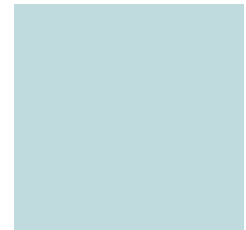
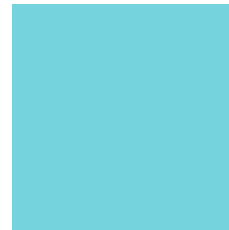
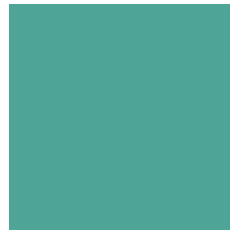


Infrastructure Plan

Part of the strategic plan for the
Isles of Scilly
May 2014



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This report has been prepared by:



In association with:



I. INTRODUCTION

Ash Futures, with Three Dragons, was commissioned in 2014 by the Council for the Isles of Scilly to undertake this study into the infrastructure supporting the population, visitors and businesses on the Isles of Scilly. This work is one part of a series of three linked studies, with a Strategic Economic Plan and a Housing Plan. Accompanying this document is a GIS based record of the location of infrastructure on the Isles of Scilly, which is a live tool to assist the Council for the Isles of Scilly and service providers in maintaining and enhancing the infrastructure.

The report draws upon consultation, review of previous research/strategies and web-based research.

Defining Infrastructure

Infrastructure includes all types of services necessary to deliver the strategic planning and economic development objectives for the Isles of Scilly. Table I.1 shows the different types of infrastructure under each category.

Table I.1 Infrastructure included in the Infrastructure Plan

Physical Infrastructure	Social Infrastructure
Highways	Education (primary, secondary, tertiary and early childhood)
Public transport	Health – acute and primary
Water supply and sewerage	Social care facilities
Energy supply	Ambulance
Waste management	Police
Telecommunications	Fire
Flood alleviation	

The following chapters in this report consider the current provision and plans for future enhancement.

2. HIGHWAYS AND PUBLIC REALM

Introduction

Access to a car or van is much lower on the Isles of Scilly compared to Cornwall or the England and Wales average – 42% of the population did not have access to a car or van in 2011 compared to 12% in Cornwall and 19% in England and Wales¹. Compared to 2001², when 46% of people did not have access to a car or van, Isles of Scilly residents have increased access to private transport although the change is less pronounced than in Cornwall (from 20% to 12%) and across England and Wales (from 27% to 19%). 2003 information³ suggested that there were about 600 cars on St Mary's, while 2014 DVLA information⁴ states that there are 1,253 vehicles on the five islands. Even accounting for the different geography and vehicle categories, this suggests a considerable increase although private vehicles are still less used than on the mainland.

The responsibility for roads on the Isles of Scilly is shared as follows:

- St Mary's – approximately 14.5 Kms (nine miles) of paved roads are maintained by the Council
- St Agnes, Bryher and St Martins – the limited road network is made up of permissive routes from the Duchy of Cornwall
- Tresco - the limited road network is made up of permissive routes from the Tresco Estate

The 2011 Strategic Transport Framework⁵ refers to a Coarse Visual Inspection of the Highways on St Mary's. This rated the highways outside of Hugh Town as 'good' with conditions in Hugh Town itself 'fair'. However, there are some locations at the very local level where the quality of the roads is poor. The Council currently receives around £63,000 a year for maintenance⁶ which is considered by the Council to be insufficient to keep roads maintained to current standards. Consultation undertaken as part of the Strategic Transport Framework suggested that increased numbers of cars generally and parking problems in Hugh Town are becoming an issue.

The 2011 Strategic Transport Framework also indicates that on St Martin's and St Agnes there are concrete roads in places often with two wheel strips rather than full width concrete and with significant variation in the condition between islands. Bryher has large sections of track rather than concrete road. There are locations on St Agnes and Bryher where the road condition is breaking up rapidly. In the past, the Duchy has entered into a loose arrangement with residents whereby materials are supplied for residents to undertake patched repairs. The approach of using concrete paving on the off-islands has the merit that it requires limited plant and can be constructed by local labour. The Duchy spends about £15,000 pa on repairs, renewal and extensions to the road network⁷.

On Tresco the roads are managed by Tresco Estate and it is understood that the condition is broadly fit for the use by the limited estate traffic.

¹ Census 2011

² Census 2011

³ Council of the Isles of Scilly 2003. Moving On

⁴ Council of the Isles of Scilly 2014

⁵ WSP on behalf of the Council of the Isles of Scilly, 2011, The Isles of Scilly Strategic Transport Framework

⁶ WSP on behalf of the Council of the Isles of Scilly, 2011, The Isles of Scilly Strategic Transport Framework

⁷ Duchy of Cornwall, personal contact

Future

The re-surfacing of the runway at the airport on St Mary's has provided an opportunity to utilise the plant and materials economies of scale to resurface roads on St Mary's. This work is to be undertaken during 2014.

The relatively short distances on the Isles of Scilly provide the opportunity to de-carbon transport, through the provision of electric charging points and encouragement of electric vehicles. This would require the development of a project to install the charging points and to incentivise the replacement of internal combustion vehicles with electric vehicles. An indicative amount of £25,000 to test the feasibility is suggested.

The Strategic Transport Framework⁸ outlines measures to improve the environment for pedestrians and cyclists and address parking problems:

- Traffic calming measures and widening footpaths
- Designate / create new pedestrian and cycle routes or create shared surface treatments as an alternative to segregated provision
- Enhance cycle parking provision
- Enforcing existing parking restrictions in Hugh Town.
- Additional restrictions on Hugh Street

The Strategic Transport Framework did not provide costs for this work and some of the tasks described can be undertaken to a variety of scales. A Hugh Town Traffic Management study was proposed to develop these plans. A budget of £35,000 is proposed to take this forward.

An addition to these measures could include the identification of alternative locations for parking in Hugh Town.

An early indicative estimate of £1m is suggested, to be clarified as part of a Hugh Town Traffic Management study.

Summary

Table 2.1 Highways and Public Realm Infrastructure

Project	Cost	Funding	Timetable
St Mary's re-surfacing		Council	2014
Electric Vehicles Feasibility Study	£25,000	Council	2015-20
Hugh Town Traffic Management study	£35,000	Council	2014-15
Hugh Town Public Realm	£1,000,000 (indicative estimate)	Council	2015-20

⁸ WSP on behalf of the Council of the Isles of Scilly, 2011, The Isles of Scilly Strategic Transport Framework

3. PUBLIC TRANSPORT

Introduction

This transport chapter includes scheduled air and sea services to the Isles of Scilly as well as inter island services and bus services.

Air transport to the Isles of Scilly

The airport on St Mary's is operated by the Council of the Isles of Scilly with fixed wing air services (Skybus) provided by the Steamship Company. Prior to November 2012 there was also a helicopter service from the airport to Penzance. Skybus operates from Newquay, Land's End and Exeter for up to six days per week. The service to Exeter is seasonal between April to October. In the past there have been services to Southampton and Bristol.

The St Mary's airport has a 600 metre long and 23 metre wide main asphalt runway, with a second runway of 523 metres. There are no Sunday services, although in 2013 the Council of the Isles of Scilly Transport Committee voted in favour of allowing Sunday flying. Revenue costs for opening the airport on Sundays are £74,000 per year⁹.

The Strategic Transport Framework¹⁰ identifies the issues as:

- The current configuration and infrastructure at the airport for aircraft and air services, where the runway length limits the size of aircraft and the orientation can lead to problems with crosswinds
- The current facilities for passengers / handling of freight and the potential to improve the journey experience and ensure safety and security for passengers
- The possibility of operating the airport on Sundays, to extend the range of visitor options
- Access to services on the mainland for residents. Particularly transport connections, health care, education and retail facilities which are currently accessible via helicopter services to / from Penzance
- The potential for larger and or faster planes or helicopters to serve the airport in the longer term and the potential implications for infrastructure. Larger aircraft could serve a wider range of destinations and potentially reduce costs per passenger.

Discussion with the Steamship Company has indicated that although being able to fly direct is a draw for passengers, flight times and carrying capacity issues would affect the economics of routes from much further afield.

Current work to the airport on St Mary's will provide navigation, runway and terminal improvements. This is also part of a project that includes improvements to the airport at Lands' End, which will have the grass runway surfaced. These improvements will increase the resilience of the air service although it is still likely to be vulnerable to weather conditions. About £7m of ERDF funding has been used for this project, of which over £3.3m will be on runways, civil engineering, lights and navigational aids; £600,000 on fees and £2.8m on the terminal building¹¹.

⁹ <http://committees.scilly.gov.uk/documents/s12759/Airport%20Seven%20Day%20Operation.pdf>

¹⁰ WSP on behalf of the Council of the Isles of Scilly, 2011, The Isles of Scilly Strategic Transport Framework

¹¹ <http://www.bbc.co.uk/news/uk-england-cornwall-23252556>

Sea transport to the Isles of Scilly

Harbour and Quay Facilities

The main facility for sea transport on the Isles of Scilly is the Duchy of Cornwall's harbour at Hugh Town on St Mary's. In addition there are a total of 12 usable quays. All of these are the responsibility of the Duchy of Cornwall except for the lower quay on St Martin's, which is the responsibility of the hotel. Quay manning at St Mary's is currently provided by the Steamship Company and serves both the mainland freight and inter island freight.

The current project to extend the main quay by 23m will provide increased water depth and improved protection to vessels. It is linked to similar work in Penzance harbour which will provide similar benefits in that location. The project at St Mary's harbour also includes better freight and passenger facilities. These improvements are seen as important for the provision of a future replacement vessel(s) for the service between St Mary's and Penzance. The cost of the works at St Mary's is £10.8m¹², met through Department for Transport, Department for Communities and the European Regional Development Fund.

Quays on Bryher, St Agnes and St Martins benefited from a Duchy of Cornwall £3.5m renovation project in 2006-2008 to improve operational safety and reduce maintenance. The quays were Church Quay on Bryher; Anneka's Quay on Bryher; Higher Town Quay on St Martins; and Porth Conger Quay on St Agnes¹³. Separately, Tresco Estates invested £1m on the renovation of Carn Near Quay.

New Grimsby Quay on Tresco requires improvement with an indicative budget of £1m¹⁴.

Sea Passenger Transport

Sea passenger transport is provided by the Scillonian III, which is operated by the Steamship Company and is certified for over 400 passengers. The vessel design is for 600 passengers and the certification could be extended subject to the necessary investments. The service runs from March to November each year for between one to six days per week.

The Scillonian is due for replacement although it is certified until 2018/19 and, if necessary, this certification could be extended.

Freight

A regular year round freight service to the St Mary's is provided by the Steamship Company through the Gry Maritha. This service brings a variety of supplies including food, household goods, business supplies and building materials. The Gry Maritha also has six passenger seats. Other freight vessels may run between the Isles of Scilly and the mainland, generally through special arrangement (such as the vessels currently used to transport the waste backlog to the mainland).

The Gry Maritha is due for replacement although it is certified until 2018/19 and, if necessary, this certification could be extended.

Inter-island transport

Inter-island passenger transport is primarily provided by private boats operating from each of the five main islands. These vessels are licensed by the Council of the Isles of Scilly and boats will generally work in association with other boats based on the same island or formed together into island-based

¹² Cornwall Council, November 2013, Report to Cabinet

¹³ http://www.cgrgroup.com/Viewproject/Europe/UK/Off_Island_Quay_Renovations_Isles_of_Scilly_United_Kingdom

¹⁴ Tresco Estates, 2014, personal contact

companies. Tresco Estate has recently bought Bryher Boats, which changes the historic pattern. There is an agreement between the boat operators not to commence trips from other islands although return legs are permitted.

Scheduled boat services operate at set times and charge a standard return fare of about £10 depending on the service. These services are provided to support shopping and social trips through the week but the services are generally not suitable for commuting.

The 2011 Strategic Transport Framework¹⁵ noted that outside the main tourist season, personal travel is perceived as irregular and costly which can affect those who live on the off-islands and commute to work or access services (e.g. medical / shopping) on the St Mary's or mainland. While users of the scheduled services will pay around £12 a day if regular fares are charged, if a special is required this will be around £40, with the individual charge depending on the number of passengers (usually there is minimum charge per person). St Agnes boating has taken the lead on providing online information and booking service for passengers and tourists via a website as well as using mobile phone services.

In addition to the individual passenger services, the Council, Duchy of Cornwall and other organisations will also make considerable use of regular and special services in the course of their business (e.g. education and social services).

Inter-island freight services are typically provided three times per week by the Steamship Company's Lyonesse Lady as an extension to the service by the Gry Maritha from the mainland. The Council provides a subsidy of £19,900 annually towards the running of off-island freight service¹⁶. In addition a separate boat service is used for inter-island postal services on a commercial basis.

Buses

There is a privately run community bus service on St Mary's providing a service around the island between Easter to October. This runs in one direction only around St Mary's although the bus has some flexibility to take people to where they want to go. There are also twice daily visitor coach trips around the island during the summer only, with no service on Sundays. There is an airport bus service taking people to and from the airport on a fixed fee basis, with the timetable based on the flights taking place. All these services are operated on a commercial basis without subsidy.

Age Concern Cornwall & Isles of Scilly operate a dial-a-ride service on St Mary's, known as Buzza Bus. The service is available for Isles of Scilly permanent residents aged over 60 or with mobility problems. Other public transport on St Mary's is via local private hire vehicles.

There is no formal public transport on Bryher, St Agnes, St Martins or Tresco.

Future

Air travel to the Isles of Scilly

Theoretically larger aircraft may be able to provide a better air service as a result of lower costs per passengers, access to a wider range of airports (including those easily reached by larger markets in south east England and the Midlands) and through being less vulnerable to weather conditions. The main issues with using larger aircraft are:

- The currently available range of larger aircraft would require significantly longer runways which would be difficult and expensive to provide on the current site due to the cliff top coastal location

¹⁵ WSP on behalf of the Council of the Isles of Scilly, 2011, The Isles of Scilly Strategic Transport Framework

¹⁶ WSP on behalf of the Council of the Isles of Scilly, 2011, The Isles of Scilly Strategic Transport Framework

and the surrounding topography. However, discussions with the Steamship Company indicate that should the runway be extended, the likely benefits would be constrained by the significantly increased operational costs which would be spread over a relatively small number of flights

- Demand for air services is made up from residents and visitors to the islands. The visitor demand is constrained by the availability of accommodation and the seasonal nature of holiday taking. The Steamship Company suggests that viable demand for larger aircraft would be just during the summer, which would not justify the costs of obtaining the aircraft or making the St Mary's airport changes

A return of the helicopter service may provide benefits through choice of routes and the ability to fly in a wider range of weather. However there are no known plans or operators proposing scheduled helicopter flights. Discussions indicate that start-up costs and high operational costs are likely to be serious constraints.

The best prospect opportunities to improve air services are considered to be:

- Sunday flying, which would increase capacity by up to 17%. The Steamship Company has plans that can be operationalised subject to provision of air traffic control cover. Additional costs would be revenue rather than capital.
- Route development work to increase demand to existing destinations as well as re-instating flights to Bristol and Southampton. Southampton in particular is favoured because of the good connectivity through Southampton Parkway Station for services to London
- Through ticketing to pick up links to other destinations on the mainland

Pursuing these opportunities will require revenue rather than capital funding and will be primarily the responsibility of the private sector (although there may be a case for some public sector / Islands' Partnership support to de-risk development of new routes as well as provision of air traffic control services to enable Sunday flying).

Sea Travel to the Isles of Scilly

Replacement or renewal of vessels serving the Isles of Scilly will require considerable capital expenditure. This will be the responsibility of the private sector, which will use a combination of equity and borrowing, with costs met through charges to the users. Decisions about the type of vessel are yet to be taken although there has been discussion about:

- Replacing the current passenger and freight vessels with new equivalents.
- Replacing the current system of one passenger and one freight vessel with a single hybrid vessel

Inter-island Travel

The Strategic Transport Framework¹⁷ outlines measures to improve the provision of year round inter-island passenger and freight services:

- Better co-ordination and negotiation of Council boat service procurement, possibly in partnership with other organisations such as the Duchy of Cornwall and other public sector service providers.
- Establish a Council boat share database to assist bookings, available to residents and other organisations as well.
- Establish a real time website for disseminating information about boat times to all off-islands similar to that already in place for St Agnes.

¹⁷WSP on behalf of the Council of the Isles of Scilly, 2011, The Isles of Scilly Strategic Transport Framework

- Council support for basic services (i.e. for daily return trips between each off island and St Mary's) during the winter months.

Pursuing these opportunities will require revenue rather than capital funding, with the exception of the real-time website which has an estimated cost of £3,000 to £4,000 ¹⁸.

Bus

The Strategic Transport Framework¹⁹ suggests support for a year round community bus (possibly taxi bus). Options include providing an appropriate vehicle, specifying service requirements and tendering. This could operate school run as well and the service could be run by the Council or an existing transport operator under a best value tendered contract. Pursuing this opportunities will require revenue rather than capital funding unless the bus was provided, which may have a capital cost of £20,000²⁰.

Summary

The major issues with air transport relate to extended choice of routes and to Sunday flying. With the exception of Sunday flying, which will require some Council revenue support, the responsibility will be with the private sector and is likely to take place in the short term. Sea travel investment to provide replacement vessel(s) will be considerable but will be the responsibility of the private sector. It is anticipated that new provision will follow the end of the current certification for the Scillonian III in 2018/19.

Inter-island travel investment is required to improve the usability of the service through use of web-based information for users and co-ordination of Council procurement. A project to deliver web-based information can commence in the short term but may need incentives to encourage use by boatmen. A year-round St Mary's community bus service may be timed to take advantage of new housing development at allocated sites (e.g. at Telegraph) and this is considered to be a medium term project. Subject to viability new housing may be able to provide support for the community bus through developer contributions (using s106 or CIL).

Table 3.1 Transport Infrastructure

Project	Cost	Funding	Timetable
Quays – New Grimsby	£1m	Private sector	2015-20
Air travel			
Sunday flying	Revenue	Commercial with some Council funding for airport operation.	2015-16
Route development	Revenue	Commercial	2015-20
Through ticketing	Revenue	Commercial	2015-17
Sea travel – new passenger and freight transport	Unknown	Commercial	2018-19
Inter-island travel - Real-time website	£4,000	Council	2014-15
Bus – New year-round community bus	£20,000	Council	2015-20

¹⁸ WSP on behalf of the Council of the Isles of Scilly, 2011, The Isles of Scilly Strategic Transport Framework

¹⁹ WSP on behalf of the Council of the Isles of Scilly, 2011, The Isles of Scilly Strategic Transport Framework

²⁰ WSP on behalf of the Council of the Isles of Scilly, 2011, The Isles of Scilly Strategic Transport Framework

4. WATER SUPPLY AND SEWERAGE

Introduction

The Council of the Isles of Scilly acts as a Water Authority and supplies drinking water to St Mary's and Bryher. The Council is also responsible for sewerage infrastructure serving part of St Mary's (Hugh Town and Old Town) with the balance using private septic tanks. Tresco Estates provides the water and sewerage services on Tresco. On St Agnes and St Martins water is provided through a combination of the Duchy of Cornwall and private boreholes, and sewerage uses private septic tanks.

Water Supply

The water supply for St Marys comes from the groundwater abstraction wells at Higher Moor and Lower Moor. There are 5 borehole abstraction wells: Venns, Carrs and Hales at Higher Moor and Rocky Hill and Joneys at Lower Moor. Carrs Well is only used in periods of high demand.

The water supply for St Mary's is supplemented by the desalination plant, located on the east side of the island. A new desalination plant was introduced in 2013 at a cost of £723,000, using funding from Defra as part of a wider project. This new unit uses less power and has a greater capacity than the previous unit.

Use of the desalination plant during the off-season allows the groundwater levels to re-charge and reduces the risk of saline intrusion. There are three reservoirs on St Mary's all in the form of above or below ground storage tanks. Water extracted from groundwater boreholes or sea water treated at the desalination plant is all treated and distributed via the water pumping station above Higher Moor.

Investment in St Mary's water infrastructure includes rebuilding Buzza Reservoir in 2013, using part of the same £1.5m funding from Defra that funded the new desalination plant.

There are three water abstraction boreholes on Bryher supplying fresh water to the island. These are all located just to the north east of Great Pool. Two replacement tanks and sampling facilities have been installed on Bryher to improve the water facilities on the island. Two new boreholes have also been drilled for sustainability of the supply and to ensure continuity of the water supply. These works were funded as part of the same 2013 Defra £1.5m project as the works on St Mary's.

Water supply on St Agnes uses the Big Pool SSSI in the north west corner of the island, protected from the north and west by formal defences. The island depends on the aquifer for its fresh water supplies via borehole abstraction.

The water supply on St Martins and on Tresco is drawn from private borehole supplies, supplemented with rainwater collection tanks.

Borehole water supplies are vulnerable to pollution from agricultural chemicals and septic tank seepage, as well as potential contamination from the Moorwell landfill site.

Sewerage

On St Mary's, only Hugh Town and Old Town have a formal piped foul drainage system. All other properties and small holdings rely on private septic tanks, which are not currently subject to independent assessment. The Hugh Town system drains to a pumping station in Porthcressa View (Little Porth), and from there the effluent is discharged at Morning Point on the south east corner of the Garrison. A bio-bubble treatment plant serves Old Town and discharges final effluent into the leat and to Old Town Beach. From this bio-bubble treatment plant, excess effluent is also pumped via a rising main to the Hugh Town foul sewerage system before being pumped to the discharge point at Morning Point.

On St Mary's, Hugh Town has a surface water drainage system with numerous storm drain outfalls on Town and Porthcressa Beaches, and there is a storm drain outfall at Old Town beach.

Tresco is served by a sewerage treatment works which was installed in 1989 by Tresco Estates. This treats 98% of the properties, with the balance served by septic tanks.

Bryher, St Agnes and St Martins sewerage uses private septic tanks.

Regulation

Various key pieces of water law within England that protect public and environmental health have not been fully applied to the Isles of Scilly. Such legislative gaps mean that the Drinking Water Inspectorate (DWI) and Environment Agency (EA) have had no enforcement powers in relation to water on the islands, with the result that residents on and visitors do not enjoy the same level of public health and environmental protection as elsewhere in England. Defra intends to introduce legislation in 2014 applying provisions of the relevant Acts to the Isles of Scilly.

The gaps in domestic water legislation have been the Water Industry Act 1991 (WIA91), the Water Resources Act 1991 (WRA91) and the Environment Act 1995 (EA95) and the relevant provisions will be applied through an Order.

Defra has made an initial assessment of the costs of applying the legislation to the Isles of Scilly and the largest cost impact would be the capital expenditure required to improve the drinking water and sewerage infrastructure. The requirements are:

- Treatment of sewerage discharged through the Hugh Town outfall at Morning Point, for which there is Defra grant of £1m (against an estimated cost of £4m.²¹)
- Improvements to private water supplies.

There will also be revenue costs for new abstraction and discharge licenses.

Without these capital and revenue improvements it is likely that Defra, the Drinking Water Inspectorate and the Environment Agency will not support any further developments on the islands.

Future

Water

The Duchy of Cornwall is proposing to provide desalination plants on St Agnes and St Martins to replace the borehole extraction. As part of this project, it is also proposed to bring together the local networks into whole island networks, in order to distribute the water from the desalination plant. The

²¹ Council of Isles of Scilly estimate, 2014

benefits of this scheme are that water quality is assured, without the risk of sewerage contamination from septic tanks; and water is made available for further agricultural or horticultural use if required. It is intended to extend this project to Bryher (where the Council provide the water supplies) as the same contamination and security of supply issues exist.

Sewerage

In addition to the sewerage requirements identified by Defra, the Council has identified a need for a longer term strategic solution to sewerage treatment for Hugh Town. Separate work²² is being undertaken to determine a strategic solution for Hugh Town sewerage beyond the proposed screening project, which is likely to be a mid-term solution only.

The Council for the Isles of Scilly is considering that small scale sewerage treatment works are provided for the off islands and the smaller settlements on St Mary's in order to reduce the contamination and effluent disposal problems associated with private septic tanks.

Other sewerage projects include fat and grease traps in all business premises to stop the build-up of fat in the sewerage system (joint investment with the private sector), as well as disposal of sewage sludge to generate energy or fuel.

Summary

The major issues with water and sewerage infrastructure relate to:

- New sewerage provision on St Marys.
- The provision of secure water supplies on Bryher, St Agnes and St Martins.
- The provision of sewerage treatment works on Bryher, St Agnes and St Martins.

Table 4.1 Water and Sewerage Infrastructure

Project	Cost	Funding	Timetable
Desalination plants on Bryher, St Agnes and St Martins along with necessary distribution network	Unknown	ERDF/Defra/Council for Isles of Scilly/Duchy of Cornwall/Cornwall and the Isles of Scilly LEP	2015-2020
Morning Point outfall screening	£4m	Defra/ Cornwall and the Isles of Scilly LEP	2014
Strategic sewerage solution for Hugh Town	Unknown	Unknown	2020-2025
Sewerage treatment for Bryher, St Agnes and St Martins along with necessary network	Unknown	ERDF/Defra/Council for Isles of Scilly/Duchy of Cornwall	2015-2020
Fat and grease traps in all business premises, disposal of sewerage sludge	Unknown	Defra/Council for Isles of Scilly/ private sector	2015-2020

The Council for the Isles of Scilly has identified that a budget of at least £15m will be required to address these issues, and the waste infrastructure issues discussed later in this report.

²² Stride Treglowan, 2014

5. ENERGY SUPPLY

Introduction

Electrical power supply is provided to the Isles of Scilly by Western Power Distribution through a 33kV sub-sea cable installed in 1988 with a capacity of 7.5 MW. Current peak loads are about 4.5MW and these occur in the evenings.

The Isles of Scilly are also served by the power station on Hospital Lane on St Mary's, which is operated by Western Power Distribution as a back up to maintain supply if there is a problem with the cable supply from the mainland. This power station used to provide the supply for the islands prior to the sub-sea cable and uses diesel-powered generators with an installed capacity of 5.7 MW.

In addition to the main power station on St Mary's there are two satellite power stations on Bryher and St Agnes respectively, each with twin 180kW diesel generators totalling 360kw (enough for current average demand). St Mary's, Tresco and St Martins are on a loop of power distribution cables, allowing supply to be back-fed if there is an issue with the supply cables. Bryher and St Agnes are on spurs from this loop, and the lack of opportunity to back feed has required the two local back up power stations.

The introduction of the sub-sea cable in 1988 reduced distribution costs and allowed residents and businesses access to standard mainland prices for electricity as well as Economy 7 powered heating. This resulted in a shift in the use of fuels and as a result peak early evening loads have increased from 2.5 MW in 1988 (with a night time load of 400kW) to the current 4.5MW early evening peak and 4.5MW peak night time Economy 7 load. However peak loads remain below the potential capacity and so there is some headroom for further energy consumption that might result from economic activity or increases in population or visitors.

Recent investments in the electrical power system include:

- Bunded yard with interceptor £300,000
- Fuel storage tank £140,000
- Chimney refurbishment £45,000
- Smart Grid metering £1.5m
- Undergrounding 11kv cables at Moorwell site £50,000

Future

The sub-sea cable supplying power to the Isles of Scilly is currently considered by Western Power Distribution to have an engineering policy life of 25 years²³, i.e. 2013. Initial estimates²⁴ suggest that replacement will cost £25m. The standard approach to investment in energy distribution infrastructure is that it is planned as part of the local distribution company's 5-year investment framework. Costs are met through borrowing or equity, and recouped through charges made to distribution throughout the company's area through the pricing framework agreed with the regulator. Initial discussion suggests that delivering a sub-sea cable will use this standard investment and funding arrangement. The next price review by the regulator is in 2015.

In addition it is likely that major investment will be required in the future to provide an effective stand by generator capacity.

²³ Although other sources such as the 2007 Sustainable Energy Strategy for the Isles of Scilly, Isles of Scilly Council suggest that it may be serviceable for up to 40 years.

²⁴ Western Power Distribution, personal contact

Renewable Energy

The Sustainable Energy Strategy for the Isles of Scilly²⁵ includes local renewable energy generation and reducing demand through energy efficiency measures. Off shore renewables are considered to have potential and will provide economic as well as energy benefits. Other opportunities noted in the strategy include bio-energy crops. The Strategy refers to an assessment that indicated that the waters around the Isles of Scilly as providing a good resource for wave and tidal energy²⁶.

There are proposals for a wave energy project with an installed capacity of 1.95 MW to be located 0.22 nautical miles off the coast of St Mary's, near the airport. The programme for delivery of this scheme is dependent upon Crown Estate (which leases the seabed) as well as regulatory authorities and the wave energy park developer's plans. The scheme developer is proposing to apply for a lease from Crown Estates in September 2014²⁷.

Subject to successful delivery of the first phase of the project, there may be opportunities for a larger subsequent phase with shared ownership by local stakeholders and investors.

The Sustainable Energy Strategy also considers use of combined heat and power fuelled by domestic and business waste. However, like bio-energy crops, there is no combined heat and power project planned at the current time. There is no audit of the proportion of buildings suitable for solar PV or solar hot water, or the proportion of these that have already installed systems. However general observation suggests that there are further opportunities although it is recognised that deployment may be constrained by the reported higher general building costs on the Isles of Scilly. There may be the opportunity for a large scale initiative to generate economies of scale but at the time of writing no such project is planned. Other renewable opportunities for the Isles of Scilly include ocean thermal energy, exploiting the changes in water depth.

As the amount of domestic/micro renewable energy provision increases it may be appropriate to make use of smart grid technology, which creates local grids that can operate independently. In the medium term it will be important to assess the commercial viability of smart grid systems.

Summary

The major issues with the current electricity supply relate to the need for a new sub-sea cable from the mainland and a replacement for the back-up power station on St Mary's. These are likely to be delivered and funded by Western Power Distribution as part of the standard investment programme.

While the Sustainable Energy Strategy for the Isles of Scilly considers a variety of renewable energy projects, the only current prospect is for a small wave energy scheme off St Mary's and this is at early stages of planning with no certainty of delivery. However if it is able to gain consent and obtain Crown Estate leases then it is planned that it will be delivered through commercial funding. Subsequent phases may provide opportunities for local investment.

Table 5.1 Energy Infrastructure

Project	Cost	Funding	Timetable
Sub-sea cable	£25m	Commercial	2015-20
Wave Energy Park	Unknown	Commercial	Unknown

²⁵ Isles of Scilly Council, 2007, Sustainable Energy Strategy for the Isles of Scilly

²⁶ SWRDA, 2004, Seapower South West Review

²⁷ Note that Crown Estates will normally use a staged process, whereby a proposed development is granted certain exclusivity rights over an area of seabed to enable project development and statutory consents to be achieved before granting a lease.

6. WASTE MANAGEMENT

Introduction

Municipal waste management services are provided by the Council for the Isles of Scilly on St Mary's, Bryher, St Agnes and St Martins including, at the present time, commercial and industrial waste. Tresco Estates provides household waste management services on Tresco with commercial waste managed privately through Moorwell.

From January 2012 to July 2013 the average total waste per household on the Isles of Scilly was estimated to be around 2.5 tonnes, which is considerably more than the 1.5 tonnes per household collected in Cornwall. On average, 18% of the total waste on the Isles of Scilly is recycled, composted or reused, compared to 34% in Cornwall.²⁸ This is one of the lowest recycling rates in the UK, but reflects the unique position of the Isles of Scilly with its distance from markets for recycle and seasonal nature of waste. Due to the lack of accurate historical data, the Council has recently invested in a modern weighbridge facility in order that it can start to generate better statistics in relation to waste generation.

Kerbside collection is used as the principle means of collecting waste on St Mary's, while on Bryher, St Agnes and St Martins islanders take waste to designated locations, similar to mainland Household Waste Recycling Centres (HWRC) for collection and shipment to St Mary's. The off-island sites have recently been allocated small amounts of Council funding in order to improve waste handling at these sites.

The Council for the Isles of Scilly operates a 2,500 tonnes-a-year capacity incinerator. Total waste produced on the Islands is estimated at 3,100 tonnes per year,²⁹ of which 2,000 tonnes is household waste.³⁰ The incinerator is 32 years old and is now unable to deal with the growing waste volumes. In recent times, the facility has also struggled to maintain compliance with tightened European Union (EU) emission standards. Bulky waste generated from municipal sources is shredded at the site and is also treated via the incinerator but again, volumes have exceeded the operational capacity of the plant. In response to this challenge, during 2013/2014 Defra has funded the removal of around 3,500 tonnes of the backlog waste to the mainland for disposal. This initial phase will be followed by a further programme of waste exports during 2014/15 in order to develop the site as a more modern waste management facility in line with UK mainland standards. On Tresco, waste is managed by Tresco Estates with different elements separated and incineration only of non-recyclable material such as dirty cardboard. Incineration on Tresco is in a burning pit.

Regulation

The application of EU waste standards in relation to the incinerator by the Environment Agency (EA) is likely to mean that emissions compliance remains a challenge and it is likely that the incinerator will have to be decommissioned. Defra has identified £3.3 m to improve waste management and associated infrastructure to ensure compliance with national, European and international legislation and directives

²⁸ www.wastedataflow.org

²⁹ Council of the Isles of Scilly, 2014

³⁰ www.wastedataflow.org, year to June 2013

Future

The Council for the Isles of Scilly is currently in discussion with Defra and other stakeholders in order to evaluate a number of long term strategic options for the management of wastes generated on the Isles of Scilly. Some early solutions are already in place for specific waste streams including a glass crusher that converts bottles into recycled aggregates for use in the many small scale construction projects on the islands. Defra has provided about £3.3m funding between 2011 and 2015 for these works (which include the waste backlog removal discussed above).

In addition, there are likely to be additional revenue costs for the continuation of waste management services on the islands, which will require development of a business case with Defra, to secure longer term funding in addition to the grant funding already committed.

As part of the above strategic planning, the Council for the Isles of Scilly is considering both 'on island' and 'off island' long term options including the delivery of higher recycling rates combined with treatment via Energy from Waste (EfW) capacity within the UK mainland. Irrespective of what route the Council takes, it is highly likely that the redevelopment will require the entire existing Moorwell site footprint. There may be business opportunities to deal with commercial waste (e.g. construction & demolition waste).

Summary

The key issues regarding waste infrastructure are the need for effective facilities to deal with the municipal 'household' domestic and commercial waste. This should prevent a repeat of the recent costs of exporting waste to the mainland and leading to compliance with the latest EU and UK regulatory requirements including recycling rates in line with comparable UK local authorities. Aside from the revenue project to remediate the waste backlog the capital infrastructure projects are set out in the table below.

Table 6.1

Project	Cost	Funding	Timetable
Management of historical waste including treatment and potential export of non-recyclable waste	£3.3m	Defra/Council for the Isles of Scilly	2013-2015
Development of an off-island or on-island long-term waste treatment solution	unknown	Defra/Council for the Isles of Scilly	2015-2020

7. TELECOMMUNICATIONS

Introduction

Fixed telecom services on the Isles of Scilly use lines provided by British Telecom (BT) and a variety of commercial service providers (both for voice and internet connections). Broadband is delivered by ADSL technology over conventional copper exchange lines. 2013 Ofcom data³¹ indicates that the average sync speed is 4.4 Mbps, with 22.3% getting less than 2 Mbps. Broadband take up is 69.9%. Speed and take up are both less than Cornwall.

Mobile coverage is available for Vodafone, O2 and Orange, with less coverage for other networks³². 2013 Ofcom data³³ indicates that

- The percentage of premises with 2G outdoor coverage from all operators is 71.5% and the percentage of the geographical area with 2G coverage from all operators is 69.3%.
- The percentage of premises with 3G outdoor coverage from all operators is 0% and that the percentage of the geographical area with 3G coverage from all operators is less than 0%.

Superfast Broadband

Superfast Broadband is being brought to the Isles of Scilly later in 2014 by the Superfast Cornwall project. The overall project covers Cornwall and the Isles of Scilly and has a budget of £132m, which is provided by BT (£78.5m) and the European Union through the ERDF Convergence Programme (£53.5m). The budget for the Isles of Scilly elements is £3.7m³⁴. The project is addressing the main cost items such as the sub-sea cables, exchanges, on-island optical fibre links to distribution nodes and radio link for St Agnes. Once the infrastructure is installed, wholesale products will be made available to service providers by BT in the same way as on the mainland and it is anticipated that the same retail service providers will offer service on the islands at mainland price points.

Superfast broadband is planned to be widely available across all of the inhabited Isles of Scilly, with download speeds of up to 80Mbps and upload speeds of up to 20 Mbps depending on the commercial service provider chosen by residents/businesses. Businesses will be upgraded to up to 330 Mbps as well as taking individual leased lines for additional service benefits.

Wi-Fi Networks

Most smartphones now have Wi-Fi capability, and the majority of the data consumed on mobile devices is currently carried using this Wi-Fi capability, rather than over cellular networks. Public Wi-Fi hotspots are provided by fixed and mobile operators in high footfall areas such as retail stores, tourist attractions, food chains, coffee shops etc., while a number of councils across the UK are also investing in wide area Wi-Fi networks. There has however been strong growth in the number and use of public Wi-Fi hotspots over the last year. The number of public Wi-Fi hotspots has more than doubled and the average data consumed at each hotspot has also increased. The combined effect is that public Wi-Fi traffic has grown by over 190% in 2012-2013³⁵.

³¹ <http://maps.ofcom.org.uk/broadband/>

³² http://www.scillyonline.co.uk/info_services.html and <http://www.islesofscillyholidays.co.uk/public-information/mobile-phone-reception.html>

³³ <http://maps.ofcom.org.uk/mobile-services/>

³⁴ <http://www.cornwalldevelopmentcompany.co.uk/assets/file/March%202013%20Press%20Releases/06.03.13%20Superfast%20broadband%20for%20IoS.pdf>

³⁵ Ofcom, 2013, Communications Infrastructure Report

Future

As well as improved broadband connectivity and the resulting social and business benefits, the Superfast Cornwall project will provide the opportunity for better mobile telecoms, including mobile internet. The capacity provided by the subsea cable will allow mobile service providers to provide base station facilities for 4G provision, although this will be a next stage third party investment after the Superfast Cornwall project.

In addition the project will provide the opportunity for broadcasters to deliver additional UHF digital TV channels (eg. Freeview) than the limited number currently available should they choose to by utilising the fibre cable to the mainland and potentially offering the opportunity to improve service reliability.

The likely future is that public Wi-Fi networks will become further available on the Isles of Scilly as businesses take advantage of the benefits.

Summary

The key telecoms issues are the availability of internet and mobile telecoms services. These are being enabled either directly or indirectly by the Superfast Cornwall project. In addition to revenue projects to ensure take up of the superfast broadband, the next stage capital projects are set out in the table below.

Table 7.1 Telecoms Infrastructure Projects

Project	Cost	Funding	Timetable
Superfast Cornwall on the Isles of Scilly	£3.7m	BT and ERDF	2014
3G and 4G mobile telecom base stations	Unknown	Private sector	2015-2020
Internet television	Unknown	Private sector	2015-2020
Public Wi-Fi networks	Unknown	Private sector	2015-2020

8. FLOOD

Introduction

The key flood risks on the Isles of Scilly are inundation from the sea. Although some surface water flooding does occur the impacts are relatively insignificant.

The Isles of Scilly Council is directly responsible for maintaining the sea defences at Porthcressa, Town Beach, Old Town and Porth Minick. However The Isles of Scilly Council is classed as a Lead Local Flood Authority under the Flood and Water Management Act 2010, which places a responsibility on the Council to ensure the risks from flooding are minimised. Although the Council may not own some of the Islands' sea defence assets it has a responsibility under the Act to work with the owner(s) of those assets to ensure that risk from flooding is minimised.

Maintenance and Construction of flood defence assets and schemes can be funded by Flood Defence Grant in Aid (FDGiA), irrespective of the ownership of the assets. However this funding can only be paid to Local Lead Flood Authorities, not directly to other organisations. It is therefore necessary for the Council to work with Local Partners and owners to ensure that all sea defences are properly maintained.

The Cornwall and the Isles of Scilly Shoreline Management Plan³⁶ first produced and adopted by members in 1997 and updated in 2010 (SMP2) defines the overarching strategy for management of our coastline. Additional information in the Report on Flood Defences(2011)³⁷ provides specific information on flood defences.

St Mary's

A number of formal defence structures, including seawalls, embankments and revetments are located on St Mary's. These include:

- The 1995 seawall and rock armour at Porthcressa, Hugh Town.
- The 1930s seawall at Little Porth, forming a continuation of the defence at Porthcressa.
- The seawall at Old Town, originally built following storms in 1962, but re- built at its eastern end in 2000 following settlement damage.
- The revetment system and rock armour at Porth Minick, also protecting the hinterland around Old Town, constructed in 2000.
- The seawall at Town Beach, likely to date back to the 1930s.
- The quay and harbour walls that provide protection to the north side of Hugh Town and Town Beach.

Although not formal defences sand dunes to the rear of the following beaches on St Mary's help to provide a natural defence against coastal inundation:

- Porth Mellon;
- Porth Thomas;
- Porthloo
- Porth Hellick

Porthloo, Porth Mellon and Porth Hellick help to protect St Mary's groundwater supply from saline intrusion, whilst Porth Mellon also provides a defence to St Mary's industrial estate and the Moorwell waste site.

³⁶ Cornwall and the Isles of Scilly Shoreline Management Plan (Royal Haskoning, 1999 & 2010)

³⁷ Isles of Scilly Water Interests Survey: Report on Flood Defences (Defra 2011)

Tresco

Sea defences on Tresco include:

- A seawall and rock armour at the former Island Hotel site, Old Grimsby. Believed to have been built in 2000 to halt erosion of a ram cliff undermining the hotel extension;
- An old seawall at the north end of Appletree Bay.

St Agnes

Sea defences on St Agnes include seawall, concrete revetment reinforced embankments, rock armour and erosion control matting at Porth Killier, Porth Coose and Periglis, believed to have been built in 1996.

Bryher

Sea defences on Bryher include:

- An old seawall supplemented with rock armour in the 1990s at Great Popplestone.
- A seawall built in the 1960s to protect the Old School House, Great Porth, supplemented with rock armour in the 1990s;
- A 500m long stone wall protecting the coastal path in Green Bay

St Martin's

There are no formal defence structures on St Martin's although there are some recent revetment works undertaken in front of the hotel but behind the quay wall at Lower Town.

Critical defences

The Report on Flood Defences identified the critical defences to be:

- St Mary's - Porthcressa, Old Town, Porth Minick, Town Beach, Porth Mellon, Porth Hellick and Porthloo
- Tresco – former Island Hotel site at Old Grimsby and Appletree Bay
- St Agnes - Porth Killier, Porth Coose and Periglis
- Bryher - Great Popplestone and Great Par

There are no critical defences on St Martins.

Future

In addition to the requirement for on-going maintenance, sea level changes and more unpredictable weather patterns are likely to require further investment in sea defences, both through hard engineering and sustainable dune management. The Report on Flood Defences refers to the risk of sea inundation at Old Town, Town Beach and Porth Hellick; and states that while the strategy for Porth Hellick is managed re-alignment, the 'hold the line' policy for Old Town and Town Beach may require higher defences. The Report on Flood Defences refers to the Shoreline Management Plan³⁸ which suggested that the Town Beach requirement should be specified as part of a detailed strategy for the whole of Hugh Town.

SMP2 also suggested that there was further investigation into the combined risks to the fresh water supply posed by over-topping and inundation along with percolation and groundwater levels. This

³⁸ Royal Haskoning, 1997, Shoreline Management Plan

should include the Lower and Higher Moor areas, Porth Mellon, Porth Hellick, Old Town Bay and Porth Minick.

On the off-islands, Appletree Bay and Tresco Flats on Tresco were priority areas on Tresco, along with Big Pool on St Agnes.

The Environment Agency provides funding under its Medium Term Plan programme which is a rolling programme renewed and reprioritised annually and currently extends forward 5 years.

The Environment Agency invests in flood defence works on the Isles of Scilly for projects to take place up to 2020.

Table 8.1 Flood Defence Projects

Name	Cost	Status
St Mary's Porth Hellick Dune Management Works	£25,000	Confirmed funding for 2013-14
St Mary's Porthloo Dune Management Plan	£50,000	Confirmed funding for 2013-14
St Mary's Porthcressa sea wall repairs	£900,000	Confirmed funding for 2013-14
St Mary's Porthcressa (Little Porth) sea wall repairs	£100,000	Confirmed funding for 2014-15 (originally 2013-14)
St Mary's Old Town Church sea wall repairs	£75,000	Indicative funding for 2014-15
St Mary's Porth Mellon Dune Management Plan	£50,000	Indicative funding for 2014-15

The Environment Agency has also made some budgetary provision towards research on the Isles of Scilly:

Table 8.2 Other Projects

Name	Cost	Status
Critical Infrastructure Susceptibility Survey	£25,000	Funding for 2013-14
Flood Risk Inundation Mapping for the Isles of Scilly	£50,000	Funding for 2013-14 and 2014-15

EA funding for flood mitigation is dependent upon a value for money assessment on the outcomes, and funds can be match by local partners to improve the EA's return on investment.

Summary

The key flood risks on the Isles of Scilly are through inundation from the sea. Through 1997 and 2011 research identifies risks at Old Town, Hugh Town and Porth Hellick on St Mary's, along with water supplies at risk from over topping of defences. On the off-islands, priorities are Appletree Bay and Tresco Flats (both Tresco) and Big Pool (St Agnes).

In addition to further flood risk research, proposed capital projects are set out in the table below. These are provisional and will depend on finance available from the FDGiA programme. Further modifications to the plan are likely in the aftermath of the 2014 winter storms – with some project accelerated and some delayed, both through changed priorities as well as the impact of the 2014 storm damage costs on funding from central government.

Table 8.3 Flood Defence Infrastructure Projects

Project	Cost	Funding	Timetable
St Agnes Big Pool	£50,000	EA/Council for IoS/Duchy	2014-15
St Mary's Porth Hellick Dune Management Works	£25,000	EA/Council for IoS	2014-15
St Mary's Porthloo Dune Management Plan	£50,000	EA/Council for IoS	2014-15
St Mary's Porthcressa (Little Porth) sea wall repairs	£100,000	EA/Council for IoS	2014
St Mary's Old Town Church sea wall repairs	£75,000	EA/Council for IoS	2015-2020
St Mary's Porth Mellon Dune Management Plan	£50,000	EA/Council for IoS/Duchy	2015-2020
St Mary's strategic flood mitigation for Hugh Town	Unknown	EA/Council for IoS	2015-2020
St Mary's strategic flood mitigation for fresh water supplies	Unknown	EA/Council for IoS	2015-20
Tresco Appletree Bay	Unknown	EA/Tresco Estates	2020-2025
Tresco Flats	Unknown	EA/Tresco Estates	2020-2025

9. EDUCATION

Introduction

Education on the Isles of Scilly is provided by the Council for the Isles of Scilly through the Five Islands School. This school caters for pupils from reception to year 11 and has around 275 pupils³⁹. Five Islands is a split-site all-through school, with four bases on the islands of St. Mary's, St. Agnes, Tresco and St. Martins. Primary aged children are educated on their Islands' base (primary aged children who live on Bryher are taught at the Tresco and Bryher base). The St. Mary's base has primary and secondary provision. Secondary aged students from the off-islands are able to board at the Council's Mundesley Boarding House in Hugh Town.

Five Islands School has a capacity of 285 children. The new school site on St Mary's replaced the former Carn Thomas site, opened in 2011 and cost £17m (including the sports hall).

The most recent Ofsted report⁴⁰ indicates that the school 'requires improvement' as a result of management and leadership issues. Pupils achieve well and at GCSE reach standards above the national average.

Young people in Year 12 and 13 access a range of post 16 education opportunities on the mainland.

Lifelong learning is also provided on the Five Islands School site. This includes enterprise, technical and vocational skills.

Future

No major capital programmes are currently proposed. The school roll leaves relatively little headroom before the school reaches its theoretical capacity, although number of young people on the islands has been declining⁴¹. A larger than average cohort will begin secondary education in 2016 and this will require some additional capacity. Furthermore, there is a larger than average cohort about to commence primary but this can be accommodated. There have been falls in rolls in some of the off-island schools but no changes are planned.

Changes to the early years curriculum require remodelling the accommodation. This has been budgeted at £20,000 and funding has been identified.

Mundesley Boarding House will require new heating and hot water systems, estimated to be at least £75,000. Funding has not yet been identified.

Summary

Recent investment has provided a modern education facility for the Isles of Scilly and education on the islands has consistently resulted in young people with good levels of GCSE qualifications.

Table 9.1 Education Projects

Project	Cost	Funding	Timetable
Increase secondary education capacity	Unknown	Council	2016
Remodel early years accommodation	£20k	Council	2014
Mundesley House - heating / water renewal	£75k	Council	2015-2020

³⁹ <http://www.education.gov.uk/edubase/establishment/summary.xhtml?urn=133554>

⁴⁰ Ofsted, 2012, School Report

⁴¹ Nomisweb, 2014, Census 1991, 2001 and 2011

10. HEALTH

Introduction

Healthcare in the islands is provided through the hospital and the health centre on St Mary's. Patients with serious medical conditions are also served by Treliske or, very occasionally, Derriford Hospitals on the mainland.

NHS Kernow is the clinical commissioning group (CCG) for Cornwall and the Isles of Scilly. The CCG's role is to buy health services hospitals, mental health services, children's services and community services.

The hospital is managed by Peninsula Community Health CIC, which also manages 13 other community hospitals in Cornwall. There is one hospital on St Mary's with 10 inpatient beds, an out-patient department and a minor injuries unit. The hospital has a dentist surgery and a birthing centre with resident midwife. X ray testing is available once a week by appointment. The most recent inspection by the Care Quality Commission indicated that the appropriate standards were being met⁴². It is understood that the hospital beds are rarely at capacity, although the staff are often at full stretch with minor injuries and outpatient work.

Adjacent to the hospital is the health centre, which is managed by Helston Medical Centre. The health centre provides GP services as well as a pharmacy which dispenses all medicines on the islands. There are three full time doctors on St Mary's, and these provide the medical cover for the hospital and the health centre. GP visits are made to the off islands (weekly to Tresco and St Martins and fortnightly to Bryher and St Agnes), with surgeries held in the community centres as well as home visits.

Recent investments include new £38,000 point-of-care testing equipment to allow the quick diagnosis of medical conditions without patients having to leave the islands.

Changes in the organisation of healthcare have resulted in the Council for the Isles of Scilly taking over some of the public health role, with Peninsula Community Health delivering community health service provision. The main issues affecting health care provision are the recruitment of staff.

Future

No future projects have been identified. Although the capacity at the hospital is reassuring to residents, there are discussions about providing a more integrated service with the islands' social care provision.

Summary

The hospital and health centre provide the medical care services on the islands, with serious medical conditions using Treliske or Derriford Hospitals on the mainland. Future projects are likely to include closer integration with social care services.

Table 10.1 Healthcare

Project	Cost	Funding	Timetable
Integration with social care provision feasibility	Unknown	Peninsula Community Health CIC /NHS Kernow/Council for IoS	2015-20

⁴² Care Quality Commission, 2013, St Mary's Hospital Inspection Report.

11. SOCIAL CARE

Introduction

The social care service is provided by the Council for the Isles of Scilly to people who need help because of age, disability or learning difficulty. Much of the service is used to identify requirements and deliver revenue services to support independent living, which is the most appropriate response for many individuals.

The Council for the Isles of Scilly also provides social care through Park House in Hugh Town. Park House is a Residential Home with 11 rooms for permanent residents and one respite room. It provides a range of services including residential care, respite care and day care for older people. Adult Social Care is now utilising specialist dementia care staff. The most recent inspection by the Care Quality Commission indicated that home was compliant in all areas⁴³. People requiring specialist care including nursing and complex dementia needs are currently transferred to mainland spot purchased placements.

The Park House built facilities are now no longer fit for purpose. The building was provided in the 1970s and has no outside space for residents.

Future

Plans for the future include replacement of Park House with a modern, fit for purpose facility. This may include additional capacity to cater for an ageing population and this may be delivered through a more integrated service with St Mary's hospital, subject to feasibility work. This would supplement the care staff with integrated medical provision and allow economies of scale. It is likely that dementia care will be an important part of a new facility's role. Plans for a new built facility should consider best practice in terms of indoor and outdoor space standards.

As Park House/replacement changes to become focused on high dependency need, there will also need to be provision to support increasing numbers of people within their own home. This will be needed to fill the gap between standard residential accommodation and nursing care. Models might include sheltered and extra care housing schemes, both for social and private tenures (reflecting the high proportion of home ownership amongst older people on the Isles of Scilly).

Summary

The majority of social care services are revenue based and focus on supporting independent living. Residential social care is provided through Park House which is no longer fit for purpose.

Table 11.1 Social Care

Project	Cost	Funding	Timetable
Social care integration with hospital feasibility	Unknown	Peninsula Community Health CIC / NHS Kernow/Council for IoS	2015-20
Replacement of Park House	Unknown	Council for Isles of Scilly	2015-20

⁴³ Care Quality Commission, 2014, Park House Inspection Report.

12. EMERGENCY SERVICES

Introduction

Ambulance

Ambulance services are provided by the South Western Ambulance Service NHS Foundation Trust. St Mary's has an ambulance service with a paramedic team. The off islands have small 4x4 ambulance vehicles staffed by volunteer co-responders.

Maritime ambulance services in the Isles of Scilly are provided through the Star of Life ambulance boat. As well as transporting people from the off islands to the hospital on St Mary's it is capable to taking casualties to Penzance if the air ambulance service is unavailable. The ambulance boat is provided and staffed by the South Western Ambulance Service. The Star of Life was commissioned in 2003.

In the event of an emergency that cannot be dealt with at St Mary's hospital, the Cornwall Air Ambulance transports Isles of Scilly emergency patients to Treliske Hospital in Truro or Derriford Hospital in Plymouth.

Fire

Fire services are provided by the Council for the Isles of Scilly with one staffed station (St Mary's airport and five retained stations (St Mary's, Bryher, St Agnes, St Martins and Tresco. As well as the airport foam tenders, there are two fire engines (St Mary's and Tresco) and three off island tractors and fire trailers (Bryher, St Agnes and St Martins).

Police

Services are provided by the Devon and Cornwall Constabulary. The police station is in Hugh Town on St Mary's and the officers based here perform all the functions of response policing, neighbourhood policing, CID and partnership working for safeguarding children and adults, and reduction in crime and disorder.

Maritime Safety

The Isles of Scilly are served by the RNLI's all-weather lifeboat located in St Mary's harbour. Coastguard facilities are located at Telegraph on St Mary's.

Future

There are no current plans to change the emergency service provision.

Summary

Emergency services are provided through South Western Ambulance Service, Council for the Isles of Scilly, Devon and Cornwall Constabulary and the RNLI, with the assistance of local volunteers. There are no current infrastructure projects identified.

13. RECREATION AND OPEN SPACE

Introduction

The Islands' beaches, foreshores and coastal footpaths are a recreational resource, supporting activities such as walking, sailing, diving and recreational fishing. Access to the countryside is via permissive paths. There is no common land in Scilly; neither are there any public rights of way. The Duchy of Cornwall, Isles of Scilly Wildlife Trust and tenant farmers facilitate public access, with the Wildlife Trust clearing and maintaining permissive footpaths within its tenancy.⁴⁴ In addition to the permissive paths, St Mary's has two nature trails and three nature reserves (Holy Vale, Lower Moors & Higher Moors).

Some of the more frequented paths suffer from wear. In addition, the board walks, bridges, interpretation and bird hides at Lower & Higher Moors and Holy Vale are old and require urgent replacement.

The Isles of Scilly Wildlife Trust manages 60% of the land that makes up Scilly and all of the land is accessible to the public.

The Isles of Scilly Museum is located in a purpose built facility in Hugh Town and is operated by the Isles of Scilly Museum Trust. It is nationally accredited and is open year round. Recent projects include digitisation of Island photographs and there is ongoing work to provide new interpretation and exhibitions of artefacts.

Council sports provision on the Isles of Scilly includes:

- Carn Gwaval
 - QEll sports hall
 - Fitness centre
 - Skate Park
 - Netball
 - Multi-use games area
- Indoor swimming pool at Normandy
- Play parks at the Garrison and Porthcressa

In addition there are community owned facilities including the Community Centre on St Martins, and the multi-use games area and community hall on St Agnes. The Duchy of Cornwall owns the playing pitches on the Garrison, which were used by the school prior to its relocation to Carn Gwaval.

The Porthcressa regeneration scheme provided a new library in 2013.

Future

In addition to ongoing work to maintain footpaths replace board walks, bridges, interpretation and bird hides, and address erosion, it is planned to improve footpath signage and associated interpretation. Initial estimates of the cost to replace the board walks, bridges, interpretation and bird hides are £300,000-£500,000.

There is a long term plan to relocate the swimming pool to the Carn Gwaval site. This would involve a larger pool than currently provided, with at least 9m by 20m of water.

⁴⁴ The Isles of Scilly Wildlife Trust manages 64% of the islands' landmass

There is also a proposal to provide a Visitor Hub/Information Centre, which may be part of the Isles of Scilly Wildlife Trust. Initial cost estimates are £1 million.

Summary

1.8 Recreation and open space provision is provided by the Council and the Wildlife Trust, with some community assets on the off islands and the Duchy playing pitches on the Garrison.

Table 13.1 Recreation and Open Space

Project	Cost	Funding	Timetable
Footpath clearance and maintenance	Unknown	Isles of Scilly Wildlife Trust / Duchy / Farm tenants	2014-2020
Replace board walks, bridges, interpretation and bird hides at Lower and Higher Moors and Holy Vale.	£500,000	IoS Wildlife Trust	2014-15
Footpath signage and interpretation	Unknown	IoS Wildlife Trust / Duchy / Islands' Partnership / AONB Partnership	2015-2020
Visitor Hub / Information Centre	£1m	IoS Wildlife Trust / Council	2020-25
Relocation of the swimming pool	£1.5m	Council	2020-2025

14. SUMMARY

Table 14.1 summaries the infrastructure requirements identified.

Project	Cost	Funding	Timetable
St Mary's re-surfacing		Council	2014
Electric Vehicles Feasibility Study	£25,000	Council	2015-2020
Hugh Town Traffic Management study	£35,000	Council	2015-2015
Hugh Town Public Realm	£1m (indicative)	Council	2015-20
Quays – New Grimsby	£1m	Private sector	2015-2020
Air travel			
Sunday flying	Revenue	Commercial with some Council funding for airport operation.	2015-16
Route development	Revenue	Commercial	2015-20
Through ticketing	Revenue	Commercial	2015-17
Sea travel – new passenger and freight transport	Unknown	Commercial	2018-19
Inter-island travel - Real-time website	£4,000	Council	2014-15
Bus – New year-round community bus	£20,000	Council	2015-20
Desalination plants on Bryher, St Agnes and St Martins along with necessary distribution network	Unknown	ERDF/Defra/Council for Isles of Scilly/Duchy of Cornwall/CIOS LEP	2015-2020
Morning Point outfall screening	£4m	Defra/ CIOS LEP	2014
Strategic sewerage solution for Hugh Town	Unknown	Unknown	2020-2025
Sewerage treatment for Bryher, St Agnes and St Martins along with necessary network	Unknown	ERDF/Defra/Council for Isles of Scilly/Duchy	2015-2020
Fat and grease traps in all business premises, disposal of sewerage sludge	Unknown	Defra/Council for Isles of Scilly/private sector	2015-2020
Sub-sea cable	£25m	Commercial	2015-2020
Wave Energy Park	Unknown	Commercial	Unknown
Management of historical waste including treatment and potential export of non recyclable waste	£3.3m	Defra/Council for the Isles of Scilly	2013-15
Development of an off-island or on-island long-term waste treatment solution	Unknown	Defra/Council for the Isles of Scilly	2015-20
Superfast Cornwall on the Isles of Scilly	£3.7m	BT and ERDF	2014
3G and 4G mobile telecom base stations	Unknown	Private sector	2015-2020
Internet television	Unknown	Private sector	2015-2020
Public Wi-Fi networks	Unknown	Private sector	2015-2020
St Agnes Big Pool	Unknown	EA/Council for IoS/Duchy	Unknown
St Mary's Porth Hellick Dune Management Works	£25,000	EA/Council for IoS	2014
St Mary's Porthloo Dune Management Plan	£50,000	EA/Council for IoS	2014
St Mary's Porthcressa sea wall repairs	£900,000	EA/Council for IoS	2014
St Mary's Porthcressa (Little Porth) sea wall repairs	£100,000	EA/Council for IoS	2014
St Mary's Old Town Church sea wall repairs	£75,000	EA/Council for IoS	2015-2020
St Mary's Porth Mellon Dune Management Plan	£50,000	EA/Council for IoS/Duchy	2015-2020
St Mary's strategic flood mitigation for Hugh Town	Unknown	EA/Council for IoS	2020-2025
St Mary's strategic flood mitigation for fresh water	Unknown	EA/Council for IoS	2020-2025
Tresco Appletree Bay	Unknown	EA/Tresco Estates	2020-2025
Tresco Flats	Unknown	EA/Tresco Estates	2020-2025

Project	Cost	Funding	Timetable
Social care integration with hospital feasibility	Unknown	Peninsula Community Health CIC / NHS Kernow/Council for IoS	2015-2020
Replacement of Park House	Unknown	Council for Isles of Scilly	2015-2020
Increase secondary education capacity	Unknown	Council	2016
Remodel early years accommodation	£20k	Council	2014
Mundesley House - heating / water renewal	£75k	Council	2015-2020
Footpath clearance and maintenance	Unknown	Isles of Scilly Wildlife Trust / Duchy / Farm tenants	2014-2020
Replace board walks, bridges, interpretation and bird hides at Lower and Higher Moors and Holy Vale.	£500,000	IoS Wildlife Trust	2014-15
Footpath signage and interpretation	Unknown	Wildlife Trust	2015-2020
Visitor Hub / Information Centre	£1m	IoS Wildlife Trust / Council	2020-25
Relocation of the swimming pool	£1.5m	Council	2020-2025