**West Sands - Sand Dune Restoration for Eden Estuary SSSI Method Statement**

**Proposed Works 2020-2023**

**Introduction and recent restoration history**

­The West Sands dunes are a critical part of the sand dune feature of the Eden Estuary Site of Special Scientific Interest (SSSI) and are currently reported as ‘Unfavourable Recovering Due to Management’ by Scottish Natural Heritage (SNH) contributing positively to Scottish Governments National Performance Indicator 37. In order to maintain this condition Fife Coast and Countryside Trust within the West Sands Partnership are seeking a licence to extract sand to continue repair of 6 significant blowouts, install 4 new dunes at beach access points in the dunes, which also function as a natural coastal protection for the facilities that lie west of the dunes.

Restoration work took place on West Sands to include full scale restoration, by reprofiling the southern end of the dunes under a planning application to improve access facilities consented in 2008 and completed in 2010.

<http://www.fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&pubid=F5297F0E-ABB4-CE15-1DD140D895A385F4>

Work since this large scale project has led to 1.75km length of dunes to be fenced and revegetated to encourage sand capture and stabilise the dunes by the Eden Estuary Reserve Manager and volunteers over the last 5 years. This has worked very well in combination with cessation mechanical cleaning the dunes have built up and established embryo dune habitat each summer since 2010, which has not occurred in decades prior to the restoration efforts. This is most remarkable since 2015.

Further dune recharges were consented and made during previous licence period to 2018 to reconfigure poor and straightened access routes into more natural and contoured pathways to reduce flooding potential. Internal dune craters were filled with harvested sand and mixed with donated Christmas trees to heal and develop dune stability.

<http://planning.fife.gov.uk/online/applicationDetails.do?activeTab=summary&keyVal=K15QTXHF0G600>

**Methodology**

This application seeks to take up to 2600t of sand over the course of three years, the first 1700t will be used in years 1 and 2 to bund and infill to 2m depth substantial blowouts along the eastern edge and as part of our Christmas tree crater infill project 2020. The bunds and backfill will be planted with marram grass and sea lyme grasses. This initial take will also include creation of small new dunes to protect new all abilities access routes through the dune system. The remaining 900t of sand winnings would be used over the three year term of the MS licence to fill in any smaller blowouts as they are identified. Sand would be taken from the same donor site as indicated and also within the same calendar months due to the sensitivities of the European designations and recreational activities on site.

Extraction of sand would be limited to the months between September and March in each of the three years the licence will be in place. This takes into cognisance the ongoing licenced operations by St Andrews Links Trust, availability of man power, whilst taking into account the Natura designations.

It is expected that the extraction of 1700t in the first period of the licence to bund the seaward edge blowouts, create new access dunes and infill the ‘tree’ crater will take approximately 14 days to complete in total and any future sand winnings will be approximately 5-7 days, as these works are expected to be smaller operations. Operations will not run over these time periods consecutively however this is an approximation of time taken given variables such as tides and available manpower.

The donor site would be as indicated in the map provided (Appendix 1) excavated at a shallow depth between 150mm and 200mm over a large area to avoid undermining the area we are aiming to protect. Plant used to take sand winnings using a tracked, 360 degree, 7 tonne extractor feeding either 3 or 6 tonne dumpers. This methodology and approach is based on the current licence provide to St Andrews Links Trust by Marine Scotland.

The evidence suggests that sand is stable generally at West sands however there is noted in 2017/18 report a noted beach loss in the northern sector as informed by Dr Jack Jarvis of the University of St Andrews. In recognition of the recommendations made, the donation area is set 500m further south during this harvest period (2020-2023) if agreeable.

 As this application is to improve the sand dunes and will still be held within the coastal cell (only moved a matter of 500m at most) this operation will not be to the detriment of the site or undermine the nature designations.