

Environment Sub-Committee

8 March 2017

Present: Councillor B Burdis (Chair)
Councillors G Bell, L Bell, D Drummond, E Hodson, M
Huscroft, W Lott, G Madden, J O'Shea, M Rankin and M
Thirlaway.

E40/03/17 Apologies

Apologies for absence were submitted on behalf of Councillors P Brooks and F Lott.

E41/03/17 Substitute Members

In accordance with the Council's Constitution the following substitute member was reported:

Councillor J O'Shea for Councillor F Lott

E42/03/17 Declarations of Interest and Dispensations

There were no declarations of interest or dispensations reported.

E43/03/17 Minutes

Resolved that the minutes of the meeting held on 8 February 2017 be confirmed.

E44/03/17 Coastal Erosion

Consideration was given to a presentation which provided an overview of the works carried out to investigate the perception that there had been a significant loss of sand from the beach at Whitley Bay over recent years. It was noted that anecdotal evidence obtained from photographs taken at the area in the 1930's showed that there appeared to be much more sand on the beach than was currently the situation. Reference had been made to the beach area near to the Lower Central Promenade being bereft of sand. It was stated that the surface of this area was littered with broken bricks and very little sand. Reference was also made to the two outfalls which had been removed in the 1990's and clarification was sought on whether the removal, by Northumbrian Water, of the storm outfalls had contributed to the loss of sand from the beach.

Nick Cooper, Technical Director at Royal HaskoningDVH, attended the meeting and explained that he had been commissioned in December 2016 to examine whether there was evidence that sand loss had occurred and if so to identify options to reduce the loss of the sand and to suggest options to enable the beach to recover.

He explained that he had undertaken a high level study of the available data including a sediment transport study covering the area from the Scottish Border to Flamborough Head. Data had also been collected from a number of other studies carried out in the area, some of which were still ongoing. He explained that as part of the regional coastal monitoring programme beach profile surveys had been carried out along with beach topographic surveys carried out on an annual basis. There were also 2 yearly walkover inspections of the North Tyneside Coastal Area. It was explained that although there was data available going back to 2002 this was not sufficient to be able to identify long term trends. Ideally there was a need for decade's worth of data to be able to identify long term trends. He also explained that there was a natural variability of beach levels, which could go up or down depending of weather and tidal conditions. From the evidence available it had not been possible to see a long term measurable effect of beach erosion.

He explained that sand was being dragged off the beach and deposited offshore as a sandbar and the material would then be dragged down the coastline by the effects of the tide.

It was explained that there was insufficient data available to determine whether the removal of the outflows had contributed in any way to the loss of sand.

A number of engineering solutions were outlined including:

- the creation of offshore breakwaters although it was noted that these would be costly, complex and could lead to localised scouring of areas of the beach. A breakwater would break up the wave action and slow down the water hitting the beach which would reduce the amount of sand removed.
- the creation of groynes, either timber or concrete, was an option but these worked best when there was longshore drift rather than the situation at Whitley Bay where the wave action was mainly at right angles to the beach. The cost of 2 timber groynes was around £0.28M and 2 concrete groynes would cost around £0.527M
- The replenishment of the beach through the importation of sand from another location. It was explained that this had been carried out at Newbiggin by the Sea and the scheme had cost in excess of £1M. The material had to be acquired from a licensed site, the nearest of which was in Lincolnshire which added to the cost of such a scheme. It was explained that it might be possible to look at obtaining material from a harbour dredger on the basis that it was a beneficial use of dredged material which may reduce the cost.

Members sought clarification on a number of issues including:

- the availability of funding to carry out a scheme to protect or restore the beach. It was noted that the replenishment of the sand on the beach was an amenity issue and as such was unlikely to qualify for funding from the Environment Agency. Reference was also made to the scheme to recharge the beach at Newbiggin by the Sea and it was noted that the cost of such a scheme would be over £1M and to do the same at Whitley Bay would cost in the region of £3M to £6M due to the large size of beach;
- the lifespan of the various types of groynes and the suitability of rock defences. It was noted that rock defences had been discounted due to the impact on amenity and the safety of children.
- the possibility of incorporating energy generation in to a breakwater

It was noted that whilst each of the alternative engineering solutions could have some impact on the reduction of sand levels at Whitley Bay there were none which could guarantee the permanent replenishment of the beach. The erosion of the sand was a natural process and it was possible that in future the beach could be replenished naturally.

Each of the options would be would be expensive to carry out and would require ongoing maintenance which would again have a financial implication for the authority.

A number of options were presented for Members consideration including the trial installation of groynes to replicate the former storm outfalls or further examination of a beach recharge solution. It was explained that the cost of a trial installation of groynes would be similar to the cost of permanent installations. Members therefore considered that it would be appropriate to continue monitoring the situation and report back should there be a significant change.

The Chair thanked Mr Cooper and Mr Newlands for their report.

It was **AGREED** that the report be noted