regeneration Area - Highways infrastructure works	High	Short
HMP Camp Hill - Utilities network upgrades required within the site	High	Short
East Cowes Regeneration Area - Flood risk prevention measures	High	Short
HMP Camp Hill - Energy network upgrades required within the site	High	Short
Stag Lane - land decontamination required to bring forward development	High	Short/Med
Land to west of Westridge ('Pennyfeathers') - Road infrastructure improvements	Med	Short
Land to south of Clayton Road - Improvements to immediate surrounding local road network	Med	Short
Land at Little Kitbridge - Improvements to surrounding local road network	Med	Short
Land adjoining Lushington Hill & Hunters Way - Improvements to Lushington Hill / Palmers Road junction	Med	Short
Land at Rosemary Vineyard & Sharon Orchard, Ashey Road - Improvements to surrounding road network	Med	Short
Land west of Sylvan Drive - Anticipated impact on wider road infrastructure of Newport	Med	Short
Newport Harbour and County Hall car parks - Flood risk requires mitigation	Med	Short
Newport Harbour and County Hall car parks - Dredging and harbour wall maintenance	Med	Short
Kingston Marine Park - Hoist dock to facilitate access to deep water	Med	Short
Ryde Esplanade Interchange Improvements	Med	Short
Environmentally sensitive dredging of key waterways and harbours	Med	Short
Industrial Estate Extension (Nicholson Rd) - Transport and traffic access mitigation	Med	Short/Med
Industrial Estate Extension (Nicholson Rd) - utilities infrastructure	Med	Short/Med
Industrial Estate Extension (Nicholson Rd) - Flood risk mitigation	Med	Short/Med
East of Pan Lane - off-site infrastructure required to connect to the nearest point of adequate capacity	Med	Short/Med
Sandown Industrial Area - Flood mitigation work required	Med	Short/Med
Radio broadband coverage	Med	Short/Med
Integrated Transport Network	Med	Medium
Satellite broadband coverage for rural areas	Med	Med/Long
Provision of dedicated Higher Education facility (inc degrees)	Med	Med/Long
Island Line - sustainable investment option	Low	Short
Electric car and cycling charging points	Low	Short
Real Time information at bus stops	Low	Short
SCOOT review with bus signal priority	Low	Short
Signalised bus gate on the inbound section to Newport after St Mary's junction	Low	Short
Newport - Medina Way/Forest Road/Parkhurst Road - ability for buses to turn right	Low	Short
Cycle access to IW College at Whippingham	Low	Short
Newport - Freshwater shared cycle/walk route	Low	Short
Cowes and Yarmouth Temporary Flood Barriers	Low	Short/Med
Cowes and East Cowes Property Level Protection areas	Low	Short/Med
Bus Rapid Transit - lite bus priority measures Ryde-Newport-Cowes	Low	Medium
Shanklin/Sandown Park and Ride	Low	Medium
Gurnard to Cowes refurbishment	Low	Medium
Bouldnor Road refurbishment	Low	Medium
Using surplus energy to power public transport	Low	Medium
High voltage undersea interconnector	Low	Med/Long
Large scale battery storage facilities	Low	Med/Long
Fixed link across the Solent (road/tunnel)	Low	Long
Immersed tube pedestrian subway connecting east and west Cowes	Low	Long
Medina Bridge	Low	Long

Source: Lichfields analysis

Strategic Links and Clusters of Projects

- 11.16 As noted above, some of the projects have not been identified as directly delivering significant additional outputs or outcomes in isolation (based on the appraisal criteria applied) and are therefore given a relatively low priority status. In reality and when considered as part of a wider package of projects, they may in fact play an important wider enabling role in delivering economic growth on the Island.
- 11.17 Indeed, many of the projects that have been considered share strategic links and if considered together as a package or cluster of projects could achieve a higher overall score and priority

status, helping to make the case for public infrastructure related funding due to their role in unlocking key regeneration sites on the Isle of Wight.

11.18

Although it falls beyond the scope of this IIP study to specifically appraise such packages or clusters of projects, it is possible to identify potential clusters of projects in this respect for further consideration. These are summarised in Table 11.3 below.

Table 11.3 Potential Clusters of Projects

Cluster/ Geography	Potential Projects
Ryde	<ul style="list-style-type: none"> • Industrial Estate Extension (Nicholson Rd) - Flood risk mitigation, Transport and traffic access mitigation, utilities infrastructure • Land at Rosemary Vineyard & Sharon Orchard, Ashe Road - Improvements to surrounding road network • Land to west of Westridge ('Pennyfeathers') - Road infrastructure improvements • Ryde Esplanade Interchange Improvements • Island Line - sustainable investment option • Land adjoining Lushington Hill & Hunters Way - Improvements to Lushington Hill / Palmers Road junction
East Medina	<ul style="list-style-type: none"> • East Cowes Regeneration Area - Highways infrastructure and related public realm works • East Cowes Regeneration Area - Flood risk prevention measures • Kingston Marine Park - Hoist dock to facilitate access to deep water • Environmentally sensitive dredging of key waterways and harbours • Cycle access to IW College at Whippingham
West Medina and Newport	<ul style="list-style-type: none"> • HMP Camp Hill - Network upgrades required within the site (water, waste, flooding and energy) • East of Pan Lane - off-site utilities infrastructure • Land at Little Kitbridge - Improvements to surrounding local road network • Land west of Sylvan Drive - Anticipated impact on wider road infrastructure of Newport • Newport Harbour and County Hall car parks - Flood risk requires mitigation, Dredging and harbour wall maintenance • Stag Lane - land decontamination required to bring forward development • Bus Rapid Transit - lite bus priority measures Ryde-Newport-Cowes • Gurnard to Cowes refurbishment • Newport - Medina Way/Forest Road/Parkhurst Road - ability for buses to turn right • SCOOT review with bus signal priority • Signalised bus gate on the inbound section to Newport after St Mary's junction
The Bay	<ul style="list-style-type: none"> • Sandown Industrial Area - Flood mitigation work required • Shanklin/Sandown Park and Ride
West Wight	<ul style="list-style-type: none"> • Land to south of Clayton Road - Improvements to immediate surrounding local road network • Bouldnor Road refurbishment • Newport - Freshwater shared cycle/walk route

Source: Lichfields analysis

Funding Options and Opportunities

- 11.19 This section identifies funding options in support of the potential investments detailed above. The focus is on direct funding sources available from Central Government as well as those administered by the Solent LEP that can directly support investment in a range of infrastructure for the purposes of supporting growth on the Isle of Wight.
- 11.20 It should be noted that this is not an exhaustive list of funding sources for all potential projects on the Isle of Wight – there are additional scheme/sector specific sources of potential funding that partners may also need to explore, and the nature of funds available will change over time in line with national and local priorities or as future rounds are launched.
- 11.21 Access to funding is typically on the basis of competitive bidding processes either directly to Government or through the LEP depending on the nature of the fund. These processes usually have defined criteria (e.g. scale of funding, defined outputs) and conditions (e.g. timescale for delivery, private sector leverage) and may be subject to business cases developed in line with national guidance. An individual project or proposal may qualify for more than one fund.
- 11.22 For some funds, the criteria and evaluation parameters are not currently known, therefore a broad consideration has been given as part of the prioritisation process to the anticipated alignment with funding sources at this stage.

National Productivity Investment Fund

- 11.23 The National Productivity Investment Fund (NPIF) will add £23 billion of investment from 2017-18 to 2021-22. Announced as part of the 2016 Autumn Statement, the fund will invest in new high-value economic infrastructure over the next 4 years including housing, economic infrastructure, and research and development (R&D).⁴² There are a number of component funds relevant to different types of infrastructure as set out below.

Housing Infrastructure Fund

- 11.24 The £2.3 billion Housing Infrastructure Fund will allow joined-up planning for housing and infrastructure in areas of severe need, and will fund the infrastructure needed to enable house-building on sites with marginal viability in areas with an acute housing need.
- 11.25 Funding will be awarded to local authorities on a competitive basis, providing grant funding for new infrastructure that will unlock new homes in the areas of greatest housing demand.⁴³ The fund is divided into two parts:
- a Marginal Viability Fund to provide the final or missing piece of infrastructure funding to get additional sites allocated or existing sites unblocked quickly
 - a Forward Fund for a small number of strategic and high-impact infrastructure projects
- 11.26 The deadline for applications was 28 September 2017, and funding must be spent by 2020/21.⁴⁴

⁴² Autumn Statement 2016, HM Treasury,

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/571559/autumn_statement_2016_web.pdf

⁴³ Definition of infrastructure includes transport and travel, utilities, schools, community and healthcare facilities, land assembly and site remediation, heritage infrastructure, digital communications, green infrastructure (such as parks) and blue infrastructure (such as flood defences and sustainable drainage systems).

⁴⁴ An Introduction to the Housing Infrastructure Fund, CLG, July 2017

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/625528/DCLG_Introduction_to_Housing_Infrastructure_WEB.pdf

Accelerated Construction

- 11.27 The Accelerated Construction programme is a tailored package of support to ambitious local authorities who would like to develop out surplus land holdings. The programme aims to deliver up to 15,000 homes (housing starts) on central and local surplus public sector land in this Parliament through £1.7 billion of investment. The programme is also designed to support non-major builders and help tackle the construction skills gap, including through greater use of Modern Methods of Construction (MMC).
- 11.28 Expressions of interest were invited from local authorities in early 2017.⁴⁵ This required identification of a clear pipeline of surplus land owned or to be acquired by the local authority which can be brought forward for housing.

Roads and local transport

- 11.29 A total of £1.1 billion of funding for local highway and other local transport improvements which aims to reduce congestion at key locations, upgrade or improve the maintenance of local highway assets across England (outside London) to improve access to employment and housing, to develop economic and job creation opportunities.
- 11.30 The £185 million from this Fund for 2017/18 has already been allocated to local highway authorities, with an allocation to Hampshire of £5.1million.⁴⁶ It is understood that a number of schemes are being considered by Hampshire County Council and subject to programming will become a defined list in the next few months.⁴⁷

Digital communications

- 11.31 A £740 million fund identified to deploy full fibre networks into businesses and the public sector, and a coordinated programme of integrated 5G and fibre projects to accelerate and de-risk deployment of future digital technologies. Details of how this fund will be administered have not yet been released.
- 11.32 It should be noted that this fund is separate to the £400 million Digital Infrastructure Investment Fund announced in July 2017 which will be managed and invested on a commercial basis by private sector partners on behalf of Government.⁴⁸

Flood defence and resilience

- 11.33 The Government will invest £170 million in flood defence and resilience. The Autumn Statement indicates that £20 million of this investment will be for new flood defence schemes, £50 million for rail resilience projects and £100 million to improve the resilience of roads to flooding. Details of how this fund will be administered have not yet been released.

Local Growth Deal Capital Programme

- 11.34 The Solent Local Growth Deal Programme administered by the Solent LEP continues in 2017/18 with a total funding envelope of about £30.7 million, comprising an approved capital

⁴⁵ Accelerated Construction: Local Authorities, Expressions of Interest, January 2017

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/581520/Accelerated_construction_Eol.pdf

⁴⁶ Roads Funding: Information Pack, Department for Transport, January 2017

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/583263/roads-funding-information-pack.pdf

⁴⁷ Strategic transport – plans and policies, Hampshire County Council

<https://www.hants.gov.uk/transport/strategies/transportstrategies>

⁴⁸ <https://www.gov.uk/government/news/billion-pound-connectivity-boost-to-make-buffering-a-thing-of-the-past>

programme of £17.3 million and £13.3 million which is to be allocated.⁴⁹ The LEP Executive is therefore continuing to work on the development of new projects.

11.35 The committed programme includes a number of funds as follows:

- Solent Growth Fund – targeted at business support and growth measures for SMEs, which has a rolling programme of funding rounds.
- Solent Development Cost Fund – to support the costs of business case development for strategic housing and employment development projects. Applications were invited in early 2017.
- Innovation Programme Fund (Round 3) – available to companies and organisations with innovative investment proposals for new technologies, equipment, infrastructure, facilities and estates in the Solent LEP area. Open to applications until 29 September 2017.

11.36 There are also identified scheme-specific funding commitments for the 2017/18 year.

Solent Skills and Productivity Investment Fund

11.37 A £12.5 million Solent Skills and Productivity Investment Fund is being made available from Solent LEP Local Growth Funding and is available from 2017/18 to 2019/20 to support projects that can commence delivery by 2 April 2018 and complete by 31 March 2021.

11.38 The focus is on employer-led initiatives that address an identified skills shortage in an industry and/or sector. Proposals will be particularly appraised in terms of the extent to which a project supports the growth (including export potential) of strategic sectors or one or more of the five areas critical to raising productivity levels in the Solent: transport, digital communications, skills, research and development (R&D) and housing. The call for projects closed on 29 September 2017.

Coastal Communities Fund

11.39 The Government has announced a fifth round of the Coastal Communities Fund (CCF).⁵⁰ The CCF is a UK-wide programme designed to support the economic development of coastal communities by promoting sustainable economic growth and jobs. All projects funded through the CCF are expected to deliver an outcome where coastal communities will experience regeneration and economic growth through projects that directly or indirectly create sustainable jobs, and safeguard existing jobs.

11.40 The round for 2019 to 2021 will provide at least £40 million to help coastal areas in England further transform their economies and boost jobs in their local area. It will be open for applications in early 2018.

⁴⁹ Solent LEP Board, May 2017, <https://solentlep.org.uk/media/2001/lep-board-pack-19052017.pdf>

⁵⁰ £40 million to create jobs and boost visitors to the Great British Coast, 4 September 2017

<https://www.gov.uk/government/news/40-million-to-create-jobs-and-boost-visitors-to-the-great-british-coast>

12.0 Conclusions and Recommendations

12.1 This section draws together the key findings from the preceding sections and outlines some recommendations in respect of future investments in infrastructure on the Isle of Wight.

Context

12.2 This report has been prepared to provide an identification of the future infrastructure needs of the Isle of Wight across a range of “economic infrastructure” categories. This is in the context of the need to support sustainable economic growth on the Isle of Wight, and having regard to national, Solent LEP and local Isle of Wight Council policy priorities.

12.3 The study brief is set against the backdrop that it is widely recognised that access to good quality infrastructure is an essential ingredient for a competitive economy. Accordingly, infrastructure investment is recognised as one of the 5 ‘foundations of productivity’ within the Government’s Industrial Strategy. However, infrastructure can present high initial costs and long-return periods on investment which can lead to instances of market failure and, consequently, the rationale for public sector intervention.

12.4 Within the context of a constrained public sector funding environment, it is therefore essential that potential projects and investments are considered carefully in terms of their ability to directly support economic growth objectives whilst also taking account of standard appraisal approaches for public sector projects relating to deliverability, value for money and timeframes. The report focuses on unlocking sites for development which can achieve delivery of new housing and jobs, employment space, skills opportunities and leveraging of private sector investment.

Isle of Wight Economy

12.5 The Isle of Wight’s economy has performed reasonably strongly in recent years, including growth in a number of specialist higher value sectors particularly where the Island benefits from the presence of leading international businesses. However productivity levels are generally below the mainland, and there are challenges in terms of educational attainment and skills levels. The population of the Isle of Wight has been growing, mainly amongst older age groups, and the Island struggles to retain people in younger age groups. Forecasts indicate these population shifts are set to continue leading to a contraction of the working-age population. As an Island economy, the labour market is relatively self-contained with most residents working locally and very few in-commuters from the mainland.

12.6 Physical separation of the Island from the UK mainland is reported to have a negative effect on the Island’s economy in a number of ways, not least through the ‘Island premium’ which represents the additional cost of conducting business on and with the Isle of Wight. This premium not only encapsulates higher transportation costs, but also the limited opportunities for optimal economies of scale, due to reduced competition and the size of the market.

12.7 Latest economic forecasts commissioned by the Solent LEP indicate that employment on the Isle of Wight is expected to increase by 4,600 jobs between 2015 and 2036, a growth rate of nearly 8% which is broadly similar to the LEP average. Most growth is anticipated in health and social care, admin and support services, construction and recreation, reflecting both the ageing population trend and tourism sectors. More traditional sectors such as manufacturing and agriculture are expected to decline in overall terms.

12.8 The Isle of Wight Core Strategy and the Council’s Regeneration Programme set out potential to achieve higher levels of growth and to support regeneration of the Island’s communities and

increase prosperity. Development sites and opportunity areas have been identified across the Island, as detailed earlier in this report. It is estimated that the Regeneration Programme could deliver a total of 12,000 new jobs, 1,700 homes and increase the Council's annual revenue by £15 million over the period 2017-2028. Delivery of additional growth is contingent on significant infrastructure investment to enable the identified opportunities to be realised and for the Island's economy to be supported.

Key Infrastructure Issues

- 12.9 The report has undertaken a detailed review of existing evidence and consultation with stakeholders to identify key issues for each of the main infrastructure categories within the remit of the study. These are summarised below.

Water, Waste and Flooding

- 12.10 Water, waste and flood defence infrastructure provision on the Isle of Wight is generally good; there are few constraints in the existing infrastructure and constraints that do exist are relatively small scale in nature and low priority. Most water supply and treatment facilities have sufficient capacity to support future growth, or require limited improvements to increase their capacity. However, the timescales in providing new infrastructure frequently delays development, and this is a significant risk for development sites that are not factored in to Southern Water's five year business plans. The greatest priority for water, waste and flood defence infrastructure on the Isle of Wight going forward is therefore to ensure that Southern Water is able to take into account proposed development sites at the earliest opportunity, in order to facilitate and speed up development.
- 12.11 For some development sites that require grant funding for infrastructure to unlock delivery it would be more timely for public sector organisations to directly pay Southern Water to provide and/or adopt new supporting infrastructure, rather than transfer the funds via a third party developer. This could help accelerate delivery and minimise delays on development sites across the Island.
- 12.12 Given the unique challenges and risks posed to the Island from a flood and coastal defence perspective, a range of flood defence and coastal management works have been identified to enable the Island to plan to avoid, mitigate and adapt to these risks cover the coming years. The Council has completed or is in the process of undertaking a number of Flood and Coastal Erosion Risk Management studies including West Wight, Sandown and Ventnor. These indicate that a number of communities are at risk of flooding and coastal erosion and new and upgraded defences will be required. Partners will need to work closely in the coming years within the context of a challenging funding environment to ensure that these risks are adequately planned for and managed.

Energy

- 12.13 The Isle of Wight is not currently self-sufficient when it comes to energy generation and distribution, and is largely dependent upon supply being piped over from the mainland. SSEN own and operate the three undersea interconnectors, and there are currently two sources of on-Island energy generation via the East Cowes power station and Arreton Nurseries combined heat and power plant. Given that the provision of energy services is controlled by commercial operations, limited opportunity exists for the local Council and partners to influence this provision. Progress has been made in terms of developing a range of renewable sources on the Island which now contribute to generation, for example a number of operational solar farms.

- 12.14 As an enabling driver of economic growth, energy generation and distribution has an important role to play in supporting future development on the Island, and a number of potential solutions could be considered to relieve current capacity constraints and pressures and help the Island to become more self-sufficient. These include the more effective use of on-Island storage solutions (such as large scale batteries) and using the latest technology to support more flexible transport modes.
- 12.15 The process of relieving local grid capacity constraints also provides opportunities for the renewable energy sector, where the Island already has strengths and key competitive advantages. This is identified as a key growth sector for both the Island the wider Solent LEP area, with local targets set within the Island Local Plan for a much greater reliance upon renewable electricity production which in turn will contribute to the economic development and regeneration of the Island.
- 12.16 The forthcoming Solent Energy Strategy will provide further updated evidence on energy infrastructure in due course.

Transport

- 12.17 Transport infrastructure relating to the Isle of Wight can be broadly distinguished between cross-Solent connectivity and on-Island transport. In terms of cross-Solent connectivity, the Island is served by a range of ferry and hovercraft routes with varying frequencies and journey times for vehicles, freight and passengers. Issues have been particularly identified concerning the cost of fares, and frequency of services outside of peak periods. The quality and efficiency of terminals and interchanges is also an area where improvements are required, to help encourage intermodal connections, improve the visitor experience and reduce 'bottleneck' effects.
- 12.18 Proposals have been put forward to investigate the potential for a fixed link to the mainland, potentially via a tunnel with toll-charging, but these have not been subject to feasibility analysis and there is no current evidence available on the economic implications for the Island if such a link were to be developed.
- 12.19 In terms of on-Island transport infrastructure, the main constraint relates to roads. New investment has been secured which will help alleviate some of the current issues, but it is evident that there remain longer-term capacity and reliability concerns regarding the network that impact the ability to deliver larger development sites and accommodate future demand. The Council's Regeneration Programme identifies Newport highway improvements needed by 2020 to accommodate predicted growth and unlock new development at Coppins Bridge gyratory, St Mary's roundabout, Medina Way and Hunnyhill / Hunnycross & Riverway junction. Existing cycle provision is generally good, and has been subject to recent investment.
- 12.20 A better integrated public transport system, with simpler ticketing options and more priority over the private car, could encourage those seeking jobs or considering a job move to look further afield across the island, and therefore extend the flexibility of the labour market, without adding to car congestion. Similar strategies are also required in terms of visitors to the Island.

Telecommunications

- 12.21 Telecommunications provision is generally good across the Isle of Wight, with broadband speeds and mobile 4G coverage comparable to the mainland in key settlements. However, in rural and more peripheral locations broadband speeds reduce significantly, and in many places are considered very poor by today's standards (10 MBps or less). There are some mobile network black spots though in general these are limited in extent, except for the Three network which has poor coverage across the majority of the Isle of Wight.

- 12.22 Improvements to telecommunications infrastructure should prioritise the proposed WightFibre expansion to cover 53,000 of the c.61,000 properties on the Isle of Wight. This is commercially achievable and partners should support its expansion where possible. For example developers of each of the Regeneration Programme's strategic sites should ensure that they facilitate WightFibre's proposed expansion of fibre broadband. This is a realistic proposition as each strategic site is located within or in close proximity to existing urban areas which benefit from the best available broadband coverage on the Isle of Wight.
- 12.23 Rural broadband connectivity is a particular issue in some parts of the Isle of Wight. However, there are diminishing returns when investing to improve the broadband coverage of premises in rural locations that suffer from poor broadband connectivity. The Isle of Wight should therefore be pragmatic in terms of the feasibility of providing universal access to superfast broadband in rural areas given its available resources. Where possible it needs to collaborate with partners such as UK Government, BT and WightFibre to ensure that there is continued investment and attention to improving broadband coverage in rural parts of the Isle of Wight. Radio broadband coverage is currently the most effective solution, though it has its limitations and further investigation is required to determine the extent that it could be implemented.

Human Capital and Skills

- 12.24 The deficit of higher-level skills on the Isle of Wight relative to the mainland is a long-standing issue. Ensuring skill levels (and improving educational attainment) is vital to provide an appropriately skilled workforce to attract higher-value inward investment and ensure existing businesses remain competitive and can graduate up the value chain. Many of the Island's leading industries face both rising skills needs and the effect of an ageing workforce that needs renewal. A broader higher education offer is an important part of helping to retain a greater proportion of young people on the Island.
- 12.25 Existing provision is rated highly, and recent investment such as CECAMM will further enhance what is available. However, the view of relevant stakeholders is that the Island's Higher Education offer needs a dedicated focus – for example through provision of employer-linked degree courses – to leverage further investment and to build on the existing linkages with mainland universities.

Housing and Business Premises

- 12.26 Provision of housing and employment space play a key role in supporting economic growth. Sufficient housing of the right type and in the right location is needed to meet the needs of the local population, with affordable and first time buyers having a particular need on the Isle of Wight. Providing sufficient employment space that meets the needs of businesses is vital to allowing them to expand, help new business to take-up their first premises, and providing employment opportunities for the local labour market catchment.
- 12.27 One of the greatest structural challenges relating to both housing delivery and employment space on the Isle of Wight is the low incomes of residents. This is a particular concern for housing delivery as it can suppress the rate of market delivery and risks increasing outward migration of young people. As much of the existing employment stock is poor quality it accommodates lower value businesses and creates a potential affordability barrier to upgraded or new-build premises (notwithstanding evidence that this is being sought by businesses).
- 12.28 Because viability is a significant constraint to delivering commercial space on the Isle of Wight there is a need for the public sector to play a strategic role in supporting the delivery of new employment premises. It is particularly important that new good quality employment space is provided to meet the needs of modern businesses and to attract and retain higher value

employers. In turn this will help support wage growth for local residents which will support the demand for housing and subsequent market delivery.

- 12.29 More generally, feedback indicates that the Isle of Wight could improve its attractiveness to potential investors and housebuilders by improving the efficiency of planning decision-making and upskilling and expanding the local construction workforce and business base.

Future Infrastructure Investment Priorities

- 12.30 Against a backdrop of limited committed/funded infrastructure projects on the Island, a 'long list' of 45 infrastructure projects has been compiled from a range of sources including evidence base reports, the Council's Regeneration Programme, the Island Infrastructure Task Force report, and through consultation with a range of stakeholders.
- 12.31 The key focus of infrastructure projects identified through the IIP is upon unlocking new public and private development sites for housing and employment uses. Potential infrastructure projects have been appraised on their ability to secure direct jobs, new homes, new employment space, new skills opportunities and private sector investment. In total, the identified projects have the potential to directly unlock development sites which together could deliver over 8,500 new jobs and 2,500 new homes across the Isle of Wight, focusing on three broad timescales; short-term to 2021, medium term to 2026 and longer term to 2040.

Table 12.1 Project Prioritisation by Timescale

Project	Overall Priority	Timing of Development
East Cowes Regeneration Area - Highways infrastructure works	High	Short
HMP Camp Hill - Utilities network upgrades required within the site	High	Short
East Cowes Regeneration Area - Flood risk prevention measures	High	Short
HMP Camp Hill - Energy network upgrades required within the site	High	Short
Stag Lane - land decontamination required to bring forward development	High	Short/Med
Land to west of Westridge ("Pennyfeathers") - Road infrastructure improvements	Med	Short
Land to south of Clayton Road - Improvements to immediate surrounding local road network	Med	Short
Land at Little Kitbridge - Improvements to surrounding local road network	Med	Short
Land adjoining Lushington Hill & Hunters Way - Improvements to Lushington Hill / Palmers Road junction	Med	Short
Land at Rosemary Vineyard & Sharon Orchard, Ashey Road - Improvements to surrounding road network	Med	Short
Land west of Sylvan Drive - Anticipated impact on wider road infrastructure of Newport	Med	Short
Newport Harbour and County Hall car parks - Flood risk requires mitigation	Med	Short
Newport Harbour and County Hall car parks - Dredging and harbour wall maintenance	Med	Short
Kingston Marine Park - Hoist dock to facilitate access to deep water	Med	Short
Ryde Esplanade Interchange Improvements	Med	Short
Environmentally sensitive dredging of key waterways and harbours	Med	Short
Industrial Estate Extension (Nicholson Rd) - Transport and traffic access mitigation	Med	Short/Med
Industrial Estate Extension (Nicholson Rd) - utilities infrastructure	Med	Short/Med
Industrial Estate Extension (Nicholson Rd) - Flood risk mitigation	Med	Short/Med
East of Pan Lane - off-site infrastructure required to connect to the nearest point of adequate capacity	Med	Short/Med
Sandown Industrial Area - Flood mitigation work required	Med	Short/Med
Radio broadband coverage	Med	Short/Med
Integrated Transport Network	Med	Medium
Satellite broadband coverage for rural areas	Med	Med/Long
Provision of dedicated Higher Education facility (inc degrees)	Med	Med/Long
Island Line - sustainable investment option	Low	Short
Electric car and cycling charging points	Low	Short
Real Time information at bus stops	Low	Short
SCOOT review with bus signal priority	Low	Short
Signalised bus gate on the inbound section to Newport after St Mary's junction	Low	Short
Newport - Medina Way/Forest Road/Parkhurst Road - ability for buses to turn right	Low	Short
Cycle access to IW College at Whippingham	Low	Short
Newport - Freshwater shared cycle/walk route	Low	Short
Cowes and Yarmouth Temporary Flood Barriers	Low	Short/Med
Cowes and East Cowes Property Level Protection areas	Low	Short/Med
Bus Rapid Transit - lite bus priority measures Ryde-Newport-Cowes	Low	Medium
Shanklin/Sandown Park and Ride	Low	Medium
Gurnard to Cowes refurbishment	Low	Medium
Bouldnor Road refurbishment	Low	Medium
Using surplus energy to power public transport	Low	Medium
High voltage undersea interconnector	Low	Med/Long
Large scale battery storage facilities	Low	Med/Long
Fixed link across the Solent (road/tunnel)	Low	Long
Immersed tube pedestrian subway connecting east and west Cowes	Low	Long
Medina Bridge	Low	Long

Source: Lichfields analysis

- 12.32 It should be noted that these appraisals are based on existing project information where this is available. For some projects, particularly those at pre-feasibility stage, there is limited current information or other evidence available. The appraisals of individual projects may therefore be subject to change if more detailed feasibility work or related evidence becomes available. Whilst projects have been appraised against the availability of a range of public sector funding sources as identified in section 11.0, this does not obviate the need for the private sector to contribute in whole or in part, subject to market demand and viability.
- 12.33 Furthermore, it should be emphasised that some strategic projects not identified as directly delivering significant additional outputs or outcomes (i.e. new housing and jobs) based on current information tend to be given lower priority through the appraisal notwithstanding that they may play an important wider enabling role.
- 12.34 It is also important to note that this analysis represents a point-in-time assessment; it incorporates the latest data and other evidence available at the time of preparation during 2017 but will inevitably be subject to change. In particular, the status of individual projects and investments is likely to change on an ongoing basis, for example as particular developments are

completed and funding becomes available. For this reason, it is recommended that individual projects and interventions are reviewed and updated regularly.

Actions in Support of Future Delivery

- 12.35 As noted above, existing plans and programmes identify significant future growth potential on the Isle of Wight including a range of housing and commercial development opportunities in the pipeline. However, there are currently only a small number of committed infrastructure investment projects to support delivery. This report identifies a series of practical infrastructure interventions that could help to bring sites forward and stimulate economic growth.
- 12.36 The appraisal and prioritisation presented in this report is inevitably a snap-shot in time, and starting point for future updating and progression. In particular, the LEP and its partners should focus on:
- moving projects up the priority list to 'high';
 - being realistic about projects for addition to, or removal from, the list; and
 - having the flexibility to combine/disaggregate projects in response to specific funding opportunities as they arise, subject to inter-dependencies.
- 12.37 This will require a more coordinated and streamlined approach across public and private partners to build evidence and make the strongest case for investment. Suggested actions and next steps are as follows:
- 1 Using the IIIP as a starting point for discussions across public and private sectors, and maintaining an up-to-date long list to ensure ready monitoring and progression of identified priorities, and ensuring more projects become 'bid ready'.
 - 2 Improving the availability and quality of technical evidence in relation to individual projects in terms of potential scheme design and costings. With the exception of some larger projects that have been under active consideration for a number of years (and accordingly have a degree of supporting technical work) for many projects there is a lack of technical information that could form the basis for discussion with either public or private sector partners or competitive funding bids.
 - 3 Linking future progress to the review of the Island Plan (underway since August 2017) to ensure alignment of evidence and prioritisation, shared assumptions about growth potential and delivery timescales, and to provide policy support for funding bids once adopted in due course.

Appendix 1: Consultees

Alex Howison, Scottish and Southern Electricity Networks

Bob Seely MP, Member of Parliament for the Isle of Wight

Carl Feeney, Able Connections

Chris Ashman, Isle of Wight Council

Christopher Garnett OBE, Island Infrastructure Task Force

Dave Stewart, Leader, Isle of Wight Council

David Long, BCM

Ian Ward, Isle of Wight Council

John Irvine, WightFibre

Justin Gentleman, Captiva Homes

Keith Greenfield, WightLink

Kevin George, Red Funnel (on behalf of the Island's Ferry Operators)

Kevin Smith, Isle of Wight Chamber of Commerce

Lynne Christopher, Isle of Wight College

Mark Wilkins, First Group

Neil Chapman, Hovertravel

Ollie Boulter, Isle of Wight Council

Paul Flatt, Homes and Communities Agency

Pete Clusky, MHI Vestas Offshore Wind

Richard Tyldsley, Southern Vectis

Sam Underwood, Southern Water

Simon Dabell, Visit Isle of Wight

Tim Hill, Barratt David Wilson

Timothy Cooper, Able Connections

Wayne Whittle, Isle of Wight Council

Wendy Perera, Isle of Wight Council

Appendix 2: Business Survey Questions

The Solent Local Enterprise Partnership (LEP) is working with planning and economic consultancy Lichfields to undertake a survey to explore the key infrastructure issues affecting businesses operating on the Isle of Wight. The results from the survey will feed into a new Island Infrastructure Investment Plan which will identify the key infrastructure investments needed to support and sustain growth on the Island over the coming years.

For the purposes of the research, 'infrastructure' includes: Utilities (including water, waste disposal and flood defence facilities); Energy (including generation and distribution); Transport (including roads, railways, ports and airports and their operators); Telecommunications (including high speed broadband and mobile networks); Human Capital / Skills; and Business Premises.

As a local business, we would welcome your views on the adequacy of existing infrastructure and business premises in the area as well as any barriers that your business currently faces or may face in future if it grows and expands.

We would be grateful if you could take 10 minutes to complete this short survey to provide your feedback and views by Friday 30th June. If you have any queries about this survey, or would like more information, please contact Lucie Bailey at Lichfields on 020 7837 4477 / lucie.bailey@lichfields.uk.

The information you provide will be used by Lichfields to inform the development of a Solent LEP Island Infrastructure Investment Plan. Information and personal details provided in this survey will remain confidential and will not be passed on to any third party without your permission.

About your Business

* 1. Business Details

Company name:

Contact name:

Position within the company:

Type of company/main activity:

Current location:

Postcode:

Approximate number of employees (on the Isle of Wight):

How long has your business been trading (on the Isle of Wight):

Your Location/Site

* 2. What type of premises do you currently occupy? Please select all that apply:

- Office
- Factory/workshop unit
- Warehouse
- Shop unit
- Work from home
- Other (please specify)

* 3. What type of site do you currently occupy?

- Town centre
- Business/ office park
- Industrial estate/site
- Rural location
- Work from home
- Other (please specify)

Your Business Needs and Priorities

* 4. Why is your business located on the Isle of Wight? Please select all that apply:

- Presence of customers/access to market
- Presence of supply chains
- Presence of suitably qualified workforce
- Proximity to skills/education providers
- Proximity to home
- Cost factors
- Quality of life
- Historic factors
- Other (please specify)

* 5. How important are the following factors for the day-to-day operations of your business?

	Very Important	Quite Important	Not Important	n/a
Quality of road infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of rail infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of port infrastructure (for connections to the mainland)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of airport infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of high speed broadband/mobile networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of utilities and energy supply (including electricity, gas, water)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to skilled labour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to training providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of premises of the right type and quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of premises in the right location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of premises at an affordable price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of suitable housing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

* 6. How would you rate your current access to the following?

	Excellent	Good	Average	Poor	n/a
Quality of road infrastructure	<input type="radio"/>				
Quality of rail infrastructure	<input type="radio"/>				
Quality of port infrastructure (for connections to the mainland)	<input type="radio"/>				
Quality of airport infrastructure	<input type="radio"/>				
Quality of high speed broadband/mobile networks	<input type="radio"/>				
Quality of utilities and energy supply (including electricity, gas, water)	<input type="radio"/>				
Access to skilled labour	<input type="radio"/>				
Access to training providers	<input type="radio"/>				
Availability of premises of the right type and quality	<input type="radio"/>				
Availability of premises in the right location	<input type="radio"/>				
Availability of premises at an affordable price	<input type="radio"/>				
Availability of suitable housing	<input type="radio"/>				
Other (please specify)	<input type="radio"/>				

Other (please specify)

* 7. Does your business face any barriers or issues in terms of operating on the Island?

- Yes
- No

8. If yes, what difficulties or barriers do you face?

9. What do you think could be done to help overcome these barriers?

The Future

* 10. Do you expect to expand or relocate your premises in the future, i.e. over the next 5-10 years?

Yes

No

Please explain your response:

* 11. How important do you think the following factors will be in enabling your business to grow on the Island?

	Very Important	Quite Important	Not Important	n/a
Quality of road infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of rail infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of port infrastructure(for connections to the mainland)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of airport infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of high speed broadband/mobile networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of utilities and energy supply (including electricity, gas, water)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to skilled labour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to training providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of premises of the right type and quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of premises in the right location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of premises at an affordable price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of suitable housing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

* 12. Are you most likely to (please select one only):

- Expand on existing site
- Relocate to another site on the Isle of Wight
- Relocate to the mainland (please specify where below)
- Other (please specify below)
- Don't know
- No planned change in operations

Please explain your response:

13. If you are not planning to change current operations, why do you not expect to grow/change your business?

14. Do you have any other comments to make about operating your business of the Isle of Wight, in particular from an infrastructure perspective?

15. Would you be willing to be contacted by the LEP and/or Lichfields to discuss your responses in more detail?

16. If yes, please provide your contact details below:

Contact name

Telephone

E-mail address

Thank you for taking the time to complete the survey.

Appendix 3: Business Survey Feedback Summary

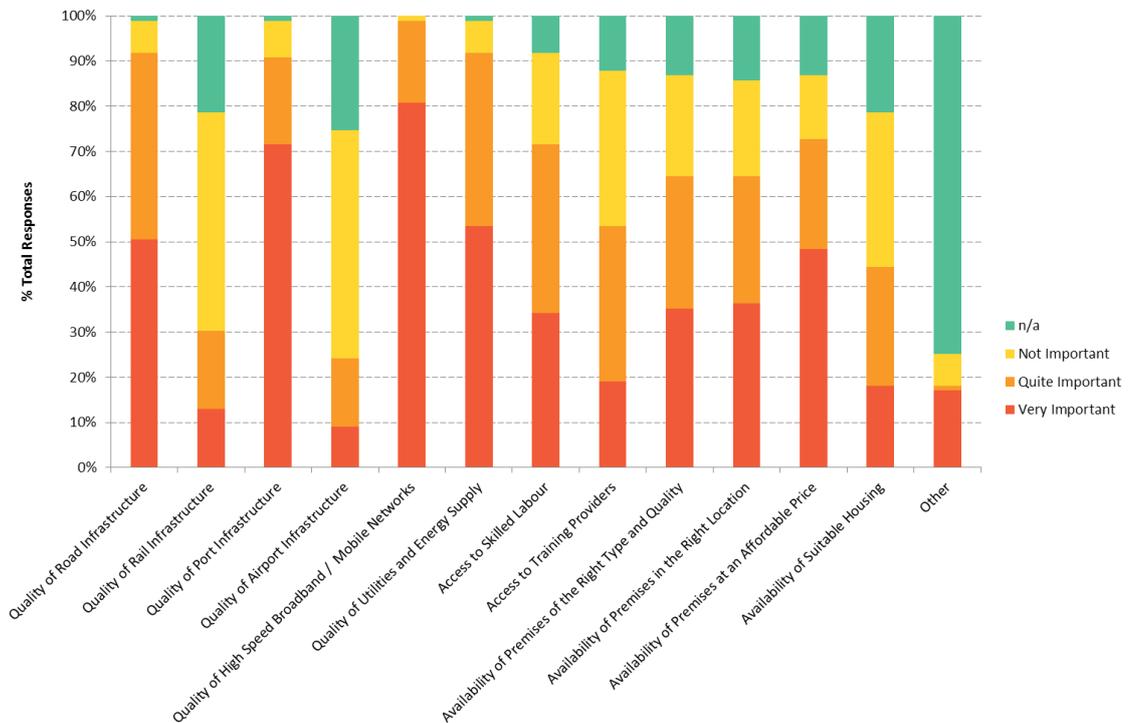
This appendix summarises some of the key findings of a survey of businesses on the Isle of Wight undertaken in June 2017 to inform this report. An electronic survey form was designed to seek views on the relative importance of different types of infrastructure to current and future business operations, and their views on the quality of the existing provision and where improvements could be focused. The survey was distributed widely using contact databases held by the Isle of Wight Chamber of Commerce, Visit Isle of Wight and Natural Enterprise.

The headline findings are set out below based on a total of 114 completed responses.

Critical factors for business operations

Figure A3.1 shows the breakdown of responses in terms of critical factors for day-to-day business operations. The most significant factors identified by respondents comprised access to high speed broadband and mobile networks, quality of port infrastructure, quality of utilities and energy supply and quality of road infrastructure. Conversely, the quality of airport and rail infrastructure was generally regarded as the least important factors albeit this may reflect the limited current provision of both of these.

Figure A3.1 How important are the following factors for the day-to-day operations of your business?

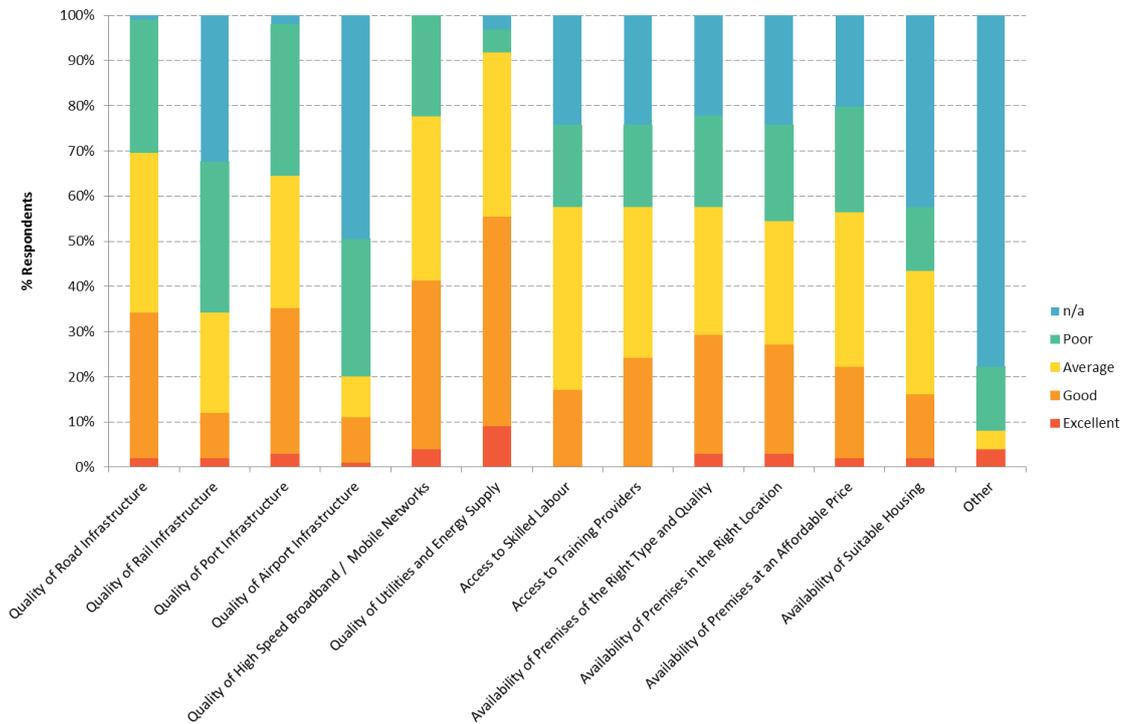


Source: Lichfields analysis

Quality of existing infrastructure provision

Figure A3.2 overleaf shows respondents' views on the relative quality of different types of existing infrastructure. In general terms, the proportion of respondents citing 'excellent' was very low, but quality of utilities/energy, high speed broadband/mobile and port and road infrastructure received the highest share of 'good' and 'average' ratings. However, road, rail and port infrastructure also each received 30% of responses indicating that quality was 'poor'. Access to airport infrastructure and availability of suitable housing received the highest proportions of 'not applicable' responses.

Figure A3.2 How would you rate your current access to the following?



Source: Lichfields analysis

Barriers to growth

Businesses were asked whether they face any barriers or issues in terms of operating on the Island (Table A3.1). In response, 83% of respondents indicated ‘yes’ and 17% indicated ‘no’. Of those indicating they faced barriers, two thirds of respondents cited mainland access as the main barrier.

Table A3.1 What difficulties or barriers do you face?

Issue	Number of responses	% Total
Broadband/Mobile Access	3	3.4%
Mainland Access	59	67.0%
Access to Suitable Premises	3	3.4%
Low Wage Economy	3	3.4%
Access to Suitable Workforce	6	6.8%
Planning	2	2.3%
Floating Bridge	2	2.3%
Local Authority	1	1.1%
Lack of Tourists	2	2.3%
Availability of Land for Development	1	1.1%
Access to Funding and Grants	2	2.3%
Training Providers	1	1.1%
Image of the Isle as a Business Location	1	1.1%
Road Infrastructure	1	1.1%
Business Support	1	1.1%

Source: Lichfields analysis

In turn, businesses were asked what they considered would help overcome the identified barriers. Over a third of responses indicated improvements to cross-Solent access, while a quarter cited improvements to ferry services. A smaller number of responses indicated a non-profit ferry company should be introduced, and improved training provision was also identified.

Table A3.2 What do you think could be done to help overcome these barriers?

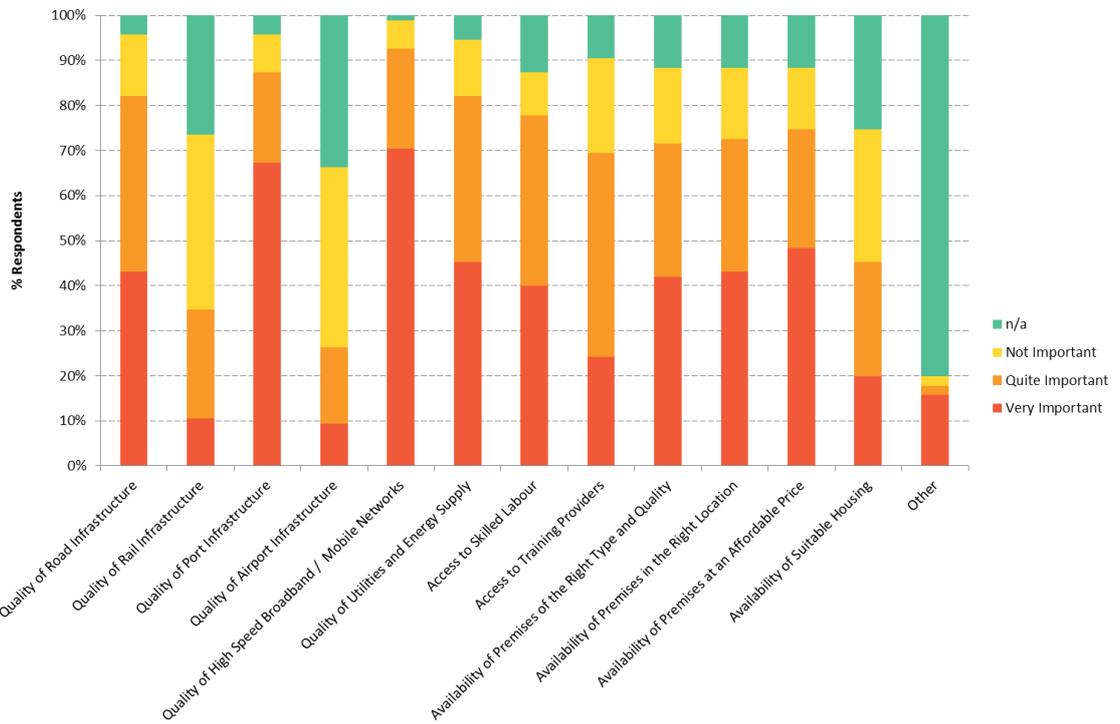
	Number of responses	% Total
Improve cross-Solent access	35	35.7%
Non-Profit Ferry Company	6	6.1%
Improved Training Provision	6	6.1%
Government Investors	1	1.0%
Easier Planning System	3	3.1%
Broadband / Mobile Network Investment	1	1.0%
Improve Ferry Service	26	26.5%
Better Floating Bridge	2	2.0%
Local Authority Awareness	1	1.0%
Tourist Infrastructure Investment	1	1.0%
More Development Land	1	1.0%
Second Medina Crossing	1	1.0%
Increased Investment	1	1.0%
Promote the Island as a Business Location	1	1.0%
Better Access to Finance	2	2.0%
Business Support Services	2	2.0%
Develop New Business Premises	3	3.1%
Smart Grid	1	1.0%

Source: Lichfields analysis

Future infrastructure priorities

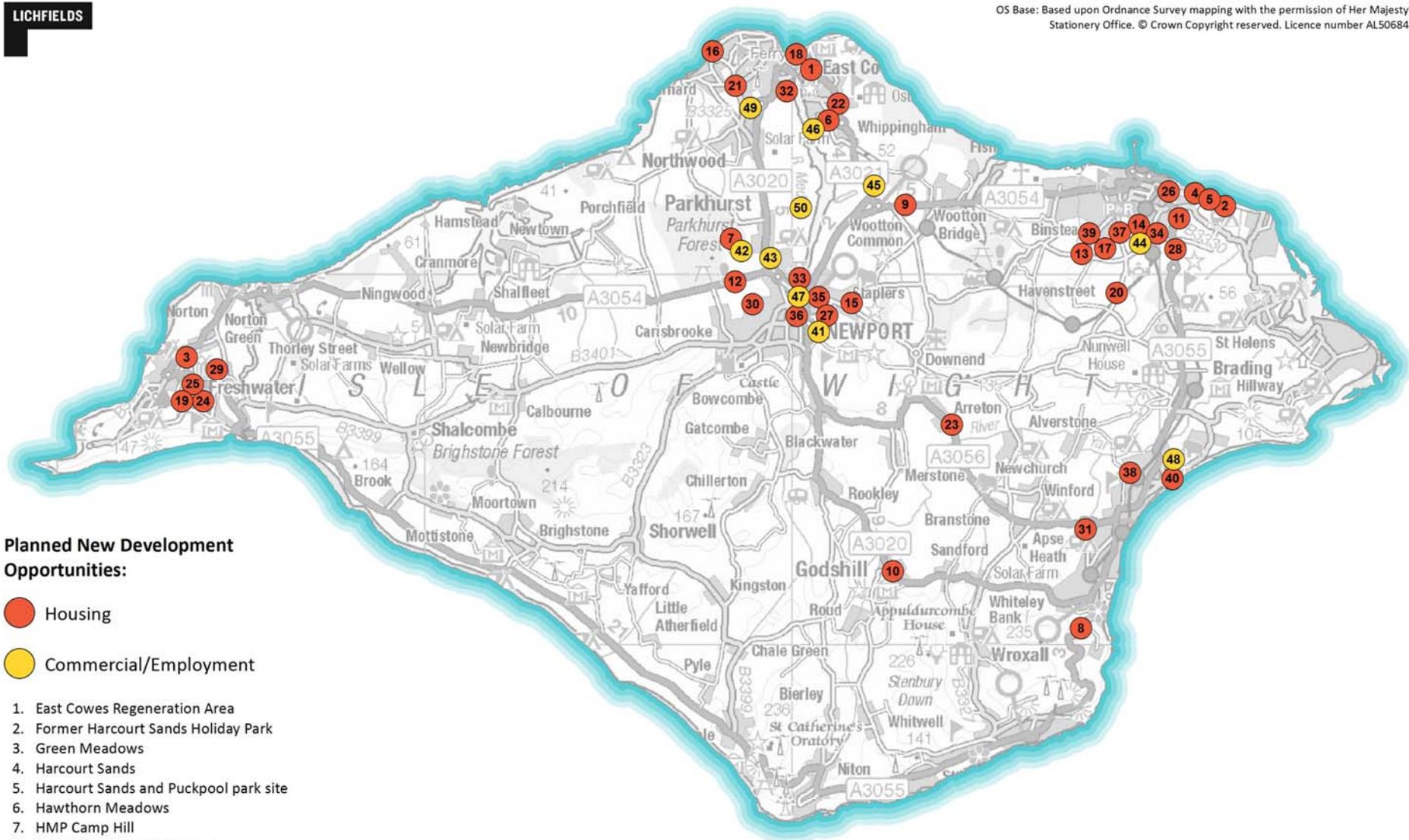
Businesses were asked how important different types of infrastructure will be to enabling the future growth of their operations, with a summary of responses shown in Figure A3.3 overleaf. Quality of broadband/mobile, port infrastructure and roads were rated by the largest share of respondents as either 'very' or 'quite' important. As above, rail and airport infrastructure were regarded as least important. Beyond these, about 40% of respondents indicated that roads, utilities/energy, skilled labour and access to training providers were regarded as 'quite important'.

Figure A3.3 How important do you think the following factors will be in enabling your business to grow on the Island?



Source: Lichfields analysis

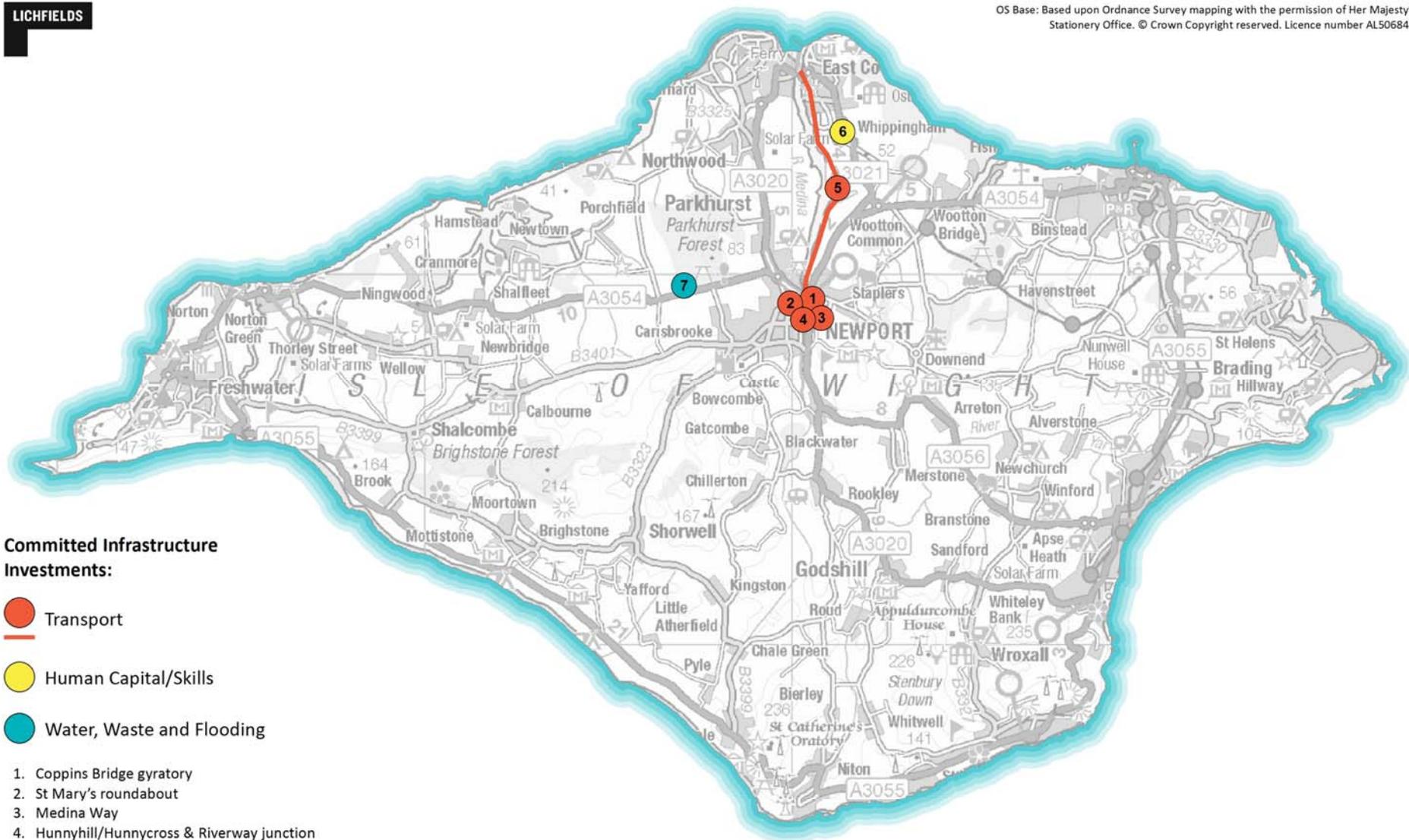
Appendix 4: Mapping



Planned New Development Opportunities:

- Housing
- Commercial/Employment

- | | | |
|--|--|---|
| <ol style="list-style-type: none"> 1. East Cowes Regeneration Area 2. Former Harcourt Sands Holiday Park 3. Green Meadows 4. Harcourt Sands 5. Harcourt Sands and Puckpool park site 6. Hawthorn Meadows 7. HMP Camp Hill 8. Land adjacent Church Road 9. Land adjoining Lushington Hill & Hunters Way 10. Land at Deacons Nursery 11. Land at Hope Farm, Hope Road 12. Land at Little Kitbridge, Newport 13. Land at Millhouse Farm, Upton Road 14. Land at Rosemary Vineyard & Sharon Orchard, Ashley Road 15. Land at Staplers Heath, off Staplers Road 16. Land at The Esplanade 17. Land at Upton Road 18. Land between Castle Street and Church Path 19. Land between Court Road and Spinfish Lane 20. Land between Weeks Road and Ashley Road 21. Land fronting Place Road 22. Land off Whippingham Road and Crossways Road | <ol style="list-style-type: none"> 23. Land south of Hazely Combe 24. Land to east of Football Club, Camp Road 25. Land to south of Clayton Road 26. Land to the rear of St Mary's Convent 27. Land to the south east of Newport 28. Land to west of Westridge ('Pennyfeathers') 29. Land west of Regina Road 30. Land west of Sylvan Drive 31. Land west of Whitecross Lane 32. Medina Yard 33. Newport Harbour and County Hall car parks 34. Nicholson Road Employment Allocation 35. Polars Guest House and Blind Home 36. Pyle Street Locality Hub | <ol style="list-style-type: none"> 37. Rosemary Vineyard, Sharon Orchard & Trotters Riding School, Smallbrook Lane 38. Sandham Middle School 39. Upton Road 40. Wight City Leisure Centre 41. East of Pan Lane 42. HMP Camp Hill 43. Horsebridge Hill and St Mary's Hospital 44. Industrial Estate Extension (Nicholson Road) 45. Island Technology Park 46. Kingston Marine Park 47. Newport Harbour and County Hall car parks 48. Sandown Industrial Area 49. South of Three Gates Road 50. Stag Lane |
|--|--|---|



Committed Infrastructure Investments:

- Transport
- Human Capital/Skills
- Water, Waste and Flooding

1. Coppins Bridge gyratory
2. St Mary's roundabout
3. Medina Way
4. Hunnyhill/Hunnycross & Riverway junction
5. Newport - east Cowes cycle route (SMART Corridor)
6. Centre of Excellence for Composites, Advanced Manufacturing and Marine (CECMM)
7. Forest Park waste treatment and new energy recovery facility

Appendix 5: Infrastructure Project Descriptions

Project	Description
Island Line - sustainable investment option	Investment in the existing Island railway line to prevent service failure of life expired assets.
Ryde Esplanade Interchange Improvements	Replacing outdated ticketing and retail facilities, improving the public realm and designing more coordinated pedestrian and public transport networks.
Bus Rapid Transit - lite bus priority measures Ryde-Newport-Cowes	Combination of on-street priority measures, sections of busway and use of segregated alignments. Electric bus service between Red Jet Terminal in Cowes and Newport via an improved segregated route.
Integrated Transport Network	Seamless travel by mode: integration of timetables and ticketing. Infrastructure pump-priming of software and hardware, subject to operators committing to an integrated plan.
Fixed link across the Solent (road/tunnel)	Creation of a fixed link between the Island and the mainland, in the form of a bridge or tunnel.
Immersed tube pedestrian subway connecting east and west Cowes	Distributor idea for the freedom tunnel, but could represent an infrastructure project/scheme in its own right to encourage economic interaction either side of the Medina River.
Medina Bridge	Road bridge conceived as a part of the distributor network for the fixed link proposal, but it could represent an independent transport infrastructure scheme.
Electric car and cycling charging points	Solar charging facilities for electric cars and bicycles. This could build on e-bike initiatives already on the Island eg Red Squirrel e-bikes.
Shanklin/Sandown Park and Ride	New park and ride facility to consolidate seafront parking and free up Esplanade sites for redevelopment. Could involve use of electric buses.
Real Time information at bus stops	Facilities to display 'real time' journey and traffic information at bus stops across the Island.
SCOOT review with bus signal priority	Split Cycle Offset Optimisation Technique for managing and controlling traffic signals in urban areas - responding automatically to fluctuations in traffic flow through the use of on-street detectors embedded in the road.
Signalised bus gate on the inbound section to Newport after St Mary's junction	A signalised bus gate on the inbound section to Newport after St Mary's junction to provide significant timings and reliability improvements.
Newport - Medina Way/Forest Road/Parkhurst Road - ability for buses to turn right	Incorporation of ability for buses to turn right outbound from Newport - Medina Way/Forest Road/Parkhurst Road to cut public transport journey times.
Cycle access to IW College at Whippingham	Potential for a package of measures to encourage more students to cycle, including better lighting, link to N-EC route, possibly funding incentives for bike purchase.
Newport - Freshwater shared cycle/walk route	Shared cycle and walk route to link Newport with Freshwater and encourage sustainable travel between the two settlements.
Industrial Estate Extension (Nicholson Rd) - Transport and traffic access mitigation	May require public sector investment in transport/highways infrastructure to unlock site for commercial development.
Kingston Marine Park - Hoist dock to facilitate access to deep water	A hoist dock is required to facilitate access to deep water and open up the site for commercial development.
Land to west of Westridge ('Pennyfeathers') - Road infrastructure improvements	Road infrastructure improvements required at Smallbrook Lane, Marlborough Road and Westridge Cross to unlock site for development.
Land to south of Clayton Road - Improvements to immediate surrounding local road network	Improvements to immediate surrounding local road network may be required to unlock site for development.
Land at Little Kitbridge - Improvements to surrounding local road network	Improvements to surrounding local road network may be required (depending on access proposals) including Hunnyhill / Foxes way junction to unlock site for development.
Land adjoining Lushington Hill & Hunters Way - Improvements to Lushington Hill / Palmers Road junction	Improvements to Lushington Hill / Palmers Road junction may be required, recognising the delays that occur at peak time at the Cedars junction to unlock site for development.
Land at Rosemary Vineyard & Sharon Orchard, Ashley Road - Improvements to surrounding road network	Improvements required to surrounding road network (particularly Smallbrook roundabout) to unlock site for development.
Land west of Sylvan Drive - Anticipated impact on wider road infrastructure of Newport	Improvements required to wider road infrastructure of Newport (inc Hunnyhill / Foxes way junction) to unlock site for development.
East Cowes Regeneration Area - Highways infrastructure and related public realm works	Infrastructure works required relating to highways and ferry terminal / marshalling to unlock site for development, including associated public realm works.
Cowes and Yarmouth Temporary Flood Barriers	Cowes and Yarmouth are at significant risk of flooding over the next century - this scheme would reduce risk to residential properties.
Cowes and East Cowes Property Level Protection areas	Flood mitigation measures to individual properties to reduce the risk of flooding on a property level (i.e. door flooddefenders etc).
Gurnard to Cowes refurbishment	To reduce the significant risk of erosion over the next century - refurbish the existing seawall when it reaches the end of its residual life (between 2025 and 2055).
Bouldnor Road refurbishment	To reduce the significant risk of erosion over the next century - maintain and refurbish the wall in front of Bouldnor Road.
Environmentally sensitive dredging of key waterways and harbours	Environmentally sensitive dredging of key waterways and harbours across the Island, especially the Medina, to facilitate access to key development sites and marine-related businesses in these locations.
HMP Camp Hill - Network upgrades required within the site	Water, Waste and Flooding network upgrades required to unlock site for development.
Newport Harbour and County Hall car parks - Flood risk requires mitigation	On-site flood risk requires mitigation to unlock site for development.
Newport Harbour and County Hall car parks - Dredging and harbour wall maintenance	Dredging and harbour wall maintenance required to unlock site for development.
Stag Lane - land decontamination required to bring forward development	Land decontamination works required to unlock site for development.
Industrial Estate Extension (Nicholson Rd) - Flood risk mitigation	Flood risk mitigation work required to unlock site for development.
East of Pan Lane - off-site utilities infrastructure	Insufficient existing capacity in the water distribution system to meet anticipated demand from development - off-site infrastructure required to connect to the nearest point of adequate capacity.
Sandown Industrial Area - Flood mitigation work required	Flood risk mitigation work required to unlock site for development.
East Cowes Regeneration Area - Flood risk prevention measures	Flood risk prevention measures required to unlock site for development.
High voltage undersea interconnector	To relieve and unlock additional Cross-Solent electricity capacity.
Large scale battery storage facilities	To support the Island to become more self-sufficient in terms of energy generation and distribution.
Using surplus energy to power public transport	Alternative, cheaper and more flexible transport modes that exploit the Island's electricity surplus, such as electric bikes, hydrogen buses and hire cars.
HMP Camp Hill - Network upgrades required within the site	Energy network upgrades required to unlock site for development.
Industrial Estate Extension (Nicholson Rd) - utilities infrastructure	May require public sector investment in utilities infrastructure to unlock site for commercial development.
Satellite broadband coverage for rural areas	Potential solution to rural broadband constraints where it is excessively costly to directly connect premises with fibre to the main network.
Radio broadband coverage	Investing in technology to provide a solution to rural broadband connectivity on the Isle of Wight.
Provision of dedicated Higher Education facility (inc degrees)	Provision of dedicated, separately branded Higher Education facility that builds on linkages with existing universities on the mainland.

Bristol
0117 403 1980
bristol@lichfields.uk

Cardiff
029 2043 5880
cardiff@lichfields.uk

Edinburgh
0131 285 0670
edinburgh@lichfields.uk

Leeds
0113 397 1397
leeds@lichfields.uk

London
020 7837 4477
london@lichfields.uk

Manchester
0161 837 6130
manchester@lichfields.uk

Newcastle
0191 261 5685
newcastle@lichfields.uk

Thames Valley
0118 334 1920
thamesvalley@lichfields.uk