

**ANGUS COUNCIL**

**COMMUNITIES COMMITTEE – 15 NOVEMBER 2016**

**MONTROSE BEACH STUDY UPDATE**

**REPORT BY HEAD OF TECHNICAL AND PROPERTY SERVICES**

**ABSTRACT**

This report updates the Committee on progress of implementation of measures to manage beach erosion at Montrose.

**1. RECOMMENDATIONS**

It is recommended that the Committee:

- (i) notes the update on progress of implementation of measures to manage beach erosion at Montrose; and
- (ii) approves the proposals for future continuation of the implementation of measures to manage beach erosion at Montrose by the Head of Technical and Property Services, as funding allocations allow.

**2. ALIGNMENT TO THE ANGUS COMMUNITY PLAN/SINGLE OUTCOME AGREEMENT/COPORATE PLAN**

This report contributes to the following local outcomes contained within the Angus Community Plan and Single Outcome Agreement 2013-2016:

- Our communities are prosperous and fair;
- Our communities are safe and strong;
- Our communities are sustainable; and
- Our natural and built environment is protected and enjoyed.

**3. BACKGROUND**

Reference is made to Agenda Item No 4 - Report No 15/16 - Schedule 6 of the minute of meeting of the Communities Committee of 19 January 2016, along with Agenda Item No 4 - Report No 460/14 - Schedule 2 of the minute of meeting of the Communities Committee of 18 November 2014, and Report No 139/13 and Report 687/11 of the Infrastructure Services Committees of 5 March 3013 and 11 October 2011 respectively.

**4. CURRENT POSITION**

**4.1 Montrose Beach Management Plan**

The measures proposed are intended to slow down the rate of erosion in the dune system by promoting an increase in the height of the upper beach to reduce the susceptibility of the dune toe to wave attack without detrimentally impeding long-shore sediment transport.

A series of potential measures to manage the erosion within the bay were highlighted and progress made to date on these as reported previously to committee (reference Agenda Item No 4 - Report No 460/14 - Schedule 2, Report No 139/13 and Report 687/11) and in this report.

The measures can be summarised (reference section 4.3 of Report 687/11) as:

- Bathymetric Surveys & Programme of Beach Profile Monitoring
- A - Sediment Management
- B - One Off Direct Shoreface Recharge
- C - Beach Control Structures
- D - Dune Management

Details of the activities undertaken for each of these measures and those now required are provided in Section 6 of this report.

#### 4.2 Flood Protection Study for Montrose

The Flood Protection Study for Montrose is an action for the council under the Local Flood Risk Management Plan (reference Report 87/16). These studies will seek to identify what flood protection schemes/works (which include coastal protection) are identified for prioritisation for Scottish Government funding in the second six-year flood risk management planning cycle from 2022. The Flood Protection Study for Montrose will therefore give consideration to the measures required to manage and reduce flood risk and manage coastal protection.

#### 4.3 Shoreline Management Plan 2

Alongside the publication of the Local Flood Risk Management Plans, the proposed Shoreline Management Plan 2 (SMP) is due to be presented to a near future committee for approval. The first SMP, which was published in 2002, allowed for a combination of limited intervention and managed retreat for a period of up to 10 years, followed by no active intervention. The preferred policy for consultation in SMP2, which has been considered against periods over 0-20; 20-50 and 50-100 years, is a 'managed realignment'. This will enable the dune system to function naturally with minimal interference, but allow localised dune management if necessary to maintain the integrity of the dunes, through managed realignment and monitoring. Realignment of some parts of the Golf Course will be required. Potential for beneficial use of River South Esk dredged material along the frontage as part of the scheme is also included.

#### 4.4 Sediment Tracing

4.4.1 The sediment tracing study to determine how effective any near-shore recharge operations would be, i.e. direct deposition of sediment material close to the beach frontage, has been completed. The study involved a trial near-shore discharge of sedimentary material dredged from the South Esk channel commenced in April 2015 and concluded in April 2016. Angus Council, in partnership with Montrose Port Authority (MPA), dredged an agreed quantity of sediment from the Port's navigation channel for use in the study. This sediment was deposited at targeted near-shore locations identified by Angus Council and their specialist consultant Partrac Ltd, who have then been recording and analysing the findings, and University of Dundee reports. The aim of the tracing was to identify the quantity, direction and rate of longshore transport of the deposited sediment.

4.4.2 The study has identified movement of the sediment tracers from the dumping location onto the lower mid-foreshore area. The findings of the study have been shared with MPA as our partner to enable the development of plans for the dredging of the port navigation channel in 2017 to progress.

4.4.3 The findings of the study as presented to this committee are to be communicated to their MPA Board.

#### 4.5 Other Measures

- 4.5.1 Beach scraping works, for which Angus Council have a three year licence, which were postponed temporarily due to the identification of sediment tracers on the beach and then due to the presence of protected sand martins have resumed.
- 4.5.2 The contract is to be extended to include protection works to the zone to the north of the hard coastal defences to Traill Drive, where the beach access ramp has been damaged. These extended works will include the relocation of rock armour from the strongpoints (previously protected headlands adjacent to the golf course). In the first instance, the rock from the second, northernmost strongpoint will be used to protect the area where the new beach access will be constructed. The remaining rock will be used to extend the area protected over winter 16/17 past the first strongpoint, which forms the headland adjacent to the 2nd tee of the golf course. This staged removal of the historically protected strongpoints will create a transition zone between the hard coastal defences to Traill Drive and the coastline to the north, adjacent to the golf course. This approach is consistent with the beach management plan and Shoreline Management Plan 2, where less engineering activities to promote dune protection and working with natural processes are to be relied upon.

#### 4.6 Montrose Golf Links

- 4.6.1 Officers continue to work with Montrose Golf Links Limited (MGLL) representatives and committee in the development of the golf course realignment. Officers have attended a number of meetings to discuss the proposals and ongoing erosion problems and the impact for the course.
- 4.6.2 It remains clear that the realignment of the golf course needs to be progressed by MGLL. It is also clear that good communications between the council and MGLL are required to best deliver on the respective priorities of each organisation.
- 4.6.3 At a recent meeting between officers and representatives of MGLL, the planned extension to the beach scraping works contract, reference section 4.5 of this report, were discussed. The relative positions of the council, in terms of following the planned interventions within constrained budgets, and MGLL, in wishing to find a managed approach to dealing with the effects of the erosion, were understood. It was agreed that the council would keep MGLL well informed on the delivery of the extended beach scraping works contract, which afford protection to the beach access and zone to the north of north of the hard coastal defences to Traill Drive. These works would also provide temporary additional protection to the headland adjacent to the 2nd tee of the golf course for the winter period 2016/17 with the relocation of rock armour from the second strongpoint, which was well received by MGLL representatives.

### 5. PROPOSALS

- 5.1 It is proposed that the findings of the sediment tracer study are shared with the formal Montrose Beach Study Stakeholder Group, which includes MPA, GSK, Marine Scotland, SNH, and MGLL.
- 5.2 It is proposed that a similar full-scale trial, delivered in partnership between Angus Council and MPA, is undertaken in 2017, and subject to funding an agreement reached. It is proposed that the entirety of dredged sediment from the Port's navigation channel would be used. This sediment would be deposited at targeted near-shore locations. The approvals of Marine Scotland and the Crown Estate would be required for this full-scale trial, once agreement has been reached between Angus Council and MPA.
- 5.3 To support Angus Council in the identification of the locations, to identify the quantity, direction and rate of longshore transport of the deposited sediment, and to record and analyse the findings, it is proposed early involvement of a specialist consultant is sought, subject to funding.

- 5.4 It is proposed that the exploration of funding options be continued and funding for the remaining activities undertaken for the Montrose Beach Management Plan measures and those now required, see Section 6 of this report, be sought within the council's budget setting process.

## **6. FINANCIAL IMPLICATIONS**

- 6.1 The council's budgetary commitment to the Montrose Beach Study since 2011/12 amounts to £386,000. Up until 2016/17, this has allowed for the continued delivery of surveys and monitoring, and measures A and D (see paragraph 4.1), including the sediment tracer study, and erection of sand fencing and beach scraping respectively. Option B has been accepted as a multi-million pound intervention for which no funding source has been found to date.
- 6.2 In relation to measure C, £140,000 has been allocated from the Local Capital Fund for Flooding Works resulting from Storm Frank in winter 2015/16 (reference Report No 314/16). This allocation is required to remove the rock armour at the headlands adjacent to the golf course, which have now passed their design life and have been outflanked. The works to remove the rock armour will also seek the improvement of the beach access from Traill Drive, which has suffered from annual storm damage and necessitated ongoing repairs. Discussions are ongoing with MGLL on how these works will affect the golf course frontage. For winter 2016/17 the rock relocated from the northernmost headland will be used to afford additional temporary protection to the headland adjacent to the 2<sup>nd</sup> tee of the golf course. An additional budget of £100,000 is estimated to be required to complete these improvements to the zone to the north of the hard defences to Traill Drive. Funding options for this additional budget are being explored.
- 6.3 Also in respect of option C measures, repairs and renewal works to the hard coastal defences that protect directly Traill Drive and The Splash are required. Repairs are required to the steel sheet piles and concrete defences, some of which will require renewal. A budget of £250,000 and £200,000 is estimated to be required over a two-year period to complete these repairs and renewal works to protect the council's assets, for which funding options are being explored.
- 6.4 An initial budget of £100,000 in 2017/18 and £50,000 annually for a further two-year period (2018/19 and 2019/20) is estimated to be required to establish the full-scale sediment trial and maintain the monitoring and reporting. It is anticipated that based on positive beach recharge results that subsequent annual dredging by MPA will be deposited near shore. Funding options for this budget are being explored.
- 6.5 The costs for the Flood Protection Study for Montrose are contained within the £192,000 annual allocation within the Technical and Property Services budget for delivery of actions from the approved Local Flood Risk Management Plans for Tay Estuary and Tay Local Plan District (reference Report No 314/16).
- 6.6 The costs of the completion and publication of the Shoreline Management Plan 2 are contained within existing Technical and Property Services budgets, as are the continued administration of the Montrose Beach Management Plan.

## **7. OTHER IMPLICATIONS**

### **7.1 Risks**

- 7.1.1 The coastline of Angus is subject to erosion and accretion from natural processes. The impacts of these natural processes can be and are being managed through the Shoreline Management Plan 2 and the Montrose Beach Management Plan. It is for all landowners and those with interest in the land to seek to manage the risks from the effects of the impacts. This will invariably mean that organisations must prioritise protecting their own assets without adversely affecting others.
- 7.1.2 This report identifies a series of proposed measures that form and inform the Montrose Beach Management Plan and seek to provide protection to a number of council assets along the Montrose Beach frontage, principally the beach access ramp, Traill Drive and The Splash.

- 7.1.3 It is clear that the realignment of the golf course, which is a significant asset, needs to be progressed by MGLL. In addition, MPA and GSK also have significant assets that need to be managed and protected accordingly. The management of these risks are aided by the collective knowledge base provided by the Montrose Beach Study Stakeholder Group.
- 7.1.4 The report identifies allocated funding for implementation of only some of these measures by the council. There is considerable interest in Montrose in relation to the Golf Links and the ongoing erosion of the dunes which is having an ongoing impact on the course and its future. This report makes clear it is for the Montrose Golf Links Limited to plan for, fund and execute changes and not Angus Council. It is possible that Angus Council will be able to assist with applications for grant funding but Angus Council are not responsible for funding any works to the golf course.
- 7.1.5 For the proposed measures where funding is being explored, and subject to approval, there will be ongoing coastal protection risks to beach users, council assets and the golf course. These ongoing coastal protection risks will be monitored and reviewed by officers. Further reports to committee will be submitted as required in due course.

**NOTE:** The background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (other than any containing confidential or exempt information) which were relied on to any material extent in preparing the above report are:

- Report No 314/16, Policy & resources Committee of 30 August 2016
- Report 87/16, Communities Committee of 1 March 2016
- Report No 15/16 - Schedule 6, Communities Committee of 19 January 2016
- Report No 460/14 - Schedule 2, Communities Committee of 18 November 2014
- Report No 139/13, Infrastructure Services Committees of 5 March 2013
- Report 687/11, Infrastructure Services Committees of 11 October 2011.

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