



Harbourside Caravan Park – Frequently Asked Questions

Why are we having a vertical wall?

During the early option appraisal stages of any scheme, a long list of options is developed which is then whittled down to a short list and eventually a preferred option. The long list should include all feasible options which are then eliminated based upon their technical/financial/social credentials. The North Portsea scheme was no exception to this and back in 2014 we undertook a series of public consultation events around the area (at Innlodge, Burrfields Road; Anchorage Park Community Centre and Mountbatten Centre). At these events we presented the five shortlisted options to seek public opinion and support. The preferred options were generally raised earth embankments, but along the Eastern Road this is not possible due to the environmentally protected harbour on one side and the Eastern Road on the other. Therefore, a new vertical defence was the only feasible option to take to detailed design and this is what has been designed for the Tipner Lake and Eastern Road frontages.

Why does the wall need to be higher than the current predicted Sea Level Rise?

In relation to the defence height, it is correct that the 1.2m increase in height does not match the projected sea level rise over the next 100 years. Current guidance requires us to allow for 700mm of sea level rise caused by climate change over the next 100 years (see this link to our website for further information on climate change <http://www.escp.org.uk/climate-change-and-sea-level-rise>). However, sea level rise is not the only element of the design height we must consider.

The new sea wall must be a safe place to visit and walk behind, even at high tide in inclement weather. Therefore we tailor the design height to limit the amount of water that is allowed to overtop the wall to a level safe enough for people to walk behind (assuming they are wearing suitable clothing and footwear etc). This has the effect of adding a little more to the wall height.

We must also consider the effect of storm waves, the 700mm accounts only for the still water levels, and this is the greatest element of the flood risk in the harbour. So, again we add on additional height to account for storms waves that are predicted to happen during a 1 in 500 year storm event today and the predicted wave heights in 100 years. This is based upon modelled data which is extrapolated from wave buoy data gathered off the coast of Portsmouth.



We also factor in other elements that may affect the defence level, including settlement, degradation and construction tolerance. The designer will also apply a factor of safety to be confident the proposed levels will last the full design life.

It is worth noting that the guidance upon which climate change allowance is based, UKCP09 is now out of date and will be superseded by UKCP18 during the coming months. The impact of this is that from now on, defences may be designed at a higher level to provide the same standard of protection.

Why do we have a 1 in 500 year Standard of Protection?

During the design development of the scheme, the wall was set to provide a 1 in 200 year standard of protection, and along the Eastern Road this was set at +4.7m above ordnance datum (AOD). The existing sea wall is around +3.6m AOD, therefore an increase of 1.1m was required.

The 1 in 200 year standard was derived from the Portsea Island Coastal Strategy Study, which recommended that the coastline of Portsmouth is protected to this standard.

Once the outline design was complete, the scheme was costed. As part of this process, the EA guidance recommends the standard of protection (SoP) is reviewed to identify if a higher standard of protection would still offer a viable scheme. From this process, we identified that increasing the SoP to 1 in 500 years would add approximately 100mm to the height of the defences at a fairly modest additional cost, which Portsmouth City Council funded. As a result, the increased SoP still provided an affordable and viable scheme, hence being able to provide a higher SoP and the increase in wall height of 1.2m.

Can we have a lower wall in front of the Harbourside Park to protect our views?

It is not possible to reduce the height of the wall to 600mm, even in localised areas as this would put the entire flood cell at risk of flooding over the next 100 years. If we were to do this, there would need to be other measures in place to prevent flood water propagating from the lower protected area. Considering large parts of Portsmouth are below sea level, any set back defences would be significant in size. Also, set back defences were considered during the Portsea Island Coastal Strategy Study and were discounted due to making the scheme unaffordable.

Another option would be to build part of the defence now, and return again in the future to increase the wall level. Again, this was considered during the study and



again discounted due to the costs of remobilising a contractor more than once. This would make the proposal unfeasible and unaffordable.

Can we have a glass flood wall in front of the Harbourside Caravan Park?

Since our meeting with the residents of the Harbourside Caravan Park, the ESCP have been investigating the costs of installation and maintenance for the next 100 years of flood glass over the 300m stretch in front of the caravan park. This will allow us to understand the cost of introducing glass to the scheme, and therefore what size contributions would be needed to enable for this to happen. Once we have a cost understanding, we will also need to instruct our designers to review this option to ensure it is technically feasible to install and maintain flood glass in this location, considering the harbour environment and likely wave exposure. Once this has been carried out, we will be able to have a better understanding whether flood glass can be installed as part of the scheme. The wall in the area of the Harbourside Park is programmed for construction in 2021, therefore there is time to investigate these changes to design.

The Langstone flood and coastal erosion risk management study

Following the appraisal of a number of short-listed options (a flip-up floodwall, floodwall with glass top and demountable defences) the Langstone study has identified a flood wall with a glass top as the preferred leading option in front of the Ship Inn. A glass topped floodwall would be technically feasible due to its very sheltered location at the top of the harbour (minimal wave activity), environmentally acceptable, economical and socially, was the leading option.

As mentioned during recent engagement with the community, funding of £3.1m has been secured from Regional Flood and Coastal Committee (RFCC) Local Levy and Havant Borough Council Community Infrastructure Levy [CIL] funds, to progress the study through to detailed design. In addition, the scheme could qualify for around £500k from Government Flood Defence Grant in Aid (FDGiA), but there is still a shortfall of around £900k to progress to construction. The project team are seeking contributions from local businesses and other funding streams to meet this shortfall, however if full funding is not secured then the scheme will not go ahead. The North Portsea scheme is fully funded by FDGiA and there has been no need to seek additional funding.

For further information, please see our website: <https://www.escp.org.uk/langstone>



For further information on the scheme, please see our website:
<https://www.escp.org.uk/news/eastern-road>

Working together - protecting our coastline