Supporting document for: **Scottish_Saltmarsh_Realignment.lpk**

Project	Blue carbon potential of Scottish inter-tidal wetlands and the implications of sea-level rise: policy brief.
Funding	ClimateXChange (IQ20-201)
Staff Responsible	Craig Smeaton
Research Team	1. Craig Smeaton (University of St Andrews) 2. Alex Houston (*University of St Andrews*) 3. Thorsten Balke (*University of Glasgow*) 4. William E.N. Austin (*University of St Andrews*)

Metadata Type	**Details**
Data Resource ID	Identification and mapping of potential sites suitable for saltmarsh habitat creation in Scotland through manged realignment under current and future sea levels.
Description of dataset	This dataset comprises of the outputs from geospatial model used to identify and map sites suitable for the creation of new saltmarsh habitat across the Scottish coast under current and future sea levels. The work was carried as part of the ClimateXChange project (IQ20-201) - Blue carbon potential of Scottish inter-tidal wetlands and the implications of sea-level rise: policy brief
Locations of the observations	Scotland
Location Descriptions	Geographic Extent: 54.251069, -6.262840 54.564402, 0.464285 58.742170, -0.204728 58.994955, -7.092833
Names of the variables or parameters observed or simulated	**Data Inputs** Scottish saltmarsh sites (Smeaton et al., 2021) Current realigned sites (OMReg) Saltmarsh Vegetation Mapping (Haynes, 2016) **Project Outputs** Potential realignment sites National Outlines (Digimap.ac.uk)

	Potential Sites Spatial Models
All procedures used to make observations or simulations (field/lab where applicable)	The modelling approach utilised the latest open access LiDAR data for Scotland's coastline in conjunction with regional tidal data (ntslf.org/) to identify sites suitable for managed realignment and to map the potential extent of high a low marsh. Across Scotland's coast fifteen sites were identified largely across the major eastern estuaries. Future modelled sea levels were projected onto these sites to determine the potential loss of these newly created saltmarshes under future climate scenarios. Spatial models were created for five future sea level scenarios derived from the Met Offices UK climate projections (UKCP) these include the best-case scenario (RCP 2.6 - 5th percentile), worst case scenario (RCP 8.5 - 95th percentile) and the median (50th percentile) estimated sea level across the three core scenarios (RCP 2.6, 4.5, 8.5) for the years 2032, 2045 and 2100. Full details of the methodology can be found in the ClimateXChange report - IQ20-2021 - Scottish inter-tidal wetlands, sea-level rise and the potential for managed realignment to deliver blue carbon gain.
Calibration procedures, where applicable	NA
Statistical treatment of the observations or simulations	NA
Data checking procedures (quality control)	NA
File formats used	.lpk
Other information	**Spatial projection:** OSGB 1936 **Software:** ESRI ArcGIS
References	AMPmer, (2021), OMReg, habitat creation database, https://www.omreg.net/ Haynes, T.A. (2016). Scottish saltmarsh survey national report. Scottish Natural Heritage Commissioned Report No. 786. Smeaton, C., Miller, L.C., Ruranska, P., Austin, W.E.N. 2021. Organic carbon density of surficial soils across Scottish saltmarshes. doi: 10.7489/12389-1