European Union
European Regional Development Fund

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Longrock Coastal Protection Scheme

Exhibition Report

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1 INTRODUCTION

The proposed project comprises of three areas of work which will be funded by grants from the European Regional Development Fund and the Environment Agency. The areas of work include the installation of Rock Armour along Long Rock Beach, water level and habitat improvement to Marazion Marsh and the construction of fish and eel passes within Trevaylor and Chyandour Streams.

1.1 Long Rock Coastal Defence

1.1.1 Due to erosion of the existing embankment along Long Rock Beach, approximately 295 residential properties, 65 industrial properties and the Penzance to London railway line are in imminent danger of flooding. Therefore it is proposed that 350 metres of rock armour will be installed where the existing embankment is most vulnerable. The overall layout of the rock armour will include three overlapping sections, which will protect the embankment whilst also allowing continued pedestrian, disabled and vehicle access to the beach.

1.1.2 The rock armour will be made up of 60-300kg and 1-3 tonne armour stone which will be sourced locally. It is also proposed that areas behind the rock armour will be landscaped to allow an area for benches.

1.2 Marazion Marsh Works

1.2.1 Working with the Royal Society for the Protection of Birds, 3.9ha of environmental improvements have been designed to improve biodiversity and habitats within the marsh. The installation of an automatically operated water control device within the existing culvert will allow the management of water levels between 1.8mAOD and 2.5mAOD. The water control device will therefore ensuring a year round wetland habitat, whilst maintaining safe water levels within the marsh. A silt trap is also proposed to be installed to the North West corner of the marsh to reduce the quantity of sediment entering the compartment. It is currently estimated that 140m^3 of sediment enter the marsh each year, it is believed that the proposed silt trap will reduce this amount by approximately 90%.

1.2.2 The final improvements to the marsh will be the construction of a series of open water channels. These channels will help improve the diversity of water dependent habitats, which in turn will contribute to the diet of many birds.

1.3 Fish and Eel Passes

1.3.1 Four sites along Trevaylor and Chyandour Streams have been selected as areas which could be improved to aid the migration of fish and eels to breeding sites. The improvements include the construction of notches in existing stone weirs, stone ramps downstream of existing weirs and eel channels.

2 EXHIBITION FEEDBACK

2.1 Description of the exhibition

An exhibition was held on Monday 10th September 2018 at the Marazion Community Centre between the hours of 2pm and 7pm. The exhibition was advertised using a wide range of media including letter drops, site posters, newspapers and social media

2.1.1 Boards showing the proposed works were displayed for review by members of public. In attendance at the exhibition were representatives of the Environment Agency, Cornwall Council, the Royal Society for the Protection of Birds, CORMAC designers and contractors, as well as specialists in coastal defence and environmental improvements. Feedback forms were provided to all those who attended.

2.2 Feedback statistics

2.2.1 Approximately 160 members of the public attended the event, with 47 written comments being received.

2.2.2 On recipe of the feedback forms, the responses were then categorised in to which project the comment referred to and as to whether the feedback was positive, negative or of another nature. The results of the feedback are shown in the table (Figure 2.1) and chart (Figure 2.2).

Area of proposed works to which the comments apply.	Feedback		
	Positive	Negative	Other
All areas of the proposed works	9	0	0
Coastal Defence	5	4	14
Marsh Works	0	2	5
Fish and Eel Passes	0	0	0
Areas outside of the scope of these works	0	0	8
Total	**14**	**6**	**27**

Figure 2.1 Table of responses received.

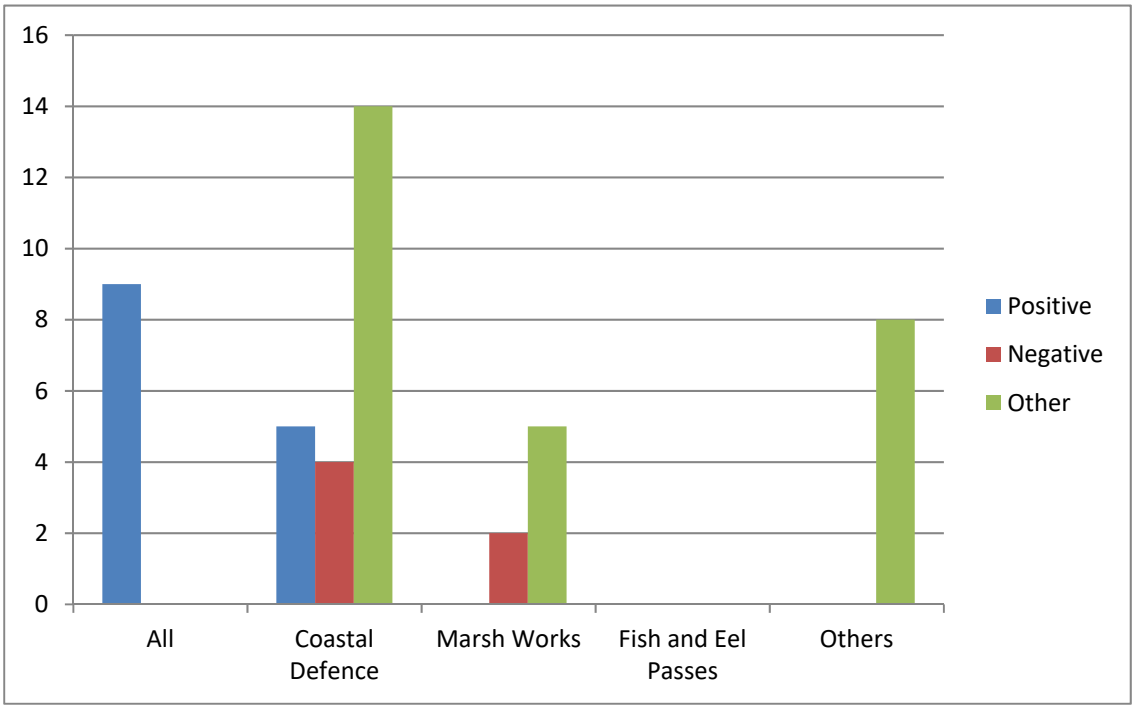

Figure 2.2 – Chart of response received.

3 SUMMARY

3.1 Review

3.1.1 Although majority of the feedback was of a positive nature, there were a number of common concerns raised, which have been summarised within the following section, together with the responses provided at the event.

3.1.2 Comments received for areas outside of the scope of these proposed works have not been included within the comment summaries, but have been passed on to Cornwall Council for further consideration.

3.2 Common Comments and Responses

3.2.1 Rock Armour Design

Comment
There were a number of concerns raised regarding the use of rock armour as a method of coastal defence, specifically relating to the aesthetic of the rock armour.

Response
During the design stage, various coastal protection measures were considered. However, rock armour was the chosen design, as it would help dissipate wave energy, whilst a concrete or stone wall defence in this location would likely result in reflective wave energy causing additional scouring of the beach.

3.2.2 Rock Armour Deliveries

Comment
A number of residents raised concerns regarding the logistical or rock deliveries for the proposed sea defences. The delivery of the stone was questioned on separate feedback forms as some feared the deliveries would result in an increase of HGV movements within the area.

Response
During the design stage, various methods of stone delivery were considered. Whilst bringing stone in by barge was considered, it was felt that due to the nearness of the Marine Conservation Zone to the area of the proposed works, that road transport would be the more environmentally responsible method of delivery.

3.2.3 Temporary Closure of the Long Rock Car Park

Comment
Although it was globally acknowledged that the car park would need to be closed for the duration of the works for safety reasons, concerns were raised regarding the lack of parking for walkers and beach users during the construction stage. Although alternative car parks are available, it has also been noted that these car parks are more expensive.

Response
Cornwall Council are currently in negotiation to arrange temporary alternative car park for the duration of the construction stage.

3.2.4 Increased Risk of Flooding Within the Marsh

Comment
Two comments raised the concern of possible increased risk of flood to the roads and surrounding areas around the marsh.

Response
As part of the design process, extensive fluvial modelling has been carried out in order to understand water levels and flow paths in and around the marsh. This modelling has led to the proposal to provide automated water level monitoring and level control. It is proposed that the water control device would be powered from a dedicated electrical supply, with a battery back-up in case of regional power outages.