

Supplementary Material Table S1: List of the final selected variables and their states in BN model

No.	Variable	Abbreviation	Unit	Classes				
I	Parent nodes (drivers)							
1	Sea surface height above the geoid	SSH	m	(-Inf, -0.381]	(0.381, -0.355]	(-0.355, +Inf)		
2	Eastward sea water velocity	ESV	m s ⁻¹	(-Inf, -0.00525]	(-0.00525, 0.0228]	(0.0228, +Inf)		
3	Northward sea water velocity	NSV	m s ⁻¹	(-Inf, 0.000844]	(0.000844, 0.0617]	(0.0617, +Inf)		
4	Wave direction from	WAD	degree	[0, 104]	(104, 114]	(114, 360)		
5	Significant wave height	WAH	m	[0, 0.357]	(0.357, 0.398]	(0.398, +Inf)		
6	Maximum significant wave height	MWAH	m	[0, 3.51]	(3.51, 5.03]	(5.03, +Inf)		
7	Sea surface wave mean period	WAP	s	[0, 3.39]	(3.39, 3.46]	(3.46, +Inf)		
8	Significant wind wave height	WIH	m	[0, 0.201]	(0.201, 0.235]	(0.235, +Inf)		
9	Wind wave direction from	WIH	degree	[0, 130]	(130, 132]	(132, 360)		
II	Child nodes (assessment endpoints)							
10	Diffuse attenuation	KD	m ⁻¹	(-Inf, 0.16)	[0.16, 0.19)	[0.19, 0.21)	[0.21, 0.24)	[0.24, +Inf)
11	Suspended particulate matter	SPM	g m ⁻³	(-Inf, 6)	[6, 8)	[8, 10)	[10, 12)	[12, +Inf)
12	Shoreline evolution	SEV	m yr ⁻¹	(-Inf, -10)	[-10, -1)	[-1, 1)	[1, 10)	[10, +Inf)

Supplementary Material Figure S1: Annual Net Shoreline Movement for the period 2015 – 2019



