

Satellite image of Isles of Scilly taken by astronaut aboard the ISS

8 June 2021



Bant's Carn Bronze Age burial chamber



Halangy Down Iron Age Village



Vulnerability of IOS to impacts of Climate Change

Sea level rise – worst case scenario

- Approx. 30% of the area of St. Mary's is below 5m.
- If pollution levels remain the same, sea level rise will reach 0.5m at St. Mary's in 2080 (Climate Central)
- Residents in Hugh Town are sandwiched between two beaches on a narrow isthmus. At that point, a significant section of the town between Hugh Town & Old Town would be flooded.
- Parts of the coast would be underwater. Other islands would be similarly affected.



Photo by Aerial Cornwall

Water Resources

Mostly from groundwater; 40-50% desalination from the ocean

- Due to size of islands, large storage reservoirs not possible – islands are sensitive to drought
- More intense storms & rainfall result in run-off
- Likely to see events where storms overtop existing coastal defences & contaminate low-lying fresh-water catchment areas
- As sea level rises likely to be saline intrusion into groundwater affecting water quality & household water supplies
- Reduced summer rainfall and more warm days resulting in drought conditions - negative impact on crop yields and associated financial loss
- Sea level rise risk to infrastructure, e.g. pumps to provide water from the desalination plant, overburdened drainage system, leading to back-up of sewage and contamination of beaches with associated negative impacts for health, property, business and tourism.

Transport service disruption

- The frequency of fog has increased significantly over recent years linked to changes in sea surface temperatures.
- Coastal flooding, wave overtopping and poor sea state risks disruption to the transport of freight by sea and passenger services – crucial when air services are disrupted by fog
- Cancellations of flights affect medical personnel visiting the islands, medical appointments on the mainland, engineers etc., as well as residents and visitors travelling to and from the islands.



Feb. 2014 storm St. Mary's Quay

Vimeo.com

Climate Adaptation Scilly project

2019 CloS declared a climate emergency & pledged to achieve zero carbon by 2030

AIM of project was to build sea defences to adapt to the impacts of coastal flooding & erosion to 2045

In 2021 sea defence works commenced – inc. dune construction & strengthening and rock armour on St. Mary's, St. Martin's, Bryher and St. Agnes plus funding for rainwater harvesting for businesses. Funded by ERDF & EA. The works were completed last summer.

**Rock armour rear of
Porthmellon Beach**



IOS Resilient Islands Strategy 2022

Consultants RSK (Responsible, Sustainable, Knowledgeable) identified:

- 22 hazards
- 75 total risks
- 31 high risks
- 90 potential adaptation actions

Many of the actions identified as suitable for use on the IOS have multiple, often interconnected benefits to the community, its infrastructure, agriculture and the natural environment. Simple actions such as reducing water use will benefit the whole community. (P.7 IOS RIS Implementation Plan)

Following public consultation last Autumn, the Draft RIS has just gone to full Council and will be available on their website shortly.