

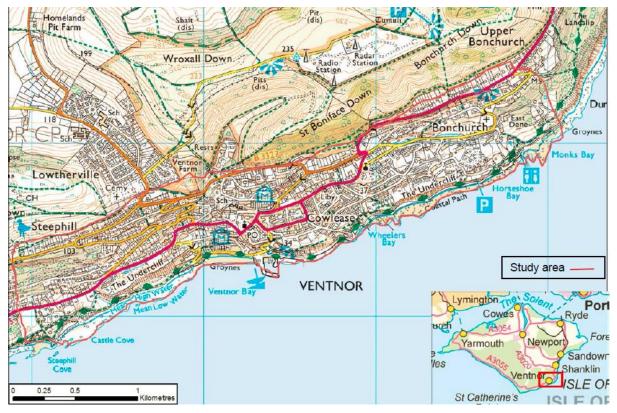
## Ventnor FAQs

## Where will the scheme be?

In recognition of the 'hold the line' policy, as set out in the Isle of Wight Shoreline Management Plan (SMP2 2010), the project team has reviewed previous studies and undertaken a desk top study to investigate the economic viability of refurbishment and replacement of existing coastal defences and slope stabilisation measures in Ventnor.

The scheme will focus works along the 3.6km coastal frontage, between Monks Bay in the east and Steephill Cove in the west (See figure 1. below), including some locations where coastal defences are nearing, or at the end of, their useful life.

Current academic understanding suggests it may be possible to reduce ground movement in the landslide complex by managing ground water levels. Therefore, the scheme will additionally explore the feasibility of reducing ground movement via a series of deep drainage wells, constructed as close as possible to the shoreline.



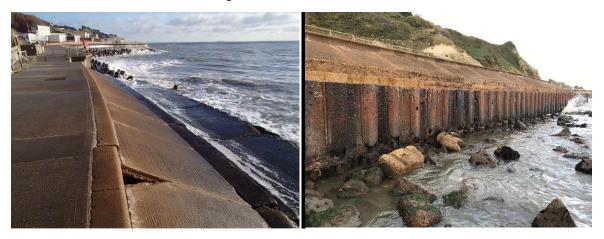
Ventnor Coastal Protection and Slope Stabilisation Scheme. Site location map. Credit: OS © Crown copyright (2021)



#### Why do we need the scheme?

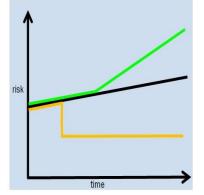
Coastal defences are important as they can reduce the direct risks to people and property from coastal erosion and tidal flooding. In Ventnor, due to the presence of a relic landslide system under the town, if the defences failed and the coastal strip inland eroded away, widespread ground movement and damages throughout the undercliff are possible.

The current coastal defences, protecting the steepest and most developed areas, have evolved over time. Some sections of the coastal defences are in good condition, but other sections, constructed in the 1970s and 80s (see images below), are approaching the end of their useful life. The rate of deterioration is often a combined result of ground movement, coastal erosion and defence design.



Images showing deteriorating coastal defences to the east of Ventnor, constructed in the 1970s.

## Future risk profiles for each management option



Option A (green) - Do Nothing: Risk increases significantly once defences fail

Option B (black) - Do Minimum: risk increases in response to forecast climate change and sea level rise

Option C (orange) - Improve: risk reduces significantly following completion of an appropriate scheme



#### What is the impact of climate change?

Sea levels, wave heights, and the frequency of winter storms are all anticipated to increase because of climate change. For the Ventnor Undercliff, predicted increases in winter rainfall will also be an important factor for the area. The Environment Agency will be taking these projected changes into account during the next phase of the scheme's development.

As part of the Environment Agency's vision of 'making a country more resilient to climate change', this refurbishment scheme will aim to be part of a 100 year plan to manage increasing coastal risks in this location.

More information on climate change can be found here.

#### Who is responsible for the sea wall and groynes?

The Environment Agency, together with Coastal Protection Authorities (CPAs) such as the Isle of Wight Council, have permissive powers to protect against coastal flooding and to carry out erosion defence works. However, this is not a legal obligation. This means that the Environment Agency and the Isle of Wight Council have the 'power to' carry out coastal protection works but are not duty bound to do so. The ability to exercise these powers is also constrained by the need to consider the costs and benefits (both tangible and intangible) of any investment, as set out in HM Treasury and Defra guidance. In general, the Environment Agency and the CPAs will only act where there is a clear economic benefit and/or an appropriate engineering solution that is achievable, and where environmental legislation is not contravened.

Ownership and maintenance of the sea wall and groynes in the scheme area rests with the Isle of Wight Council. Once any scheme is completed, it is intended that the current ownership/maintenance arrangements will continue.

## How have you chosen where to deliver coastal flood and erosion risk management schemes?

Flood and coastal erosion risk management infrastructure needs have been assessed for the Isle of Wight coastline through a number of plans, strategies and studies undertaken by the Isle of Wight Council in partnership with the Environment Agency. These help us to decide how and where coastal risks can be reduced, and where it is appropriate to allow the coastline to evolve naturally.

The Isle of Wight Shoreline Management Plan (SMP, 2010) sets the policy for how the risks facing each section of coastline should be managed for the next 100 years.

This is followed by a Flood and Coastal Erosion Risk Management Strategy or Study. The Isle of Wight is divided into 3 strategy/study areas, where appropriate schemes are identified to put the policies into place, and the high level costs and benefits are assessed. This work has produced a list of priority schemes in locations where existing flood and coastal erosion walls and embankments are at the most immediate risk of failure, where such a failure would put people, property and the environment at risk, and where the availability of central government funding justifies development of a coastal risk management proposal.



In areas where the SMP and a strategy/study has identified a need for infrastructure improvements, but priority schemes are not currently being developed, this may be because sufficient government funding cannot currently be justified, or because there is not an immediate risk and work on these schemes can be commenced once the initial priority schemes are underway.

Where the costs and benefits of a scheme do not currently enable us to justify a significant investment of government funding, both the Environment Agency and the Isle of Wight Council undertake routine monitoring and inspections of the structures within our respective ownership. This will continue with the aim of managing any health and safety risks, undertaking repairs where necessary and affordable, and maximising the life span of these structures.

#### How will the scheme be funded?

On behalf of the UK government, the Environment Agency prioritises and allocates funding to flood and coastal erosion risk management (FCERM) schemes using a partnership funding approach. Securing funding is dependent on the benefits and outcomes delivered by a scheme. Funding contributions from other sources such as local levy (raised by the Regional Flood and Coastal Committees), private or public organisations the local community or developers, may be required to enable the release of FCERM Grant in Aid (GiA) funding.

When calculating the benefits (also described as flood or erosion damages avoided) a FCERM scheme delivers, a baseline must first be established. This can be thought of as 'what would be at risk if we did nothing?'. This process considers the maximum area likely to be impacted, and in the case of flooding, to what depth and for what duration. The next stage is to explore land use. For example, what will be affected by flooding or erosion. This could include, but is not limited to: residential properties, commercial properties including retail, warehouses, industry, road and rail networks and utilities such as gas, electricity, telecoms and water supplies. Additionally, recreation, education and health services damages are incorporated along with local council and emergency recovery costs. Finally, agriculture and environmental damages are also captured. Damages can be defined as direct or indirect, where direct damages include physical impacts and indirect damages can be realised beyond the area immediately affected. For example, failure of a sewerage treatment works could have far reaching effects.

Once the total amount of damages has been calculated the actual cost of the proposed works and the period the scheme will be effective for, are all considered. Finally, a tariff system is employed to determine exactly how much FCERM GIA a scheme can ultimately attract. Currently, the assets attracting the greatest proportion of FCERM GIA are residential properties, with additional sums also being made available for those properties located in the nations most deprived areas.

More information relating to FCERM GiA partnership funding can be found here.



#### Are you going to be working with others on this project?

The Environment Agency have formed a team made up of industry experts from the Environment Agency, the Isle of Wight Council, JBA Consulting and VolkerStevin. The Environment Agency will also be working closely with stakeholders and the wider community throughout the delivery of the scheme.

The views of the local community will be key in ensuring the successful delivery of this coastal erosion scheme. If you would like to contact the delivery team with any specific question not covered here, or would just like to be kept informed throughout the scheme's development, please <u>email us.</u>

#### When will the construction work take place and how long will it last?

The main construction works are currently envisaged to begin in 2024 and continue through to 2027. However, the feasibility of dewatering (managing ground water levels) the landslide complex will be explored over a 30-month period, potentially starting as early as Spring 2022.

The Environment Agency will work closely with the Isle of Wight Council and industry experts to understand the best place to undertake these investigative works. Plant will be required to construct the proposed boreholes, but once in place, the visual impact and disruption to local community and tourism industry will be minimal.

# What are you building? What will it look like? Will the works affect access to the seafront and beach? How will the works impact upon tourism?

The scheme aims to improve certain targeted sections of existing seawalls, mainly those between Ventnor Eastern Esplanade and Wheelers Bay, as well as consider wider drainage. As the options are still being developed, the Environment Agency do not yet know for certain what the works will look like, or the type of machinery required. Once further information is known, the Environment Agency will consult with residents, businesses and other key organisations, such as infrastructure providers, who may be affected to understand concerns and share what plans will be put in place to minimise disruption.

#### Will the beach and esplanade be the same after the works?

As the options are still being developed, the Environment Agency do not yet know for certain what the works will entail, and how amenity areas will be affected. The Environment Agency understands the importance of the beach in central Ventnor, not only for tourism and recreation and because it is an integral part of the town's character, but also the benefits it offers for flood defence. The Environment Agency will be looking at how we balance these issues, working closely with stakeholders and the Isle of Wight Council to do this. At this stage, the sections of seawall anticipated for repairs are not located behind the main beach area.

#### What will the environmental impact of the scheme be?

The Environment Agency is committed to protecting and enhancing the environment through all it does. The Environment Agency's ambition for how it plans to create better places for people, wildlife and the environment is set out in our 5 year plan: EA2025 creating a better place, found <u>here</u>.



The Environment Agency's target for the Isle of Wight priority schemes is to achieve 20% biodiversity net gain. This means that development must leave biodiversity in a measurably better state than before. 20% is a higher standard than usual and reflects the Island's biosphere designation and the growing desire to deliver schemes that enhance the environment as well as performing a coastal defence role.

#### How can local businesses get involved?

The Environment Agency's procurement mission statement is to achieve best value, best practice and the most sustainable outcome. The government has set a target of 33% of central government buying to go to small businesses by 2022. The Environment Agency is committed to supporting this target and look to ensure a fair and equal opportunity for all to bid for its contracts. The Environment Agency also encourages its larger suppliers to consider small and medium sized enterprises (SMEs) in their sub-contracting opportunities.

Under our Next Generation Supplier Arrangement for the delivery of Capital schemes, the Environment Agency have appointed Jeremy Benn Associates Ltd (JBA) and VolkerStevin Ltd (VS) to help deliver its flood and coastal defence programme in the South East of England. VS will be the appointed contractor until the end of the current framework in 2027, when the arrangement will be reviewed. Currently, the Environment Agency is still developing options and don't yet know what any construction works will entail. Once options progress, the Environment Agency will provide more detail on how SMEs can get involved.

#### How can I find out more?

Throughout this project there will be numerous opportunities for you to feed into its development. The Environment Agency will continue to update you and provide ongoing opportunities to seek your input and opinions.

The Environment Agency would encourage all interested parties in the area and neighbouring communities to sign up to updates by registering your interest at <u>IOW\_FDschemes@environment-agency.gov.uk</u>. The Environment Agency would also encourage you to support any family members, friends or neighbours who cannot access online information, by sharing our updates with them.