



## Welcome to the third edition of the Shanklin Coastal Defence Scheme Newsletter.

OCTOBER 2023 – ISSUE #3

We aim to share all the latest news and information about the work currently proposed for the **sea wall and groyne refurbishment** along **Shanklin seafront** in this newsletter. You can find more information at our website:



<https://consult.environment-agency.gov.uk/solent-and-south-downs/shanklin-coastal-defence-scheme-informati/>

## WHY WE NEED THE SCHEME...



The **sea wall and groynes are ageing and reaching the end of their useful life**. If nothing is done the timber and concrete groynes will **continue to deteriorate resulting in the loss of the beach**. This would make the sea wall vulnerable to erosion. The sea wall would rapidly deteriorate causing **damage to Esplanade Road (including essential services)**. Our computer model predicts that...

**84 households** would no longer be able to access their properties and **37 businesses** would no longer be able to access their premises.

With no alternative access other than via Esplanade Road, this would make these **properties unsafe and uninhabitable**. Isle of Wight Council and the Environment Agency are working together to look at sustainable options to better protect communities from coastal risks today and help make Shanklin **more resilient in the future**.

## WHATS BEEN HAPPENING?

Since our last newsletter in December 2022 there has been lots of work carried out to help us gain a better understanding of the condition of the coastal defences.

In January this year we completed a series of **below ground explorations** ranging from the digging of excavation pits to the use of drilling rigs to install **several boreholes (wells to monitor groundwater levels)**. We



understand that any ground works have an impact on the residents, visitors, businesses, and wildlife in and around Shanklin. **We thank you for the patience you gave us.** Whilst we received no complaints we always strive to improve. **If you have any feedback please don't hesitate to get in touch with us.**

The findings from the below ground explorations have been used to inform the Short List of options for refurbishing

the defences. We are running Exhibitions in October and November this year to share the Short List and results of our investigations with you.



We also completed a **coastal processes assessment** to get an understanding of the sediment movement across the beach. We looked back at past storm events and found **that past storms caused the level of the beach to drop by up to one metre**. We found that the two concrete groynes known as Osbourne and Hope Groynes play a vital role in the long-term stability of the beach. We looked at how coastal processes may change with sea level rise. We **estimate that beach levels will reduce by up to two metres by 2125** based on the latest sea level rise predictions. Our modelling showed that a lowering beach results in bigger waves and increased wave action against the sea wall. This would lead to **rapid erosion** of the existing sea wall due to its poor condition.

We have used our updated wave modelling, coastal process findings alongside new survey data to improve our understanding of the risk of flooding from the sea. The existing height of the sea wall provides a **good standard of** protection however during storm events our model shows that waves may splash over the sea wall and **onto esplanades, seafront infrastructure and into buildings**. Flood water is expected to be at low depths, will recede quickly back down slipways and would **impact very few properties today**. Many properties in the area are raised above the level of the esplanade further reducing their risk of flooding. The number of properties impacted by waves overtopping the sea wall is expected to **increase in the future as sea levels rise**.

Flood risk from the sea could be reduced in Shanklin **by increasing the height of the sea wall** and by **increasing beach levels in front of the sea wall**. This increasing risk with climate change has been considered in the Short List of options which **we will be asking for your views on at our public exhibitions**.



**Natural England have provided advice** on the short-listed options to make sure the options do not have an adverse impact on the Marine Conservation Zone and other important coastal designations. We have also sought early advice from Isle of Wight Council planning services as The Esplanade is one of the character areas which forms part of the Shanklin Conservation Area. We recognise that the quality of the built environment and **preserving historic features is an important consideration in Shanklin**.



## FIND OUT MORE AT OUR EXHIBITIONS!

We are excited to bring you an exhibition to showcase how we plan to restore the Shanklin and Yaverland coastal defences over the next few years. As well as having informative display boards, **the project team will be on hand to tell you about the five leading options**. We will have coastal experts in the room who can answer your questions. **Join us for a free cup of tea or coffee and light snacks**. Bring your children along as we are running a free **LEGO® building competition with fantastic prizes up for grabs**.

### You can find us at:

DATE	TIME	LOCATION
Wednesday 25 October	2pm - 7pm	Café at Wildheart Animal Sanctuary, Yaverland Road, Sandown, PO36 8QB
Thursday 26 October	2pm - 7pm	Café at Wildheart Animal Sanctuary, Yaverland Road, Sandown, PO36 8QB
Friday 27 October	10am - 3pm	Broadway Centre, The Broadway, Sandown, IPO36 9GG
Wednesday 8 November	2pm - 7pm	The Clifton, 1 Queens Road, Shanklin, PO37 6AN
Thursday 9 November	10am - 3pm	The Clifton, 1 Queens Road, Shanklin, PO37 6AN
Friday 10 November	10am - 3pm	The Clifton, 1 Queens Road, Shanklin, PO37 6AN

All of our venues are accessible but if you have any questions please do get in touch with us and we will be happy to support your visit. Friday events have been designed for those who would benefit from a quieter space.



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# WOMEN IN SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

## INTERVIEW WITH JENNIFER GIBSON



To celebrate our ongoing commitment to **equality, diversity and inclusion**, we caught up with Jennifer to talk more about her experience of **working in a still male-dominated sector**. Jennifer is a **Senior Geotechnical Engineer at JBA Consulting**. With nearly a decade in the industry, Jennifer has worked on a wide range of schemes from small housing developments to large infrastructure, including the extension of the Manchester Metrolink. **Jennifer was one of the two female supervising engineers on site for the below ground exploration works at Shanklin.**

### When did you first think about a career in engineering?

During my geology degree, one of the lecturers had been working as a geotechnical engineer prior to moving into teaching. I was already more interested in how to use my degree in a more practical way. Following some conversations and my own research I decided that it sounds like a career I would like to pursue.

### What do you see yourself doing in 20 years' time?

I would like to be leading my own team of geotechnical engineers, I'd likely be a technical director and hopefully still working on a range of projects providing technical support.

### What project that you have worked on are you most proud of?

It's hard to pin down as I have been involved in such a wide range of projects. I think it would be job which involved the stabilisation of a failed slope in a garden. The job was complex to design to ensure stability and a useable space for the homeowners. The design also kept evolving; as the landslip material was removed more issues were uncovered such as higher groundwater and exposure of unstable vertical faces. This led to redesigns within tight timescales. Once the job was complete it felt good to know that the slope is now stable and the homeowners were happy with their garden.

### What has been the biggest challenge in your role?

I think my biggest challenge has been believing in myself. I had not used maths and physics a lot during my degree which led me to double/triple check any calculations but also made me sound unsure of my design when talking to colleagues. This sense of having to explain myself and make myself heard as I grew in experience stayed with me. I recently read an article which outlined that this feeling may also be due to working in a male dominated industry which often can make women feel they need to prove themselves more so that they can be taken seriously. While the industry has improved its diversity it still has a long way to go. When I started my career, I knew that when I was on site with a male colleague the contractor would default to the male engineer for questions even if I was more knowledgeable on the scheme. This does still happen even as a senior engineer. Thankfully there is more allyship and most people point out this bias.



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## INTERVIEW WITH JENNIFER GIBSON



### Who has inspired you in your career?

I have been lucky in my career to have very supportive and knowledgeable bosses and mentors. My main supporter and in a way inspiration is my dad who is an electrical engineer and has always believed in me and lets me bore him while I talk about geology.

If you would like to find out more about working for JBA Consulting, The Environment Agency, Isle of Wight Council and VolkerStevin please search for our respective career's pages online.

## PRIDE 2023

Environment Agency colleagues attended **Pride in Ryde** on a sunny August weekend. Our zero emissions vehicle made its way down Ryde High Street in the parade, which was in good company alongside an NHS ambulance, a Sainsburys delivery van and a Tuk Tuk! Business cards printed on wildflower seed paper were handed out to promote the **EA as one of the top 100 employers for LGBTQ+ people in 2023**. Visitors to the stall were encouraged to make a **climate pledge** and children enjoyed discovering the hidden dangers of flood water which were lurking in the murky waters of our flood tank.

