



# **Pevensey Bay to Eastbourne** Coastal Management Scheme

Sovereign Harbour Residents Association  
29 November 2021



We will share the presentation, with notes after the meeting.




	<p><b>Lou Parker</b></p> <p>Environment Agency Senior Advisor Partnership &amp; Strategy</p>
	<p><b>Andy Walker</b></p> <p>Environment Agency Senior Advisor Operations &amp; Engineering</p>

Lou to introduce herself

Introduce yourself (Describe the Senior User role/EA Client) and the other team members present.

Have threaded the pre-provided questions through the presentation. Try to reference where a question is being addressed.

**Question - From Wendy Jones – Prospect of changes to annual charges - Is there any chance the current annual sea defence charges levied uniquely for Sovereign Harbour residents will be: a) lifted altogether, as unjust charge; or b) divided among all Eastbourne/Pevensey Bay householders (as part of Council tax)**

**We will not be taking questions on the Rentcharge or Sovereign Harbour Beaches Deed 2001 this evening. As this meeting is to share with you details about the start of this new project. We will make time to have a discussion about the SH Beaches Deed matter specifically in due course.**

**It is important to be aware that this project does not change the SH Beaches Deed or the Southern Water rentcharge. This project looks at the long term future of the**

**coastal defence and what form they take.**



Mudeford Quay, Dorset, UK. 2019

## New Flagship Coastal Flood Risk Scheme

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The Pevensey to Eastbourne Coastal Management Scheme is **one of the largest coastal flood risk projects** in the country.



Investment £100+ million over **100 years**



Currently estimated to protect 10,000 homes



Innovation threaded through project development



Championing partnership working to maximise wider benefits

Largest in terms of geographic scale, financial size and properties better protected.

Primary source of funding is **FDGiA from HM Treasury via Defra**, with a significant partnership funding contribution from Eastbourne Borough Council.

**Question From Madeleine Gorman – Funding of project costs, will public funding be available for renewal of the defence scheme(s) in future?**

**100 year project benefits** period allows long term planning

Local strategic policy - Cuckmere Haven to Folkestone East Coastal Strategy (2003); South Foreland to Beachy Head SMP (2006); Eastbourne to Rye Beach Management plan (2017); Eastbourne Local Plan and Wealden Local Plan.

Our initial analysis suggests that around **10,000 homes** could benefit from our work over the next 100 years. However, as we analyse this further this number could increase.

**Question - From Angus Bannerman - Are innovative solutions to coastal protection being investigated?**

**Innovation** – Reduce whole-life carbon by 45%, 20% biodiversity net gain, focus on long-term stakeholder relationships and listening to the community, blue infrastructure and using a pathway process for decision making. To be discussed more during the Q&A.

**Working in partnership** we can achieve significant efficiencies and savings and achieve shared goals.



The project covers approximately a 15km stretch of coastline.

Holywell, near St. Bedes school, marks the western end of the scheme.

Cooden Beach marks the eastern extent of the project.

Sovereign Harbour sits in the middle of the project area and breaks the process of shingle drift from west to east.



## Present Day: Shingle Beach Management

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### Current Management Approach

#### **Question From Ernie Perry – Justification for current work between Grand Hotel and Holywell?**

Currently the project frontage is split very simplistically into two separate cells; both attempt to manage coastal flood risk using shingle beaches.

One frontage managed by Eastbourne Borough Council through a programme of annual shingle beach and timber groynes management and maintenance. Holywell to Sovereign Harbour.

The Eastbourne frontage from which is currently managed by Eastbourne Borough Council to a **0.5% AEP (1 in 200 year return period event)**

The other frontage is managed by Pevensey Coastal Defence Limited on behalf of the Environment Agency, through a 25 year public private partnership agreement. The frontage is maintained with a programme of annual monitoring and shingle recycling. This is to a standard of a **0.25% AEP for breach (1 in 400).**



**Question From Jackie Perry – Annual cost of sea defences along entire frontage –**  
Varies year to year, but a typical year would cost circa £2 million.

Describe:

Shingle recycling - Drifting shingle that temporarily builds up in some places is moved back to areas of erosion in large dump trucks.

Shingle recharge - Shingle lost from the frontage every year has to be replaced. This is done using sea-dredged aggregate brought ashore by dredger Sospan Dau.

Shingle re-profiling - Shingle is drawn down the beach in storms. It is pushed back to ensure the beach crest width remains wide enough.

Timber groynes -

(Littoral drift/Longshore drift) – should this be explained?

## Worst case scenario in 100 years?

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Estimated to protect 10,000 homes



A27 and other main roads



Railway Infrastructure



Tourist Attractions



Historical Assets



Protected Sites

Map shows the potential coastal flooding extent in 2118, during an event with a 0.5% probability (1 in 200 year) of occurring in any given year, if the present flood defences are not improved.

There is complicated science and probability around this scenario, but simply this shows the potential coastal flood outline in 100 years. This is the worst case scenario, if we do nothing, in 100years.

### Questions

**From John Townend – Future sea levels**

**From Angus Bannerman - Alarming article on Sussex Live about rise in sea levels by 2030.**

**From Wendy Jones – Long-term risk to Harbour properties**

**From Jeff Wallis – Long term future protection? How long will the current coastal defences last?**

## Main Objectives

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Protect 10,000 properties & infrastructure



Carbon net-zero by 2030



20% increase in Biodiversity



Long-term & integrated stakeholder engagement

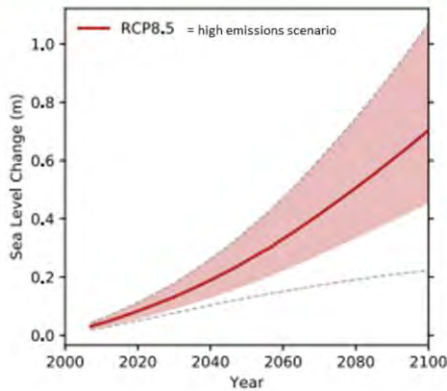


Wider benefits & maximise opportunities

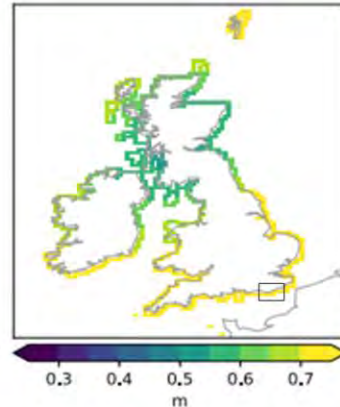
1. Describe the coastal modelling process – run different scenarios to better understand how many homes are at risk
2. Capital works as well as maintenance, this will require innovation. OR Carbon net-zero by 2030
3. Aiming to deliver on-site biodiversity wherever increases wherever possible, in line with new government targets. 20% as a minimum and that is what we are work. Nature-base solutions and blue/green infrastructure.
4. We know engagement is key to success. We already plan to: host public webinars (November), hold public exhibitions, engage with businesses, hold 1-2-1 sessions, work with schools and colleges and communicate in different ways, for example art installations and displays. This engagement shapes all of the other objectives, especially point 5.
5. We know that the coastal strip, where the towns and villages interact with the coast, are of critical importance. This project is full of opportunities to enhance public space in this important area. Re-state the FDGiA funding for flood defence

point

**Question - From Angus Bannerman - Are innovative solutions to coastal protection being investigated?**



UK average sea level change over next 100 years



Pattern of change around the coastline at year 2100

Source: UK Climate Projections, Met Office & others (2018)

## UK Climate Projections

The UK Climate Projections 2018 (UKCP) provides the most up-to-date assessment of how the UK climate may change in the future.

UKCP18 is a climate analysis tool that forms part of the Met Office Climate Programme. The Department of Business, Energy and Industrial Strategy (BEIS) and the Department for Environment, Food and Rural Affairs (Defra) support the UKCP.

The best new science. The projections are based on the latest developments in climate science and were subject to an independent peer review.

The map on the right shows how SLR differs around the UK coast line. Maximum potential SLR being in the south-east of England.

The graph on the left shows the general trend for sea level rise for the next 100 years. This is the SLR projection we will be using to design the project. The light red shows the possible variability within the range for this emissions scenario. The dark red line shows the mean for this scenario. In summary, SLR of over 1m is possible within the

project life and this is the basis for this project.

There are uncertainty in the potential amount of SLR we will experience in Pevensey and Eastbourne is not precisely known at the current time. Which is why we are seeking to deliver this project in a non-traditional manner, using a pathway of activities to respond to rising sea levels.

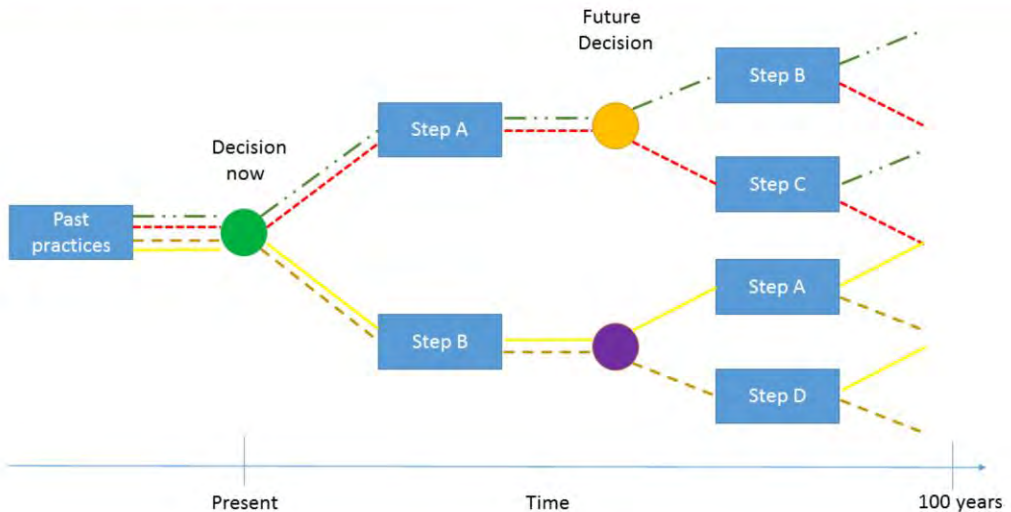


## Steps on a Pathway

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Uncertainty in the potential amount of SLR we will experience in Pevensey and Eastbourne is not precisely known at the current time. Which is why we are seeking to deliver this project in a non-traditional manner, using a pathway of activities to respond to rising sea levels.

Simply – a traditional approach is a single construction for 100 years

A pathway - is a series of responses over the 100 year period, building in the knowledge that things will change

Problems with the traditional approach

- Under design
- Over design
- Non-flexible for climate change and other variables (policy, social, economic)
- Sudden impact of intervention (visual etc.)
- Short-term, pressurised engagement process

Climate change presents many challenges to our communities, businesses and the

natural environment. While we often want to identify a small number of high priority actions, in most cases, there will be more than one way to adapt to climate change at different points in time. Different responses might also be preferred depending on how the climate (and other non-climate parameters such as population or social values) change through time.

A pathways project approach recognises that there are often **many possible ways to respond** to climate change and that a combination of actions, some of which are **taken now** and some that may be **taken in the future**. By breaking down our project into steps, it is easier to take the first step with confidence.

Another significant **benefit** of taking this pathway approach is that it allows us all to **engage over a far longer period** of time.

Because steps along the pathway are only taken at the point when they are required, but discussed a long way in advance this gives people the **time to prepare for future changes** and **removes the pressure** and stress of making sudden changes.



These are broad themes of what landscape improvements could look like. There are many others.

When delivering a flood defence scheme we are often able to combine improvements to the landscape or public realm, with reducing flood risk.

Nature Based Solutions – Habitats that deliver flood risk management, but also reduce carbon e.g. reefs, sea grass, kelp etc.

20% increase in bio-diversity net gain and carbon zero 2030 mean we have to be innovative, this can link to landscape improvements, for example, an off-shore reef could have benefits in reducing flood and erosion risk, but also promotes recreation and tourism. This delivers social and economic opportunities just by delivering work of this nature.

Recreation – Are there specific activities we should look to promote? What would help promote recreation in this section of the coastline?

Dual Amenity – Safe spaces for walking and cycling.

Tourism Aims – How might this connect to landscape works and the public realm?

Accessibility – Are there currently issue with this? What needs to be improved?

Opportunities for other changes to the landscape, over the 100 years of the project.

“Dove-tail” opportunities between organisations.

Deliver flood risk management solutions into the landscape, for example, seating in a flood defence, community spaces in the landscape.

We will be asking the community what they want for this landscape space.

# **Pevensey Bay to Eastbourne** Coastal Management Scheme

Questions from the chat & pre-supplied  
questions



Housekeeping by SHRA – Questions from chat managed by Tony & Dave from SHRA

## **Questions which may not have been answered within the presentation**

**From Stuart Bannerman - To what tide height (above ordnance datum) is it intended to construct improved flood protection at Sovereign Harbour north beach?**

**From Stuart Bannerman - To what extent will the new contract ensure that the standard of protection is achieved or be achievable?**

**From Stuart Bannerman - In general terms, in what form is further flood protection likely to appear?**

**From Stuart Bannerman - Can the EA categorically state that no further costs for these sea defences will fall upon the owners and/or occupiers of residential property at Sovereign Harbour? (Excepting only through general taxation at a national level.)**

**From Stuart Bannerman - Will the EA please provide to SHRA written answers to all the above questions, as well as verbally at the event, as soon as available - and commit to a date when, how and where such answers will be made available?**

**From Janie – Insight into options. According to the website “there are a large number of options available along this varied coastal frontage, nothing has been decided yet”. Can we get some insight into what form some, or preferably all, of these “options” might be? It would be good to have an understanding of what’s likely to be involved, especially with regards to appearance and access.**

**From Lorraine Denham - What is the visual impact?**

**From Lorraine Denham - Are there plans available for all to review?**

**From Lorraine Denham - Name of contractors?**

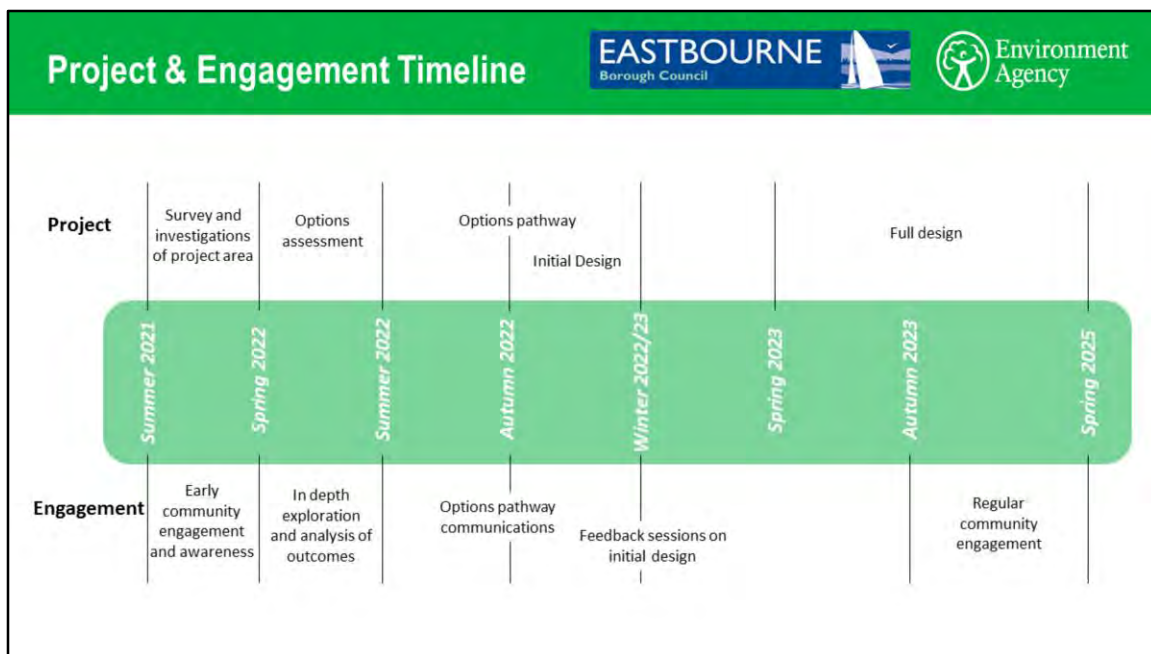
**From Peter Rynston & Lorraine Denham - Will Harbour residents be paying more? Can Harbour Residents be expecting to pay additional costs (above those already imposed), for their 'exclusive' 800 metres of sea defences?**

**Lynne Chiswick – Why do we have to pay for sea defences?**

It should be borne in mind that the reason Harbour residents pay an extra charge is that the harbour entrance blocks the natural drift of shingle that would otherwise replenish the north harbour beach that protects the development, so shingle must be transported to the beach in lorries or supplied by dredger. That extra work would not be necessary if the harbour didn’t exist.

**From Anonymous – Will shingle bypassing and recharging to the North Harbour beach always be necessary? Is the annual shingle bypassing and the dredger recharging always going to be necessary? Are there any viable alternatives to offset the negative effect of the harbour entrance on natural shingle drift?**





What have we done already? Planning phase - Stakeholder Analysis completed. Website. Programming engagement.

- Members briefing
- Key stakeholder briefings, this includes SHRA
- Public Webinars
- Work with schools and colleges
- Interested in using art to communicate some of our project themes
- Further into the future we expect public exhibitions and detailed public consultation
- As the project progresses the level and amount of engagement is expected to increase.

### Next Steps for SHRA

- Explore if there is a desire for specific working groups
- We will present you with the long list of project options in the spring

How will members be engaged going forwards? Regular cycles of updates – how often?

### Project Website

<https://consult.environment-agency.gov.uk/++preview++/solent-and-south-downs/pevensey-bay-to-eastbourne/>

### Project Email

[PevenseyandEastbourneCoast@environment-agency.gov.uk](mailto:PevenseyandEastbourneCoast@environment-agency.gov.uk)



We will use what you and the community tell us to form the project response to the sea level rise problem.

Please share



# **Pevensey Bay to Eastbourne** Coastal Management Scheme

Close to the Session

