Core Criteria	Sub Criteria	101 Rock reventments (A, B1, B2, B4, C1, C4, C4, D1, D3) and concrete seawafts (C1, C4, C4, D3) [76 – 123]	102 Rock revetment at Whiterock (82, 84), concrete scawall at Willery (E1, 64, 02) and Rock revetments (A, 81, C1, C1, C1, D1) and concrete scawalls (C1) (71 – 113), Rock Revetment at south Willowy Deferred to 2075.	803 Rock revenuent at Whitersch (82, 84) and concrete seawall at Killiney (CL, C4, D1) [35 – 54], Rock revenuents (A, B1, CL, C4, C1, D1) and concrete seawalls (C1) deferred to between 2050 2075, Rock Revenuent at South Killiney deferred to 2075.	104 Rock revenuent at Whiterock (sub cells 82 and 84) [20 – 33]. Concrete seawell at Killiney [CL, C4, DL] deferred until around 2056. All other measures deformed until later.	um Reactive Maintenance
	Land Use & Third Party Assets	There are likely to be no or minimal impacts on third party lands or local authority lands at this location.	There are likely to be no or minimal impacts on third party lands or local authority lands at this location.	There are likely to be no or minimal impacts on third party lands or local authority lands at this location.	There are likely to be no or minimal impacts on third party lands or local authority lands at this location.	No impact on third party land and property as there would be no additional works not already being carried out by inih Ibal.
Economy	Capital expenditure	This is the most expensive implementation Option as a large volume of rock armour is required and the costs associated with all measures is required in one go.	This option is similar to implementation Option 1 with a similar volume of rock and construction required.	This implementation Option would result in relatively low costs in the short term and therefore scored higher than implementation Option 1 and 2. However, further investment is required by 2000, increasing cost while reducing economies of scale.	This implementation Option would result in indelively low costs in the short term and therefore scored higher than implementation Option 1 and 2. However, further investment is required by 2005, increasing cost while reducing economics of scale. This implementation Option 1 and 2. Indexent, further investment is required by 2005, increasing cost while reducing economics of scale. This implementation Option 1 due to a logar particle of the works being deformed and therefore, a gratter reduction in economics of scale.	This implementation Option would include minimal capital costs.
	Maintenance expenditure	This implementation Option would only require a routine and post storm monitoring plan and should require minimal maintenance during the design life.	This implementation Option has significant advantages over other implementation Options 3 and 4 as it would only require a routine and post storm monitoring plan and should require minimal maintenance during the design II6. This implementation Option scores slightly lower than Implementation Option 1 due to potential monitoring and maintenance where works are deferred.	This implementation Option has significant advantages over implementation Option 4 as it would only require a routine and post storm monitoring plan and about require minimal maintenance up to 2001. This implementation Option scores signity lower than implementation Option 2 due to potential monitoring and maintenance where works are defined.	This Implementation Option would require significant monitoring and potential maintenance of the beach in areas where works are deferred.	This implementation Option would rely on reactive repairs and maintenance. Maintenance would be ad hoc and emergency repairs.
	Health & Safety (Construction)	Al construction works will be using land based plant which has less construction risks than marine based plant. However, this implementation Option requires significantly more construction works than other implementation Options therefore increasing the Health and Safety risk.	Al construction works will be using land based plant which has less construction risks than marine based plant. This implementation Option is very similar to implementation Option 1 with similar Health and Safety risks.	All construction works will be using land based plant which has less construction risks than marine based plant. This implementation Option requires less construction works than implementation Option 1 and implementation Option 2 and therefore the associated construction risks are reduced.	All construction works will be using land based plant which has less construction risks than marine based plant. This implementation Option requires the least amount of construction works and therefore the associated constructions risks are reduced. Moment, the liability of antering menginger rapid with Shrangh Allilling is higher than implementation Option 3 and these works being reactive in nature would carry a higher construction Health and Safety risk.	This implementation Option would result in localized remedial works being required. Minor works of this nature would be risk assessed by the contractor. However these works may be undertaken under poor working conditions due to immediate risk to the railway.
Safety	Health & Safety (Design Life)	This Implementation Option could pose some Health and Safety risks of people climbing on the revetments and becoming trapped. Warning signs should be installed to mitigate this. The reventments will significant yeaks the usuable area of the beach in the northern section and around the headband. This should deter people from tring to access the northern beach around the headband but if they did, they would become out off at high title and this could lead to people traversing around the rock becoming trapped. Maintenance of the reventments should be very limited and therefore maintenance related Health and Safety risks should be minimal.	This implementation Option could pose some Health and Safety risks of progrie climbing on the revertments and becoming trapped. Warning signs should be installed to milipte this. However this option includes liss revertment compared to implementation Option 1 and therefore the Health and Safety risks are reduced. The revertment signal control to the source of the source of the source of the revertment will split and ty reduce the usuable area of the beach in the northem section and around the health. This should deter people from tripping to access the endown beach around the standard but if they did, they would become card to the high blead with could lead to people travering across the revolute beach around they limited and therefore maintenance related Health and Safety risks should be minimal. This implementation Option should be very limited and therefore maintenance related Health and Safety risks should be minimal. This implementation Option way inflant to implementation Option 1 but with the reck revetment in CCAU2 03 deferred which would have minimal change on the Health and Safety risk.	This trajementation Option could poor some Haldh and Safety risks of people clinicing on the mechanism and becoming trapped leavers the intern of the road vectoment in marks has mark active options. Safety advanced are insighted that the mechanism of all people clinicing makes the sociable are and the bits in the northern active and exact the social social of an impact bits. The mechanism of all people clinicing makes the sociable are and the bits in the northern active and exact the social lead to people traversing across the northern back around the headland back if they did, they would become out off at high title and this could lead to people traversing across the northern becoming respect. Maintenance of the nextments should be very limited and therefore maintenance related leadth and Safety risks should be minimal up to 2000. Improved Health and Safety to implementation Option 2 and Implementation Option 4 as it balances the volume of rock (minimizing rock that could poer a risk to beach overily while providing a safe access at the back of the back through Killing-	This implementation Option could pose some Health and Safety risks of people climbing on the revertments and becoming trapped. Warning signs forwards in installed the minight this is reverse the signation includes less revertment compared to all other implementation Options and therefore the teach and differ pricas are motion would be and the second of the source of the source of the source of the source of the The reverse will applicately reface the usable area of the beach in the northern section and around the headback. This should deter people from trying access the northern beach anough the teachand but if they did, they would become cut off at high tide and this could lead to people travening across the northern beach anough the teachand but if they did, they would become cut off at high tide and this could lead to people travening across the northern beach anough the teachand but if they did, they would become cut off at high tide and this could lead to people travening across the northern beach anough the teachand but of they did, they would become cut off at high tide and this could lead to people travening across the northern beach and the teachand but of they did, they would become cut off at high tide and this could lead to people travening across the northern beach anough the teachand but of they did. They would become cut off at high tide and this could lead to people travening across the rothern beach and be the teachand but off they did. They would be an install. This option would require further works over the design life of the project which would increase the teacht and Safety risk.	This Implementation Option will involve maintaining the defences through reactive repairs. Therefore as there will be no proactive monitoring or maintenance, destination of the defences will occur and there are likely to be periods where there are health and safety risks on the beaches and relevang likely for to repair works being undertakes. The frequency and scale of the damage and repair works will increase over time.
	Community	This implementation Option would place not revetment along the majority of the casatilise in this CSU, which would likely have a decimental affect on the local community. This is because the nock meetment would be placed along the length ond would high the existing basis area, restricting its use and general amenity value for the local community. This implementation Option is likely to be less attractive to the public than other implementation Options.	This implementation Option would place not revolment along the majority of the casaline in this CCA, which would likely have a detrimental effect on the local community. This is because the rock reventment would be placed along the length and brandth of the entiting back news, exticting its use and general amenity value for the local community. This implementation Option is likely to be less attractive to the public than other implementation Options. Slightly advantageous to implementation Option 1 due to reventments at South Killiney being deferred.	This implementation Option has some disadvantages as it would place nok revetment along the coastline at Whiterock, which would likely have a detrimental effect on the local community. However, rock revetments proposed at central and south Killney are deferred, with less impact here on the amenity value of the local.	This implementation Option would place rock revetment along the caustline at Whiterock, which would likely have a detrimental effect on the local community. Increased deferral of works when compared to implementation Option 3 means that there is a lower level of coastal protection for this implementation Option. This has potential to impact the local community in the event of estreme storm events.	This implementation Option is considered to have some disadvantages over other implementation Options as while any maintenance programmes currently taking place will continue under this scenario, occurrence of coastal reasion and / or damage or collapse of existing erosion measures will continue and eventually get worse in line with climate change predictions.
Accessibility & Social Inclusion	Access	There will be the imposition of rock meetment along sections of the shoreline of this CCA, access steps will be incorporated into the reventment to ensure any formal and informal access points to the beach anemity area that currently unit and are used by members of the public (for example the current access from Millary Road / Strand Road in Killney) are maintained. Access along the beach is likely to be considerably curtailed under this option however.	This implementation Option has slight advantage over implementation Option 1 due to deferral of some rock revetment at Killiney South.	This implementation Option has advantages over implementation Option 1 and 2 due to defend of rock revenments that will hinder beach access. This implementation Option retains the new walkway at the back of the beach through central Killiney, which will improve alonghore access.	This implementation Option has slight advantages over implementation Option 1, 2.8.3 due to defenal of rock revetment. However, there is no access improvement with this implementation Option through central Killney.	Do Minimum will cause access to and along the beach to be somewhat curtailed as a result of erosion events continue over time.
	Social & Recreation Facilities	This implementation Option is considered to have some disadvantages over other implementation Options as the mok revetment will be placed along the length and breakth of the southern half of the casalline within this CCk. This would likely remove the akility of the public to use this beach amonthy area as an easy for social and recretational activities. There may be as impact on surflig.	This implementation Option is considered to have some disadvantages over other implementation Options as the rock revetment will be placed along the length and breadth of the southern half of the coastline within this CCC. This would likely remove the ability of the public to use this back amenity area as area for social and recreational activities. There may be an impact on surfage, However rock revetment proposed further south on the beach at Gillney is deferred.	This Implementation Option has some disadvantages as it would place not revetiment along the coastline at Whiterook, which would likely have a detrimental effect on the local community and dhere may be a localized impact on surflag. However all other not revetiments except at Whiterook an elefermal, with much reduced impact on basch and water uses.	This implementation Option has some disadvantages as it would place rock revetment along the coastline at Whiterock, which would likely have a detimental effect on the local community and there may be a localised impact on surfing. However rock revetment except at Whiterock is deferred, with much reduced impact on breach and water users.	Do Minimum is considered to have some advantages over other implementation Options because there would be no effects on existing social & recordinal facilities (i.e. back amenity area) in this CCA. However the effects of unmitigated clinite change will eventually impact these resources.
	Compatibility with Development Plans	This Implementation Option aligns with high level coastal protection and coastal area management objective within the development plans. The diadvantages relating to this implementation Option are: Development within pNHA, within Zoning Objective Within the development and related uses), Objective 132 bits Monument (SLO Y bit redevelop the filling watch Ta Asom, SLO Bits to promote and development Sudipose Monoster and Opticument SLO Plant development does not have significant negative impact on the environmental annihilities, does not detract from the character of the area either visually. Located adjacent to reidential zonig/housing from military read. Within area of a recorded moment and place. DLR Plac GJ Communication Materials suggests the use of materials that have low to zero embedded energy and CQ2 emissions. Significant records on amounted or forces on enhancement of the areas - utiling in strating's occurring green infrastructure, impacting natural habitats, large amount of hard standing, providing coastal records on amounted or state. The extensive revertments result is the loss of same of the baseb.	This Implementation Option aligns with high level coastal protection and coastal area management objectives within the development plans. The disadvantages relating to this Implementation Option are: Development within pOHA, within Zoning Objective W (Waterfront development and related uses), Objective 1310 feat Moniment) 100 Feat redevelop the follows that Ta Booms. 2013 Bit parameter and develop the Satism to Bundyev Objective 1310 feat Moniment) 2003 Feat redevelop the solitows the Data Ta Booms. 2013 Dispersioned and Optives: Bundyev Objective 1310 feat Moniment and practice within a mere all a recordent moment and place. Dispersion of the area of a recordent moment and place Dispersion of the areas - statismic to the restored and another than have leve to zero embedded energy and CO2 emissions. Significant volume of Instantish required for the restored that have leve to zero embedded mergy and CO2 emissions. No enhancement of the areas - stating reducting recurring green infrastructure, impacting natural habitats, large amount of hard standing, providing contail recreation amonities or incorporating pedentical/option embative.	This implementation Option aligns with high level castial protection and castial area management objectives within the development plans. The disadvantages relating to this implementation Option are: Development within plans, this Zonig Objective Wilkofmont development and related areal, Objective 321 the thousand (520 X 10 sectorelys) the cilling hash. The Xhoun Su 2018 provides and development and related areal, Objective 321 the thousand to the sectorely of the cilling hash. The Xhoun Su 2018 provides a discrete and sectore thousands and optimers, and the interventions are ins Significant that there for implementation Option 1, there is not all magnetic Resource thousands and optimers. Resource of the area of the interventions are instantiation of the optimers and the sectore of the area of the area of the optimers of the area of the area of the optimers of the area of the interview of the area of the optimers of the areas - utilities of the optimers of the base. The reletment results in the loss of localized areas of the base.	This implementation Option aligns with high level coastal protection and coastal area management objectives within the development plans. The disadvantages relating to this implementation Option are. Development within pNeW, within Zoning Objective W (Waterhort development and related used). Objective 132 (fire Monument) 50.0 for ordevelop the Killeng Reach Te Monum. So III is promote and develop the Saturo to Sandyoux Homesada and typeway. As the interventions are its Signature than those for Implementation Option 1, there is not a impact Boundary Objective 133 Other Monument 2000 For advectory to explore the monument and induced the intervention are its Signature to the environment and planet. Resources of the area enter visually. Located adjacent to residential anonghousing from military read. Within a new of a recorded monument and plane. RER Res CAT Construction. Materials supports the user of materials that bare bother to zero embodied energy and C22 emissions. Significant volume of materials required for the restorment. No enhancement of the area:	This implementation Option would provide some disadvantages over other implementation Options as castal zone management and coastal area protection are identified as important within the relevant development plans. The disadvantage relating to this implementation Option is that as the minimum works rely on repairs it would not fully achieve the objectives of the plans addressing long term climate issues.
integration	Compatibility with Climate Adaptation Plans	This implementation Option would align with the Transport Climate Charge Sectoral Adaptation Plan (TCCAP) by protecting the existing rail infrastructure through a complete segrade of existing defences. However, it would also involve a significant volume of materials for the rack reventments to be brought to also. This implementation Option provides the maximum level of casatal protection.	This implementation Option would align with the Transport Climite Change Sectoral Adaptation Plan (TCCSAP) by protecting the existing rail initiativitive through a camplete suggrade of existing defences. However, It would also involve a large volume of materials to be brought to site. This implementation Option provides a high level of castal protection.	This implementation Option would align with the Transport Climate Change Sectional Adaptation Flam (TCCSAP) by protecting the existing call infrastructure through a complete opgrade of existing defences. However this implementation Option would and the significant volume of instantial and transport of same writi after 2015 which is a highly positive impact. This implementation Option provides a high level of coastal protection.	This implementation Option would align with the Transport Climate Change Sectoral Adaptation Plan (TCCSAP) by protecting the existing call infrastructure through a complete upgrade of existing defences. Hencere this implementation Option would avoid the significant volume of materials and transport of same until after 2009 but does not provide coastal protection that is a robust as other options.	Do Minimum would provide some disclowantges over other IOs. The disadvantge relating to this implementation option is that the minimum works rely on repairs, not a full upgrade would not fully achieve the adjectives of the plans which include the need for climate adaptation.
	Compatibility with Transport Plans	This Implementation Option will improve the protection of the rall line against climate change impacts, in line with the Transport Strategy's aim to "provide a sustainable, accessible and effective transport system for the Greater Dublin Area which neets the region's climate change requirements, saves the needs of urban and run communities, and upport economic proved". The Greater Dubling Reah (CCA)(5-0), Providing the intervention work can accommodate the East Coast Trail, with an individent order single and Upport the Transport Strategy.	This Implementation Option will improve the protection of the rail line against climate change impacts, in line with the Transport Strategy's aim to "provide a sustainable, accessible and effective transport system for the Greater Dable Area which meets the region's climate change requirements, serves the meets of urban and rund communities, and upport accounting growth". The Greater Dable Area Opt-Network Plan propose a National Opt-Route, the East Creat Trail, with an indicative route using part of the coastline meet (Plan and Plan	This implementation Option will improve the protection of the call line against climate change impacts, in line with the Transport Strategy's aim to "provide a sustainable, accessible and effective transport system for the Greater Dublin Kee which meets the region's climate change requirements, serves the needs of urban and rund communities, and apports accounting provide". The Greater Dublic Area Sock Network Rep proposes a National Cycle Boot, the East Coast Trail, with an indicator roote using part of the castifier meet they hearh (CA2),8-0; Providing the intervention works can accommodate the East Coast Trail, this implementation Option will support the Transport Strategy.	This implementation Option will improve the protection of the rail line against climate change impacts, in line with the Transport Strategy's aim to "provide a sustainable, accessible and effective transport system for the diverser fublic Area which meets the region's climate change requirements, saves the needs of urban and real communities, and sourgoot ecconnel growth. "Neever, the level of protection in our as ordered to the same fublic and a for other IDs. The Greater Dublic Nex Cycle Network Tean proposes a flational Cycle Route, the East Coast Trail, with an indicative route using part of the coastine near Killing Nexh (CG2)/20). Providing the intervention works can accommodate the East Coast Trail, this Implementation Option will support the Transport Strategy.	Do Minimum Is expected to involve disruptions to public transport in the abort to medium term to conduct regain as the need orien. The ad hoc regain will address damage that may accur, but won't build longer term realises against potential impacts of flooding or encours. As per Do Nething, this is likely to put increasing pressure on the public transport system and challenge its reliability, going against the Transport Strategy's focus on facilitating increased use of sustainable modes.
	Biodiversity	There are two SAC socialistics CGS (Bockald) in Dalkey Island SAC Messgender for wells and harboar porpoint, Lambay Island SAC Messgender for marine habitati (not impacts) and gery & brobarr anal); area SPA exitude the CGS (Dalkey Island SPA being the closest) and one pleisk (Dalkey Coastal Zone and Killney Hill), that could be effected in a negative way. Rock reveneme construction could cause disturbance to marine mammals (including seal and there are multiple records in and around Dalkey Island) and Q) wintering and nesting species. Rock too protection on brack would have impacts to Dalkey Coastal Zone and Killney Hill pleis.	There are two SAC conside the GCA (Backakil to Dollary Idand SAC (designated for reach and backour popping). Lumbay idand SAC (designated for marine habitato (not reparts) and gray & bathom rankil), and SAR installer the CCA (Dalley bland SAR being the closed) and one pNHA (Dalley Coastal Zone and Killiney Hill), that could be effected in a negative way. Rock reventment construction could cause disturbance to marine mammals (including use) and there are multiple records is and around Dalley Island) and Q) writering and nesting species. Rock toe protection on basch would have impacts to Dalley Coastal Zone and Killiney Hill pNHA.	There are two S4C outside the CCA (Rockabil to Dalkey Island S4C (designated for rents and harbour propose), Lumbay Island S4C (designated for marine habitatis (not impact) and gray & harbour avail), Gee S4A outside the CCA (Dalkey Valand S4A being the closes) and one pANA (Dalkey Coastal zero and Cilling will black coale de effection in angeline way. Ancess 1) (topic) habitat recorded on back had GCA and usude. Patential to impact on breeding brick through habitat loss (out of yaccies) in north. Ancess 1) (topic) habitat recorded on back had GCA and usude. Patential to impact on breeding brick through habitat loss (out of yaccies) in north. Ancess 1) (topic) habitat is not allowy. The shorter sections of rock revetment construction could cause disturbance to marker mammab. (Including usual and there are multiple records in and anound Dalkey Island) and QL writering and neeting species. Rock tap protection on back would have impacts to Dalkey Caustal Zone and Kolley and parks.	There are two SAC outside the CCA (Rockabil to Dalkey bland SAC (designated for reefs and harbour poopsia), Lambay bland SAC (designated for marine habital; Jost Impact); and grey & harbour setsil); one SFA outside the CCA (Dalkey bland SFA being the closed) and one pHHA (Dalkey Coastal Zowa of Elimery HI); functional de effection of an experime way. Annes 1 (page) habitar tercoride on basch mild CCA and outsh. Potential to Impact on breeding binds through habitat loss (not Q) speciel; in north. Assumes no right works and nor ralkey. The shorter accions of rook revetment construction could cause disturbance to marine mammals (including and and there are multiple records in and mound Dalkey pland; and Q) writtering and mesting species. Rock the protection on basch would have impacts to Dalkey Coastal Zone and attimity and public.	Do Minimum would provide some disadvantage compared to implementation Option 1 as there would be some limited construction work resulting in minimal impact on biodiversity protected areas. There is one SU(ficial to Daily hinks SU() area 94 (Dailey killed 94 being the classe) and area pNHA (Dailey Casata Zone and Killiny Hil, that could be effected in a minor negative way as repair works could cause disturbance to Q bird species. If unindered, the natural process of habitat expansion will provide supporting habitat for 94 wintering that species of the Dailey (shad 954 and for any SU() and SU() and SU() area 94 (classe) minor species of the Dailey (shad 954 and for any SU() area (shad shad species) and species of the Dailey (shad 954 and for any SU() and SU() and SU() area (shad SU() and for any SU() and SU() and for any SU() and SU() and for any SU() area (shad species) and for any SU() area (shad species) and for any SU() area (shad species) and for any SU() and for any SU() and for any SU() area (shad species) and for any SU() area (shad species) and for any SU() area (shad species) area (shad species) and for any SU() area (shad species) area (shad species) and for any SU() area (shad species) area (shad species) and for any SU() area (shad species) area (shad species) area (shad species) and for any SU() area (shad species) area (shad species) area (shad species) area (shad species) and for any SU() area (shad species) area (shad
	Landscape, visual & Seascape	This implementation Option has some disadvantages compared to other implementation Options, as the extert of the rock revetements would be very significant. However a constant approach to the finatage would have some benefits. Rock revetements when add consistently will be of a scale and uniform character that will complement the large seeing nation of this retach of constine, nonstangi landscare and value effects. Altopolis the offic lining the costal edge will modernet the scale of them Rouns, in places they require a large land take, which will result in the loss of a large areas of backs which will generate advant landscare of the Rouns.	This implementation diption has some disadvantages compared to other implementation Options, as the extent of the rock revetements would be very significant. However a constant approach to the finotage would have some benefits. Book revetements when used constanting will be of a scale and unified not character that will complement the large serving eather of the strict. In extending landscape and large differs that the the offits lining the coast ofgat will mode the scale of hear features, in places they require a larger land take, which will result in the loss of a larger server of shaces which will generate abeven budgets and single servers.	This implementation Option has some advantages compared to other implementation Options, as the rock revetements required are limited to Whiteneck. Although the cliffs long the costal edge will moderate the scale of these features, in places they require land take, which will result in the loss of a areas of basch which will generate localised adverse biologue and visual effects.	This implementation Option has some advantages compared to other implementation Options due to limited extent of proposals. However there is potential for further casatal encoden due to the more limited level of protection offered.	This implementation Option has some disadvantages compared to other Implementation Options continued reactive interventions would componente the character and quality of this stretch of coastline and its amenity, with ongoing works generating adverse landscape/searcape and visual effects.
	Archaeology, Architectural & Cultural Heritage	No potential direct impacts on Recorded Monuments or SMR Sites have been identified, bowever, this implementation Option has the highest potential for direct impacts to occur on previously unrecorded antesacogical horizage due to the scale of encuration works. There is the potential for regularizent indirect atting and you impacts to occur on here SMM sites (ObsCal2); attemp, ODSC 4000; Martello Tower and D0036 014002; Earthwork). There is the potential for indirect atting and visual impacts to occur on 24 895 Sites.	No potential direct impacts on Recorded Monuments or SMI Stes have been identified, however, there is the potential for direct impacts to occur on previously unrecorded archaeological herizage. There is the potential for significant induces atting and visual impacts to occur on one SMR sites (DVDD# 012; battery). There is the potential for indirect setting and visual impacts to occur on number of RPS Stes.	Na potential direct impacts on Recorded Monuments or SMR Stats have been identified, however, there is some potential for direct impacts to occur on protocolly correcorded archaeological benings. There is the potential for dipolicant indirect setting and visual impacts to occur on one SMR data (DADX 412), battery). There is the potential for indirect setting and visual impacts to occur on a number of NeS Stats.	No potential direct impacts on Recorded Monuments or SMR Sites have been identified.	Continued degradation, and piecement, reactive interventions, would generate a coastline that is in a constant state of repair and disruption, with constant advene Archaeology, Architectural and Cultural Hentage effects.
	Marine Archaeology	There is one recorded week (ID UKHO 6584) in this section. There are no direct impacts on previously unrecorded weeks, paleoenvironmental landscapes and material calture, and therefore no potential impact on a schaeological features in the intertial and marine elements. Nearewer, there will be a need to trans-byhemet and nambe delaway of large quantities of rock to the near-hore and there is a low risk of potential impact on archaeological features in the intertial and marine dements.	There is one recorded week (ID UKHO 6968) in this section. There are no direct impacts on previously unrecorded weeks, paleoenvironmental landscapes and material calture, and therefore no potential impact on an archaeological features in the intertidal and marine elements. Newwer, there will be a new for trans-objectere data marine feature of the groundtises of rock to the neuroboxe and there is a low risk of potential impact on archeeological features in the intertidal and marine elements.	There is one recorded week (ID USHO EMR) in this section. There are no direct impacts on providually unrecorded weeks, paleomivionmental landscapes and mathematic cluture, and therefore no potential impact on a characterized frame in the intertoid and maine elements. However, there will be an effort is user adjustmate and name delawary throats to the resolution and there is all one of potential impact on a characterized and the resolution and potential effort and the resolution and the resolution and potential impact on a characterized and implementation Option is and a 2.	There is one recorded week (ID UKHD (646) in this sector. There are no direct ingacts on previously unrecorded weeks, palaceminisonmental landcapes and material culture, and therefore no potential impact on archaeological features in the intertidal and marine elements. However, there will be a need for some trans objective and marked elements of the needshore and there is a low risk of potential impact on archaeological features in the intertidal and marke elements.	There is one recorded wreck (ID UKHO 6964) in this section. Do Minimum would provide some advantage as there would be limited/largeted construction and therefore no potential impact on archaeological features in the intertidal and marine elements.
	Noise and Vibration	This Implementation Option will cause no long term operational noise or vibration impacts. Noise impact during construction will be from mobile plate when working in proximity to population Noise Standards Locations. Specific instances of devaded noise will be locational and temporary. There may be periods of right-time works required due to add conditions. Na significant vibration impacts associated with this IC.	This implementation (potion will rease no long term operational noise or vibration impacts. Noise impact during construction will be from mobile plant when working is providely to population Noise Sensitive Locations . Specific instances of elevated noise will be localized and temporary but less thus implementation (potions where there in more noise netweeting provided. There may be periods of night time works required to total conditions. No significant vibration impacts associated with Nix IO.	This implementation options will assure to option regretational data without impacts induce and during contractions will be from module plot at when working in promoting the populations than the second end option of the contraction of end options where there is not react in the contraction of end options are used in the contract option of end options where there is more reach event the provided. There may be provided in the option of end options are used in the contract option of end options may be an end option of end options where there is more reach event with the implementation Options where there is more reach event with the implementation Option. This implementation Option is been within a magnetic end option. This implementation Option 12 but with some advantage due to there not being any works at CCA2/34. (No Offit) and reduced works through central follows:	This implementation Option will cause no long term operational noise or vibration impacts. Noise impact during construction will be much less than place implementation Options as the most applicant works will accur away from sensitive receptors. No applicant vibration impacts associated with this ID.	Do Minimum world provide some advantages due to absence of temporary - short term noise and velocition impacts from any construction works. The existing maintenance works will continue an excessary which will be of nucural impact, ablet these will likely intersulty in frequency. In the long term all anyone will likely be less valided and has potential for increased traffic on surrounding read network. Due to be longer term duration of potential impact, this is weighted as less advantageous over other 10s.
Environment	Air Quality	This implementation Option will have minimal organing maintenance requirements. This implementation Option would facilitate operational phase relative on public transport and reduce relative on private vehicles for the long term. There is postenial for some construction phase impacts associated with potentially dusty activities (seventeent construction) and construction while emissions have on organizemationance from back normalizement as some other implementation Options. Construction plase impacts would be likely considered short term and dust mitigation can be put in place.	This implementation Option will have minimal ongoing maintenance requirements. This implementation Option would facilitate operational phase retaince on public transport and reduce retaince on private vehicles for the long term. There is potential for some construction phase impacts associated with potentially doing statistics (prestment construction) and construction which emissions but no ongoing maintenance from back notwithment a per some other implementation Options. Construction phase impacts would be Narly considered short term and dust miligation can be put in place.	This implementation Option will have minimal organig maintenance requirements. This implementation Option would facilitate operational phase relations on public transport and reduce relative on private vehicles for the long term. There is potential for some construction phase impacts associated with potentially dusty activities but less compared to more significant interventions.	This implementation Option will have the potential for ongoing maintenance requirements through central Killney. This implementation Option would facilitate operational phase relators on public transport and reduce relators on private vehicles for the long term. There is potential for some construction phase impacts associated with potentially dusty activities but much less compared to more significant externentions.	This implementation Option has significant disadvantages over other implementation Options as although there will be noisinal construction phase impacts the reactive do-minimum construction works will require heavy machinery resulting in sources of dust and air polution. Petertain for long term locid operational phase impacts should the rail ine be surgended in future. If rail services are suspended this has the potential to increase local read traffic.

	Core Criteria	Sub Criteria	101 Rock revetments (A, B1, B2, B4, C1, C3, C4, D1, D3) and concrete seawalls (C1, C3, C4, D1) [76 - 123]	102	Rock revetment at Whiterock (R2, B4), concrete seawail at Killiney (C3, C4, D1) and Rock revetments (A, B1, C1, C3, C4, D1) and concrete seawails (C1) (71 – 115). Rock Revetment at routh Killiney Deferred to 2075.	103	Rock revetment at Whiterock (82, 84) and concrete seawall at Killewy (C3, C4, 01) (15 – 56), Rock revetments (A, 81, C1, C4, C1) and concrete seawalls (C1) deferred to between 2550-2075, Rock Revetment at South Killowy deferred to 2075.	104	Rock revetment at Whiterock (sub cells 82 and 84) [20 – 33]; Concrete seawall at Killney (CL, C4, D1) deferred until around 2050. All other measures deferred until later.	Do Minimum	Reactive Maintenance
		Carbon Management	Of the implementation Options, the Whole Life Carbon (Isones CO2e) of this implementation Option would be highest as it would require the full intervention of all measures now. This option would facilitate operational phase relance on public transport and reduce relance on private vehicles for the long term.		The Whole Use Carbon Nannes (2021) of this implementation Option would be marginally lower than implementation Option 2 as it would require tess measures immediately. This option would facilitate operational phase reliance on public transport and reduce reliance on private vehicles for the long term.		Of the Implementation Options, the Whole Life Carbon (tornes CO24) of this Implementation Option would be one of the lowest as it would require the only partial Intervention and interaction row. This option would fullistic experiated layer refersor on public transport and reduce relaxes on private whiche for the long term. This option would need to an internal to a minimum whilst affording protection to the relaxey infrastructure.		Of the implementation Options, the Whole UPC Lation (Somes CO2e) of the implementation Option would be lowest as it would require the only partial intervention of almosurus more. This option would facilitate operational phase reliance on public transport and reduce reliance on private vehicles for the long term. This option would facilitate operational phase reliance on public transport and reduce reliance on private vehicles for the long term. This option would facilitate operational phase reliance on public transport and reduce reliance on private vehicles for the long term.		This implementation Option has significant disadvantages over other implementation Options due to the potential for long term local operational phase impacts should the rail line be surgended in future. If rail services are surgended this has the potential to increase local road traffic.
		Water Resources	Minimal impacts to groundwater as minimal below ground construction required.		Minimal impacts to groundwater as minimal below ground construction required.		Minimal impacts to groundwater as minimal below ground construction required.		Minimal impacts to groundwater as minimal before ground construction required.		Do Minimum would provide a significant advantage as it there would be minimal construction work and therefore negligible impact on groundwater.
		Geology and Soils	Minimal impacts to solis and geology as minimal below ground construction or escavation required. However this implementation Option would require the maximum quantity of rock and material to be excavated from quarties etc.		Minimal inpacts to solis and geology as minimal below ground construction or excavation required. However this implementation Option would require a significant quantity of rock and material to be encavated from quartics etc.		Minimal impacts to solis and geology as minimal below ground construction or excavation required. This implementation Option would require less cock and material to be excavated from quarties compared to implementation Option 1 and 2.		Motional impacts to solit and geology as motional defau ground construction or maximality maying. This implementation (brain ensuit requires the least quantity of ricks and material to be encaused from quartee etc. However protection of geological resources from coastal ensuine not as complete as for other implementation Options.		There will be some advantages in the short term compared to other implementation Options as there will only be minimal disturbance during the construction. However, the mitigation installed may be not be sufficient to address ensoin of geological resources caused by climate change.
		Material & Circular Economy	This implementation Option would require the highest material quantities.		This implementation Option would require significant material quantities.		This implementation Option would require moderate material quantities.		This implementation Option would require low material quantities in the initial scheme but could require more materials to maintain the level of protection.		Do blinitium would provide significant advantages over other implementation Dytains as it intimines the consumption and use of material respirate through maximum gifts as as of mating assess to reduce the extent of any new construction required (i.e. during the current maintenance regime of origoing monitoring and reactive repart).
		Waste	This implementation Option would generate the highest waste quantities.		This implementation Option would generate significant waste quantities.		This implementation Option would generate moderate wate quantities.		This implementation Option would generate moderate watte quantities.		This implementation Option would provide significant advantages over other implementation Options as it minimizes the generation and disposal of works through maximum the use of entring assets to reduce the extent of any new construction required (i.e. during the current maintenance regime of organism mathematics).
		Traffic and Transport	This implementation Option is similar to other implementation Options as it would have minimal operational impact to traffic & transport; the intervention works will be localized to the coast and are not anticipated to affect transport systems or travel demand.		This implementation Option is similar to other implementation Options as it would have minimal operational impact to traffic & transport, the intervention works will be localised to the coast and are not anticipated to affect transport systems or travel demand.		This implementation Option is similar to other implementation Options as it would have minimal operational inpact to traffic & transport; the intervention works will be localised to the coast and are not anticipated to affect transport systems or travel demand.		This implementation Option is similar to other implementation Options as it would have minimal operational impact to traffic & transport; the intervention-works will be localized to the coast and are not anticipated to affect transport systems or travel demand. However the protection measures are not an application as other implementation Options and so higher potential for unsepected disruptions due to ad hux repairs.		This implementation Option has some disadvartages compared to other implementation Options due to the potential unexpected disruptions to transport to make ad hoc repairs. Rell service impacts may lead to overcrowding on buses and/or increased road congestion.
		Constructability	This implementation Option requires significant volumes of rock armour and the construction is relatively slow due to the scale of the works. Several work fronts could be opened up to improve construction duration. It is assumed that rock armour will be delivered by marine plant. Extensive rock reventment works required which would necessitate difficult marine accent/working for material delivery and construction.		This implementation Option requires significant volumes of nock armour and the construction is instahledy dow due to the scale of the work. Several work fronts could be opponed up to improve construction duration. It is assumed that nock armour will be delivered by manine plane. Extensive nock revenment works required which woold recentates difficult marine access/working for material delivery and construction.		This implementation Option requires less rook armour compared to implementation Option 1 and implementation Option 2 and therefore construction will be simplified and less rook armour will be required.		This implementation Option would have a relatively short construction period w.R. andy involves rock revetments at Whiteneck which, shhough there would registred a reasonable amount of incid armour and construction plant would be comparatively simple and queck to construct. Option does not include for construct would have a certain USI liney, but when these works are required in the future it could be more difficult to construct if beach widths are reduced in the future.		This implementation Option has disarbantages compared to other implementation Options as it is likely to require ad hoc emergency repairs to the defences which could be more complex than planned protection works
		Rail service impact	Minimal impact on operation of railway line during construction. The operational phase of the rail service will be enhanced by this coastal protection intervention.		Minimal impact on operation of railway line during construction. The operational phase of the rail service will be enhanced by this coastal protection intervention.		Minimal impact on operation of railway line during construction. The operational phase of the rail service will be enhanced by this casetal protection intervention.		Minimal impact on operation of railway line as works are adding to existing infrastructure so no excavation is needed. Irish feal will require to be notified of works as adjacent to the railway line but this is espected to be low risk. Generate works will allow coastal ensoins to continue in the short term and may require ad hoc and emergency works with a resultant impact on rail envices.		This implementation Option is likely to require ad hoc and emergency works to the defences, which may impact rail operations. It will be difficult to plan shead for these works as there will be no strategy in place for routine maintenance works
E	ngineering / Technical	Reliance on maintenance burden	This implementation Option would only require routine and post storm monitoring but should require minimal maintenance during the design life.		This implementation Option would only require routine and post storm monitoring but should require minimal maintenance during the design life.		This implementation Option would only require routine and post storm monitoring but should require minimal maintenance during the design life.		Where works are deferred, additional maintenance may be required to maintain the standard of protection.		This implementation Option would rely heavily on monitoring and maintenance
		Adaptation	This implementation Option has limited adaptability compared to other options as although the rock revetments can be added to or rebuilt if required this would be limited.		This implementation Option has limited adaptability compared to other options as although the rock revetments can be added to or rebuilt if required this would be limited.		Future adaptation accounted for in the design.		Future adaptation accounted for in the design.		This implementation Option has minimal opportunities for adaptation.
		Residual risk	Failure of a rock reventment is very unlikely to be sudden, failure would be progressive in the form of some loss of rock from the structure or slumping/settlement of the reventment which would compromise its performance but would not lead to sudden or catastrophic failure.		Falure of a rock reventment is very unlikely to be sudden, falure would be progressive in the form of some loss of rock from the structure or oumping/settement of the reventment which would composition is performance but would not lead to sudden or catastrophic falure.		Fallow of a red ventiment is very writely to be sudden, failure would be progressive in the form of some loss of rach from the structure or stamping functioners of the revenuest which would compromise its genformance but would not lead to adden or catastrophic failure. Failure of the conversion and and conversion factor to a structure of the difficulties of the difficulties of the difficulties of a structure of the difficulties of the diffi		Failure of a scal-reventment is very unlikely to be undere. Solare would be progressive in the form of some loss of reck from the structure or siumping/settlement of the reventment which would compromise its performance but would not lead to suddee or catactrophic failure. Deferral of works could lead to weaknesses in the existing hand defences and unprotected areas, particularly through central Killney.		This implementation Option would not eliminate weaknesses in the existing hard defences or unprotected greas, which could lead to rapid failure.
	Planning Risk	Consenting risk	A full upgrade of existing defences would protect the area for a longer time in line with planning policy. However environmental effects are much nore significant than other inglementation Options and the imglementation of works that are only needed in the future may be difficult to justify. This implementation Option will require a Markime Area Consent.		A full upgrade of existing defences would protect the area for a longer time in line with planning policy. However environmental effects are much more significant than other implementation Options and the implementation of works that are only needed in the future may be difficult to justify. This implementation Option will require a Maritime Area Consent.		The upgrade of existing defences: would protect the area for a longer time in line with planning policy. Environmental effects are less significant than implementation Option 1 and 2. This implementation Option will require a Maritime Area Consent.		A partial upgrade of existing defences would protect the area for a longer time in line with planning policy. Environmental effects are less significant than implementation Option 1, implementation Option 2 & 3. May be difficult to justify having to return in the short term for additional works and this will also present a future planning risk. This implementation Option will require a Maritime Area Consent.		Do Minimum would provide a significant advantage as it would require no consents.