

Purpose of this document

This document provides a summary of Dynamic Coast's Coastal Zone Classification.

Context

Whilst Dynamic Coast provides a risk assessment for coastal change, often it is useful to consider the regional distribution of either coastal assets, or assets at risk. To inform this the 'Coastal Zone Classification' was developed which defined a series of consequential ca 1km² segments around the coast of Scotland. The number of assets that were within each of these segments were then reported, ie how many residential property, lengths of roads etc.

A rule-based classification was then developed to define which of these segments fell into three categories including, Developed, Less Developed and Undeveloped.

Results

A subset of the CZC is shown in Figure 1, however an interactive version is also available [here](#). Please ensure CZC is visible on the layer list. Each of the segments are also consequentially numbered, from the east coast anti-clockwise. These coastal segments have also been used to report other data, including the assets within 50m from MHWS and those anticipated to be at risk from erosion.

Methodology

In plain English, the method is explained below:

1. The number of residential properties and non-residential properties within each cell were summed. This value was then divided by the area of the segment to produce a total number of properties per km². So, segments that contained less than or equal to ten properties (including both residential and non-residential) per km² were classified as 'Undeveloped'. Following on from this, all cells were considered including those just classified by considering:
2. Segments that contained more than 10 but less than 50 properties per km², or those segments contained any rail, road, clean water or wastewater pipes, were classified as 'LessDeveloped'.
3. Segments that had greater than 50 properties per km² were classified as 'Developed'.

Coding

The following definition queries are used consequentially to first define Undeveloped, then consider which are Less Developed (based on all segments, and thus including those just defined as Undeveloped), then consider which are considered to be Developed:

UnDev: "RP_NRP_KM2" <= 10"

*LessDev: ("RP_NRP_KM2" > 10 AND "RP_NRP_KM2" <= 50) OR ("RAIL_LEN" > 0) OR ("ROAD_LEN" > 0)
OR ("CLNWTR_LEN" > 0) OR ("WWLINE_LEN" > 0)*

Dev: "RP_NRP_KM2" > 50

Data availability

Please contact dynamiccoast@nature.scot to request the data.

www.DynamicCoast.com/files/data/CZC_Assets_FINAL.zip

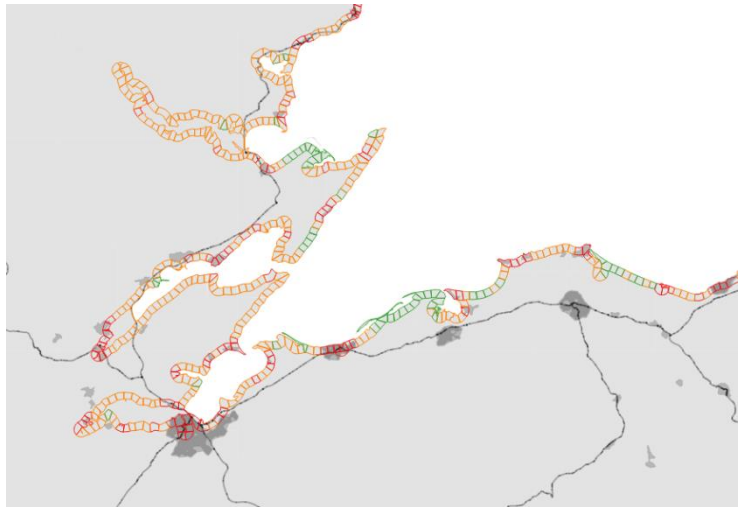


Figure 1 Figure 1 Map showing the 1km coastal segments. Developed segments are shown in red, Less Developed in Orange and Undeveloped in green.

