



Location	Option Number	Option Description	FCERM Issue Addressed - Including Reference To Table - Issues, current management practices and actions	High Level Assessment Cost/Benefit	High Level Assessment Advantages	High Level Assessment Disadvantages	High Level Assessment Advantages	High Level Assessment Disadvantages	High Level Assessment Advantages	High Level Assessment Disadvantages	High Level Assessment Advantages	High Level Assessment Disadvantages	Stop/Stopper	Take Forward to Short List Approval (Y/N)	Summary of Rationale for Discounting from Long List / Taking Forward to Short List	Consider in Combination With Other Options	Sensitivity Test - More Risks
Old Beer Road (N1 & 1-4)	20	Piling to limit expansion of the active landslide	2.2	2	• Would limit expansion of the active landslide	• Cliff stabilisation may cause a reduction in sediment supply to beach	• Contributes to local cliff stability, but does not address erosion at toe of cliff	• Requires ground investigation to support design • May be damaged if alternative cliff erosion processes cause losses • Would need to be considered in conjunction with cliff drainage • This option may not align with the SMP2 policy of Managed Realignment in the medium and long term.	• Negates costs associated with property demolition and relocating	• Very high capital and maintenance costs • Ongoing maintenance of beach structures despite drainage works to reduce erosion to homes, infrastructure etc. but limited as option in isolation may not address cliff erosion from the top down • Costs are very approximate at this stage of options appraisal. It is difficult to price this option accurately as cost of GI, design and construction are unknown until the site is looked at more detail/typical details are refined	• Helps to reduce erosion rates and the associated socio-economic impact	• Works to the cliff inside the designated site or outside on a designated site • Social-economic benefits of protecting cliffs from erosion to provide protection to homes, infrastructure etc. but limited as option in isolation may not address cliff erosion from the top down	Y	• Cliff stabilisation in the form of piling would work alongside other cliff stabilisation. Generally a cliff stabilisation scheme will have little or no impact on coastal processes, any material supplied to the beach would consist of fine grained material and is not reported to be a significant source of beach building material. The success of cliff stability measures will ultimately be dependent on the stability of the cliff. Therefore this option would need to be considered in combination with marine loss protection. The option could potentially be affordable, but more refined costs would inform this. There is potential for this option to conflict with the SMP2 policy of managed retreat for the medium and long term.	Y		
The Pillar	21	Reinstate gabion baskets as designed (and anchor in place)	2.2	1	4	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Beach draw-down would still continue due to a hard backshore and lower reflection (although less than a seawall) • Does not address beach stability and has the potential to increase it	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Beach draw-down would still continue due to a hard backshore and lower reflection (although less than a seawall) • Does not address beach stability and has the potential to increase it	• Reinstating the gabion baskets at The Pillar would provide cliff toe protection for erosion, and prevent outflanking • Quick and simple construction programme	• Gabions have a short design life and would require frequent replacement. The previous gabions were built in 2005 and labed less than 10 years • The gabions are unlikely to address long term erosion risk, allowing outflanking and cliff failure	• Relatively low capital cost	• Some social economic benefit of protecting cliffs from erosion to provide protection to homes, infrastructure etc. but limited as option in isolation may not address cliff erosion from the top down	• Construction activities may directly impact on biological and geological features of the designated site • Works within the S50 will need consent. Works within the SAC will require consideration under the Habitats Regulations	N	• The gabion would provide an insufficient level of protection, they have failed in the past and it is suggested that a more robust level of protection is considered for this option.	n/a		
The Pillar	22	Upgrade the gabion baskets (e.g. use rock at toe, encase in concrete, or incorporate into Check House Seawall)	2.2	1	4	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Reduced input of sediment from cliffs, but this is mainly fines and is reported as in the Coastal Process Baseline report is unlikely to represent a substantial feed to the beaches • Little impact on longshore linkages • Potential for beach scour at toe of defence, due to wave reflection	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Reduced input of sediment from cliffs, but this is mainly fines and is reported as in the Coastal Process Baseline report is unlikely to represent a substantial feed to the beaches • Little impact on longshore linkages • Potential for beach scour at toe of defence, due to wave reflection	• Upgrading the gabion baskets would provide an increased standard of protection for erosion, and prevent outflanking • Incorporating into Check House Wall would provide more uniform defence type would simplify maintenance activities	• Moderate capital cost for more significant works to upgrade gabion baskets • Simplified maintenance of extended Check House Wall will offer cost savings • Good access to the site due to proximity to West Station promenade	• Some social economic benefit of protecting cliffs from erosion to provide protection to homes, infrastructure etc. but limited as option in isolation may not address cliff erosion from the top down	• Construction activities may directly impact on biological and geological features of the designated site • Works within the S50 will need consent. Works within the SAC will require consideration under the Habitats Regulations	N	• This option would provide a more uniform level of protection with respect to the wave exposure and nature of the cliff erosion behind it. It is suggested that a more robust level of protection is considered for this section of coastline	n/a			
The Pillar	23	Replace gabion baskets with new defences (e.g. a more substantial wall structure)	2.2	2	4	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Reduced input of sediment from cliffs, but this is mainly fines and is reported as in the Coastal Process Baseline report is unlikely to represent a substantial feed to the beaches • Little impact on longshore linkages • Potential for beach scour at toe of defence, due to wave reflection	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Reduced input of sediment from cliffs, but this is mainly fines and is reported as in the Coastal Process Baseline report is unlikely to represent a substantial feed to the beaches • Little impact on longshore linkages • Potential for beach scour at toe of defence, due to wave reflection	• Replacing the gabion baskets would provide an increased standard of protection for erosion, and prevent outflanking • New wall would provide a more uniform defence type would simplify maintenance activities	• Vertical structure may encourage beach draw down at the toe of the structure, helping to undermine the defence.	• Likely low maintenance costs from a more robust flood defence • Good access to the site due to proximity to West Station promenade	• Some social economic benefit of protecting cliffs from erosion to provide protection to homes, infrastructure etc. but limited as option in isolation may not address cliff erosion from the top down	• Construction activities may directly impact on biological and geological features of the designated site • Works within the S50 will need consent. Works within the SAC will require consideration under the Habitats Regulations	Y	• This option would provide a more uniform level of protection with respect to the wave exposure and nature of the cliff erosion behind it. It is suggested that a more robust level of protection is considered for this section of coastline	Y		
The Pillar	24	Extend 'new' investment to Check House Seawall (replace former 'beach' investment)	2.2	2	4	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Beach draw-down would still continue due to a hard backshore and lower reflection (although less than a seawall) • Does not address beach stability and has the potential to increase it • Increased footprint of structure, resulting in reduced beach width with potentially no beach at higher states of the tide over the longer term as sea level rises	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Beach draw-down would still continue due to a hard backshore and lower reflection (although less than a seawall) • Does not address beach stability and has the potential to increase it • Increased footprint of structure, resulting in reduced beach width with potentially no beach at higher states of the tide over the longer term as sea level rises	• An extension of the investment would provide protection to the toe of the cliff west of Check House Seawall • The former gabion baskets would be replaced and no longer require maintenance	• A larger investment structure will allow the beach width to be maintained • Might struggle to fit rock of specified size / frequency risk is unclear	• Lower maintenance costs to maintain newly designed rock structure	• Some social economic benefit of protecting cliffs from erosion to provide protection to homes, infrastructure etc. but limited as option in isolation may not address cliff erosion from the top down	• Construction activities may directly impact on biological and geological features of the designated site • Works within the S50 will need consent. Works within the SAC will require consideration under the Habitats Regulations	Y	• This option would provide a more uniform level of protection for the cliffs. It would provide a more continuous line of defence along the length of the cliffs between the rock revetment and check house seawall. There are relatively high costs associated with this option, which will need to be explored as part of the short list appraisal. This option could potentially be affordable, but more refined costs would inform this. There is potential for this option to conflict with the SMP2 policy of managed retreat for the medium and long term.	Y		
The Pillar	25	Cliff drainage scheme (shallow drainage measures, e.g. could intercept machine-excavated cobbles from toe of cliff)	2.2	2	4	• Would draw down ground water below a critical level would reduce the rate of degradation and cliff retreat	• Cliff stabilisation may cause a reduction in sediment supply to beach	• Contributes to local cliff stability, but does not address erosion at toe of cliff • Relatively simple construction process, with short programme	• Requires ground investigation to support design • May be damaged if alternative cliff erosion processes cause losses • Would need to be considered in conjunction with cliff drainage • This option may not align with the SMP2 policy of Managed Realignment in the medium and long term.	• Moderate initial capital cost • Negates costs associated with property demolition and relocating	• Helps to reduce erosion rates and the associated socio-economic impact	• Works to the cliff inside the designated site or outside on a designated site • Social-economic benefits of protecting cliffs from erosion to provide protection to homes, infrastructure etc. but limited as option in isolation may not address cliff erosion from the top down	Y	• Cliff drainage will help to reduce cliff erosion via groundwater weathering, but should be considered alongside cliff stabilisation measures. Generally a cliff drainage scheme will have little or no impact on coastal processes, any material supplied to the beach would consist of fine grained material and is not reported to be a significant source of beach building material. The success of cliff drainage will ultimately be dependent on the stability of the cliff. Therefore this option would need to be considered in combination with marine loss protection. The option could potentially be affordable, but more refined costs would inform this. There is potential for this option to conflict with the SMP2 policy of managed retreat for the medium and long term.	Y		
The Pillar	26	Cliff drainage scheme (deep drainage measures, e.g. could include vertical boreholes in an area and pumping the water away / gravity drainage)	2.2	2	4	• Would draw down ground water below a critical level would reduce the rate of degradation and cliff retreat	• Cliff stabilisation may cause a reduction in sediment supply to beach	• Contributes to local cliff stability, but does not address erosion at toe of cliff • Relatively simple construction process, with short programme	• Requires ground investigation to support design • May be damaged if alternative cliff erosion processes cause losses • Would need to be considered in conjunction with cliff drainage • This option may not align with the SMP2 policy of Managed Realignment in the medium and long term.	• Moderate initial capital cost • Negates costs associated with property demolition and relocating	• Helps to reduce erosion rates and the associated socio-economic impact	• Works to the cliff inside the designated site or outside on a designated site • Social-economic benefits of protecting cliffs from erosion to provide protection to homes, infrastructure etc. but limited as option in isolation may not address cliff erosion from the top down	Y	• Cliff drainage will help to reduce cliff erosion via groundwater weathering, but should be considered alongside cliff stabilisation measures. Generally a cliff drainage scheme will have little or no impact on coastal processes, any material supplied to the beach would consist of fine grained material and is not reported to be a significant source of beach building material. The success of cliff drainage will ultimately be dependent on the stability of the cliff. Therefore this option would need to be considered in combination with marine loss protection. The option could potentially be affordable, but more refined costs would inform this. There is potential for this option to conflict with the SMP2 policy of managed retreat for the medium and long term.	Y		
The Pillar	27	Cliff face stabilisation (e.g. netting to stop loss material falling to the beach and rock bolts to hold blocks of failed rock in place)	2.2	2	4	• Would increase material strength in upper cliff would hold weak, weathered materials and weed deposits in place and allow vegetation to develop and further stabilise the weak materials • May also allow large pre-fabricated blocks of masonry on the cliff to be held in place	• Cliff stabilisation may cause a reduction in sediment supply to beach	• Contributes to local cliff stability, but does not address erosion at toe of cliff • Relatively simple construction process, with short programme	• Requires ground investigation to support design • May be damaged if alternative cliff erosion processes cause losses • Would need to be considered in conjunction with cliff drainage • This option may not align with the SMP2 policy of Managed Realignment in the medium and long term.	• Moderate initial capital cost • Negates costs associated with property demolition and relocating	• Helps to reduce erosion rates and the associated socio-economic impact	• Works to the cliff inside the designated site or outside on a designated site • Social-economic benefits of protecting cliffs from erosion to provide protection to homes, infrastructure etc. but limited as option in isolation may not address cliff erosion from the top down	Y	• Cliff stabilisation would work alongside cliff drainage. Generally a cliff stabilisation scheme will have little or no impact on coastal processes, any material supplied to the beach would consist of fine grained material and is not reported to be a significant source of beach building material. The success of cliff stabilisation measures will ultimately be dependent on the stability of the cliff. Therefore this option would need to be considered in combination with marine loss protection. The option could potentially be affordable, but more refined costs would inform this. There is potential for this option to conflict with the SMP2 policy of managed retreat for the medium and long term.	Y		
Check House Seawall	28	Maintain Check House Seawall	2.2	2	5	• Will continue to hold shoreline in a fixed position - over time this may become increasingly exposed to waves and tides • Little impact on longshore transport eastwards to Seaton	• Will continue to hold shoreline in a fixed position - over time this may become increasingly exposed to waves and tides • Little impact on longshore transport eastwards to Seaton	• Maintaining the Check House Seawall would ensure there is continued cliff toe protection from coastal erosion • This option aligns with the SMP2 policy of CLTA in the short term and Managed Realignment with other medium and long term.	• Carrying the steel reinforcement in the Check House Seawall is corroding, therefore residual life of the existing structure is limited • May require replacement with other medium and long term.	• Low cost of initial maintenance	• Ongoing maintenance to address corrosion issues with reinforcement • Increased maintenance costs to beach narrower in the future due to climate change	• Potential for construction biased impacts to residential communities such as increased noise and vibration	Y	• Funding streams for this option need to be explored further, since maintenance funds may be available in addition to FCERM/GA. If not, the option will need to be considered in combination with other options.	Y		
Check House Seawall	29	Upgrade Check House Seawall (e.g. add a thicker concrete layer or replace with a new structure)	2.2	2	5	• Will continue to hold shoreline in a fixed position - over time this may become increasingly exposed to waves and tides • Little impact on longshore transport eastwards to Seaton	• Will continue to hold shoreline in a fixed position - over time this may become increasingly exposed to waves and tides • Little impact on longshore transport eastwards to Seaton	• An upgrade of the Check House Seawall would provide a more robust cliff toe to protect against coastal erosion • A thicker layer of concrete could be added to improve the existing structure • Access to structure is good (via Fisherman's Gap)	• Adding thicker concrete layer would not overcome the existing issue of corrosion to the reinforcement. This is likely to be too significant for simple changing • This option does not align with the SMP2 policy of Managed Realignment in the medium and long term.	• High capital cost of existing structure is replaced • Increased maintenance costs to beach narrower in the future due to climate change	• Some social economic benefit of protecting cliffs from erosion to provide protection to homes, infrastructure etc. but limited as option in isolation may not address cliff erosion from the top down	• Potential for construction biased impacts to residential communities such as increased noise and vibration	Y	• Funding streams for this option need to be explored further, since maintenance funds may be available in addition to FCERM/GA. If not, the option will need to be considered in combination with other options.	Y		
Check House Seawall	30	Extend 'new' investment to east, on north along base of Check House Seawall	2.2	1	5	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Reduced beach width due to increased footprint of structure, resulting in reduced beach width with potentially no beach at higher states of the tide over the longer term as sea level rises • Does not address beach stability and has the potential to increase it	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Reduced beach width due to increased footprint of structure, resulting in reduced beach width with potentially no beach at higher states of the tide over the longer term as sea level rises • Does not address beach stability and has the potential to increase it	• A new investment east would protect the existing Check House Seawall from further wave damage • The Check House Seawall will continue to provide cliff erosion protection • The construction of the investment would be relatively straightforward and access to structure is good (via Fisherman's Gap)	• Carrying the steel reinforcement in the Check House Seawall is corroding, therefore residual life of the existing structure is limited • This option does not align with the SMP2 policy of Managed Realignment in the medium and long term.	• Low maintenance of revised structure • Lower maintenance costs for existing Check House Wall due to additional toe protection	• High initial capital cost associated with construction of new structure • Costs associated with sourcing and transporting rock are currently high, particularly larger material from outside the UK • Social-economic benefits of protecting cliffs from erosion to provide protection to homes, infrastructure and help to promote community cohesion	• Reduced beach width would mean reduced amenity value of the beach • Potential for construction biased impacts to residential communities such as increased noise and vibration	N	• A sufficient standard of protection could be provided by maintaining or upgrading Check House Seawall (see Option 28 and 29). Considering the limited resources available to protect against erosion along the western end of the B&M study area, they may be better directed towards preventing unaffordable coastline. Note also that this option does not align with the SMP2 policy of Managed Realignment in the medium and long term.	n/a		
Check House Seawall	31	Cliff face stabilisation (e.g. netting to stop loss material falling to the beach and rock bolts to hold blocks of failed rock in place)	2.2	2	4	• Would increase material strength in upper cliff would hold weak, weathered materials and weed deposits in place and allow vegetation to develop and further stabilise the weak materials • May also allow large pre-fabricated blocks of masonry on the cliff to be held in place	• Cliff stabilisation may cause a reduction in sediment supply to beach	• Contributes to local cliff stability, but does not address erosion at toe of cliff • Relatively simple construction process, with short programme	• Requires ground investigation to support design • May be damaged if alternative cliff erosion processes cause losses • Would need to be considered in conjunction with cliff drainage • This option may not align with the SMP2 policy of Managed Realignment in the medium and long term.	• Moderate initial capital cost • Negates costs associated with property demolition and relocating	• Helps to reduce erosion rates and the associated socio-economic impact	• Works to the cliff inside the designated site or outside on a designated site • Social-economic benefits of protecting cliffs from erosion to provide protection to homes, infrastructure etc. but limited as option in isolation may not address cliff erosion from the top down	Y	• Cliff stabilisation would work alongside cliff drainage. Generally a cliff stabilisation scheme will have little or no impact on coastal processes, any material supplied to the beach would consist of fine grained material and is not reported to be a significant source of beach building material. The success of cliff stabilisation measures will ultimately be dependent on the stability of the cliff. Therefore this option would need to be considered in combination with marine loss protection. The option could potentially be affordable, but more refined costs would inform this. There is potential for this option to conflict with the SMP2 policy of managed retreat for the medium and long term.	Y		
Seaton Hole to Check House Seawall	32	Extend the East Walk Promenade (concrete / stone blockwork seawall) along the length of the cliffs as far as Seaton Hole	2.2	1	2	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Reduced beach width due to increased footprint of structure, resulting in reduced beach width with potentially no beach at higher states of the tide over the longer term as sea level rises • Does not address beach stability and has the potential to increase it	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Reduced beach width due to increased footprint of structure, resulting in reduced beach width with potentially no beach at higher states of the tide over the longer term as sea level rises • Does not address beach stability and has the potential to increase it	• Extending the East Walk Promenade to Seaton Hole would provide a more robust cliff toe • This option does not align with the SMP2 policy of Managed Realignment in the medium and long term	• This option would require the removal of the existing defences that currently provide cliff toe protection • It would also require substantial drainage works between the cliff and the beach • There is potential for outcropping to deposit shingle onto the promenade which would then require maintenance • This option does not align with the SMP2 policy of Managed Realignment in the medium and long term	• Reduces cliff erosion protection costs due to increased protection community cohesion	• High initial capital costs associated with construction of new structure • Costs associated with removal of displaced shingle	• Reduced beach width would mean reduced amenity value of the beach • Potential for construction biased impacts to residential communities such as increased noise and vibration	Y	• This is a very popular option for Seaton, however, there are significant costs associated with this option. It is suggested that a more robust level of protection is considered for this section of coastline. Note that this option does not align with the SMP2 policy of Managed Realignment in the medium and long term.	n/a		
Seaton Spit (warden field) / Seaton/Seaton Hole / Old Beer Road	33	Recycle material from east to west to increase beach volume (and water). An access route may need to be created to allow plant access through the seawall. This is only likely to be required if access cannot be achieved through the existing Fisherman's Gap	2.2	2	4	• Would increase material strength in upper cliff would hold weak, weathered materials and weed deposits in place and allow vegetation to develop and further stabilise the weak materials • May also allow large pre-fabricated blocks of masonry on the cliff to be held in place	• Cliff stabilisation may cause a reduction in sediment supply to beach	• Contributes to local cliff stability, but does not address erosion at toe of cliff • Relatively simple construction process, with short programme	• Requires ground investigation to support design • May be damaged if alternative cliff erosion processes cause losses • Would need to be considered in conjunction with cliff drainage • This option may not align with the SMP2 policy of Managed Realignment in the medium and long term.	• Moderate initial capital cost • Negates costs associated with property demolition and relocating	• Helps to reduce erosion rates and the associated socio-economic impact	• Works to the cliff inside the designated site or outside on a designated site • Social-economic benefits of protecting cliffs from erosion to provide protection to homes, infrastructure and would help to promote community cohesion	Y	• Cliff stabilisation would work alongside cliff drainage. Generally a cliff stabilisation scheme will have little or no impact on coastal processes, any material supplied to the beach would consist of fine grained material and is not reported to be a significant source of beach building material. The success of cliff stabilisation measures will ultimately be dependent on the stability of the cliff. Therefore this option would need to be considered in combination with marine loss protection. The option could potentially be affordable, but more refined costs would inform this. There is potential for this option to conflict with the SMP2 policy of managed retreat for the medium and long term.	Y		
Seaton Hole / Old Beer Road	34	Recharge beach at Seaton Hole with new material	2.2	2	2	• Would increase material strength in upper cliff would hold weak, weathered materials and weed deposits in place and allow vegetation to develop and further stabilise the weak materials • May also allow large pre-fabricated blocks of masonry on the cliff to be held in place	• Cliff stabilisation may cause a reduction in sediment supply to beach	• Contributes to local cliff stability, but does not address erosion at toe of cliff • Relatively simple construction process, with short programme	• Requires ground investigation to support design • May be damaged if alternative cliff erosion processes cause losses • Would need to be considered in conjunction with cliff drainage • This option may not align with the SMP2 policy of Managed Realignment in the medium and long term.	• Moderate initial capital cost • Negates costs associated with property demolition and relocating	• Helps to reduce erosion rates and the associated socio-economic impact	• Works to the cliff inside the designated site or outside on a designated site • Social-economic benefits of protecting cliffs from erosion to provide protection to homes, infrastructure and would help to promote community cohesion	Y	• Cliff stabilisation would work alongside cliff drainage. Generally a cliff stabilisation scheme will have little or no impact on coastal processes, any material supplied to the beach would consist of fine grained material and is not reported to be a significant source of beach building material. The success of cliff stabilisation measures will ultimately be dependent on the stability of the cliff. Therefore this option would need to be considered in combination with marine loss protection. The option could potentially be affordable, but more refined costs would inform this. There is potential for this option to conflict with the SMP2 policy of managed retreat for the medium and long term.	Y		
Seaton Hole / Old Beer Road	35	Beach control structure - timber groyne	2.2	1	2	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Reduced beach width due to increased footprint of structure, resulting in reduced beach width with potentially no beach at higher states of the tide over the longer term as sea level rises • Does not address beach stability and has the potential to increase it	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Reduced beach width due to increased footprint of structure, resulting in reduced beach width with potentially no beach at higher states of the tide over the longer term as sea level rises • Does not address beach stability and has the potential to increase it	• Timber groyne would retain sediment in localised areas, performing well for approximately 20 years • A large number of timber groyne would be required to be spaced close together than rock groyne • This option is not compliant in line with the SMP2 Managed Realignment policy in the medium and long term	• Timber groyne would retain sediment in localised areas, performing well for approximately 20 years • A large number of timber groyne would be required to be spaced close together than rock groyne • This option is not compliant in line with the SMP2 Managed Realignment policy in the medium and long term	• Moderate maintenance costs expected, although dependent on rate of wear	• High initial capital cost to install timber groyne • May need to include recycling/recharge costs to provide required standard of protection	• Construction activities may directly impact on biological and geological features of the designated site • Works within the S50 will need consent. Works within the SAC will require consideration under the Habitats Regulations	Y	• Timber groyne would help to stabilise the beach, however, there are risks associated with this type of structure, such as mooring the site of erosion along the coast. They need to be designed accordingly ultimately the cost will depend on the number and configuration required. The available funds are unlikely to be sufficient for a groyne structure, so third party funding will be required. Further still, it may be that some form of recycling/recharge is also required, or conversely, timber groyne are required in support of a recycling/recharge option. Note also that this option does not align with the SMP2 policy of Managed Realignment in the medium and long term.	Y		
Seaton Hole / Old Beer Road	36	Beach control structure - rock groyne	2.2	1	2	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Reduced beach width due to increased footprint of structure, resulting in reduced beach width with potentially no beach at higher states of the tide over the longer term as sea level rises • Does not address beach stability and has the potential to increase it	• Doesn't address cliff face erosion associated with flow of water course behind The Pillar • Reduced beach width due to increased footprint of structure, resulting in reduced beach width with potentially no beach at higher states of the tide over the longer term as sea level rises • Does not address beach stability and has the potential to increase it	• The rock groyne would retain sediment in localised areas, performing well for approximately 20 years • A smaller number of groyne would be required to be spaced close together than timber groyne, due to expected wear of the structure	• The groyne will require maintenance post-20 years, depending on rate of timber wear • Sources of long term defence performance (beyond 20 years) due to climate change • This option is not in line with the SMP2 Managed Realignment policy in the medium and long term	• Low maintenance costs expected	• High initial capital cost to install rock groyne • May need to include recycling/recharge costs to provide required standard of protection	• Construction activities may directly impact on biological and geological features of the designated site • Works within the S50 will need consent. Works within the SAC will require consideration under the Habitats Regulations	Y	• Rock groyne would help to stabilise the beach, however, there are risks associated with this type of structure, such as mooring the site of erosion along the coast. They need to be designed accordingly ultimately the cost will depend on the number and configuration required. The available funds are unlikely to be sufficient for a groyne structure, so third party funding will be required. Further still, it may be that some form of recycling/recharge is also required, or conversely, timber groyne are required in support of a recycling/recharge option. Note also that this option does not align with the SMP2 policy of Managed Realignment in the medium and long term.	Y		
West Walk Promenade	37	Maintain the concrete / stone blockwork seawall	2.2	2	2	• Will continue to hold shoreline in a fixed position - over time this may become increasingly exposed to waves and tides • Little impact on longshore transport eastwards to Seaton	• Will continue to hold shoreline in a fixed position - over time this may become increasingly exposed to waves and tides • Little impact on longshore transport eastwards to Seaton	• Maintaining the West Walk Promenade will reduce the risk of cliff erosion • Seawall maintenance would be relatively straightforward	• Diminishing standard of protection over time due to climate change	• Low initial maintenance costs expected	• Increasing maintenance costs expected as the beach area narrows as a consequence of climate change	• Potential for construction biased impacts to residential communities such as increased noise and vibration	Y	• Funding streams for this option need to be explored further, since maintenance funds may be available in addition to FCERM/GA. If not, the option will need to be considered in combination with other options.	Y		
West Walk Promenade	38	Upgrade the concrete / stone blockwork seawall (e.g. make higher and wider) or replace with a new structure (if suitable, incorporate beach into seawall structure, refer to M&P in S&S)	2.2	2	2	• Will continue to hold shoreline in a fixed position - over time this may become increasingly exposed to waves and tides • Little impact on longshore transport eastwards to Seaton	• Will continue to hold shoreline in a fixed position - over time this may become increasingly exposed to waves and tides • Little impact on longshore transport eastwards to Seaton	• Upgrading the West Walk Promenade Wall would reduce the risk of cliff erosion • An upgraded wall may also account for climate change, and may improve the residual life of the structure • This option is in line with the SMP2 policy of Managed Realignment in the medium and long term	• This option does not address flood and coastal erosion to the west of the seawall • Structures would be required to the west to prevent rock back and outflanking of the wall	• Relatively low capital costs to upgrade existing structure • Low initial maintenance costs expected	• High capital costs to replace existing structure • Social-economic benefits of protecting cliffs from erosion to provide protection to homes, infrastructure and would help to promote community cohesion	• Potential for construction biased impacts to residential communities such as increased noise and vibration	N	• A very expensive option.	n/a		
Seaton Hole to Seaton	39	Define the area as a Coastal Change Management Area (CCMA) by public coastal change adaptation in the planning system to include development and implementation of local risk reduction scheme linked to CCMA to support removal / reduction of properties and infrastructure at risk in a planned way	2.2	2	8	• Not appraised as an option, to be taken forward as a recommendation in the B&M	• Not appraised as an option, to be taken forward as a recommendation in the B&M	• Not appraised as an option, to be taken forward as a recommendation in the B&M	• Not appraised as an option, to be taken forward as a recommendation in the B&M	• Not appraised as an option, to be taken forward as a recommendation in the B&M	• Not appraised as an option, to be taken forward as a recommendation in the B&M	• Not appraised as an option, to be taken forward as a recommendation in the B&M	N	• This option will be carried forward as a recommendation in the B&M.	n/a		
Seaton	40	Maintain the existing concrete seawall	2.3	1	1	• Will continue to hold shoreline in a fixed position - over time this may become increasingly exposed to waves and tides • Little impact on longshore transport eastwards	• Will continue to hold shoreline in a fixed position - over time this may become increasingly exposed to waves and tides • Little impact on longshore transport eastwards	• Maintaining the concrete wall would provide sufficient protection against flood (overtopping) • Access to structure is good	• The standard of protection will deteriorate over time due to climate change • A seawall structure will be required to the west to prevent rock back and outflanking of the wall	• Low initial maintenance costs expected	• Increasing maintenance costs expected as the beach area narrows as a consequence of climate change	• Potential for construction biased impacts to residential communities such as increased noise and vibration	Y	• Funding streams for this option need to be explored further, since maintenance funds may be available in addition to FCERM/GA. If not, the option will need to be considered in combination with other options.	Y		



