

ARUP		Job No.	Sheet No.	Rev.
		264326		
		Member/Location		
Job Title	Barmouth North Promenade OBC	Dir. Ref.		
Calculation		Made by	RJ	Date 26/03/19 Ctd. RC

Key:	Negative impact	Positive and negative impacts	Positive impact
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Reference	What is it?		Overview / Description	How options have been developed following the FGCW 5 Ways of Working?					How does each option maximise the RMA's contribution across the seven FBFGA well-being goals?						
	Section	Option		Long-term Thinking	Prevention	Involvement	Integration	Collaboration	Prosperous	Resilient	Healthier	More Equal	Cohesive Communities	Vibrant Culture	Globally Responsible
				The importance of balancing short-term needs with the need to safeguard the ability to also meet long-term needs.	How acting to prevent problems occurring or getting worse may help public bodies meet their objectives.	The importance of involving people with an interest in achieving the well-being goals, and ensuring that those people reflect the diversity of the area which the body serves.	Considering how the public body's well-being objectives may impact upon each of the well-being goals, on their other objectives, or on the objectives of other public bodies.	Acting in collaboration with any other person (or different parts of the body itself) that could help the body to meet its well-being objectives.	An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change)and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work.	A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change).	A society in which people's physical and mental well-being is maximised and in which choices and behaviours that benefit future health are understood.	A society that enables people to fulfil their potential no matter what their background or circumstances (including their socio economic background and circumstances).	Attractive, viable, safe and well-connected communities.	A society that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.	A nation which, when doing anything to improve the economic, social, environmental and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being.
1	All	Baseline - Walkaway & Buissness As Usual <i>Residual life of the sea wall and revetment is considered to be <10 years and <20 years for the Walkaway and BAU, respectively). The BAU has been taken forward as the baseline scenario.</i>	Progressive structural failure of the sea-wall and revetment, On-going deterioration will lead to failure of the sea-wall and revetment, leading to a breach in the defences and associated coastal flooding affecting the wider floodcell (encompassing the Heol-Y-Llan housing estate and central Barmouth). Existing highway drainage, culverts and outfalls (including flap-valves) will cease to operate effectively and exacerbate drainage/flooding issues.	Low - Does not safeguard the local community in the long-term.	Low - Does not act to prevent issue at Barmouth North Promenade worsening.	Low - Does not involve the local community within the final solution.	Low - Does not align with Gwynedd aspirations and Well-Being Goals.	Low - Does not involve further collaboration.	Low - This approach is not considered to align with the FBFGA Well-Being Goals. It is considered to have negative implications on the prosperity, resilience, health, equality, cohesive communities, culture and global well-being by putting Barmouth North Promenade and adjacent SMP2 Policy units of Lanaber and Barmouth South at risk of flood risk and coastal erosion.						
2	All	Extending lifespan of, and improvements to, the existing defences and associated flood walls / drainage	Option involves: • Extending the life of the existing sheet piles • Improve the tertiary flood wall, demountable barriers and associated drainage • Consider a higher sea wall, recurve the wave wall and added protection to the structure toe (e.g. rock armour)	Medium - Affords a betterment in protection to the local community in the short-medium term. Climate change and sea-level rise may negate effectiveness in the long-term.	High - Each option would look to support actions to provide a betterment in mitigating coastal & fluvial flood risk at Barmouth North Promenade.	High - OBC Development process includes consultation with key stakeholders to define and feed into the option selection process.	Medium - Would look to protect and enhance existing well-being goals and value at Barmouth. However, the policy unit is 'Hold the Line'.	High - OBC Development process includes consultation with key stakeholders to define and feed into the option selection process. YGC intend to	Medium - Beyond epoch 2 this option will involve accepting an increased level of risk due to on-going sea-level rise due to climate change.	High - Each Do-Something Options looks to improve the resilience of Barmouth North Promenade and the neighbouring SMP2 Policy Units to flood risk and coastal erosion.	High - Do-Something option which protects Barmouth North Promenade. Maintains health and recreational benefits the promenade affords.	High - Each Do-Something Options looks to improve the resilience of Barmouth North Promenade and the neighbouring SMP2 Policy Units to flood risk and coastal erosion, regardless of the communities which are considered to be affected.	High - Implementation of this option would support and protect the communities at Barmouth in the short to medium term. Maintaining the promenade and associated properties would help to maintain community cohesion. In the longer-term increases risks would need to be addressed.	High - Do-Something option which protects Barmouth North Promenade and the associated cultural value the area affords to Barmouth as a whole.	High - Each Do-Something Options looks to improve the resilience of Barmouth North Promenade and the neighbouring SMP2 Policy Units to flood risk and coastal erosion. Each option considers the implications of climate change and looks to protect the community of Barmouth.
3	All	Improved beach management, supported by stabilising structures such as breakwaters or groynes.	Combination of groynes and offshore breakwater options to stabilise beach material. Combination of rock breakwaters offshore to dissipate wave energy offshore and to reduce overtopping by significant levels; and/or shore-linked groynes (rocks or refurbish existing) to hold the placement of beach material. Coarser beach re-charge material would be introduced to promote and encourage a sustainable beach level. Works to extend the life of the existing sheet piles would also be required.	Medium - Affords a betterment in protection to the local community in the short-medium term. Climate change and sea-level rise may negate effectiveness in the long-term.			Medium - Would look to protect and enhance existing well-being goals and value at Barmouth. However, the policy unit is 'Hold the Line'.		Medium - Beyond epoch 2 this option will involve accepting an increased level of risk due to on-going sea-level rise due to climate change.		Medium - Do-Something option which protects Barmouth North Promenade. Maintains health and recreational benefits the promenade affords. However, may limit access and walking along the full shore-front.		High - Implementation of this option would support and protect the communities at Barmouth in the short to medium term. Maintaining the promenade and associated properties would help to maintain community cohesion. In the longer-term increases risks would need to be addressed.		
4	All	Managed Realignment	New line of defence to protect the railway line, allowing the area directly behind the sea-wall to be subject to erosion.	High - Potentially a longer-term aspiration for Barmouth North Promenade, considering the implications of climate change and sea-level rise. Approach aligns with SMP2 medium to longterm policy strategy. Potentially,			Medium - Aligns with SMP2 Policy and Anglesey and Gwynedd Joint Local Development Plan (JLDP) (2016-2026) Coastal Change Management Area (CChMA). However, potentially limited well-being benefits achieved, particularly as the site is located between two 'Hold the Line' SMP2 Policy Units.		Medium - An option of significant expense but has the potential to provide a long-term solution to manage flood risk and coastal erosion at Barmouth North Promenade and the adjacent SMP Policy Areas.		Medium - Manage realignment may involve the loss of local residential and commercial properties (including the Heol Y-Llan Housing Estate). Without appropriate long-term consultation, engagement and planning such an action may impact on the local communities health (i.e. mental health); particularly the most vulnerable (i.e. elderly, local areas of deprivation).		Medium - Manage realignment may involve the loss of local residential and commercial properties (including the Heol Y-Llan Housing Estate). A proportion of the local community may need to be relocated to. The would be potential (although relatively minor) recreational losses of existing Barmouth North Promenade. Managed realignment may provide opportunities to enhance recreational value of the land re-claimed by the ocean.		