

Regional Water Resources Plan–South West

Natura Impact Statement
Appendix E







Jacobs

Data disclaimer: This document uses best available data at time of writing. As data relating to population forecasts and trends are based on information gathered before the Covid-19 Pandemic, monitoring and feedback will be used to capture any updates. The National Water Resources Plan will also align to relevant updates in applicable policy. In December 2022, the Water Services (Amendment) (No. 2) Act, 2022 was signed into law. This act legislates that from the 31 December 2022, Irish Water will only be known as Uisce Éireann. It also provides that, from that date, all references in any enactment, legal proceedings or other document to Irish Water shall be construed as references to Uisce Éireann only. Therefore in this NIS, which was developed prior to the name change, all references to Irish Water shall be construed as Uisce Éireann.

Baseline data included in the RWRP-SW has been incorporated from numerous sources including but not limited to; National Planning Framework, Central Statistics Office, Regional Spatial and Economic Strategies, Local Authority data sets, Regional Assembly data sets and Uisce Éireann data sets. Data sources will be detailed in the relevant sections of the RWRP-SW. 2019 was selected as the base year to align with the planning period (2019-2025) of the NWRP.

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Limitation: This report has been prepared on behalf of, and for the exclusive use of Jacobs' Client (Uisce Éireann), and is subject to, and issued in accordance with, the provisions of the contract between Jacobs and the Client. Jacobs accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this report by any third party.

Appendix E In-combination Tables

Table E1: SAH-Potential in-combination effects with other projects and options within SAH

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Si Integrity (Y/N)
STUDY AREA H					
New GW abstraction and interconnect Abbeyfeale and Listowel Option study area is within and hydrologically linked to Lower River Shannon SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary. Potential pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species during construction given that the works are adjacent to the SAC boundary. Option includes new GW abstraction. However, no operational impacts are predicted. Option study area is within Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA. There is potential for disturbance to hen harrier during construction given the study area is within the SPA and due to hen harrier using supporting habitats in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland). No operational impacts are predicted. Option study area is in close proximity to a hydrological link to and 1.2km from River Shannon and River Fergus Estuaries SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species. No operational impacts are predicted.	 Habitat loss Mortality risk Habitat degradation Disturbance Spread of invasive non-native species 	N22 Road Improvement Scheme: 20km scheme from Farranfore to Killarney Lower River Shannon SAC is approximately 21km north of the northern extent of the scheme and therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 8km north-east of the northern extent of the scheme. There is a hydrological link, but the European site is upstream of the scheme, therefore no in-combination effects are predicted. River Shannon and River Fergus Estuaries SPA is approximately 40km north of the northern extent of the scheme and therefore no in-combination effects are predicted. N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Lower River Shannon SAC crosses the scheme and the LSEs identified in the NIS for this scheme were habitat loss, habitat degradation, spread of invasive species, disturbance, reduction in water quality, changes to the hydrological regime and barrier effects. Therefore, there may be in-combination effects from habitat loss, pollution, spread of invasive non-native species and disturbance. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 2km south of the scheme. There is a hydrological link, but the European site is upstream of the scheme, therefore no in-combination effects are predicted. River Shannon and River Fergus Estuaries SPA is approximately 11km north of the scheme with no direct hydrological link, therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 22km east of the scheme therefore no in-combination effects are predicted. River Shannon and River Fergus Estuaries SPA is approximately 46km north of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 22km north-east of the scheme therefore no in-combination effects are predicted. River Shannon and	Yes – from habitat loss, pollution, spread of invasive non-native species and disturbance impacts on the Lower River Shannon SAC if construction phase is concurrent with the N69 Listowel Bypass works	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Positioning Tralee as an Economic Driver, Tralee Flood Relief Scheme, Tralee Northern Relief Road, Phase 1 Tralee Town Centre - Rock Street, Russell Street and Bridge Street, Tralee Wastewater Network, MTU Tralee Campus STEM building Lower River Shannon SAC is approximately 14km north-east of the schemes with no hydrological links, therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 8km north-east of the schemes. There is a hydrological link, but the European site is upstream of the schemes, therefore no in-combination effects are predicted. River Shannon and River Fergus Estuaries SPA is approximately 34km north of the schemes therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 38km north-east of the eastern extent of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 38km north-east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cahersiveen Community Hospital This development includes an extension to the current hospital and was screened out for AA, therefore there will be no potential impact on European sites. Lower River Shannon SAC is approximately 64km north-east of the scheme; no in-combination effects are possible. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 86km north-east of the scheme; no in-combination effects are possible. Stack's to mullaghareir Mountains, West Limerick Hills and Mount Eagle SPA is approximately 86km north-east of the scheme; no in-combination effects are possible. Stack's to Mullaghareir Mountains, West Limerick Hills and Mount Eagle SPA is approximately 86km north-east of the scheme; no in-combination effects are possible. Stack's to Mullaghareir Mountains, West Limerick Hills and Mount Eagle SPA is approxim			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		SPA is approximately 36km north-east of the scheme; no in-combination effects are possible. Valentia Trans-Atlantic Cable Station Lower River Shannon SAC is approximately 70km north-east of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 65km north-east of the scheme therefore no in-combination effects are predicted. River Shannon and River Fergus Estuaries SPA is approximately 89km north-east of the scheme therefore no in-combination effects are predicted. Cahersiveen Town Centre Regeneration Project Lower River Shannon SAC is approximately 64km north-east of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 60km north-east of the scheme therefore no in-combination effects are predicted. River Shannon and River Fergus Estuaries SPA is approximately 85km north-east of the scheme therefore no in-combination effects are predicted. Baile na Fheirtéaraigh Development Lower River Shannon SAC is approximately 42km north-east of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 55km north-east of the scheme therefore no in-combination effects are predicted. Ard Na Greine, Knockavota, Milltown This development includes the construction of 54 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Lower River Shannon SAC is approximately 23km north-east of the scheme; no in-combination effects are possible. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 19km north-east of the scheme: no in-combination effects are possible. River Shannon and River Fergus Estuaries SPA is approximately 49km north-east of the scheme; no in-combination effects are possible. River Shannon and River			
Increase GW abstraction at An Clochan. Ce Brennan and Clochan are connected - Could feed from either depending on where yield is Option study area is 80m from and hydrologically linked to Mount Brandon SAC. Potential pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for the spread of invasive species during construction given that the works are adjacent to the SAC boundary and the ZOC is within the SAC. Option includes increased GW abstraction. There is a risk this groundwater abstraction could lead to hydrological changes (reduced	 Mortality risk Habitat degradation Spread of invasive non-native species Water table/availability 	Mount Brandon SAC is approximately 33km west of the northern extent of the scheme therefore no in-combination effects are predicted. N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Mount Brandon SAC is approximately 41km south-west of the scheme therefore no in-combination effects are predicted. N70 Milltown Bypass Project Mount Brandon SAC is approximately 23km west of the scheme therefore no in-combination effects are predicted. N70 Glanbehy Bridge Road Project Mount Brandon SAC is approximately 16km north-west of the scheme therefore no in-combination effects are predicted. N86 Tralee to An Daingean: Upgrade works along road between Camp and Dingle Mount Brandon SAC is approximately 1km north of the scheme with no hydrological links, therefore no in-combination effects are predicted. Destination Killarney, Smarter Travel Killarney: Regeneration of the town centre and public realm	No	N/A	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
flows – impacting on water quality) that could impact aquatic QI species or habitats. Therefore, there is potential for impacts on aquatic QI species utilising this European site through a reduction in flows/water levels. There is a risk this groundwater abstraction will reduce water flow in the underground aquifer. Therefore, there is potential for impacts on QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water.		Mount Brandon SAC is approximately 41km north-west of the schemes therefore no in-combination effects are predicted. Positioning Tralee as an Economic Driver, Tralee Flood Relief Scheme, Tralee Northern Relief Road, Phase 1 Tralee Town Centre - Rock Street, Russell Street and Bridge Street, Tralee Wastewater Network, MTU Tralee Campus STEM building Mount Brandon SAC is approximately 22km west of the schemes therefore no in-combination effects are predicted. South Kerry Greenway: Construction of a 32km greenway from Reenard to Faha Mount Brandon SAC is approximately 15km north of the scheme with no direct hydrological link, therefore no in-combination effects are predicted. Cahersiveen Community Hospital This development includes an extension to the current hospital and was screened out for AA, therefore there will be no potential impact on European sites. Mount Brandon SAC is approximately 22km north of the scheme; no in-combination effects are possible. Killarney Community Nursing unit: New two-story nursing unit Mount Brandon SAC is approximately 40km north-west of the scheme therefore no in-combination effects are predicted. Listowel Community Hospital, Listowel Food Hub This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development suite. Both developments were screened out for AA, therefore there will be no potential impact on European sites. Mount Brandon SAC is approximately 43km south-west of the schemes; no in-combination effects are possible. Lohercannon, Tralee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Mount Brandon SAC is approximately 25km north of the scheme therefore no in-combination effects are predicted. Cahersiveen Town Centre Regeneration Project Mount Brandon SAC is approximately 22km north of the scheme therefore no i			
SAH-038 Increase Ballyheigue abstraction. Abandon existing BH at Glenderry Well and rationalise WTP	Habitat lossMortality riskHabitat degradation	N22 Road Improvement Scheme: 20km scheme from Farranfore to Killarney Akeragh, Banna and Barrow Harbour SAC is approximately 22km north-west of the northern extent of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 15km north-west of the northern extent	Yes – from pollution impacts on Akeragh, Banna and Barrow Harbour SAC and from pollution	General Mitigation Measures are outlined in Section 6.3.3	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Option study area is 450m from and hydrologically linked to Akeragh, Banna and Barrow Harbour SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for the spread of invasive species during construction given that the works and ZOC are adjacent to the SAC boundary. Option includes increased GW abstraction. There is a risk this groundwater abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. Therefore, there is potential for impacts on aquatic QI species utilising this European site through a reduction in flows/water levels. There is a risk this groundwater abstraction will reduce water flow in the underground aquifer. There is potential for impacts on habitats hydrologically linked to this European site through a reduction in flows/water levels due to groundwater abstraction. Option study area is 700m from and hydrologically linked to Tralee Bay Complex SPA. There is potential for some loss of/damage to supporting habitats (e.g. foraging habitats) to QI species during construction works given that the works are adjacent to SPA boundary. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction for disturbance to QI birds during construction flow propers and the species and is hydrologically linked to Kerry Head SPA. There is potential for odisturbance to QI birds using supporting habitats in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland). No operational impacts are predicted. Option study area mains cross and is hydrologically linked to Kerry Head SPA. There is potential for some loss of/damage to supporting habitats (e.g. foraging habitats) to QI species during construction works given that the works are within the SPA boundary. Pollution of water courses duri	 Disturbance Spread of invasive non-native species Water table/availability 	of the scheme with no hydrological links, therefore no in-combination effects are predicted. Kerry Head SPA is approximately 31km north-west of the northern extent of the scheme, therefore no in-combination effects are predicted. N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Akeragh, Banna and Barrow Harbour SAC is approximately 23km west of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 23km west of the scheme therefore no in-combination effects are predicted. Werry Head SPA is approximately 15km west of the scheme with no direct hydrological links, therefore no in-combination effects are predicted. N70 Milltown Bypass Project Akeragh, Banna and Barrow Harbour SAC is approximately 17km north-west of the scheme therefore no in-combination effects are predicted. Werry Head SPA is approximately 10.5km north of the scheme with no hydrological link, therefore no in-combination effects are predicted. Kerry Head SPA is approximately 28km north-west of the scheme therefore no in-combination effects are predicted. N70 Glanbehy Bridge Road Project Akeragh, Banna and Barrow Harbour SAC is approximately 26km north of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 24km north of the scheme therefore no in-combination effects are predicted. N86 Tralee to An Daingean: Upgrade works along road between Camp and Dingle Akeragh, Banna and Barrow Harbour SAC is approximately 6km north of the eastern extent of the scheme with a hydrological link, therefore there may be in-combination effects from pollution. Tralee Bay Complex SPA is approximately 24km north of the eastern extent of the scheme with a hydrological link, therefore there may be in-combination effects are predicted. Destination Killarnev. Smarter Travel Killarney: Regeneration of the town centre and public realm Akeragh, Banna and Barrow Harbour SAC is approximately 34km north-west of the schemes therefore no in-combin	and disturbance impacts on Tralee Bay Complex SPA if construction phase concurrent with N86 Tralee to An Daingean works Yes - from disturbance and pollution impacts on Tralee Bay Complex SPA if construction phase concurrent with Positioning Tralee as an Economic Driver, Tralee Flood Relief Scheme, Tralee Northern Relief Road, Phase 1 Tralee Town Centre - Rock Street, Russell Street and Bridge Street, Tralee Wastewater Network and MTU Tralee Campus STEM building works	With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

			Integrity (Y/N)
This development includes an extension to the current hospital and was screened out for AA, therefore there will be no potential impact on European sites. Akeragh, Banna and Barrow Harbour SAC is approximately 43km north-east of the scheme; no in-combination effects are possible. Tralee Bay Complex SPA is approximately 37km north-east of the scheme; no in-combination effects are possible. Kerry Head SPA is approximately 55km north-east of the scheme; no in-combination effects are possible. Killarney Community Nursing unit: New two-story nursing unit			
Akeragh, Banna and Barrow Harbour SAC is approximately 34km north-west of the scheme; no in-combination effects are possible. Tralee Bay Complex SPA is approximately 34km north-west of the scheme; no in-combination effects are possible. Kerry Head SPA is approximately 44km north-west of the scheme: no in-combination effects are possible. Listowel Community Hospital, Listowel Food Hub			
This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development suite. Both developments were screened out for AA, therefore there will be no potential impact on European sites.			
Akeragh, Banna and Barrow Harbour SAC is approximately 25km south-west of the schemes; no in-combination effects are possible. Tralee Bay Complex SPA is approximately 24km south-west of the schemes; no in-combination effects are possible. Kerry Head SPA is approximately 27km west of the schemes; no in-combination effects are possible.			
Lohercannon, Tralee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites.			
Akeragh, Banna and Barrow Harbour SAC is approximately 6km west of the scheme; no in-combination effects are possible. Tralee Bay Complex SPA is approximately 100m south of the scheme; no in-combination effects are possible. Kerry Head SPA is approximately 16km north-west of the scheme; no in-combination effects are possible.			
Valentia Trans-Atlantic Cable Station Akeragh, Banna and Barrow Harbour SAC is approximately 48km north-east of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 40km north-east of the scheme therefore no in-combination effects are predicted. Kerry Head SPA is approximately 60km north-east of the scheme therefore no in-combination effects are predicted.			
Cahersiveen Town Centre Regeneration Project Akeragh, Banna and Barrow Harbour SAC is approximately 43km north-east of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 37km north-east of the scheme therefore no in-combination effects are predicted. Kerry Head SPA is approximately 55km north-east of the scheme			
Baile na Fheirtéaraigh Development Akeragh, Banna and Barrow Harbour SAC is approximately 38km north-east of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 25km north-east of the scheme therefore no in-combination effects are predicted. Kerry Head SPA is approximately 41km north-east of the scheme			
	approximately 34km north-west of the scheme; no in-combination effects are possible. Kerry Head SPA is approximately 44km north-west of the scheme: no in-combination effects are possible. Listowel Community Hospital, Listowel Food Hub This hospital development includes an extension to the current hospital. The Food Hub development suite, Both developments were screened out for AA, therefore there will be no potential impact on European sites. Akeragh, Banna and Barrow Harbour SAC is approximately 25km south-west of the schemes; no in-combination effects are possible. Tralee Bay Complex SPA is approximately 24km south-west of the schemes; no in-combination effects are possible. Kerry Head SPA is approximately 27km west of the schemes; no in-combination effects are possible. Lohercannon, Tralee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Akeragh, Banna and Barrow Harbour SAC is approximately 6km west of the scheme; no in-combination effects are possible. Tralee Bay Complex SPA is approximately 100m south of the scheme; no in-combination effects are possible. Kerry Head SPA is approximately 16km north-west of the scheme; no in-combination effects are possible. Valentia Trans-Atlantic Cable Station Akeragh, Banna and Barrow Harbour SAC is approximately 48km north-east of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 40km north-east of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 40km north-east of the scheme therefore no in-combination effects are predicted. Cahersiveen Town Centre Regeneration Project Akeragh, Banna and Barrow Harbour SAC is approximately 43km north-east of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 37km north-east of the scheme therefore no in-combination effects are predicted. Bai	approximately 34km north-west of the scheme; no in-combination effects are possible. Kerry Head SPA is approximately 44km north-west of the scheme; no in-combination effects are possible. Listowel Community Hospital, Listowel Food Hub This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development suite. Both developments users screened out for AA, therefore there will be no potential impact on European sites. Akeragh, Banna and Barrow Harbour SAC is approximately 25km south-west of the schemes; no in-combination effects are possible. Tralee Bay Complex SPA is approximately 24km south-west of the schemes; no in-combination effects are possible. Tralee Bay Complex SPA is approximately Paken SPA is approximately 27km west of the schemes; no in-combination effects are possible. Lohercannon, Tralee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Akeragh, Banna and Barrow Harbour SAC is approximately 6km west of the scheme; no in-combination effects are possible. Kerry Head SPA is approximately 16km north-west of the scheme; no in-combination effects are possible. Kerry Head SPA is approximately 16km north-west of the scheme; no in-combination effects are possible. Valentia Trans-Atlantic Cable Station Akeragh, Banna and Barrow Harbour SAC is approximately 48km north-east of the scheme therefore no in-combination effects are precided. Tralee Bay Complex SPA is approximately 40km north-ast of the scheme therefore no in-combination effects are precided. Cabersiveen Town Centre Regeneration Project Akeragh, Banna and Barrow Harbour SAC is approximately 48km north-east of the scheme therefore no in-combination effects are precided. Cabersiveen Town Centre Regeneration Project Akeragh, Banna and Barrow Harbour SAC is approximately 38km north-east of the sc	approximately 34km north-west of the scheme, no in-combination effects are possible. Kerry Head SPA is approximately 44km north-west of the scheme: no in-combination effects are possible. Listowel Community Hospital. Listowel Food Hub This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development surface. Both developments were screened out for AA, therefore there will be no potential impact on European sites. Akoragh, Banna and Barrow Harbour SAC is approximately 25km south-west of the schemes; no in-combination effects are possible. Tratee Bay Complex SPA is approximately and south-west of the schemes; no in-combination effects are possible. Tratee Bay Complex SPA is approximately 27km west of the schemes; no in-combination effects are possible. Lohercannon, Tratee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Akeragh, Banna and Barrow Harbour SAC is approximately 6km west of the scheme; no in-combination effects are possible. Kerry Head SPA is approximately 16km north-west of the scheme; no in-combination effects are possible. Kerry Head SPA is approximately 16km north-west of the scheme; no in-combination effects are possible. Kerry Head SPA is approximately 16km north-west of the scheme; no in-combination effects are possible. Valentia Trans-Atlantic Cable Station Akoragh, Banna and Barrow Harbour SAC is approximately 49km north-east of the scheme therefore no in-combination effects are predicted. Cahersween Town Carries and the scheme therefore no in-combination effects are predicted. Cahersween Town Carries and Parrow Harbour SAC is approximately 49km north-east of the scheme therefore no in-combination effects are predicted. Cahersween Town Carries and Parrow Harbour SAC is approximately 49km north-east of the scheme therefore no in-co

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAH-225	 Habitat loss 	This development includes the construction of 54 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Akeragh, Banna and Barrow Harbour SAC is approximately 19km north-west of the scheme; no in-combination effects are possible. Tralee Bay Complex SPA is approximately 18km north-west of the scheme; no in-combination effects are possible. Kerry Head SPA is approximately 30km north of the scheme; no in-combination effects are possible. N22 Road Improvement Scheme: 20km scheme from Farranfore to Killarney	Yes – from habitat loss, pollution,	General Mitigation	N
Develop TW at Brosna raw water pump house Option study area is within and hydrologically linked to Lower River Shannon SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary. Potential pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species given that the works are within the SAC boundary. Option includes new GW abstraction. There is a risk this groundwater abstraction could lead lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. There is a risk this groundwater abstraction will reduce water flow in the underground aquifer. There is potential for impacts on habitats utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels due to groundwater abstraction. Option study area is 600m from Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA. There is potential for disturbance to hen harrier during construction given the proximity of the study area to the SPA and due to hen harrier during construction given the proximity of the study area to the SPA and due to hen harrier using supporting habitats in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland). No operational impacts are predicted.	 Mortality risk Habitat degradation Disturbance Spread of invasive non-native species Water table/availability 	Lower River Shannon SAC is approximately 21km north of the northern extent of the scheme and therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 8km north-east of the northern extent of the scheme. There is a hydrological link, but the European site is upstream of the scheme, therefore no incombination effects are predicted. N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Lower River Shannon SAC crosses the scheme and the LSEs identified in the NIS for this scheme were habitat loss, habitat degradation, spread of invasive species, disturbance, reduction in water quality, changes to the hydrological regime and barrier effects. Therefore, there may be in-combination effects from habitat loss, pollution, spread of invasive non-native species and disturbance. In-combination effects during operation may result in habitat degradation and changes to water table/availability. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 2km south of the scheme, therefore no in-combination effects are predicted. N70 Milltown Bypass Project Lower River Shannon SAC is approximately 26km north-east of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 22km east of the scheme therefore no in-combination effects are predicted. N70 Glanbehy Bridge Road Project Lower River Shannon SAC is approximately 43km north-east of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 42km north-east of the scheme therefore no in-combination effects are predicted. N86 Tralee to An Daingean: Upgrade works along road between Camp and Dingle Lower River Shannon SAC is approximately 28km north-east of the scheme therefore no in-combination effects are predicted. Destination Killarn	spread of invasive non-native species and disturbance on the Lower River Shannon SAC if construction phase is concurrent with the N69 Listowel Bypass and during operation from habitat degradation and water table/availability on Lower River Shannon SAC	Measures are outlined in Section 6.3.3 Hydrogeological modelling as in Section 6.3.5 Hydrological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 8km north-east of the schemes. There is a hydrological link, but the European site is upstream of the schemes, therefore no in-combination effects are predicted.			
		South Kerry Greenway: Construction of a 32km greenway from Reenard to Faha Lower River Shannon SAC is approximately 42km north-east of the eastern extent of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 38km north-east of the eastern extent of the scheme therefore no incombination effects are predicted.			
		Cahersiveen Community Hospital This development includes an extension to the current hospital and was screened out for AA, therefore there will be no potential impact on European sites.			
		Lower River Shannon SAC is approximately 64km north-east of the scheme; no incombination effects are possible. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 60km north-east of the scheme; no in-combination effects are possible.			
		Killarney Community Nursing unit: New two-story nursing unit Lower River Shannon SAC is approximately 29km north-east of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 16km north-east of the scheme therefore no in-combination effects are predicted.			
		Listowel Community Hospital, Listowel Food Hub This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development suite. Both developments were screened out for AA, therefore there will be no potential impact on European sites.			
		Lower River Shannon SAC is approximately 240m south of the schemes; no incombination effects are possible. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 10km east of the scheme; no in-combination effects are possible.			
		Lohercannon, Tralee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites.			
		Lower River Shannon SAC is approximately 15km north-east of the scheme; no incombination effects are possible. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 11km east of the scheme; no in-combination effects are possible.			
		Valentia Trans-Atlantic Cable Station Lower River Shannon SAC is approximately 70km north-east of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 65km north-east of the scheme therefore no in-combination effects are predicted.			
		Cahersiveen Town Centre Regeneration Project Lower River Shannon SAC is approximately 64km north-east of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 60km north-east of the scheme therefore no in-combination effects are predicted.			
		Baile na Fheirtéaraigh Development Lower River Shannon SAC is approximately 42km north-east of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAH-531 Pationalise Cahorsiyeen to Waterville	Habitat loss Mortality risk	Mountains, West Limerick Hills and Mount Eagle SPA is approximately 55km north-east of the scheme therefore no in-combination effects are predicted. Ard Na Greine, Knockavota, Milltown This development includes the construction of 54 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Lower River Shannon SAC is approximately 23km north-east of the scheme; no incombination effects are possible. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 19km north-east of the scheme; no in-combination effects are possible. N22 Road Improvement Scheme: 20km scheme from Farranfore to Killarney Killarney National Park, Maggillycuddy's Rooks and Caragh River Catchment	Yes – from habitat loss, mortality, disturbance, spread of invasive	General Mitigation Measures are outlined in	N
Rationalise Cahersiveen to Waterville, with Lough Currane abstraction increased to meet deficit Option study area is within and hydrologically linked to Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary (within Lough Currane). Potential pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could also affect QI species and hydrologically connected habitats. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species during construction given that the works are within the SAC boundary. Option includes SW abstraction. There is a risk this surface water abstraction could lead lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. There is potential for impacts on freshwater pearl mussel and other aquatic QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels due to surface water abstraction. Option study area mains cross and is hydrologically linked to Ballinskelligs Bay and Inny Estuary SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for disturbance to petalwort from construction works as mains cross near recorded site.	 Mortality risk Habitat degradation Disturbance Spread of invasive non-native species Water table/availability 	Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC crosses scheme and therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the N22 Scheme assumed as assessment not available at time of writing). Ballinskelligs Bay and Inny Estuary SAC is approximately 51km south-west of the southern extent of the scheme therefore no in-combination effects are predicted. Valencia Harbour/Portmagee Channel SAC is approximately 56km southwest of the southern extent of the scheme therefore no in-combination effects are predicted. Veragh Peninsula SPA is approximately 34km west of the scheme therefore no in-combination effects are predicted. N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 38km south of the scheme therefore no in-combination effects are predicted. Ballinskelligs Bay and Inny Estuary SAC is approximately 79km south-west of the scheme therefore no in-combination effects are predicted. Valencia Harbour/Portmagee Channel SAC is approximately 74km south-west of the scheme therefore no in-combination effects are predicted. North-west of the scheme therefore no in-combination effects are predicted. North-west of the scheme therefore no in-combination effects are predicted. North-west of the scheme therefore no in-combination effects are predicted. Walencia Harbour/Portmagee Channel SAC is approximately 43km south-west of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballinskelligs Bay and Inny Estuary SAC is approximately 43km south-west of the scheme therefore no in-combination effects are predicted. North-west of the scheme therefore no in-combination effects are predicted. North-west of the scheme therefore no in-combi	non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC if construction phase concurrent with N22 Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC and disturbance impacts on Iveragh Peninsula SPA if construction phase concurrent with N70 Glanbehy Bridge Road Project works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC if construction phase concurrent with Destination Killarney and Smarter Travel Killarney works and during operation from habitat degradation and water table/availability on	Section 6.3.3 Hydrological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
There is also potential for the spread of invasive species during construction given that the works are within the SAC boundary. No operational impacts are predicted. Option study area is 1km from and hydrologically linked to Valencia Harbour/Portmagee Channel SAC. potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. No operational impacts are predicted. Option study area is 900m from and hydrologically linked to Iveragh Peninsula SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. There is potential for disturbance to QI birds given the proximity of the study area to the SPA and due to QI birds using supporting habitats in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland). No operational impacts are predicted.		(LSE for N70 Glanbehy Bridge assumed as assessment not available at time of writing). N86 Tralee to An Daingean: Upgrade works along road between Camp and Dingle Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 13km north-west of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballinskelligs Bay and Inny Estuary SAC is approximately 30km south of the scheme therefore no in-combination effects are predicted. Valencia Harbour/Portmagee Channel SAC is approximately 20km south of the scheme therefore no in-combination effects are predicted. Veragh Peninsula SPA is approximately 14km south of the scheme with no direct hydrological link, therefore no in-combination effects are predicted. Destination Killarney, Smarter Travel Killarney: Regeneration of the town centre and public realm Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC crosses the schemes therefore there may be in-combination effects from habitat loss, mortality, pollution, disturbance and spread of invasive non-native species. Incombination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Schemes assumed as assessment not available at time of writing). Ballinskelligs Bay and Inny Estuary SAC is approximately 49km south-west of the schemes therefore no in-combination effects are predicted. Valencia Harbour/Portmagee Channel SAC is approximately 53km south-west of the schemes therefore no in-combination effects are predicted. Positioning Tralee as an Economic Driver, Tralee Flood Relief Scheme, Tralee Northern Relief Road, Phase 1 Tralee Town Centre - Rock Street, Russell Street and Bridge Street, Tralee Wastewater Network, MTU Tralee Campus STEM building Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 34km south-west of the schemes therefore no in-combination effects are predicted. Valencia Harbour/Portmagee Channel SAC is approxi	Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from habitat loss, mortality, pollution and disturbance impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC and from pollution impacts on Valencia Harbour/Portmagee Channel SAC and from pollution and disturbance impacts on Iveragh Peninsula SPA if construction phase concurrent with South Kerry Greenway works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from habitat loss and disturbance on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC if construction phase concurrent with Killarney Community Nursing unit works Yes – from pollution impacts on Valencia Harbour/Portmagee Channel SAC and from pollution and disturbance impacts on Iveragh Peninsula SPA if construction phase concurrent with Valentia Trans-Atlantic Cable Station works Yes – from pollution impacts on Valencia Harbour/Portmagee Channel SAC and from pollution and disturbance impacts on Iveragh Peninsula SPA if construction phase concurrent with Cahersiveen Town Centre Regeneration Project works		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		This development includes an extension to the current hospital and was screened out for AA, therefore there will be no potential impact on European sites.			
		Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 4km north of the scheme; no in-combination effects are possible. Ballinskelligs Bay and Inny Estuary SAC is approximately 10km south of the scheme; no in-combination effects are possible. Valencia Harbour/Portmagee Channel SAC is approximately 2km west of the scheme; no in-combination effects are possible. Iveragh Peninsula SPA is approximately 800m west of the scheme; no in-combination effects are possible.			
		Killarney Community Nursing unit: New two-story nursing unit			
		Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 850m west of the scheme, and the LSEs identified in the NIS for this scheme were habitat loss and disturbance. Therefore, there may be incombination effects from habitat loss and disturbance. Ballinskelligs Bay and Inny Estuary SAC is approximately 49km south-west of the scheme therefore no incombination effects are predicted. Valencia Harbour/Portmagee Channel SAC is approximately 53km south-west of the scheme therefore no in-combination effects are predicted. Iveragh Peninsula SPA is approximately 55km south-west of the scheme therefore no in-combination effects are predicted.			
		Listowel Community Hospital, Listowel Food Hub			
		This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development suite. Both developments were screened out for AA, therefore there will be no potential impact on European sites.			
		Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 31km south-east of the schemes; no in-combination effects are possible. Ballinskelligs Bay and Inny Estuary SAC is approximately 78km southwest of the schemes; no in-combination effects are possible. Valencia Harbour/Portmagee Channel SAC is approximately 77km south-west of the schemes; no in-combination effects are possible. Iveragh Peninsula SPA is approximately 78km south-west of the schemes; no in-combination effects are possible.			
		Lohercannon, Tralee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites.			
		Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 23km south of the scheme; no in-combination effects are possible. Ballinskelligs Bay and Inny Estuary SAC is approximately 52km southwest of the scheme; no in-combination effects are possible. Valencia Harbour/Portmagee Channel SAC is approximately 50km south-west of the scheme; no in-combination effects are possible. Iveragh Peninsula SPA is approximately 29km south-west of the scheme; no in-combination effects are possible. Valentia Trans-Atlantic Cable Station			
		Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 8km north-east of the scheme with no hydrological links, therefore no in-combination effects are predicted. Ballinskelligs Bay and Inny Estuary SAC is approximately 10km south of the scheme with no hydrological links, therefore no in-combination effects are predicted. Valencia Harbour/Portmagee Channel SAC is approximately 150m north of the scheme, therefore there may be incombination effects from pollution. Iveragh Peninsula SPA is approximately 1km west of the scheme, therefore there may be in-combination effects from pollution and disturbance.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 4km north of the scheme with no hydrological links, therefore no in-combination effects are predicted. Ballinskelligs Bay and Inny Estuary SAC is approximately 10km south of the scheme with no hydrological links, therefore no incombination effects are predicted. Valencia Harbour/Portmagee Channel SAC is approximately 2km west of the scheme with a hydrological link, therefore there may be in-combination effects from pollution. Iveragh Peninsula SPA is approximately 800m west of the scheme with a hydrological link, therefore there may be incombination effects from pollution and disturbance. Baile na Fheirtéaraigh Development Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 24km south-east of the scheme, therefore no in-combination effects are predicted. Ballinskelligs Bay and Inny Estuary SAC is approximately 37km south of the scheme, therefore no in-combination effects are predicted. Valencia Harbour/Portmagee Channel SAC is approximately 25km south of the scheme, therefore there no in-combination effects are predicted. Iveragh Peninsula SPA is approximately 22km south-east of the scheme, therefore no in-combination effects are predicted. Ard Na Greine, Knockavota, Milltown This development includes the construction of 54 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 11km south of the scheme; no in-combination effects are possible. Ballinskelligs Bay and Inny Estuary SAC is approximately 42km southwest of the scheme; no in-combination effects are possible. Iveragh Peninsula SPA is approximately 21km south-west of the scheme; no in-combination effects are possible. Iveragh Peninsula SPA is approximately 21km south-west of the scheme; no in-combination effects are possible.			
New SW abstraction from Lough Gill and upgrade Castlegregory WTP Option study area is within and hydrologically linked to Tralee Bay and Magharees Peninsula, West to Cloghane SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary (within Lough Gill). Potential pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish relied on by otter for food. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species during construction given that the works are within the SAC boundary. Option includes SW abstraction. There is a risk this surface water abstraction could lead to hydrological	 Habitat loss Mortality risk Habitat degradation Disturbance Spread of invasive non-native species Water table/availability 	Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 14km north-west of the northern extent of the scheme with no hydrological link, therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 15km north-west of the northern extent of the scheme with no hydrological links, therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 34km north-west of the scheme therefore no in-combination effects are predicted. N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 24km south-west of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 23km west of the scheme therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 38km south-west of the scheme therefore no in-combination effects are predicted. N70 Milltown Bypass Project Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 10.5km north of the scheme with no hydrological link, therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 10.5km north of the scheme with no hydrological link, therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 20km west of the scheme therefore no in-combination effects are predicted. N70 Glanbehy Bridge Road Project	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Tralee Bay and Magharees Peninsula, West to Cloghane SAC and from mortality, disturbance and pollution impacts on Tralee Bay Complex SPA and from pollution impacts on Dingle Peninsula SPA if construction phase concurrent with N86 Tralee to An Daingean works and during operation from habitat degradation and water table/availability on Tralee Bay and Magharees Peninsula, West to Cloghane SAC and Tralee Bay Complex SPA Yes – from mortality, disturbance, spread of invasive non-native	General Mitigation Measures are outlined in Section 6.3.3 Hydrological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. There is potential for impacts on otter utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels. Option study area is within and hydrologically linked to Tralee Bay Complex SPA. There is potential for some loss of/damage to supporting habitats (e.g. foraging habitats) to QI species during construction works given that the works are within the SPA boundary. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. There is potential for disturbance to QI birds given the study area is within the SPA. Potential pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact prey species relied on by QI leading to mortality. Option includes SW abstraction. There is a risk this surface water abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact QI species. There is potential for impacts on QI bird species utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels. Option study area is 1.5km from and hydrologically linked to Dingle Peninsula SPA. There is potential for pollution of waterbodies during construction that could impact on the habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species. No operational impacts are predicted.		Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 21km north of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 24km north of the scheme therefore no incombination effects are predicted. Dingle Peninsula SPA is approximately 12km north of the scheme with no direct hydrological link, therefore no in-combination effects are predicted. N86 Tralee to An Daingean: Upgrade works along road between Camp and Dingle Tralee Bay and Magharees Peninsula, West to Cloghane SAC crosses the scheme, therefore there may be in-combination effects from habitat loss, mortality, disturbance, spread of non-native invasive species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N86 Tralee to An Daingean assumed as assessment not available at time of writing). Tralee Bay Complex SPA is approximately 2km north of the eastern extent of the scheme with a hydrological link, therefore there may be in-combination effects from mortality, disturbance and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N86 Tralee to An Daingean assumed as assessment not available at time of writing). Dingle Peninsula SPA is approximately 400m south of the scheme with a hydrological link, therefore there may be in-combination effects from morting). Destination Killarney, Smarter Travel Killarney: Regeneration of the town centre and public realm Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 26km north-west of the schemes therefore no in-combination effects are predicted. Tralee Bay complex SPA is approximately 26km north-west of the schemes therefore no in-combination effects are predicted. Positioning Tralee as an Economic Driver, Tralee Flood Relief Scheme, Tralee Northem Relief Road, Phase 1 Tralee Town Centre - Rock Street, Russell Street and Bridge Street, Tralee Wastewater Ne	species and pollution impacts on Tralee Bay and Magharees Peninsula, West to Cloghane SAC and from mortality, disturbance and pollution impacts on Tralee Bay Complex SPA if construction phase concurrent with Positioning Tralee as an Economic Driver, Tralee Flood Relief Scheme, Tralee Northern Relief Road, Phase 1 Tralee Town Centre - Rock Street, Russell Street and Bridge Street, Tralee Wastewater Network and MTU Tralee Campus STEM building works and during operation from habitat degradation and water table/availability on Tralee Bay and Magharees Peninsula, West to Cloghane SAC and Tralee Bay Complex SPA		

Dingle Peninsula SPA is approximately 12km north-west of the scheme with no direct hydrological link, therefore no in-combination effects are predicted. Cahersiveen Community Hospital	
This development includes an extension to the current hospital and was accessed out for AA. Develope the new will be no position, passed. Traise Bay and Magharees Perinaula, West to Cloghane SAC is approximately 32mm numb of the scheme, no in-commitation effects are possible. Traise Bay Complex SPA is approximately 37mm numbered of the scheme, no in-commitation of the scheme, no in-commitation of the scheme, no in-commitation of flocks are possible. Killiamor, Community Numbra unit New two story numbra unit in the scheme therefore the scheme therefore no in-commitation of flocks are possible. Killiamor, Community Numbra unit New two story numbra unit in the scheme therefore no in-commitation effects are predicted. Traise Bay domains SPA is approximately 34mm north-west of the scheme therefore no in-commitation effects are predicted. Dischard Committed Spatial Committed of the scheme therefore no in-commitation effects are predicted. Dischard Committed Spatial Comm	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		west of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ard Na Greine, Knockavota, Milltown This development includes the construction of 54 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 13km north of the scheme; no in-combination effects are possible. Tralee Bay Complex SPA is approximately 12km north of the scheme; no in-combination effects are possible. Dingle Peninsula SPA is approximately 18km west of the scheme; no in-combination effects are possible.			
New abstraction from the lower Leane catchment and WTP at abstraction to feed deficit in Central Regional and Mid Kerry Option study area is within and hydrologically linked to Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary (within lower Leane catchment). Potential pollution of watercourses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species during construction given that the works are within the SAC boundary. Option includes new SW abstraction. There is a risk this surface water abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. There is potential for impacts on freshwater pearl mussel and other aquatic QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels due to surface water abstraction. Option study area mains cross and is hydrologically linked to Castlemaine Harbour SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary. Potential pollution of watercourses during construction (associated with sediment runoff, or accidental spillage) could impact fish and restrict access to spawning habitat.	non-native species Water table/availability	N22 Road Improvement Scheme: 20km scheme from Farranfore to Killarney Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC crosses scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In- combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the N22 Scheme assumed as assessment not available at time of writing). Castlemaine Harbour SAC crosses the scheme therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution (LSE for the N22 Scheme assumed as assessment not available at time of writing). Slieve Mish Mountains SAC is approximately 7km north-west of the scheme with no hydrological link, therefore no in-combination effects are predicted. Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 14km north-west of the northern extent of the scheme with no hydrological link, therefore no in-combination effects are predicted. Akeragh, Banna and Barrow Harbour SAC is approximately 22km north- west of the northern extent of the scheme therefore no in-combination effects are predicted. Killarney National Park SPA is approximately 2.3km west of the scheme, therefore there may be in-combination effects from disturbance and pollution (LSE for the N22 Scheme assumed as assessment not available at time of writing). Castlemaine Harbour SPA is approximately 14km west of the scheme with a hydrological link, therefore there may be in-combination effects from pollution. Tralee Bay Complex SPA is approximately 15km north-west of the northern extent of the scheme with no hydrological links, therefore no in-combination effects are predicted. N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 24km south-west of the scheme the	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC, from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Castlemaine Harbour SAC, from disturbance and pollution impacts on Killarney National Park SPA and from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with N22 Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes –from mortality, disturbance, spread of invasive non-native species and pollution impacts on Castlemaine Harbour SAC and from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with N70 Milltown Bypass Project works Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC, from mortality, disturbance, spread of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property of invasive non-native species and pollution impacts on property	General Mitigation Measures are outlined in Section 6.3.3 Hydrological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species during construction given that the works are within the SAC boundary. No operational impacts are predicted. may be in-combination effects from mortality, disturbance, spread of invasive nonnative species and pollution (LSE for the N70 Milltown Bypass Project assumed as assessment not available at time of writing). Slieve Mish Mountains SAC is approximately 4.4km north of the scheme with no hydrological link, therefore no incombination effects are predicted. Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 10.5km north of the scheme with no hydrological link, therefore no incombination effects are predicted. Akeragh, Banna and Barrow that the works are within the SAC boundary. No operational impacts are predicted. may be in-combination effects from mortality, disturbance, spread of invasive nonnative species and pollution (LSE for the N70 Milltown Bypass Project assumed as assessment not available at time of writing). Slieve Mish Mountains SAC is approximately 10.5km north of the scheme with no hydrological link, therefore no incombination effects are predicted. Akeragh, Banna and Barrow operation from habitats are predicted. Killarney National Park SPA is approximately and water table/aw Killarney National Macgillycuddy's	pacts on our SPA if concurrent Bridge Road id during	
Obtion study area is within Silvow Mish Mountains SAC. Potential pollution of scheme with a hydrologically ink and therefore may be in-combination effects are predicted. On the scheme with no hydrological link, therefore no in-combination effects are predicted. Of the scheme with no hydrological link, therefore no in-combination effects are predicted. Of the scheme with no hydrological link, therefore no in-combination effects are predicted. Of the scheme with no hydrological link, therefore no in-combination effects are predicted. SAC is approximately 12km east of the scheme. Therefore, there may be in-combination effects the mortality, pollution of waterocourses during construction words. There is also potential for the spread of linvasive opecies given that the works are adjacent to the SAC is approximately 12km entor that such evaluation of linvasive opecies assumed as assessment not available at time of writing). Castlemaine Harbour SAC is approximately 12km entor hydrological link, therefore no in-combination effects than the works are adjacent to the SAC is approximately 12km entor hydrological link, therefore no in-combination effects are predicted. Trailed Bay and Magharees Peninsula, West to Cloghare SAC is approximately 12km entor hydrological link, therefore no in-combination effects are predicted. Assergal, Banna and Barrow Harbour SAC is approximately 12km entor to the scheme with entored the scheme with ento	ailability on hal Park, Reeks and hment SAC disturbance, non-native in impacts on hur SAC and rbance and ve invasive Tralee Bay insula, West and from in Akeragh, w Harbour lution and is on Tralee in construction in N86 Tralee in works ss, mortality, I of invasive and pollution ey National dy's Reeks Catchment impacts on hur SAC and turbance and in Killarney if construction in Destination rter Travel and during it degradation and Park, Reeks and hment SAC ce, spread of species and Tralee Bay	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
species. No operational impacts are predicted. Option study area is 325m from and hydrologically linked to Tralee Bay Complex SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. There is potential for disturbance to QI birds during construction given the study area is in close proximity to the SPA. No operational impacts are predicted.		approximately 30km south-east of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 3km south of the scheme with a hydrological link, therefore there may be in-combination effects from pollution (LSE for the N86 Tralee to An Daingean assumed as assessment not available at time of writing). Tralee Bay Complex SPA is approximately 2km north of the eastern extent of the scheme with a hydrological link, therefore there may be in-combination effects from pollution and disturbance (LSE for the N86 Tralee to An Daingean assumed as assessment not available at time of writing). Destination Killarney, Smarter Travel Killarney: Regeneration of the town centre and public realm Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC crosses the schemes therefore there may be in-combination effects from habitat loss, mortality, pollution, disturbance and spread of invasive non-native species. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Schemes assumed as assessment not available at time of writing). Castlemaine Harbour SAC is approximately 8km west of the schemes with a hydrological link, therefore there may be in-combination effects from pollution (LSE for the Schemes assumed as assessment not available at time of writing). Silvev Mish Mountains SAC is approximately 26km north-west of the schemes therefore no in-combination effects are predicted. Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 26km north-west of the schemes therefore no in-combination effects are predicted. Akeragh, Banna and Barrow Harbour SAC is approximately 34km north-west of the schemes therefore no in-combination effects are predicted. Akeragh, Banna and Barrow Harbour SAC is approximately 34km north-west of the schemes therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 26km north-west of the schemes therefore no in-combination eff	on Tralee Bay Complex SPA if construction phase concurrent with Positioning Tralee as an Economic Driver, Tralee Flood Relief Scheme, Tralee Northern Relief Road, Phase 1 Tralee Town Centre - Rock Street, Russell Street and Bridge Street, Tralee Wastewater Network and MTU Tralee Campus STEM building works Yes – from habitat loss, mortality, pollution and disturbance impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC and from habitat loss, mortality, pollution and disturbance impacts on Castlemaine Harbour SAC and from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with South Kerry Greenway works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from habitat loss and disturbance on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC if construction phase concurrent with Killarney Community Nursing unit works		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Bridge Street, Tralee Wastewater Network, and MTU Tralee Campus STEM building schemes assumed as assessment not available at time of writing). South Kerry Greenway: Construction of a 32km greenway from Reenard to Faha Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC crosses the scheme and the LSEs identified in the NIS for this scheme were habitat loss and alteration, habitat or species fragmentation, disturbance and reduction in water quality. Therefore, there may be in-combination effects from habitat loss, mortality, pollution and disturbance. In-combination effects during operation may result in habitat degradation and changes to water table/availability. Castlemaine Harbour SAC is approximately 1km north of the scheme with a hydrological link, and the LSEs identified in the NIS for this scheme were habitat loss and alteration, habitat or species fragmentation, disturbance and reduction in water quality. Therefore, there may be in-combination effects from habitat loss, mortality, pollution and disturbance. Slieve Mish Mountains SAC is approximately 11km north of the scheme with no hydrological link, therefore no in-combination effects are predicted. Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 19km north of the eastern extent of the scheme therefore no in-combination effects are predicted. Akeragh, Banna and Barrow Harbour SAC is approximately 25km north of the eastern extent of the scheme therefore no in-combination effects are predicted. Killarney National Park SPA is approximately 23km south-east of the scheme frects are predicted. Castlemaine Harbour SPA is approximately 14km north of the scheme were habitat loss and alteration, habitat or species fragmentation, disturbance and reduction in water quality. Therefore, there may be in-combination effects from pollution. Tralee Bay Complex SPA is approximately 22km north-east of the eastern extent of the scheme therefore no in-combination effects are possible. Castlemaine Harbour SAC is approximatel			
		and Barrow Harbour SAC is approximately 43km north-east of the scheme; no incombination effects are possible. Killarney National Park SPA is approximately 41km east of the scheme; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 17km north-east of the scheme; no in-combination effects are possible. Tralee Bay Complex SPA is approximately 37km north-east of the scheme; no in-combination effects are possible. Killarney Community Nursing unit: New two-story nursing unit Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment			
		SAC is approximately 850m west of the scheme, and the LSEs identified in the NIS for this scheme were habitat loss and disturbance. Therefore, there may be incombination effects from habitat loss and disturbance. Castlemaine Harbour SAC is approximately 7km west of the scheme, and the NIS for this scheme found no LSEs for this site, therefore no in-combination effects are predicted. Slieve Mish Mountains SAC is approximately 19km north-west of the scheme therefore no in-combination effects are predicted. Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 31km north-west of the scheme therefore no in-combination effects are predicted. Akeragh, Banna and Barrow Harbour SAC is approximately 34km north-west of the scheme therefore no in-combination effects are predicted.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Killarney National Park SPA is approximately 600m west of the scheme, and the NIS for this scheme found no LSEs for this site, therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 18km north-west of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 34km north-west of the scheme therefore no in-combination effects are predicted. Listowel Community Hospital, Listowel Food Hub			
		This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development suite. Both developments were screened out for AA, therefore there will be no potential impact on European sites.			
		Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 31km south-east of the schemes; no in-combination effects are possible. Castlemaine Harbour SAC is approximately 35km south-west of the schemes; no in-combination effects are possible. Slieve Mish Mountains SAC is approximately 27km south-west of the schemes; no in-combination effects are possible. Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 31km north-west of the schemes; no in-combination effects are possible. Akeragh, Banna and Barrow Harbour SAC is approximately 34km north-west of the schemes; no in-combination effects are possible. Killarney National Park SPA is approximately 42km south of the schemes; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 37km south-west of the schemes; no in-combination effects are possible. Tralee Bay Complex SPA is approximately 24km south-west of the schemes; no in-combination effects are possible.			
		<u>Lohercannon, Tralee</u> This development includes the construction of 61 units for social housing. The			
		development has been screened out for AA, therefore there will be no potential impact on European sites. Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 23km south of the scheme; no in-combination effects are possible. Castlemaine Harbour SAC is approximately 12km south-west of the scheme; no in-combination effects are possible. Slieve Mish Mountains SAC is approximately 3.5km south of the scheme; no in-combination effects are possible. Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 100m south of the scheme; no in-combination effects are possible. Akeragh, Banna and Barrow Harbour SAC is approximately 6km west of the scheme; no in-combination effects are possible. Killarney National Park SPA is approximately 25km south-east of the scheme; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 12km south of the scheme; no in-combination effects are possible. Tralee Bay Complex SPA is approximately 100m south of the scheme; no in-combination effects are possible.			
		Valentia Trans-Atlantic Cable Station Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment			
		SAC is approximately 8km north-east of the scheme with no hydrological links, therefore no in-combination effects are predicted. Castlemaine Harbour SAC is approximately 26km north-east of the scheme therefore no in-combination effects are predicted. Slieve Mish Mountains SAC is approximately 33km north-east of the scheme therefore no in-combination effects are predicted. Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 35km north of the scheme therefore no in-combination effects are predicted. Akeragh, Banna and Barrow Harbour SAC is approximately 48km north-east of the scheme therefore no in-combination effects are predicted. Killarney National Park SPA is approximately 45km east of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 21km north-east of the scheme			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 40km north of the scheme therefore no in-combination effects are predicted. Cahersiveen Town Centre Regeneration Project Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 4km north of the scheme with no hydrological links, therefore no in-combination effects are predicted. Castlemaine Harbour SAC is approximately 21km north-east of the scheme therefore no in-combination effects are predicted. Slieve Mish Mountains SAC is approximately 29km north-east of the scheme therefore no in-combination effects are predicted. Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 32km north of the scheme therefore no in-combination effects are predicted. Akeragh, Banna and Barrow Harbour SAC is approximately 43km north-east of the scheme therefore no in-combination effects are predicted. Akeragh, Banna and Barrow Harbour SAC is approximately 43km north-east of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 41km east of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 37km north-east of the scheme therefore no in-combination effects are predicted. Tralee Bay Complex SPA is approximately 24km south-east of the scheme, therefore no in-combination effects are predicted. Slieve Mish Mountains SAC is approximately 24km south-east of the scheme therefore no in-combination effects are predicted. Slieve Mish Mountains SAC is approximately 25km south-east of the scheme therefore no in-combination effects are predicted. Assembly 17km north-east of the scheme therefore no in-combination effects are predicted. Slieve Mish Mountains SAC is approximately 25km south-east of the scheme therefore no in-combination effects are predicted. Slieve Mish Mountains SAC is approximately 38km north-east of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SA			
SAH-148 Increase GW abstraction from source Lyranes BH (local important aquifer) and	Habitat degradationDisturbance	N22 Road Improvement Scheme: 20km scheme from Farranfore to Killarney Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC crosses scheme, therefore there may be in-combination effects disturbance,	Yes – from disturbance, spread of invasive non-native species and pollution impacts on Killarney	General Mitigation Measures are outlined in Section 6.3.3	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Option study area is within and hydrologically linked to Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species during construction given that the works are within the SAC boundary. Option includes GW abstraction. There is a risk this groundwater abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. There is a risk this groundwater abstraction will reduce water flow in the underground aquifer. Therefore, there is potential for impacts on QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water.	Spread of invasive non-native species Water table/availability	spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the N22 Scheme assumed as assessment not available at time of writing). N69 Listowel Bypass: 7km of road construction between Billeragh and Ballyqowloge Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 38km south of the scheme therefore no in-combination effects are predicted. N70 Milltown Bypass Project Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 11.7km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. N70 Glanbehy Bridge Road Project Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 1.2km east of the scheme. Therefore, there may be in-combination effects from pollution, disturbance and spread of invasive non-native species. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the N22 Scheme assumed as assessment not available at time of writing. N86 Tralee to An Daingean: Upgrade works along road between Camp and Dingle Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 13km north-west of the scheme with no hydrological link, therefore no in-combination effects are predicted. Destination Killarney, Smarter Travel Killarney: Regeneration of the town centre and public realm Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 13km north-west of invasive non-native species. In-combination effects from pollution, disturbance and spread of invasive non-native species. In-combination effects from pollution, disturbance and spread of invasive non-native species. In-combination effects from pollution, disturbance and spread of invasive non-native species. In-combination effects are predicted. S	National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC if construction phase concurrent with N22 Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC if construction phase concurrent with N70 Glanbehy Bridge Road Project works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC if construction phase concurrent with Destination Killarney and Smarter Travel Killarney works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from disturbance and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from disturbance and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC	Hydrogeological modelling as in Section 6.3.5 Hydrological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		for this scheme were habitat loss and disturbance. Therefore, there may be incombination effects from disturbance. Listowel Community Hospital, Listowel Food Hub This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development suite. Both developments were screened out for AA, therefore there will be no potential impact on European sites. Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 31km south-east of the schemes; no in-combination effects are possible. Lohercannon, Tralee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 23km south of the scheme; no in-combination effects are possible. Valentia Trans-Atlantic Cable Station Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 8km north-east of the scheme with no hydrological links, therefore no in-combination effects are predicted. Cahersiveen Town Centre Regeneration Project Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 4km north of the scheme with no hydrological links, therefore no in-combination effects are predicted. Baile na Fheirtéaraigh Development Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 24km south-east of the scheme, therefore no in-combination effects are predicted. Ard Na Greine, Knockavota, Milltown This development includes the construction of 54 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 11km south of the scheme; no	Yes – from disturbance on impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC if construction phase concurrent with Killarney Community Nursing unit works		
New abstraction from Coomassaharn Lake, upgrade Mountain Stage WTP to treat Option study area is within and hydrologically linked to Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC. There is potential for some loss of/damage to QI/Annex 1 habitats, such as that of the Kerry slug, during construction works given that the works are within the SAC boundary. Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential	 Habitat loss Mortality risk Habitat degradation Disturbance Spread of invasive non-native species Water table/availability 	Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC crosses scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. Incombination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the N22 Scheme assumed as assessment not available at time of writing). Castlemaine Harbour SAC crosses the scheme therefore there may be in-combination effects from pollution (LSE for the N22 Scheme assumed as assessment not available at time of writing). Castlemaine Harbour SPA is approximately 14km west of the scheme with a hydrological link, therefore there may be in-combination effects from pollution. Iveragh Peninsula SPA is approximately 34km west of the scheme therefore no in-combination effects are predicted. N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 38km south of the scheme therefore no in-combination effects	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC, from pollution impacts on Castlemaine Harbour SAC and from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with N22 Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Killarney National Park,	General Mitigation Measures are outlined in Section 6.3.3 Hydrological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species during construction given that the works are within the SAC boundary. Option includes surface water abstraction. There is a risk this surface water abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats such as Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae). There is potential for impacts on QI utilising watercourses hydrologically linked to this European site, such as otter, through a reduction in flows/water due to surface water abstraction. Option study area is 1.4km from and hydrologically linked to Castlemaine Harbour SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. No operational impacts are predicted. Option study area is 1.2km from and hydrologically linked to Castlemaine Harbour SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are predicted. Option study area is 500m from Iveragh Peninsula SPA. There is potential for disturbance to QI birds given the study area is in close proximity to the SPA which is a breeding site. No operational impacts are predicted.		are predicted. Castlemaine Harbour SAC is approximately 33km south-west of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 35km south-west of the scheme therefore no in-combination effects are predicted. Iveragh Peninsula SPA is approximately 53km south-west of the scheme therefore no in-combination effects are predicted. N70 Millitown Bypass Project Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 11.7km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Castlemaine Harbour SAC is approximately 1.2km west of the scheme with a hydrological link and therefore there may be in-combination effects from pollution (LSE for the N70 Millitown Bypass Project assumed as assessment not available at time of writing). Castlemaine Harbour SPA is approximately 2.5km west of the scheme with a hydrological link and therefore there may be in-combination effects from pollution (LSE for the N70 Millitown Bypass Project assumed as assessment not available at time of writing). Iveragh Peninsula SPA is approximately 21km south-west of the scheme therefore no in-combination effects are predicted. N70 Glanbehy Bridge Road Project Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 1.2km east of the scheme. Therefore, there may be in-combination effects from pollution (LSE for N70 Glanbehy Bridge assumed as assessment not available at time of writing. Castlemaine Harbour SAC is approximately 1.5km north of the scheme with a hydrological link and therefore there may be in-combination effects from pollution (LSE for N70 Glanbehy Bridge assumed as assessment not available at time of writing). Castlemaine Harbour SAC is approximately 1.5km north of the scheme with a hydrological link and therefore there may be in-combination effects from pollution. (LSE for N70 Glanbehy Bridge assumed as assessment not available at time of writing). Veragh Peni	Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from pollution impacts on Castlemaine Harbour SAC and from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with N70 Milltown Bypass Project works Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC, from pollution impacts on Castlemaine Harbour SPA, and from disturbance impacts on Iveragh Peninsula SPA if construction phase concurrent with N70 Glanbehy Bridge Road Project works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with N86 Tralee to An Daingean works Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC and from pollution impacts on Castlemaine Harbour SAC if construction phase concurrent with N86 Tralee to An Daingean works Yes – from pollution impacts on Castlemaine Harbour SAC if construction phase concurrent with Destination Killarney National Park, Macgillycuddy's Reeks and Garagh River Catchment SAC and from pollution impacts on Castlemaine Harbour SAC if construction phase concurrent with Destination Killarney and Smarter Travel Killarney works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		is approximately 33km west of the schemes therefore no in-combination effects are predicted. Positioning Tralee as an Economic Driver, Tralee Flood Relief Scheme, Tralee Northern Relief Road, Phase 1 Tralee Town Centre - Rock Street, Russell Street and Bridge Street, Tralee Wastewater Network, MTU Tralee Campus STEM building Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 24km south of the schemes therefore no in-combination effects are predicted. Castlemaine Harbour SAC is approximately 12km south-west of the schemes with no hydrological link, therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 13km south-west of the schemes with no hydrological link, therefore no in-combination effects are predicted. Veragh Peninsula SPA is approximately 31km south-west of the schemes therefore no in-combination effects are predicted. South Kerry Greenway: Construction of a 32km greenway from Reenard to Faha Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat loss and alteration, habitat or species fragmentation, disturbance and reduction in water quality. Therefore, there may be in-combination effects from habitat loss, mortality, pollution and disturbance. In-combination effects during operation may result in habitat degradation and changes to water table/avaliability. Castlemaine Harbour SAC is approximately 1km north of the scheme were habitat loss and alteration, habitat or species fragmentation, disturbance and reduction in water quality. Therefore, there may be in-combination effects from pollution. Castlemaine Harbour SPA is approximately 1km north of the scheme were habitat loss and alteration, habitat or species fragmentation, disturbance and reduction in water quality. Therefore, there may be in-combination effects from fisturbance. Cahersiveen Community Hospital This development includes an extension to the current ho	Yes – from habitat loss, mortality, pollution and disturbance impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC and from pollution impacts on Castlemaine Harbour SAC and from pollution impacts on Iveragh Peninsula SPA if construction phase concurrent with South Kerry Greenway works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from disturbance impacts on Iveragh Peninsula SPA if construction phase concurrent with Valentia Trans-Atlantic Cable Station works Yes – from disturbance impacts on Iveragh Peninsula SPA if construction phase concurrent with Cahersiveen Town Centre Regeneration Project works Yes – from habitat loss and disturbance on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC if construction phase concurrent with Killarney Community Nursing unit works		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		<u>Listowel Community Hospital, Listowel Food Hub</u> This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development suite. Both developments were screened out for AA, therefore there will be no potential impact on European sites.			
		Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 31km south-east of the schemes; no in-combination effects are possible. Castlemaine Harbour SAC is approximately 35km south-west of the schemes; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 37km south-west of the schemes; no in-combination effects are possible. Iveragh Peninsula SPA is approximately 78km south-west of the schemes; no in-combination effects are possible.			
		Lohercannon, Tralee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites.			
		Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 23km south of the schem; no in-combination effects are possible. Castlemaine Harbour SAC is approximately 12km south-west of the scheme; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 12km south of the scheme; no in-combination effects are possible. Iveragh Peninsula SPA is approximately 29km south-west of the scheme; no in-combination effects are possible.			
		Valentia Trans-Atlantic Cable Station			
		Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 8km north-east of the scheme with no hydrological links, therefore no in-combination effects are predicted. Castlemaine Harbour SAC is approximately 26km north-east of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 21km north-east of the scheme therefore no in-combination effects are predicted. Iveragh Peninsula SPA is approximately 1km west of the scheme, therefore there may be in-combination effects from disturbance.			
		Cahersiveen Town Centre Regeneration Project			
		Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 4km north of the scheme with no hydrological links, therefore no in-combination effects are predicted. Castlemaine Harbour SAC is approximately 21km north-east of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 17km north-east of the scheme therefore no in-combination effects are predicted. Iveragh Peninsula SPA is approximately 800m west of the scheme, therefore there may be in-combination effects from disturbance. Baile na Fheirtéaraigh Development			
		Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 24km south-east of the scheme, therefore no in-combination effects are predicted. Castlemaine Harbour SAC is approximately 25km south-east of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 26km south-east of the scheme therefore no in-combination effects are predicted. Iveragh Peninsula SPA is approximately 22km south-east of the scheme, therefore no in-combination effects are predicted. Ard Na Greine, Knockavota, Milltown			
		This development includes the construction of 54 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		SAC is approximately 11km south of the scheme; no in-combination effects are possible. Castlemaine Harbour SAC is approximately 2km north-west of the scheme; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 3km north-west of the scheme; no in-combination effects are possible. Iveragh Peninsula SPA is approximately 21km south-west of the scheme; no in-combination effects are possible.			
Rationalise Rathmore WTP and connect to Central Regional WRZ Option study area is within and hydrologically linked to Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC. There is potential for some loss of/damage to Ql/Annex 1 habitats, such as that of slender naiad, during construction works given that the works are within the SAC boundary (within lower Leane catchment). Potential pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species given that the works are within the SAC boundary. Option includes a surface water abstraction. There is a risk this surface water abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats, such as slender naiad. There is potential for impacts on otter and other aquatic QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels due to surface water abstraction. Option study area is 8.4km from and hydrologically linked to Castlemaine Harbour SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. No operational impacts are predicted. Option study area is 2.2km from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, specifically freshwater pearl mussel and lamprey which are found within the area. No operational impacts are predicted.	 Spread of invasive non-native species Water table/availability 	Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC crosses scheme therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. Incombination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the N22 Scheme assumed as assessment not available at time of writing). Castlemaine Harbour SAC crosses the scheme therefore there may be in-combination effects from pollution (LSE for the N22 Scheme assumed as assessment not available at time of writing). Blackwater River (CorkWaterford) SAC is approximately 13km east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Killarney National Park SPA is approximately 2.3km west of the scheme therefore there may be in-combination effects from disturbance and pollution (LSE for the N22 Scheme assumed as assessment not available at time of writing). N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 38km south of the scheme therefore no in-combination effects are predicted. Blackwater River (CorkWaterford) SAC is approximately 38km south-east of the scheme therefore no in-combination effects are predicted. Blackwater River (CorkWaterford) SAC is approximately 30km south-east of the scheme therefore no in-combination effects are predicted. Nillarney National Park SPA is approximately 40km south of the scheme therefore no in-combination effects are predicted. Nillarney National Park Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 11.7km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Sillarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 1.2km west of the scheme with a hydrological link, therefore there may be in-combination effects from pol	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC, from pollution impacts on Castlemaine Harbour SAC and from disturbance and pollution impacts on Killarney National Park SPA if construction phase concurrent with N22 Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from pollution impacts on Castlemaine Harbour SAC if construction phase concurrent with N70 Milltown Bypass Project works Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC and from pollution impacts on Castlemaine Harbour SAC if construction phase concurrent with N70 Glanbehy Bridge Road Project works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from pollution impacts on Castlemaine Harbour SAC if construction phase concurrent with N70 Glanbehy Bridge Road Project works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC	General Mitigation Measures are outlined in Section 6.3.3 Hydrological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Option study area is within and hydrologically linked to Killarney National Park SPA. There is potential for some loss of/damage to supporting habitats (e.g. foraging habitats) to QI species during construction works given that the works are within the SPA boundary. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. There is potential for disturbance to QI birds using supporting habitats in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland), as well as within the SPA given the study area is within the SPA. No operational impacts are predicted.		therefore no in-combination effects are predicted. Castlemaine Harbour SAC is approximately 3km south of the scheme with a hydrological link, therefore there may be in-combination effects from pollution. Blackwater River (Cork/Waterford) SAC is approximately 30km east of the scheme, therefore no in-combination effects are predicted. Killarney National Park SPA is approximately 30km south-east of the scheme therefore no in-combination effects are predicted. Destination Killarney, Smarter Travel Killarney: Regeneration of the town centre and public realm Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC crosses the schemes therefore there may be in-combination effects from habitat loss, mortality, pollution, disturbance and spread of invasive non-native species. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Schemes assumed as assessment not available at time of writing). Castlemaine Harbour SAC is approximately 8km west of the schemes with a hydrological link, therefore there may be in-combination effects from pollution (LSE for the Schemes assumed as assessment not available at time of writing). Blackwater River (Cork/Waterford) SAC is approximately 20km east of the schemes therefore no in-combination effects from habitat loss, pollution and disturbance (LSE for the Schemes assumed as assessment not available at time of writing). Positioning Tralee as an Economic Driver, Tralee Flood Relief Scheme, Tralee Northern Relief Road. Phase 1 Tralee Town Centre - Rock Street, Russell Street and Bridge Street. Tralee Wastewater Network, MTU Tralee Campus STEM building Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 24km south-east of the schemes with no hydrological link, therefore no in-combination effects are predicted. Millarney National Park, SPA is approximately 24km south-east of the scheme with a hydrological link, and the LSEs identified in the NIS for this s	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC, from pollution impacts on Castlemaine Harbour SAC and from habitat loss, disturbance and pollution impacts on Killarney National Park SPA if construction phase concurrent with Destination Killarney and Smarter Travel Killarney works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from habitat loss, mortality, pollution and disturbance impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC and from pollution impacts on Castlemaine Harbour SAC if construction phase concurrent with South Kerry Greenway works and during operation from habitat degradation and water table/availability on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from habitat loss and disturbance on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC Yes – from habitat loss and disturbance on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC if construction phase concurrent with Killarney Community Nursing unit works		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Preferred Option		possible. Killarney National Park SPA is approximately 41km east of the scheme; no in-combination effects are possible. Killarney Community Nursing unit: New two-story nursing unit Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 850m west of the scheme, and the LSEs identified in the NIS for this scheme were habitat loss and disturbance. Castlemaine Harbour SAC is approximately 7km west of the scheme, and the NIS for this scheme found no LSEs for this site, therefore no in-combination effects are predicted. Blackwater River (Cork/Waterford) SAC is approximately 16km east of the scheme therefore no in-combination effects are predicted. Killarney National Park SPA is approximately 600m west of the scheme and the NIS for this scheme found no LSEs for this site, therefore no in-combination effects are predicted. Listowel Community Hospital, Listowel Food Hub This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development will include 5 state-of-the-art food production units and a research and development suite. Both developments were screened out for AA, therefore there will be no potential impact on European sites. Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 31km south-east of the schemes; no in-combination effects are possible. Blackwater River (Cork/Waterford) SAC is approximately 36km south-east of the schemes; no in-combination effects are possible. Blackwater River (Cork/Waterford) SAC is approximately 36km south-east of the schemes; no in-combination effects are possible. Lohercannon, Tralee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 23km south-east of the s			Integrity
		National Park SPA is approximately 45km east of the scheme therefore no incombination effects are predicted. Cahersiveen Town Centre Regeneration Project Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 4km north of the scheme with no hydrological links, therefore no in-combination effects are predicted. Castlemaine Harbour SAC is approximately 21km north-east of the scheme therefore no in-combination effects are predicted. Blackwater River (Cork/Waterford) SAC is approximately 67km north-east of the scheme therefore no in-combination effects are predicted. Killarney National Park			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAH-122 Amalgamate all sources in WRZ to one WTP and rationalise smaller WTP - Upgrade an Fheothanach WTP. Option study area is 550m from and hydrologically linked to Mount Brandon SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as Northern Atlantic wet heaths. There is potential for the spread of invasive species given that the works are within the ZOC shared with the SAC. Option includes a groundwater abstraction. However, no operational impacts are predicted.	 Habitat degradation Spread of invasive non-native species 	SPA is approximately 41km east of the scheme therefore no in-combination effects are predicted. Baile na Fheirtéaraigh Development. Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 24km south-east of the scheme, therefore no in-combination effects are predicted. Castlemaine Harbour SAC is approximately 25km south-east of the scheme therefore no in-combination effects are predicted. Blackwater River (Cork/Waterford) SAC is approximately 78km east of the scheme therefore no in-combination effects are predicted. Killarney National Park SPA is approximately 56km south-east of the scheme therefore no in-combination effects are predicted. Ard Na Greine, Knockavota, Milltown This development includes the construction of 54 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 11km south of the scheme; no in-combination effects are possible. Castlemaine Harbour SAC is approximately 2km north-west of the scheme; no in-combination effects are possible. Blackwater River (Cork/Waterford) SAC is approximately 31km south-east of the scheme; no in-combination effects are possible. Killarney National Park SPA is approximately 12km south-east of the scheme; no in-combination effects are possible. N22 Road Improvement Scheme: 20km scheme from Farranfore to Killarney Mount Brandon SAC is approximately 33km west of the northern extent of the scheme therefore no in-combination effects are predicted. N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Mount Brandon SAC is approximately 21km south-west of the scheme therefore no in-combination effects are predicted. N70 Milltown Bypass Project Mount Brandon SAC is approximately 12km north-west of the scheme therefore no in-combination effects are predicted. N86 Tralee to An Daingean: Upgrade works along road between Camp and Din	No	N/A	N
		hydrological link, therefore no in-combination effects are predicted. Cahersiveen Community Hospital			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		This development includes an extension to the current hospital and was screened out for AA, therefore there will be no potential impact on European sites. Mount Brandon SAC is approximately 22km north of the scheme; no in-combination effects are possible. Killarney Community Nursing unit: New two-story nursing unit Mount Brandon SAC is approximately 40km north-west of the scheme; no incombination effects are possible. Listowel Community Hospital, Listowel Food Hub This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development suite. Both developments were screened out for AA, therefore there will be no potential impact on European sites. Mount Brandon SAC is approximately 43km south-west of the schemes; no incombination effects are possible. Lohercannon, Tralee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Mount Brandon SAC is approximately 18km south-west of the scheme; no incombination effects are possible. Valentia Trans-Atlantic Cable Station Mount Brandon SAC is approximately 25km north of the scheme therefore no incombination effects are predicted. Cahersiveen Town Centre Regeneration Project Mount Brandon SAC is approximately 22km north of the scheme therefore no incombination effects are predicted. Baile na Fheirtéaraigh Development Mount Brandon SAC is approximately 8km north-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ard Na Greine, Knockavota, Milltown This development includes the construction of 54 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Mount Brandon SAC is approximately 23km north-west of the scheme; no incombination effects are possible.			
WTP Upgrade - No deficit Option study area is 1.5km from and hydrologically linked to Castlemaine Harbour SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. No operational impacts are predicted. Option study area is 450m from and hydrologically linked to Dingle Peninsula SPA. There is potential for pollution of waterbodies during construction that could impact on the habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI	 Habitat degradation Disturbance 	Castlemaine Harbour SAC crosses the scheme therefore there may be incombination effects from pollution. Dingle Peninsula SPA is approximately 34km north-west of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 14km west of the scheme with a hydrological link, therefore there may be in-combination effects from pollution. N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Castlemaine Harbour SAC is approximately 33km south-west of the scheme therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 38km south-west of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 35km south-west of the scheme therefore no in-combination effects are predicted. N70 Milltown Bypass Project Castlemaine Harbour SAC is approximately 1.2km west of the scheme with a hydrological link and therefore there may be in-combination effects from pollution	Yes – from pollution impacts on Castlemaine Harbour SAC and from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with N22 Road Improvement Scheme works Yes – from pollution impacts on Castlemaine Harbour SAC and from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with N70 Milltown Bypass Project works	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
bird species through impacts upon prey species. There is potential for disturbance to QI birds given the study area is in close proximity to the SPA which is a breeding site. No operational impacts are predicted. Option study area is 1.5km from and hydrologically linked to Castlemaine Harbour SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are predicted.		(LSE for the N70 Milltown Bypass Project assumed as assessment not available at time of writing). Dingle Peninsula SPA is approximately 20km west of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 2.5km west of the scheme with a hydrological link and therefore there may be in-combination effects from pollution (LSE for the N70 Milltown Bypass Project assumed as assessment not available at time of writing). N70 Clanbehy Bridge Road Project Castlemaine Harbour SAC is approximately 1.5km north of the scheme with a hydrological link and therefore there may be in-combination effects from pollution (LSE for N70 Glanbehy Bridge assumed as assessment not available at time of writing). Dingle Peninsula SPA is approximately 1.5km north of the scheme with no direct hydrological link, therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 1.5km north of the scheme with a hydrological link and therefore there may be in-combination effects from pollution (LSE for N70 Glanbehy Bridge assumed as assessment not available at time of writing). N86 Tralee to An Daingean: Upgrade works along road between Camp and Dingle Castlemaine Harbour SAC is approximately 3km south of the scheme with a hydrological link, therefore there may be in-combination effects from pollution. Dingle Peninsula SPA is approximately 400m south of the scheme with a hydrological link, therefore there may be in-combination effects from pollution. Destination Killamey, Smarter Travel Killamey: Regeneration of the scheme with a hydrological link, therefore there may be in-combination effects from pollution. Destination Reliame Harbour SAC is approximately 3km west of the schemes with a hydrological link, therefore there may be in-combination effects from pollution. Destination Reliame Harbour SAC is approximately 8km west of the schemes therefore no in-combination effects are predicted. Positioning Tralee as an Economic Driver, Tralee Flood Reliaf Scheme, Tralee No	Yes – from pollution impacts on Castlemaine Harbour SAC and from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with N70 Glanbehy Bridge Road Project works Yes – from pollution impacts on Castlemaine Harbour SAC and Castlemaine Harbour SPA and from pollution and disturbance impacts on Dingle Peninsula SPA if construction phase concurrent with N86 Tralee to An Daingean works Yes – from pollution impacts on Castlemaine Harbour SAC if construction phase concurrent with Destination Killarney and Smarter Travel Killarney works Yes – from pollution impacts on Castlemaine Harbour SAC and from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with South Kerry Greenway works		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		This development includes an extension to the current hospital and was screened out for AA, therefore there will be no potential impact on European sites. Castlemaine Harbour SAC is approximately 21km north-east of the scheme; no incombination effects are possible. Dingle Peninsula SPA is approximately 18km north of the scheme; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 17km north-east of the scheme; no in-combination effects are possible. Killarney Community Nursing unit: New two-story nursing unit Castlemaine Harbour SAC is approximately 7km west of the scheme and the NIS for this scheme found no LSEs for this site, therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 34km north-west of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 18km north-west of the scheme therefore no in-combination effects are predicted. Listowel Community Hospital, Listowel Food Hub This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development suite. Both developments were screened out for AA, therefore there			(Y/N)
		will be no potential impact on European sites. Castlemaine Harbour SAC is approximately 35km south-west of the schemes; no incombination effects are possible. Dingle Peninsula SPA is approximately 47km south-west of the schemes; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 37km south-west of the schemes; no in-combination effects are possible. Lohercannon, Tralee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Castlemaine Harbour SAC is approximately 12km south-west of the scheme; no incombination effects are possible. Dingle Peninsula SPA is approximately 18km west of the scheme; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 12km south-west of the scheme; no in-combination effects are possible. Valentia Trans-Atlantic Cable Station			
		Castlemaine Harbour SAC is approximately 26km north-east of the scheme therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 21km north of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 21km north-east of the scheme therefore no in-combination effects are predicted. Cahersiveen Town Centre Regeneration Project Castlemaine Harbour SAC is approximately 21km north-east of the scheme therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 18km north of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 17km north-east of the scheme therefore no in-combination effects are predicted. Baile na Fheirtéaraigh Development Castlemaine Harbour SAC is approximately 25km south-east of the scheme therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 2km west of the scheme with no hydrological link, therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 26km south-east of the scheme therefore no in-combination effects are predicted. Ard Na Greine, Knockavota, Milltown			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		This development includes the construction of 54 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Castlemaine Harbour SAC is approximately 2km north-west of the scheme; no incombination effects are possible. Dingle Peninsula SPA is approximately 18km west of the scheme; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 3km north-west of the scheme; no in-combination effects are possible.			
New GW abstraction from Aughacasla BHs and upgrade existing Aughacasla WTP to supply deficit. Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones Option study area is 3km from and hydrologically linked to Tralee Bay and Magharees Peninsula, West to Cloghane SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. No operational impacts are predicted. Option study area is 3km from and hydrologically linked to Castlemaine Harbour SPA. There is potential for pollution of waterbodies during construction that could impact on the habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are predicted.		Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 14km north-west of the northern extent of the scheme with no hydrological link, therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 14km west of the scheme with a hydrological link, therefore there may be in-combination effects from pollution. N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 24km south-west of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 35km south-west of the scheme therefore no in-combination effects are predicted. N70 Milltown Bypass Project Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 10.5km north of the scheme with no hydrological link, therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 2.5km west of the scheme with a hydrological link and therefore there may be in-combination effects from pollution (LSE for the N70 Milltown Bypass Project assumed as assessment not available at time of writing). N70 Glanbehy Bridge Road Project Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 21km north of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 1.5km north of the scheme with a hydrological link and therefore there may be in-combination effects from pollution (LSE for N70 Glanbehy Bridge assumed as assessment not available at time of writing). N86 Tralee to An Daingean: Upgrade works along road between Camp and Dingle Tralee Bay and Magharees Peninsula, West to Cloghane SAC crosses the scheme, therefore there may be in-combination effects from pollution impacts. Castlemaine Harbour SPA is approximately 3km south of the scheme with a hydrological link, therefore here may be in-combination effects are predicted. Positioning Tralee as an Economic Driver, Tralee Flood Relief S	Yes –from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with N22 Road Improvement Scheme works Yes –from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with N70 Milltown Bypass Project works Yes –from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with N70 Glanbehy Bridge Road Project works Yes – from pollution impacts on Tralee Bay and Magharees Peninsula, West to Cloghane SAC and Castlemaine Harbour SPA if construction phase concurrent with N86 Tralee to An Daingean Yes –from pollution impacts on Tralee Bay and Magharees Peninsula, West to Cloghane SAC if construction phase concurrent with Positioning Tralee as an Economic Driver, Tralee Flood Relief Scheme, Tralee Northern Relief Road, Phase 1 Tralee Town Centre - Rock Street, Russell Street and Bridge Street, Tralee Wastewater Network and MTU Tralee Campus STEM building works Yes – from pollution impacts on Castlemaine Harbour SPA if construction phase concurrent with South Kerry Greenway works	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 19km north of the eastern extent of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 1km north of the scheme with a hydrological link and the LSEs identified in the NIS for this scheme were habitat loss and alteration, habitat or species fragmentation, disturbance and reduction in water quality. Therefore, there may be in-combination effects from pollution. Cahersiveen Community Hospital This development includes an extension to the current hospital and was screened out for AA, therefore there will be no potential impact on European sites. Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 32km north of the scheme; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 17km north-east of the scheme; no in-combination effects are possible.			
		Killarney Community Nursing unit: New two-story nursing unit Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 31km north-west of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 18km north-west of the scheme therefore no in-combination effects are predicted.			
		Listowel Community Hospital, Listowel Food Hub This hospital development includes an extension to the current hospital. The Food Hub development will include 5 state-of-the-art food production units and a research and development suite. Both developments were screened out for AA, therefore there will be no potential impact on European sites.			
		Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 26km south-west of the schemes; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 37km south-west of the schemes; no incombination effects are possible. Lohercannon, Tralee			
		This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites.			
		Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 100m south of the scheme; no in-combination effects possible. Castlemaine Harbour SPA is approximately 12km south-west of the scheme; no in-combination effects are possible. Valentia Trans-Atlantic Cable Station			
		Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 35km north of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 21km north-east of the scheme therefore no in-combination effects are predicted.			
		Cahersiveen Town Centre Regeneration Project Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 32km north of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 17km north-east of the scheme therefore no in-combination effects are predicted.			
		Baile na Fheirtéaraigh Development Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 17km north-east of the scheme therefore no in-combination effects are predicted. Castlemaine Harbour SPA is approximately 26km south-east of the scheme therefore no in-combination effects are predicted. Ard Na Greine, Knockavota, Milltown			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		This development includes the construction of 54 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Tralee Bay and Magharees Peninsula, West to Cloghane SAC is approximately 13km north of the scheme; no in-combination effects are possible. Castlemaine Harbour SPA is approximately 3km north-west of the scheme; no in-combination effects are possible.			
Increase GW abstraction from Tobar Bhreandáin WTP BH and supply Dun Chaoin Option study area is 250m from and hydrologically linked to Blasket Islands SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for disturbance to marine mammals from construction works. No operational impacts are predicted. Option study area is within and hydrologically linked to Dingle Peninsula SPA. There is potential for some loss of/damage to supporting habitats (e.g. foraging habitats) to QI species during construction works given that the works are within the SPA boundary. Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact prey species relied on by QI. There is potential for pollution of waterbodies during construction that could impact on the habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. There is potential for disturbance to QI birds given the study area is within the SPA which is a breeding site. Option includes a groundwater abstraction. However, no operational impacts are predicted.		Blasket Islands SAC is approximately 62km west of the scheme therefore no incombination effects are predicted. Dingle Peninsula SPA is approximately 34km north-west of the scheme therefore no in-combination effects are predicted. N69 Listowel Bypass: 7km of road construction between Billeragh and Ballygowloge Blasket Islands SAC is approximately 73km south-west of the scheme therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 38km south-west of the scheme therefore no in-combination effects are predicted. N70 Milltown Bypass Project Blasket Islands SAC is approximately 51km west of the scheme therefore no incombination effects are predicted. Dingle Peninsula SPA is approximately 20km west of the scheme therefore no incombination effects are predicted. Dingle Peninsula SPA is approximately 20km west of the scheme therefore no incombination effects are predicted. Dingle Peninsula SPA is approximately 12km north of the scheme with no direct hydrological link, therefore no in-combination effects are predicted. N86 Tralee to An Daingean: Upgrade works along road between Camp and Dingle Blasket Islands SAC is approximately 13km west of the western extent of the scheme with no hydrological link, therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 400m south of the scheme with a hydrological link, therefore there may be in-combination effects from habitat loss, mortality, pollution and disturbance. Destination Killamey, Smarter Travel Killarney: Regeneration of the town centre and public realm Blasket Islands SAC is approximately 65km west of the schemes therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 34km north-west of the schemes therefore no in-combination effects are predicted. Destination feets are predicted. Dingle Peninsula SPA is approximately 34km north-west of the schemes therefore no in-combination effects are predicted. South Kerry Greenway: Construction of a 32km greenway from Reenard to	Yes - from habitat loss, mortality, pollution and disturbance impacts on Dingle Peninsula SPA if construction phase concurrent with N86 Tralee to An Daingean works	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Blasket Islands SAC is approximately 18km north-west of the scheme; no incombination effects are possible. Dingle Peninsula SPA is approximately 18km north of the scheme; no in-combination effects are possible. Killarney Community Nursing unit: New two-story nursing unit Blasket Islands SAC is approximately 65km west of the scheme; no in-combination effects are possible. Dingle Peninsula SPA is approximately 34km north-west of the scheme; no in-combination effects are possible. Listowel Community Hospital, Listowel Food Hub This hospital development includes an extension to the current hospital. The Food Hub development swill include 5 state-of-the-art food production units and a research and development suite. Both developments were screened out for AA, therefore there will be no potential impact on European sites. Blasket Islands SAC is approximately 75km south-west of the schemes, no incombination effects are possible. Dingle Peninsula SPA is approximately 47km south-west of the schemes; no in-combination effects are possible. Lohercannon, Tralee This development includes the construction of 61 units for social housing. The development has been screened out for AA, therefore there will be no potential impact on European sites. Blasket Islands SAC is approximately 51km south-west of the scheme; no in-combination effects are possible. Dingle Peninsula SPA is approximately 18km west of the scheme; no in-combination effects are predicted. Dingle Peninsula SPA is approximately 21km north of the scheme therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 21km north of the scheme therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 18km north of the scheme therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 18km north of the scheme therefore no in-combination effects are predicted. Dingle Peninsula SPA is approximately 18km north of the scheme therefore no in-combination effects are predicted. Dingle Pe			
All Preferred Options The European sites that may be impacted by options within Study Area H are Lower River Shannon SAC, Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA, River Shannon and River Fergus Estuaries SPA, Mount Brandon SAC, Akeragh, Banna and Barrow Harbour SAC, Tralee Bay Complex SPA, Kerry Head SPA, Killarney National Park,	Habitat degradationDisturbanceSpread of invasive non-native species	All Preferred Approach Options There is potential for in-combination effects from the projects within SAH to Lower River Shannon SAC given that options SAH-524 and SAH-225, have the potential for impacts. Potential for in-combination from habitat loss (all options), mortality (all options), spread of invasive non-native species (all options), disturbance (all options) and pollution (all options) impacts during construction. There is potential for in-combination effects from the projects within SAH to Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA given that	Yes – from habitat loss, mortality, spread of invasive non-native species, disturbance and pollution impacts on Lower River Shannon SAC if construction of options is concurrent Yes – from disturbance impacts on Stack's to Mullaghareirk	General Mitigation Measures are outlined in Section 6.3.3 Hydrogeological modelling as in Section 6.3.5 Hydrological modelling as in Section 6.3.5 With the implementation	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Macgillycuddy's Reeks and Caragh River Catchment SAC, Ballinskelligs Bay and Inny Estuary SAC, Valencia Harbour/Portmagee Channel SAC, Iveragh Peninsula SPA, Tralee Bay and Magharees Peninsula SPA, Castlemaine Harbour SAC, Slieve Mish Mountains SAC, Killarney National Park SPA, Castlemaine Harbour SPA, Blackwater River (Cork/Waterford) SAC and Blasket Islands SAC.		options SAH-524 and SAH-225 have the potential for impacts. Potential for incombination from disturbance during construction (all options). There is potential for in-combination effects from the projects within SAH to Mount Brandon SAC given that options SAH-512 and SAH-122 have the potential for impacts. Potential for in-combination from spread of invasive non-native species (all options), and pollution (all options) impacts during construction. There is potential for in-combination effects from the projects within SAH to Akeragh, Banna and Barrow Harbour SAC given that options SAH-038 and SAH-530 have the potential for impacts. Potential for in-combination from pollution during construction (all options). There is potential for in-combination effects from the projects within SAH to Tralee Bay Complex SPA given that options SAH-038, SAH-065 and SAH-530 have the potential for impacts. Potential for in-combination from habitat loss (options 038 and 065 only), disturbance (all options) and pollution (all options) impacts during construction. There is potential for in-combination effects from the projects within SAH to Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC given that options SAH-531, SAH-530, SAH-170 and SAH-540 have the potential for impacts. Potential for in-combination from habitat loss (SAH-531, SAH-530, SAH-170 and SAH-540), mortality of sample saturation of sample saturation and pollution (all options) impacts during construction, and hydrological changes (all options) and water table/availability (all options) impacts during operation. There is potential for in-combination effects from the projects within SAH to Ivralee Bay and Magharees Peninsula, West to Cloghane SAC given that options SAH-530 and SAH-173 and SAH-530 have the potential for in-combination effect	Mountains, West Limerick Hills and Mount Eagle SPA if construction of options is concurrent. Yes – from spread of invasive non-native species and pollution impacts on Mount Brandon SAC if construction of options is concurrent Yes – from pollution impacts on Akeragh, Banna and Barrow Harbour SAC if construction of options is concurrent. Yes – from habitat loss, disturbance, and pollution impacts on Tralee Bay Complex SPA if construction of options is concurrent. Yes – from habitat loss, mortality, spread of invasive non-native species, disturbance and pollution impacts on Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC if construction of options is concurrent and during operation from habitat degradation and water table/availability. Yes – from disturbance impacts on Iveragh Peninsula SPA if construction of options is concurrent. Yes – from spread of invasive non-native species, disturbance and pollution impacts on Tralee Bay and Magharees Peninsula, West to Cloghane SAC if construction of options is concurrent. Yes – disturbance and pollution impacts on Dingle Peninsula SPA if construction of options is concurrent.	of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or incombination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Option SAH-038 is the only option within SAH with potential for impacts on Kerry Head SPA . Therefore, there is no potential for in-combination effects to this European site.	construction of options is concurrent.		
		Option SAH-531 is the only option within SAH with potential for impacts on Ballinskelligs Bay and Inny Estuary SAC. Therefore, there is no potential for incombination effects to this European site. Option SAH-531 is the only option within SAH with potential for impacts on Valencia Harbour/Portmagee Channel SAC. Therefore, there is no potential for in-combination	Yes – from habitat loss, disturbance and pollution impacts on Killarney National Park SPA if construction of options is		
		effects to this European site. Option SAH-530 is the only option within SAH with potential for impacts on Slieve Mish Mountains SAC . Therefore, there is no potential for in-combination effects to this European site. Option SAH-540 is the only option within SAH with potential for impacts on Blackwater River (Cork/Waterford) SAC . Therefore, there is no potential for in-combination effects to this European site. Option SAH-533 is the only option within SAH with potential for impacts on Blasket Islands SAC . Therefore, there is no potential for in-combination effects to this European site.	concurrent. Yes – from pollution impacts on Castlemaine Harbour SPA if construction of options is concurrent.		

Table E2: SAI-Potential in-combination effects with other projects and options within SAI.

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
STUDY AREA I					
SAI-011	Disturbance	Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera.	Yes - from disturbance on the Mullaghanish to Musheramore	General Mitigation Measures are outlined in	N
New SW abstraction and upgrade WTP.		Mullaghanish to Musheramore Mountains SPA is 750m east from the scheme.	Mountains SPA if construction	Section 6.3.3	
The option study area is 1.2km from the Mullaghanish to Musheramore Mountains SPA . There is potential for the disturbance of		However, the AA screening concluded that there were no likely significant effects (LSEs), so no in-combination effects are possible.	phase is concurrent with Coláiste Íosagáin Campus works.	With the implementation of	
Hen Harrier as the works are adjacent to the		Coláiste Íosagáin Campus: Repurposing of existing building and grounds	Vac from disturbance on the	mitigation as noted above there will be no adverse	
SPA boundary and supporting habitats connected to the SPA. No operational impacts are predicted.		Mullaghanish to Musheramore Mountains SPA is 750m west from the scheme. No NIS available and it is assumed there is potential for in-combination effects from disturbance during construction to hen harrier. (LSE for the Coláiste Íosagáin Campus assumed as assessment not available at time of writing).	Yes - from disturbance on the Mullaghanish to Musheramore Mountains SPA if construction phase is concurrent with N22 Baile Bhuirne to Macroom Road Development works.	effects on the integrity of this European site, either alone or in-combination with other plans or projects.	
		Carrigaline Western Relief Road: 750m road and bridge to bypass main street			
		Mullaghanish to Musheramore Mountains SPA is 44km west from the scheme and therefore no in-combination effects predicted.			
		Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units.			
		Mullaghanish to Musheramore Mountains SPA is approximately 35km west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible.			
		Blackpool FRS: flood relief scheme for Blackpool, Cork city.			
		Mullaghanish to Musheramore Mountains SPA is approximately 35km west from the scheme, therefore no in-combination effects predicted.			
		Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City.			
		Mullaghanish to Musheramore Mountains SPA is approximately 35km west from the scheme, therefore no in-combination effects predicted.			
		M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40south Ring Road to the Port in Ringaskiddy.			
		Mullaghanish to Musheramore Mountains SPA approximately 35km west from the scheme, therefore no in-combination effects predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		Mullaghanish to Musheramore Mountains SPA is approximately 35km west from the scheme, therefore no in-combination effects predicted.			
		Schemes within Cork City*:			
		Mullaghanish to Musheramore Mountains SPA is approximately 35km west from all these schemes and therefore no in-combination effects predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		Mullaghanish to Musheramore Mountains SPA is approximately 50km west from these schemes, therefore no in-combination effects predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Mullaghanish to Musheramore Mountains SPA is approximately 50km west from these schemes, therefore no in-combination effects predicted.			
		Macroom Community Hospital, Macroom Garda Station:			
		Mullaghanish to Musheramore Mountains SPA is 5km north from these schemes, however given the location of these schemes within Macroom it is not likely for there to be in-combination effects from disturbance to hen harrier			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		Mullaghanish to Musheramore Mountains SPA is 26.7km north-west from the scheme and therefore no in-combination effects predicted			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		Mullaghanish to Musheramore Mountains SPA is 36.3km north from the scheme and therefore no in-combination effects predicted.			
		<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.</u>			
		Mullaghanish to Musheramore Mountains SPA is 79km north-east of the scheme and therefore no in-combination effects are predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		Mullaghanish to Musheramore Mountains SPA is 76.7km east from the scheme and therefore no in-combination effects predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		Mullaghanish to Musheramore Mountains SPA is 41.8km north-west from the scheme and therefore no in-combination effects predicted.			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			
		Mullaghanish to Musheramore Mountains SPA is 19km south-west of the scheme and therefore no in-combination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			
		Mullaghanish to Musheramore Mountains SPA is 100m north-east of the scheme. No NIS available and it is assumed there is a potential for in-combination effects from disturbance to hen harrier during construction. (LSE for the N22 Baile Bhuirne to Macroom Road Development assumed as assessment not available at time of writing).			
		N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton.			
		Mullaghanish to Musheramore Mountains SPA is 51km north-west of the scheme and therefore no in-combination effects are predicted.			
		N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70.			
		Mullaghanish to Musheramore Mountains SPA is 44km north-east of the scheme and therefore no in-combination effects are predicted.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAI-060	Habitat degradation	N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. Mullaghanish to Musheramore Mountains SPA is 30km north-east of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. Mullaghanish to Musheramore Mountains SPA is 44.1km north from the scheme and therefore no in-combination effects predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera.	Yes - from pollution impacts on The Gearagh SAC and The	General Mitigation Measures are outlined in	N
Increase SW from Bunsheelin River and upgrade WTP. The option study area is hydrologically linked to The Gearagh SAC which is 14.2km away. Potential pollution of watercourses during construction impacting hydrologically connected QI habitats and otter. No operational impacts predicted. The option study area is hydrologically linked to The Gearagh SPA which is 14.2km away. Potential pollution of watercourses during construction could affect the hydrologically connected SPA and supporting habitats used by QI bird species. No operational impacts predicted.		The Gearagh SAC and The Gearagh SPA are 10km east from the scheme. However, the AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Gearagh SAC and The Gearagh SPA are 10km east and downstream of this scheme. No NIS available and it is assumed there is the potential for in-combination effects from pollution during construction. (LSE for the Coláiste Íosagáin Campus assumed as assessment not available at time of writing). Carrigaline Western Relief Road: 750m road and bridge to bypass main street The Gearagh SAC and The Gearagh SPA are 39.3km west from the scheme and therefore no in-combination effects predicted. Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. The Gearagh SAC and The Gearagh SPA are approximately 30km west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible. Blackpool FRS: flood relief scheme for Blackpool, Cork city. The Gearagh SAC and The Gearagh SPA are approximately 30km west from the scheme and therefore no in-combination effects predicted. Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City. The Gearagh SAC and The Gearagh SPA are approximately 30km west from the scheme and therefore no in-combination effects predicted. M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy. The Gearagh SAC and The Gearagh SPA are approximately 30km west from the scheme and therefore no in-combination effects predicted. Remediation of Haulbowline Island: remediation project for the east tip of the island. The Gearagh SAC and The Gearagh SPA are approximately 30km west from the scheme and therefore no in-combination effects predicted. Schemes within Cork City*: The Gearagh SAC and The Gearagh SPA are approximately 30km west from the scheme and therefore no in-combination effects predicted.	Gearagh SPA if construction phase is concurrent with Coláiste Íosagáin Campus works.	Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Gearagh SAC and The Gearagh SPA are approximately 50km west from these schemes and therefore no-in-combination effects predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Gearagh SAC and The Gearagh SPA are approximately 50km west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Gearagh SAC and The Gearagh SPA are 1.8km south from these schemes. However, there is no hydrological link and therefore no in-combination effects are predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Gearagh SAC and The Gearagh SPA are 18.2km north-west from the scheme, however they are upstream of this scheme so no in-combination impacts predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Gearagh SAC and The Gearagh SPA are 28.3km north from the scheme and therefore no in-combination effects predicted.			
		<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.</u>			
		The Gearagh SAC and The Gearagh SPA are 83km east of the scheme and therefore no in-combination effects are predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		The Gearagh SAC and The Gearagh SPA are 85.5km east from the scheme and therefore no in-combination effects predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		The Gearagh SAC and The Gearagh SPA are 34.5km north-west from the scheme and therefore no in-combination impacts predicted.			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			
		The Gearagh SAC and The Gearagh SPA are 25km south-west of the scheme and therefore no in-combination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			
		The Gearagh SAC and The Gearagh SPA are 1.5km south-west of the scheme. However, there is no hydrological link and therefore no in-combination effects are predicted.			
		N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
New GW abstraction (karstic region) and new WTP to supply deficit. The option study area is close to a hydrological link to Ballycotton Bay SPA which is 3.5km away. Potential pollution of watercourses during construction could affect the hydrologically connected SPA and supporting habitats used by QI bird species. No operational impacts predicted.	• Habitat degradation	The Gearagh SAC and The Gearagh SPA are 48km west of the scheme and therefore no in-combination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Gearagh SAC and The Gearagh SPA are 52km east of the scheme and therefore no in-combination effects are predicted. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. The Gearagh SAC and The Gearagh SPA are 38km east of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. The Gearagh SAC and The Gearagh SPA are 38.5km north from the scheme and therefore no in-combination impacts predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Ballycotton Bay SPA is 79km east from the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Ballycotton Bay SPA is 79km east from the scheme and therefore no in-combination effects predicted. Carrigaline Western Relief Road: 750m road and bridge to bypass main street The Ballycotton Bay SPA is 24.7km east from the scheme, however, there is no hydrological link and therefore no in-combination effects predicted. Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. The Ballycotton Bay SPA is approximately 30km east from the scheme and therefore no in-combination effects predicted. Blackpool FRS: flood relief scheme for Blackpool, Cork city. The Ballycotton Bay SPA is approximately 30km east from the scheme and therefore no in-combination effects predicted. MN28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the scheme and therefore no in-combination effects predicted. MN28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the scheme and ther	No	N/A	N

Schemes within Cork City*: The Ballycotton Bay SPA is approximately 30km east from these schemes and therefore no in-combination effects predicted. Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme The Ballycotton Bay SPA is approximately 12km south-east from these schemes, however, there is no hydrological link and therefore no in-combination effects predicted. Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.	
therefore no in-combination effects predicted. Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme The Ballycotton Bay SPA is approximately 12km south-east from these schemes, however, there is no hydrological link and therefore no in-combination effects predicted. Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between	
of proposals, Midleton Water Supply Scheme The Ballycotton Bay SPA is approximately 12km south-east from these schemes, however, there is no hydrological link and therefore no in-combination effects predicted. Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between	
however, there is no hydrological link and therefore no in-combination effects predicted. Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between	
pumping stations, 6.2km watermains and construction/upgrades to networks between	
The Ballycotton Bay SPA is approximately 12km south-east from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.	
Macroom Community Hospital, Macroom Garda Station:	
The Ballycotton Bay SPA is 65.2km east from these schemes and therefore no incombination effects predicted.	
Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.	
The Ballycotton Bay SPA is 48.5km east from the scheme and therefore no incombination effects predicted.	
Beechgrove, Clonakilty: 57 social housing units being delivered.	
The Ballycotton Bay SPA is 64.5km east from the scheme and therefore no incombination impacts predicted.	
<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to</u> <u>mainland and new visitor center.</u>	
The Ballycotton Bay SPA is 148km east of the scheme and therefore no incombination effects are predicted.	
Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.	
The Ballycotton Bay SPA is 153.4km east from the scheme and therefore no incombination effects predicted.	
Kinsale Community Hospital - Phase 1: construct three new buildings.	
The Ballycotton Bay SPA is 36.7km east from the scheme and therefore no incombination effects predicted.	
N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.	
The Ballycotton Bay SPA is 33km east of the scheme and therefore no incombination effects are predicted.	
N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.	
The Ballycotton Bay SPA is 62km east of the scheme and therefore no incombination effects are predicted.	

Preferred Option Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAI-457 Increase SW abstraction from Goleen Intake and upgrade Goleen WTP. Significant reduction in yield in 2018. The potential for the spread of invasive species during upgrade constructions which occur within the SAC. Construction also has the potential habitat degradation of hydrologically connected habitats due to reduced flow and changes in water quality/availability. Increase SW abstraction from Goleen Intake and upgrade Goleen WTP. Significant reduction in yield in 2018. The option study area is within The Barley Cove to Ballyrisode Point SAC. There is the potential for the spread of invasive species Water table/availability fifetists are effects are colaiste for Barley Co. Barley Co. Scheme ar Glashabow Barley Co. Scheme ar Glashabow Barley Co. Scheme ar Glashabow Barley Co. Scheme ar Min28 Cor. Min28 Cor.	cotton Bay SPA is 13km east of the scheme. However, there is no al link and therefore no in-combination effects are predicted. In to Blackwater Bridge: upgrade 4.5km of the N70. cotton Bay SPA is 120km east of the scheme and therefore no infonce effects are predicted. Intamullen: safety improvement scheme, adding 2m wide footpaths, lighting, along 1.3km of road. cotton Bay SPA is 107km east of the scheme and therefore no infonce effects are predicted. The AA screening concluded that there were no no in-combination effects are possible. In Community Hospital (St Annes): construction of three new buildings and ent of existing hospital. cotton Bay SPA is 90.2km north-east from the scheme and therefore no ation impacts predicted. ey and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to era. ove to Ballyrisode Point SAC is approximately 60km south from the he AA screening concluded that there were no LSEs, so no in-combination	No	N/A	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Barley Cove to Ballyrisode Point SAC is approximately 90km south-west from the scheme and therefore no in-combination effects are predicted.			
		Schemes within Cork City*:			
		Barley Cove to Ballyrisode Point SAC is approximately 90km south-west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		Barley Cove to Ballyrisode Point SAC is approximately 110km south-west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		Barley Cove to Ballyrisode Point SAC is approximately 110km south-west from from these schemes. The AA screening concluded that there were no LSEs, so no incombination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		Barley Cove to Ballyrisode Point SAC is 64.9km south-west from these schemes and therefore no in-combination effects are predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		Barley Cove to Ballyrisode Point SAC is 63.9km west from the scheme and therefore no in-combination effects are predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		Barley Cove to Ballyrisode Point SAC is 54km west from the scheme and therefore no in-combination effects are predicted.			
		<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.</u>			
		Barley Cove to Ballyrisode Point SAC is 30km south of the scheme and therefore no in-combination effects are predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		Barley Cove to Ballyrisode Point SAC is 49.5km south-east from the scheme and therefore no in-combination effects are predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		Barley Cove to Ballyrisode Point SAC is 81.7km west from the scheme and therefore no in-combination effects are predicted.			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			
		Barley Cove to Ballyrisode Point SAC is 88km south-west of the scheme and therefore no in-combination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAI-468 Upgrade existing WTP for water quality improvements. The WRZ is not in deficit. The option study area is adjacent to the Caha Mountains SAC which is 100m away. There is a potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats. There is also the potential for the spread of invasive species given that the works are adjacent to the SAC boundary. No operational impacts are predicted. The option study area is also adjacent to the Glengarriff Harbour and Woodland SAC which is 800m away. There is a potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats. There is also the potential for disturbance to otters, bats and spread of invasive species given that the works are in close proximity to the SAC boundary. No operational impacts are predicted.	 Habitat degradation Disturbance Spread of invasive species 	Barley Cove to Ballyrisode Point SAC is 59km south-west of the scheme and therefore no in-combination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. Barley Cove to Ballyrisode Point SAC is 108km west of the scheme and therefore no in-combination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. Barley Cove to Ballyrisode Point SAC is 39km south of the scheme and therefore no in-combination effects are predicted. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. Barley Cove to Ballyrisode Point SAC is 41km south of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. Barley Cove to Ballyrisode Point SAC is 28.2km west from the scheme and there is no hydrological link. Therefore, no in-combination effects are predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Caha Mountains SAC is approximately 30km west from the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Caha Mountains SAC is approximately 30km west from the scheme and therefore no incombination effects predicted. Carrigaline Western Relief Road: 750m road and bridge to bypass main street The Caha Mountains SAC is approximately 30km west from the scheme and therefore no incombination effects predicted. Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. The Caha Mountains SAC is approximately 75km and the Glengarriff Harbour and Woodland SAC is approximately 70km west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible.	No	N/A	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Caha Mountains SAC is approximately 75km and the Glengarriff Harbour and Woodland SAC is approximately 70km west from the scheme and therefore no incombination effects predicted.			
		M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy.			
		The Caha Mountains SAC is approximately 75km and the Glengarriff Harbour and Woodland SAC is approximately 70km west from the scheme and therefore no incombination effects predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		The Caha Mountains SAC is approximately 75km and the Glengarriff Harbour and Woodland SAC is approximately 70km west from the scheme and therefore no incombination effects predicted.			
		Schemes within Cork City*:			
		The Caha Mountains SAC is approximately 75km and the Glengarriff Harbour and Woodland SAC is approximately 70km west from these schemes and therefore no in-combination effects predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Caha Mountains SAC is approximately 100km and the Glengarriff Harbour and Woodland SAC is approximately 95km west from these schemes and therefore no in-combination effects predicted.			
		<u>Midleton Wastewater Network and Midleton Wastewater transfer project</u> : New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Caha Mountains SAC is approximately 100km and the Glengarriff Harbour and Woodland SAC is approximately 95km west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Caha Mountains SAC is 41.8km and the Glengarriff Harbour and Woodland SAC is 41.4km west from these schemes and therefore no in-combination effects predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Caha Mountains SAC is 51.1km and the Glengarriff Harbour and Woodland SAC is 48.5km west from the scheme and therefore no in-combination effects predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Caha Mountains SAC is 46.6km and the Glengarriff Harbour and Woodland SAC is 43.9km west from the scheme and therefore no in-combination effects predicted.			
		<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.</u>			
		The Caha Mountains SAC is 29km and the Glengarriff Harbour and Woodland SAC is 42km east of the scheme and therefore no in-combination effects are predicted.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Geteic Uibh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people. The Caha Mountains SAC is 35.8km and the Glengarriff Harbour and Woodland SAC is 45.4km east from the scheme and therefore no in-combination effects predicted. Kinsale Community Hospital - Phase 1; construct three new buildings. The Caha Mountains SAC is 70.9km and the Glengarriff Harbour and Woodland SAC is 68.2km west from the scheme and therefore no in-combination effects predicted. N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick. The Caha Mountains SAC and the Glengarriff Harbour and Woodland SAC are 69km south-west of the scheme and therefore no in-combination effects are predicted. N22 Baile Bhuime to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway. The Caha Mountains SAC and the Glengarriff Harbour and Woodland SAC are 33km south-west of the scheme and therefore no in-combination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. The Caha Mountains SAC and the Glengarriff Harbour and Woodland SAC are 92km west of the scheme and therefore no in-combination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Caha Mountains SAC is 8km and the Glengarriff Harbour and Woodland SAC is 14km south of the scheme. However, there is no hydrological link and therefore no in-combination effects are predicted. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. The Caha Mountains SAC is 9km and the Glengarriff Harbour and Woodland SAC is 11km south of the scheme. However, the AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital. The Caha Mountains SAC is 9km and the Glengarriff Harbour and Woodland SAC is 26.1km north from the scheme and therefore no in-com			
New GW abstraction to supply deficit and upgrade WTP. Abandon existing SW source. The option study area is close to a hydrological link to the Beara Peninsula SPA which is 360m away. There is the potential for habitat loss, disturbance, and the spread of invasive species within the SPA and supporting habitats during upgrade	 Physical loss of habitat Habitat degradation Disturbance Water table/availability 	Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Beara Peninsula SPA is approximately 55km west from the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Beara Peninsula SPA is approximately 55km west from the scheme and therefore no in-combination effects are predicted.	Yes – from disturbance on the Beara Peninsula SPA if construction phase is concurrent with Dursey Island Cable Car and Visitor Centre works.	General Mitigation Measures are outlined in Section 6.3.3 Hydrogeological modelling as in Section 6.3.5 Hydrological modelling as in Section 6.3.5 With the implementation of mitigation as noted above	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
constructions due to its proximity. Potential		Carrigaline Western Relief Road: 750m road and bridge to bypass main street		there will be no adverse	
pollution of supporting habitats adjacent to the SPA and used by QI bird species. During operation there is potential for habitat		The Beara Peninsula SPA is 100.9km west from the scheme and therefore no incombination effects are predicted.		effects on the integrity of this European site, either alone or in-combination	
degradation of hydrologically connected		Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units.		with other plans or projects.	
habitats due to reduced flow and changes in water quality/availability affecting bird species.		The Beara Peninsula SPA is approximately 95km west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible.			
		Blackpool FRS: flood relief scheme for Blackpool, Cork city.			
		The Beara Peninsula SPA is approximately 95km west from the scheme and therefore no in-combination effects are predicted.			
		Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City.			
		The Beara Peninsula SPA is approximately 95km west from the scheme and therefore no in-combination effects are predicted.			
		M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy.			
		The Beara Peninsula SPA is approximately 95km west from the scheme and therefore no in-combination effects are predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		The Beara Peninsula SPA is approximately 95km west from the scheme and therefore no in-combination effects are predicted.			
		Schemes within Cork City*:			
		The Beara Peninsula SPA is approximately 95km west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Beara Peninsula SPA is approximately 115km west from these schemesand therefore no in-combination effects are predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Beara Peninsula SPA is approximately 115km west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Beara Peninsula SPA is 65.9km west from these schemes and therefore no incombination effects are predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Beara Peninsula SPA is 70.7km west from the scheme and therefore no incombination effects are predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Beara Peninsula SPA is 63.3km west from the scheme and therefore no incombination effects are predicted. Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center. The Beara Peninsula SPA surrounds this scheme. NIS available which identified disturbance as an LSE for this European site. There is the potential for in-combination effects from disturbance during construction. Gteic Uibh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people. The Beara Peninsula SPA is 21.9km south from this scheme but there is no hydrological link and therefore no in-combination effects are predicted. Kinsale Community Hospital - Phase 1: construct three new buildings. The Beara Peninsula SPA is 89.9km west from this scheme and therefore no incombination effects are predicted. N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick. The Beara Peninsula SPA is 92km west of the scheme and therefore no incombination effects are predicted. N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway. The Beara Peninsula SPA is 67km west of the scheme and therefore no incombination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. The Beara Peninsula SPA is 112km west of the scheme and therefore no incombination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Beara Peninsula SPA is 24km south-west of the scheme. The Kenmare River hydrologically connects the scheme to this SPA, however, NIS available and no LSEs predicted for this European site. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. The Beara Peninsula SPA is 42km south-west of the scheme. The Kenmare River hydrologically connects the scheme to this SPA however the AA screening			
SAI-498 New GW abstraction and upgrade Toormore WTP to supply deficit. The option study area is close to a	Habitat degradationDisturbanceSpread of invasive species	Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. Barley Cove to Ballyrisode Point SAC is approximately 60km south from the scheme. The Roaringwater Bay and Islands SAC is approximately 45km south from the scheme. Sheep's Head to Toe Head SPA is approximately 55km south-west from	Yes – from pollution on the Roaringwater Bay and Islands SAC if construction phase is concurrent with Skibbereen	General Mitigation Measures are outlined in Section 6.3.3	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
hydrological link to The Barley Cove to Ballyrisode Point SAC which is 1.4km away. There is the potential for habitat degradation and the spread of invasive species within the SPA and supporting habitats during upgrade constructions. No operational impacts predicted The option study area is close to a hydrological link to The Roaringwater Bay and Islands SAC which is 2.8km away There is the potential for habitat degradation by pollution within the SPA and supporting habitats during upgrade constructions. No operational impacts predicted. The option study area is close to a hydrological link to Sheep's Head to Toe Head SPA which is 6.5km away. Potential pollution of watercourses during construction could affect the hydrologically connected SPA and supporting habitats used by QI bird species. No operational impacts predicted.		the scheme. The AA screening concluded that there were no LSEs, so no incombination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds Barley Cove to Ballyrisode Point SAC is approximately 60km south from the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is approximately 45km south from the scheme and therefore no in-combination effects are predicted. Sheep's Head to Toe Head SPA is approximately 55km south-west from the scheme and therefore no in-combination effects are predicted. Carrigaline Western Relief Road: 750m road and bridge to bypass main street Barley Cove to Ballyrisode Point SAC is 94.2km south-west from the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 75.1km south-west from the scheme and therefore no in-combination effects are predicted. Sheep's Head to Toe Head SPA is 95.9km west from the scheme and therefore no in-combination effects are predicted. Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. Barley Cove to Ballyrisode Point SAC is approximately 90km south-west from these schemes. The Roaringwater Bay and Islands SAC is approximately 75km west from these schemes. Sheep's Head to Toe Head SPA is approximately 90km south-west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible. Blackpool FRS: flood relief scheme for Blackpool. Cork city. Barley Cove to Ballyrisode Point SAC is approximately 90km south-west from the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is approximately 75km south-west from the scheme and therefore no in-combination effects are predicted. Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City. Barley Cove to Ballyrisode Point SAC is approximately 90km south-west from the scheme and therefore no in-combination effects are predicted. The Ro	Community Hospital works.	With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Schemes within Cork City*:			
		Barley Cove to Ballyrisode Point SAC is approximately 90km south-west from these schemes and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is approximately 75km south-west from these schemes and therefore no in-combination effects are predicted. Sheep's Head to Toe Head SPA is approximately 90km west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		Barley Cove to Ballyrisode Point SAC is approximately 110km south-west from these schemes and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is approximately 90km south-west from these schemes and therefore no in-combination effects are predicted. Sheep's Head to Toe Head SPA is approximately 110km west from these schemes and therefore no incombination effects are predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		Barley Cove to Ballyrisode Point SAC is approximately 110km south-west from these schemes. The Roaringwater Bay and Islands SAC is approximately 90km south-west from these schemes. Sheep's Head to Toe Head SPA is approximately 110km west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		Barley Cove to Ballyrisode Point SAC is 64.9km south-west from these schemes and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 48.9km south-west from these schemes and therefore no incombination effects are predicted. Sheep's Head to Toe Head SPA is 63.2km south-west from these schemes and therefore no in-combination effects are predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		Barley Cove to Ballyrisode Point SAC is 63.9km west from the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 45.2km west from the scheme and therefore no in-combination effects are predicted. Sheep's Head to Toe Head SPA is 65.2km west from the scheme and therefore no in-combination effects are predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		Barley Cove to Ballyrisode Point SAC is 54km west from the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 34.3km west from the scheme and therefore no in-combination effects are predicted. Sheep's Head to Toe Head SPA is 57.7km west from the scheme and therefore no in-combination effects are predicted.			
		<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.</u>			
		Barley Cove to Ballyrisode Point SAC is 30km south of the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 37km south of the scheme and therefore no in-combination effects are predicted.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Sheep's Head to Toe Head SPA is 25km south of the scheme and therefore no incombination effects are predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		Barley Cove to Ballyrisode Point SAC is 49.5km south-east from the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 57.6km south-east from the scheme and therefore no in-combination effects are predicted. Sheep's Head to Toe Head SPA is 44km south-east from the scheme and therefore no in-combination effects are predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		Barley Cove to Ballyrisode Point SAC is 81.7km west from the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 62.2km west from the scheme and therefore no in-combination effects are predicted. Sheep's Head to Toe Head SPA is 83.7km west from the scheme and therefore no in-combination effects are predicted.			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			
		Barley Cove to Ballyrisode Point SAC is 88km south-west of the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 71km south-west of the scheme and therefore no in-combination effects are predicted. Sheep's Head to Toe Head SPA is 89km south-west of the scheme and therefore no in-combination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			
		Barley Cove to Ballyrisode Point SAC is 59km south-west of the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 46km south-west of the scheme and therefore no in-combination effects are predicted. Sheep's Head to Toe Head SPA is 59km south-west of the scheme and therefore no in-combination effects are predicted.			
		N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton.			
		Barley Cove to Ballyrisode Point SAC is 108km west of the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 89km west of the scheme and therefore no in-combination effects are predicted. Sheep's Head to Toe Head SPA is 108km west of the scheme and therefore no incombination effects are predicted.			
		N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70.			
		Barley Cove to Ballyrisode Point SAC is 39km south of the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 38km south of the scheme and therefore no in-combination effects are predicted. Sheep's Head to Toe Head SPA is 34km south of the scheme and therefore no incombination effects are predicted.			
		N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road.			
		Barley Cove to Ballyrisode Point SAC is 41km south of the scheme. The Roaringwater Bay and Islands SAC is 36km south of the scheme. Sheep's Head			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAI-630 New SW abstraction from Kenmare River and new WTP The option study area is hydrologically linked to the Kenmare River SAC which is 2.2km away. There is a potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats. There is also the potential for disturbance to otters and spread of invasive species. No operational impacts predicted.	 Habitat degradation Disturbance Spread of invasive species 	to Toe Head SPA is 40km south of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. Barley Cove to Ballyrisode Point SAC is 28.2km west from the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 11.2km west from the scheme and hydrologically linked via the River Ilen. No NIS available and it is assumed there is potential for in-combination effects from habitat degradation by pollution. (LSEs for Skibberene Community Hospital are assumed as assessment not available at time of writing). Sheep's Head to Toe Head SPA is 32km west from the scheme and therefore no in-combination effects are predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Kenmare River SAC is approximately 30km west of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Kenmare River SAC is approximately 30km west of the scheme and therefore no in-combination effects are predicted. Carrigaline Western Relief Road: 750m road and bridge to bypass main street The Kenmare River SAC is 82.2km west of the scheme and therefore no in-combination effects are predicted. Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. The Kenmare River SAC is approximately 75km west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects predicted. Blackpool FRS: flood relief scheme for Blackpool, Cork city. The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy. The Kenmare River SAC is approxi	Yes – from pollution on the Kenmare River SAC if construction phase is concurrent with Dursey Island Cable Car and Visitor Centre works. Yes – from pollution, spread of invasive non-native species and disturbance on the Kenmare River SAC if construction phase is concurrent with Gteic Uibh Ráthaigh works. Yes – from pollution, spread of invasive non-native species and disturbance on the Kenmare River SAC if construction phase is concurrent with N70 Sneem to Blackwater Bridge works.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Kenmare River SAC is approximately 95km west from these schemes and therefore no in-combination effects predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Kenmare River SAC is approximately 95km west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Kenmare River SAC is 42.1km west from these schemes and therefore no incombination effects predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Kenmare River SAC is 55.1km north-west of the scheme and therefore no incombination effects predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Kenmare River SAC is 54.4km north-west of the scheme and therefore no incombination effects predicted.			
		<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.</u>			
		The Kenmare River SAC is 0m from the scheme. NIS available which identified pollution to some habitats during construction and habitat loss during operation as LSEs for this European site. There is the potential for in-combination effects from pollution during construction.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		The Kenmare River SAC is 9.8km south from this scheme and hydrologically linked via Ballinskelligs Bay. No NIS available and it is assumed there is potential for incombination effects from pollution, disturbance and spread of invasive species. (LSE for the <u>Gteic Uíbh Ráthaigh</u> works assumed as assessment not available at time of writing).			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		The Kenmare River SAC is 75km north-west of the scheme and therefore no incombination effects predicted.			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			
		The Kenmare River SAC is 63km south of the scheme and therefore no incombination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			
		The Kenmare River SAC is 28km south of the scheme and therefore no incombination effects are predicted.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Increase SW abstraction from Lough Dromtine The option study area is hydrologically linked to the Kenmare River SAC which is 3.5km away. There is a potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected Ql habitats. No operational impacts predicted. The option study area is adjacent to the Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC which is 400m away. There is a potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected Ql habitats and Ql species such as FWPM. And there is a potential for disturbance to otter and the spread of invasive given the proximity to the SAC. No operational impacts predicted.		N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. The Kenmare River SAC is 91km south of the scheme and therefore no incombination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Kenmare River SAC is adjacent to the site. NIS available which identified pollution to some habitats, spread of invasive species, disturbance, and habitat loss as LSEs for this European site. There is the potential for in-combination effects from pollution, spread of invasive species and disturbance to otter. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. The Kenmare River SAC is 1km south of the scheme. The Finnihy River connects the scheme to this SAC. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. The Kenmare River SAC is 41.2km north-west of the scheme and therefore no incombination effects are predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Kenmare River SAC is approximately 30km west of the scheme. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 6.5km north of this scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are predicted. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Kenmare River SAC is approximately 30km west of the scheme and therefore no in-combination effects are predicted. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 6.5km north of this scheme however no hydrological link exists and therefore no in-combination effects are predicted. Carrigaline Western Relief Road: 750m road and bridge to bypass main street The Kenmare River SAC is 82.2km west of the scheme and therefore	Yes – from pollution on the Kenmare River SAC if construction phase is concurrent with Dursey Island Cable Car and Visitor Centre works. Yes – from pollution on the Kenmare River SAC if construction phase is concurrent with Gteic Uíbh Ráthaigh works. Yes – from pollution on the Kenmare River SAC if construction phase is concurrent with N70 Sneem to Blackwater Bridge works.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 45km north-west of this scheme and therefore no in-combination effects are predicted.			
		Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City.			
		The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects are predicted. The Killarney National Park , Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 45km north-west of this scheme and therefore no in-combination effects are predicted.			
		M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy.			
		The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects are predicted. The Killarney National Park , Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 45km north-west of this scheme and therefore no in-combination effects are predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects are predicted. The Killarney National Park , Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 45km north-west of this scheme and therefore no in-combination effects are predicted.			
		Schemes within Cork City*:			
		The Kenmare River SAC is approximately 75km west from these schemes and therefore no in-combination effects are predicted. The Killarney National Park , Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 45km north-west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Kenmare River SAC is approximately 95km west from these schemes and therefore no in-combination effects are predicted. The Killarney National Park , Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 65km north-west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Kenmare River SAC is approximately 95km west from these schemes. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 65km north-west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Kenmare River SAC is 42.1km west from these schemes and therefore no incombination effects are predicted. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 16.9km north from these schemes and there is no hydrological link therefore no in-combination effects are predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Kenmare River SAC is 55.1km north-west of the scheme and therefore no incombination effects are predicted. The Killarney National Park, Macgillycuddy's			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Reeks and Caragh River Catchment SAC is 37.8km north-west of this scheme and therefore no in-combination effects are predicted. Beechgrove, Clonakilty: 57 social housing units being delivered. The Kenmare River SAC is 54.4km north-west of the scheme and therefore no incombination effects are predicted. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 47.4km north of this scheme and therefore no in-combination effects are predicted. Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center. The Kenmare River SAC is 0m from this scheme. NIS available which identified pollution to some habitats during construction and habitat loss during operation as LSEs for this European site. There is the potential for in-combination effects from pollution of watercourses during construction. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 18.8km north of this scheme. However, there is no hydrological link and therefore no in-combination effects are predicted. Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50			(Y/N)
		The Kenmare River SAC is 9.8km south from this scheme and hydrologically linked via Ballinskelligs Bay. No NIS available and it is assumed there is potential for incombination effects from pollution. (LSE for the Gteic Uíbh Ráthaigh works assumed as assessment not available at time of writing). The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 6.6km east of this scheme, However, there is no hydrological link and therefore no in-combination impacts predicted. Kinsale Community Hospital - Phase 1: construct three new buildings.			
		The Kenmare River SAC is 75km north-west of the scheme and therefore no incombination effects are predicted. The Killarney National Park , Macgillycuddy's Reeks and Caragh River Catchment SAC is 54.1km north-west of this scheme and therefore no in-combination effects are predicted. N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick. The Kenmare River SAC is 63km south of the scheme and therefore no incombination effects are predicted. The Killarney National Park , Macgillycuddy's Reeks and Caragh River Catchment SAC is 27.7km west of this scheme. However, there is no hydrological link and therefore no in-combination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway. The Kenmare River SAC is 28km south of the scheme and therefore no incombination effects are predicted. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 4.7km north of this scheme. However, there is no hydrological link and therefore no in-combination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. The Kenmare River SAC is 91km south of the scheme and therefore no incombination effects are predicted. The Killarney National Park, Macgillycuddy's			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAI-645 New GW abstraction and new WTP. The option study area is hydrologically linked to the Kilgarvan Ice House SAC which is 1.4km away. There is a potential for physical loss of habitat/supporting habitat as within 1.4km of lesser horseshoe (LHS) SAC. Works within the 2.5km core foraging range from SAC. Vegetation, hedgerow or tree clearance associated with the works could sever important commuting routes for LHS bats commuting between their roost site in the SAC and foraging areas outside the confines of the SAC. This would require further assessment to ensure impacts are avoided. There is a potential for disturbance to bat species during construction. No operational impacts predicted. The option study area is hydrologically linked to the Kenmare River SAC which is 10.3km away. There is a potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats. No operational impacts predicted.	 Physical loss of habitat Disturbance 	Reeks and Caragh River Catchment SAC is 61km west of this scheme. However, there is no hydrological link and therefore no in-combination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Kenmare River SAC is adjacent to the site. NIS available which identified pollution to some habitats, spread of invasive species, habitat loss and disturbance to otter as LSEs for this European site. There is the potential for in-combination effects from pollution of watercourses during construction. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 2.1km north of the scheme. However, there is no hydrological link and the NIS did not identify any LSEs therefore no in-combination effects predicted. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths. lighting, crossings along 1.3km of road. The Kenmare River SAC is 1km south of the scheme. The Finnihy River connects the scheme to this SAC. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 3.5km north of this scheme but is not hydrologically linked. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. The Kenmare River SAC is 41.2km north-west of the scheme and therefore no in-combination effects are predicted. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 46.1km north of this scheme and therefore no in-combination effects are predicted. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is sapproximately 20km west of the scheme. The Kenmare River SAC is approximately 30km west of the scheme for Ballyvourney to Ballymakeera. The Kilgarvan lee House SAC is approximately 20km west of the scheme and therefore no in-combination effects are predicted. Carrigaline Western Relief Road: 750m road and bridge to bypass main street T	Yes – from pollution on the Kenmare River SAC if construction phase is concurrent with Dursey Island Cable Car and Visitor Centre works. Yes – from pollution on the Kenmare River SAC if construction phase is concurrent with Gteic Uibh Ráthaigh works. Yes – from pollution on the Kenmare River SAC if construction phase is concurrent with N70 Sneem to Blackwater Bridge works.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City.			
		The Kilgarvan Ice House SAC is approximately 65km west of the scheme and therefore no in-combination effects are predicted. The Kenmare River SAC is approximately 75km west and therefore no in-combination effects are predicted.			
		M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40south Ring Road to the Port in Ringaskiddy.			
		The Kilgarvan Ice House SAC is approximately 65km west of the scheme and therefore no in-combination effects are predicted. The Kenmare River SAC is approximately 75km west and therefore no in-combination effects are predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		The Kilgarvan Ice House SAC is approximately 65km west of the scheme and therefore no in-combination effects are predicted. The Kenmare River SAC is approximately 75km west and therefore no in-combination effects are predicted.			
		Schemes within Cork City*:			
		The Kilgarvan Ice House SAC is approximately 65km west from these schemes and therefore no in-combination effects are predicted. The Kenmare River SAC is approximately 75km west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Kilgarvan Ice House SAC is approximately 85km west from these schemes and therefore no in-combination effects are predicted. The Kenmare River SAC is approximately 95km west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Kilgarvan Ice House SAC is approximately 85km west from these schemes. The Kenmare River SAC is approximately 95km west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Kilgarvan Ice House SAC is 33.3km west from these schemes and therefore no in-combination effects predicted. The Kenmare River SAC is 42.1km west from these schemes and therefore no in-combination effects predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Kilgarvan Ice House SAC is 47.2km north-west of the scheme and therefore no in-combination effects predicted. The Kenmare River SAC is 55.1km north-west of the scheme and therefore no in-combination effects predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Kilgarvan Ice House SAC is 49km north-west of the scheme and therefore no in-combination effects predicted. The Kenmare River SAC is 54.4km north-west of the scheme and therefore no in-combination effects predicted.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center. The Kilgarvan Ice House SAC is 56.7km east of the scheme and therefore no incombination effects predicted. The Kenmare River SAC is 0m from the scheme. NIS available which identified pollution to some habitat during construction and habitat loss during operation as LSEs for this European site. There is the potential for incombination effects from pollution during construction. Gteic Ulibh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people. The Kilgarvan Ice House SAC is 54,8km east of the scheme and therefore no incombination effects predicted. The Kenmare River SAC is 9.8km south from this scheme and hydrologically linked via Ballinskelligs Bay. No NIS available and it is assumed there is potential for in-combination effects from pollution. (LSE for the Geiec Ulibh Ráthaigh works assumed as assessment not available at time of writing). Kinsale Community Hospital - Phase 1: construct three new buildings. The Kilgarvan Ice House SAC is 67.5km north-west of the scheme and therefore no in-combination effects predicted. The Kenmare River SAC is 75km north-west of the scheme and therefore no in-combination effects are predicted. N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick. The Kilgarvan Ice House SAC is 55km west of the scheme and therefore no in-combination effects are predicted. The Kenmare River SAC is 63km south of the scheme and therefore no in-combination effects are predicted. N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway. The Kilgarvan Ice House SAC is 19km west of the scheme. However, there is no hydrological link and therefore no in-combination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. The Kilgarvan Ice House SAC is 83km	(Yes/No)		
		hydrological link and therefore no in-combination effects are predicted. The Kenmare River SAC is 1km south of the scheme. The Finnihy River connects the scheme to			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAI-652 New SW abstraction from Glenmore Lake and upgrade WTP	Habitat degradationWater table/availabilityDisturbance	this SAC. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. The Kilgarvan Ice House SAC is 39.2km north of the scheme. The Kenmare River SAC is 41.2km north-west of the scheme and therefore no in-combination effects are predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Caha Mountains SAC is approximately 30km west from the scheme. The	Yes – from pollution on the Kenmare River SAC if construction phase is concurrent with Dursey Island Cable Car and	General Mitigation Measures are outlined in Section 6.3.3	N
The option study area is hydrologically linked to the Kenmare River SAC which is 2.3km away. There is a potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats. During operation there is potential for habitat degradation of hydrologically connected habitats due to reduced flow and changes in water quality/availability. The option study area is in close proximity to the Caha Mountains SAC which is 350m away. There is a potential for disturbances to species.		Kenmare River SAC is approximately 30km west from the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Caha Mountains SAC is approximately 30km west from the scheme and therefore no in-combination effects are predicted. The Kenmare River SAC is approximately 30km west from the scheme and therefore no in-combination effects are predicted. Carrigaline Western Relief Road: 750m road and bridge to bypass main street The Caha Mountains SAC is 80.4km west from the scheme and therefore no incombination effects are predicted. The Kenmare River SAC is 82.2km west of the scheme and therefore no in-combination effects are predicted. Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. The Caha Mountains SAC is approximately 75km west from these schemes. The Kenmare River SAC is approximately 75km west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible. Blackpool FRS: flood relief scheme for Blackpool, Cork city. The Caha Mountains SAC is approximately 75km west from the scheme and therefore no in-combination effects predicted. The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City. The Caha Mountains SAC is approximately 75km west from the scheme and therefore no in-combination effects predicted. The Kenmare River SAC is approximately 75km west from the scheme and therefore no in-combination effects predicted. The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy.	Visitor Centre works. Yes – from pollution on the Kenmare River SAC if construction phase is concurrent with Gteic Uíbh Ráthaigh works. Yes – from pollution on the Kenmare River SAC if construction phase is concurrent with N70 Sneem to Blackwater Bridge works.	Hydrological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	
	The Caha Mountains SAC is approximately 75km west from the scheme and therefore no in-combination effects predicted. The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. Remediation of Haulbowline Island: remediation project for the east tip of the island. The Caha Mountains SAC is approximately 75km west from the scheme and therefore no in-combination effects predicted. The Kenmare River SAC is				

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Preferred Option	Types	approximately 75km west of the scheme and therefore no in-combination effects predicted. Schemes within Cork City*: The Caha Mountains SAC is approximately 75km west from these schemes and therefore no in-combination effects predicted. The Kenmare River SAC is approximately 75km west from these schemes and therefore no in-combination effects predicted. Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme The Caha Mountains SAC is approximately 100km west from these schemes and therefore no in-combination effects predicted. The Kenmare River SAC is approximately 95km west from these schemes and therefore no in-combination effects predicted. Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill. The Caha Mountains SAC is approximately 100km west from these schemes and therefore no in-combination effects predicted. The Kenmare River SAC is approximately 95km west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.		Conclusion	Integrity
		Macroom Community Hospital, Macroom Garda Station: The Caha Mountains SAC is 41.8km west from these schemes and therefore no incombination effects predicted. The Kenmare River SAC is 42.1km west from these schemes and therefore no in-combination effects predicted. Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows. The Caha Mountains SAC is 51.1km west of the scheme and therefore no incombination effects predicted. The Kenmare River SAC is 55.1km north-west of the scheme and therefore no in-combination effects predicted. Beechgrove, Clonakilty: 57 social housing units being delivered. The Caha Mountains SAC is 46.6km west of the scheme and therefore no incombination effects predicted. The Kenmare River SAC is 54.4km north-west of the scheme and therefore no in-combination effects predicted. Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center. The Caha Mountains SAC is 56.7km east of the scheme and therefore no incombination effects predicted. The Kenmare River SAC is 0m from the scheme. NIS			
		available which identified pollution to some habitats during construction and habitat loss during operation as LSEs for this European site. There is the potential for incombination effects from pollution during construction. Getic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people. The Caha Mountains SAC is 35.8km east of the scheme and therefore no incombination effects predicted. The Kenmare River SAC is 9.8km south from this scheme and hydrologically linked via Ballinskelligs Bay. No NIS available and it is			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		assumed there is potential for in-combination effects from pollution. (LSE for the <u>Gteic Uibh Ráthalgh</u> works assumed as assessment not available at time of writing). Kinsale Community Hospital - Phase 1: construct three new buildings. The Caha Mountains SAC is 70.9km west of the scheme and therefore no incombination effects predicted. The Kenmare River SAC is 75km north-west of the scheme and therefore no in-combination effects predicted. N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick. The Caha Mountains SAC is 69km south-west of the scheme and therefore no incombination effects are predicted. The Kenmare River SAC is 63km south of the scheme and therefore no in-combination effects are predicted. N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway. The Caha Mountains SAC is 33km west of the scheme and therefore no incombination effects are predicted. The Kenmare River SAC is 28km south of the scheme and therefore no in-combination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. The Caha Mountains SAC is 92km west of the scheme and therefore no incombination effects are predicted. The Kenmare River SAC is 91km south of the scheme and therefore no in-combination effects are predicted. The Kenmare River SAC is 91km south of the scheme and therefore no in-combination effects are predicted. The Kenmare River SAC is 91km south of the scheme however, the NIS did not identify any LSEs for this European site. Therefore, no in-combination effects are predicted. The Kenmare River SAC is adjacent to the site. The NIS identified pollution to some habitats, spread of invasive species, habitat loss and disturbance to otter as LSEs for this European site. Therefore, no in-combination effects from pollution during construction. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Caha Mountain			
New GW abstraction and abandon existing GW source. New WTP The option study area is adjacent to the Sheep's Head SAC which is 440m away. Construction has the potential for species	Habitat degradationWater table/availabilityDisturbance	Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Farranamanagh Lough SAC is approximately 50km south-west of the scheme. Sheep's Head SAC is approximately 55km south-west of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.	No	N/A	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
disturbance and habitat degradation via		Coláiste Íosagáin Campus: Repurposing of existing building and grounds			
pollution to watercourses and habitats within the SAC. During operation there is potential for habitat degradation of hydrologically connected habitats due to reduced flow and changes in water quality/availability.		The Farranamanagh Lough SAC is approximately 50km south-west of the scheme and therefore no in-combination effects are predicted. Sheep's Head SAC is approximately 55km south-west of the scheme and therefore no in-combination effects are predicted.			
The option study area is hydrologically linked		Carrigaline Western Relief Road: 750m road and bridge to bypass main street			
to the Farranamanagh Lough SAC which is 690m away. Construction has the potential for habitat degradation via pollution to watercourses and habitats within the SAC.		The Farranamanagh Lough SAC is 93.1km west of the scheme and therefore no incombination effects are predicted. Sheep's Head SAC is 86.4km west of the scheme and therefore no in-combination effects are predicted.			
No operational impacts predicted		Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units.			
		The Farranamanagh Lough SAC is approximately 90km west from these schemes. Sheep's Head SAC is approximately 80km west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible.			
		Blackpool FRS: flood relief scheme for Blackpool, Cork city.			
		The Farranamanagh Lough SAC is approximately 90km west of the scheme and therefore no in-combination effects are predicted. Sheep's Head SAC is approximately 90km west of the scheme and therefore no in-combination effects are predicted.			
		Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City.			
		The Farranamanagh Lough SAC is approximately 90km west of the scheme and therefore no in-combination effects are predicted. Sheep's Head SAC is approximately 90km west of the scheme and therefore no in-combination effects are predicted.			
		M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy.			
		The Farranamanagh Lough SAC is approximately 90km west of the scheme and therefore no in-combination effects are predicted. Sheep's Head SAC is approximately 90km west of the scheme and therefore no in-combination effects are predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		The Farranamanagh Lough SAC is approximately 90km west of the scheme and therefore no in-combination effects are predicted. Sheep's Head SAC is approximately 90km west of the scheme and therefore no in-combination effects are predicted.			
		Schemes within Cork City*:			
		The Farranamanagh Lough SAC is approximately 90km west from these schemes and therefore no in-combination effects are predicted. Sheep's Head SAC is approximately 90km west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Farranamanagh Lough SAC is approximately 110km west from these schemes and therefore no in-combination effects are predicted. Sheep's Head SAC is			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		approximately 100km west from these schemes and therefore no in-combination effects are predicted. Midleton Wastewater Network and Midleton Wastewater transfer project: New			
		pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Farranamanagh Lough SAC is approximately 110km west from these schemes. Sheep's Head SAC is approximately 100km west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Farranamanagh Lough SAC is 60.9km south-west from these schemes and therefore no in-combination effects are predicted. Sheep's Head SAC is 52.8km south-west from these schemes and therefore no in-combination effects are predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Farranamanagh Lough SAC is 62.8km west of the scheme and therefore no incombination effects are predicted. Sheep's Head SAC is 55.8km west of the scheme and therefore no in-combination effects are predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Farranamanagh Lough SAC is 54.2km west of the scheme and therefore no incombination effects are predicted. Sheep's Head SAC is 48.6km west of the scheme and therefore no in-combination effects are predicted.			
		<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.</u>			
		The Farranamanagh Lough SAC is 31km south-east of the scheme and therefore no in-combination effects are predicted. Sheep's Head SAC is 25km south of the scheme and therefore no in-combination effects are predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		The Farranamanagh Lough SAC is 48.7km south-east of the scheme and therefore no in-combination effects are predicted. Sheep's Head SAC is 44km south-east of the scheme and therefore no in-combination effects are predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		The Farranamanagh Lough SAC is 81.4km west of the scheme and therefore no incombination effects are predicted. Sheep's Head SAC is 75.1km west of the scheme and therefore no in-combination effects are predicted.			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			
		The Farranamanagh Lough SAC is 86km south-west of the scheme and therefore no in-combination effects are predicted. Sheep's Head SAC is 89km south-west of the scheme and therefore no in-combination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAI-768 New raw water storage for this WRZ. Based on requiring 100 days' supply of 13m3/d deficit. The option study area is hydrologically linked to the Kenmare River SAC which is 260m away. There is the potential for the spread of invasive species within the SAC and supporting habitats during upgrade	 Physical loss of habitat Habitat degradation Disturbance Spread of invasive species 	The Farranamanagh Lough SAC is 55km south-west of the scheme and therefore no in-combination effects are predicted. Sheep's Head SAC is 59km south-west of the scheme and therefore no in-combination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. The Farranamanagh Lough SAC is 81km south-west of the scheme and therefore no in-combination effects are predicted. Sheep's Head SAC is 108km west of the scheme and therefore no in-combination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Farranamanagh Lough SAC is 29km south of the scheme and therefore no in-combination effects are predicted. Sheep's Head SAC is 34km south of the scheme and therefore no in-combination effects are predicted. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. The Farranamanagh Lough SAC is 34km south of the scheme. Sheep's Head SAC is 40km south of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. The Farranamanagh Lough SAC is 29.6km north-west of the scheme and therefore no in-combination effects are predicted. Sheep's Head SAC is 24.5km west of the scheme and therefore no in-combination effects are predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Kenmare River SAC is approximately 30km west from the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Kenmare River SAC is approximately 30km west of the scheme and therefore no in-combination effects are predicted. The Beara Peninsula SPA is approximately 55km west from the scheme and therefore no in-combination effects are predicted.	Yes – from pollution on the Kenmare River SAC if construction phase is concurrent with Dursey Island Cable Car and Visitor Centre works. Yes – from pollution, spread of invasive non-native species and disturbance on the Kenmare River SAC if construction phase	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination	N
constructions due to its proximity. Construction also has the potential for species disturbance of otter and habitat degradation via pollution to watercourses and habitats within the SAC. No operational impacts expected. The option study area is within the Beara Peninsula SPA. There is the potential for habitat loss, disturbance, and the spread of invasive species within the SPA and supporting habitats constructions due to its proximity. Potential pollution of SPA habitats and supporting habitats used by QI bird species. No operational impacts expected.	sAC and upgrade proximity. otential for and habitat atercourses operational the Beara otential for e spread of SPA and did due to its PA habitats by QI bird	Carrigaline Western Relief Road: 750m road and bridge to bypass main street The Kenmare River SAC is 82.2km west of the scheme and therefore no incombination effects are predicted. The Beara Peninsula SPA is 100.9km west from the scheme and therefore no in-combination effects are predicted. Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. The Kenmare River SAC is approximately 75km west from these schemes. The Beara Peninsula SPA is approximately 95km west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible. Blackpool FRS: flood relief scheme for Blackpool, Cork city. The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. The Beara Peninsula SPA is approximately 95km west from the scheme and therefore no in-combination effects predicted.	River SAC if construction phase is concurrent with Gteic Uíbh Ráthaigh works. Yes – from pollution, spread of invasive non-native species and disturbance on the Kenmare River SAC if construction phase is concurrent with N70 Sneem to Blackwater Bridge works. Yes – from disturbance on the Beara Peninsula SPA if construction phase is concurrent with Dursey Island Cable Car and	with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City.	Visitor Centre works.		
		The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. The Beara Peninsula SPA is approximately 95km west from the scheme and therefore no in-combination effects predicted.			
		M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy.			
		The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. The Beara Peninsula SPA is approximately 95km west from the scheme and therefore no in-combination effects predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. The Beara Peninsula SPA is approximately 95km west from the scheme and therefore no in-combination effects predicted.			
		Schemes within Cork City*:			
		The Kenmare River SAC is approximately 75km west from these schemes and therefore no in-combination effects predicted. The Beara Peninsula SPA is approximately 95km west from these schemes and therefore no in-combination effects predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Kenmare River SAC is approximately 95km west from these schemes and therefore no in-combination effects predicted. The Beara Peninsula SPA is approximately 115km west from these schemes and therefore no in-combination effects predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Kenmare River SAC is approximately 95km west from these schemes. The Beara Peninsula SPA is approximately 115km west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Kenmare River SAC is 42.1km west from these schemes and therefore no incombination effects predicted. The Beara Peninsula SPA is 65.9km west from these schemes and therefore no in-combination effects predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Kenmare River SAC is 55.1km north-west of the scheme and therefore no incombination effects predicted. The Beara Peninsula SPA is 70.7km west from the scheme and therefore no in-combination effects predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Kenmare River SAC is 54.4km north-west of the scheme and therefore no incombination effects predicted. The Beara Peninsula SPA is 63.6km west from the scheme and therefore no in-combination effects predicted.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center. The Kenmare River SAC is 0m from the scheme. NIS available which identified pollution to some habitats during construction and habitat loss during operation as LSEs for this European site. There is the potential for in-combination effects from pollution during construction. Beara Peninsula SPA surrounds this scheme. NIS available which identified disturbance as an LSE for this European site. There is the potential for in-combination effects from disturbance during construction. Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people. The Kenmare River SAC is 9.8km south from this scheme and hydrologically linked			
		via Ballinskelligs Bay. No NIS available and it is assumed there is potential for incombination effects from pollution, disturbance and spread of invasive species. (LSE for the Gteic Uíbh Ráthaigh works assumed as assessment not available at time of writing). The Beara Peninsula SPA is 21.9km south from this scheme but no hydrological connection exists and therefore no in-combination effects are predicted. Kinsale Community Hospital - Phase 1: construct three new buildings. The Kenmare River SAC is 75km north-west of the scheme and therefore no incombination effects predicted. The Beara Peninsula SPA is 89.9km west from this			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick. The Kenmare River SAC is 63km south of the scheme and therefore no incombination effects are predicted. The Beara Peninsula SPA is 92km west of these schemes and therefore no in-combination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway. The Kenmare River SAC is 28km south of the scheme and therefore no incombination effects are predicted. The Beara Peninsula SPA is 67km west of these schemes and therefore no in-combination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton.			
		The Kenmare River SAC is 91km south of the scheme and therefore no incombination effects are predicted. The Beara Peninsula SPA is 112km west of these schemes and therefore no in-combination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Kenmare River SAC is adjacent to the site. The NIS identified pollution to some habitats, spread of invasive species, habitat loss and disturbance to otter as LSEs for			
		this European site. There is the potential for in-combination effects from pollution, spread of invasive species and disturbance to otter. The Beara Peninsula SPA is 24km south-west of the scheme. The Kenmare River hydrologically connects the scheme to this SPA however, the NIS did not identify any LSEs for this European site. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road.			
		The Kenmare River SAC is 1km south of the scheme and there is a hydrological connection via the Finnihy River. The Beara Peninsula SPA is 42km south-west of the scheme. The Kenmare River hydrologically connects the scheme to this SPA. The			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAI-771	Habitat degradation	AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. Kenmare River SAC is 41.2km north-west of the scheme and therefore no incombination effects are predicted. The Beara Peninsula SPA is 39.1km north-west from the scheme and therefore no in-combination effects are predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to	Yes - from pollution impacts on	General Mitigation	N
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit. The option study area is hydrologically linked to The Gearagh SAC which is 7.4km away. There is a potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats. No operational impacts predicted. The option study area is hydrologically linked to The Gearagh SPA which is 8.5km away. Potential pollution of watercourses during construction could affect the hydrologically connected SPA and supporting habitats used by bird species. No operational impacts predicted.		Ballymakeera. The Gearagh SAC and The Gearagh SPA are approximately 10km east from the scheme. However, the AA screening concluded that there were no LSEs, so no incombination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Gearagh SAC and The Gearagh SPA are approximately 10km east and downstream of this scheme. No NIS available and it is assumed there is the potential for in-combination effects from habitat degradation via pollution during construction. (LSE for the Coláiste Íosagáin Campus assumed as assessment not available at time of writing). Carrigaline Western Relief Road: 750m road and bridge to bypass main street The Gearagh SAC and The Gearagh SPA are 39.3km west from the scheme and therefore no in-combination effects predicted. Denroch's Cross: 43 social housing units and Miles Stream: 42 social housing units. The Gearagh SAC and The Gearagh SPA are approximately 30km west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible. Blackpool FRS: flood relief scheme for Blackpool, Cork city. The Gearagh SAC and The Gearagh SPA are approximately 30km west from the scheme and therefore no in-combination effects predicted. Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City. The Gearagh SAC and The Gearagh SPA are approximately 30km west from the scheme and therefore no in-combination effects predicted. MiN28 Cork to Ringaskiddy. Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy. The Gearagh SAC and The Gearagh SPA are approximately 30km west from the scheme and therefore no in-combination effects predicted. Remediation of Haulbowline Island: remediation project for the east tip of the island. The Gearagh SAC and The Gearagh SPA are approximately 30km west from the scheme and therefore no in-combination effects predicted. Schemes within Cork City*: The Gearagh SAC and The Gearagh SPA are approximately 30km west from the s	The Gearagh SAC and The Gearagh SPA if construction phase is concurrent with Coláiste Íosagáin Campus works	Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Gearagh SAC and The Gearagh SPA are approximately 50km west from these schemes and therefore no-in-combination effects predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Gearagh SAC and The Gearagh SPA are approximately 50km west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Gearagh SAC and The Gearagh SPA are 1.8km south from these schemes. However, there is no hydrological link and therefore no in-combination effects are predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Gearagh SAC and The Gearagh SPA are 18.2km north-west from the scheme, however they are upstream of this scheme so no in-combination impacts predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Gearagh SAC and The Gearagh SPA are 28.3km north from the scheme and therefore no in-combination effects predicted.			
		Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.			
		The Gearagh SAC and The Gearagh SPA are 83km east of the scheme and therefore no in-combination effects are predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		The Gearagh SAC and The Gearagh SPA are 85.5km east from the scheme and therefore no in-combination effects predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		The Gearagh SAC and The Gearagh SPA are 34.5km north-west from the scheme and therefore no in-combination impacts predicted.			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			
		The Gearagh SAC and The Gearagh SPA are 25km south-west of the scheme and therefore no in-combination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			
		The Gearagh SAC and The Gearagh SPA are 1.5km south-west of the scheme. However, there is no hydrological link and therefore no in-combination effects are predicted.			
		N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton.			
		The Gearagh SAC and The Gearagh SPA are 48km west of the scheme and therefore no in-combination effects are predicted.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70.			
		The Gearagh SAC and The Gearagh SPA are 52km east of the scheme and therefore no in-combination effects are predicted.			
		N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road.			
		The Gearagh SAC and The Gearagh SPA are 38km east of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital.			
		The Gearagh SAC and The Gearagh SPA are 38.5km north from the scheme and therefore no in-combination impacts predicted.			
SAI-779	Habitat degradation	Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera.	No	N/A	N
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit. The option study area is hydrologically linked to the Courtmanshorry Estuary SAC which		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 40km south of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
to the Courtmacsherry Estuary SAC which is 11.2km away. There is a potential for		Coláiste Íosagáin Campus: Repurposing of existing building and grounds			
habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats. No operational impacts predicted.		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 40km south of the scheme therefore no in-combination effects are predicted.			
The option study area is hydrologically linked		Carrigaline Western Relief Road: 750m road and bridge to bypass main street			
to the Courtmacsherry Bay SPA which is 11.2km away. Potential pollution of		Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 25.5km south-west of the scheme and therefore no in-combination effects predicted.			
watercourses during construction could affect the hydrologically connected SPA and		Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units.			
supporting habitats used by bird species. No operational impacts predicted.		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 30km south-west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible.	ı İ		
		Blackpool FRS: flood relief scheme for Blackpool, Cork city.			
		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 30km south-west of the scheme and therefore no in-combination effects predicted.			
		Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City.			
		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 30km south-west of the scheme and therefore no in-combination effects predicted.			
		M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy.			
		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 30km south-west of the scheme and therefore no in-combination effects predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			

The Courtmentainty Estuary SAC and the Courtmentainty Bay SPA are approximately 20th southers of the desires on third care of the courtmentainty SAC and the Courtmentainty SAC and the Courtmentainty Bay SPA are approximately 50th southers SAC and the Courtmentainty Bay SPA are approximately 50th southers SAC and the Courtmentainty Bay SPA are approximately 50th southers and the reference and the reference in commission represents the second scheme. Meteors Packed SAC and the Courtmentainty Bay SPA are accounted to the second scheme and scheme and the reference and scheme and	Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
The Courtmacherry Estaary SAC and the Courtmacherry Bay SPA are approximately 50m southwest from these actions and therefore no in-combination impacts predicted. Meleten Ricol Estaff Sisteme, Middeon Main Sistem, Middeon Permeability parkage of proposate Middeon Water Stoppy Shafferer. The Courtmacherry Estaary SAC and the Courtmacherry Bay SPA are approximately 40m southwest from these softeness and therefore no in-combination impacts predicted. Middeon Waterwater Memoria and Middeon Waterwater Investor Parkage Parka			approximately 30km south-west of the scheme and therefore no in-combination			
approximately 30thm south-west stom these schemes and threather or in-combination imposits predicate. Midiator Flood Relief Scheme, Midiator Main Street, Midiator Permeatility package of proposals, Midiator Water Supply Scheme The Courimaceherry Estatary SAC and the Courimaceherry Bay SPA are approximately 40thm south-west from those schemes and threather on in-combination imposits producted. Midiator Washeware Nework, and Midiator Washeware learning and consumption programs and consumption programs and consumption programs to increase product. New pumping stations, 8.2 km vasheman and consumption programs to increase product. New pumping stations, 8.2 km vasheman and consumption programs to increase producted. The Courimaceherry Estatary SAC and the Courimaceherry Bay SPA are approximately 40thm south-vest from these schemes and therefore no in-combination imposits produced. The AA screening concluded that there were no LSEs, so no in-combination effects are presided. Macroening Community Hospital, Macroenin Garda Station. The Courimaceherry Estatary SAC and the Courimaceherry Bay SPA are 9.0 km south from these schemes and therefore no in-combination impacts predicted. Bandow Water Main and Stwern Network Upgrade unplacing for of combined severe and emoral of 10 combined severe centrols. The Courimaceherry Estatary SAC and the Courimaceherry Bay SPA are 9.0 km west of the scheme. However, there is no hydrological link and therefore no in-combination impacts predicted. Benchmore, Clonatility, 57 scala housing units bring televiers. The Courimaceherry Estatary SAC and the Courimaceherry Bay SPA are 9.0 km seat of the scheme. However, there is no hydrological link and therefore no in-combination impacts predicted. Seat Dish Residual controls. The Courimaceherry Estatary SAC and the Courimaceherry Bay SPA are 9.0 km seat of the scheme and therefore no in-combination impacts produced. Minister Courimaceherry Estatary SAC and the Courimaceherry Bay SPA are 105.7 km cuts of the scheme in the optical col			Schemes within Cork City*:			
of proposals, Middenton Water Supply Scheme The Courtmansherry Estudy SAC and the Courtmansherry Bay SPA are approximately 40km south-west from these schemes and therefore no in-combination impacts predicate. Middenn Wastowater Network and Middenn Wastowater transfer project. New pumpins stations. Set my waterman and construction/buggrades to between Middenn and Cartifutabilit. The Courtmansherry Estudy SAC and the Courtmansherry Bay SPA are approximately 40km south-west from these schemes and therefore no in-combination impacts productor. The A screening concluded that there were no It-Set, so no in-combination effects are possible. Mascrom Community Hospital, Mascrom Garda Station. The Courtmansherry Estudy SAC and the Courtmansherry Bay SPA are 30-km south from these schemes and therefore no in-combination from the scheme schemes. The Courtmansherry Estudy SAC and the Courtmansherry Bay SPA are 3.5km wast of the scheme. However, there is no hydrological link and therefore no in-combination impacts predicted. Beedingrove, Considing 57 social housing units being delibered. The Courtmansherry Estudy SAC and the Courtmansherry Bay SPA are 9.5km east of the scheme. However, there is no hydrological link and therefore no in-combination impacts predicted. Durscy Island Cable Car and Vision Content updrate cable can from Durscy Island to maintain and and new Vision cantel. The Courtmansherry Estudy SAC and the Courtmansherry Bay SPA are 9.5km east of the scheme and therefore no in-combination impacts predicted. Claim Ubb Rathaiph construct a Dipital Hub that will provide workspace for up to 50 possible.			approximately 30km south-west from these schemes and therefore no in-combination			
approximately 40km south-west from these schemes and therefore no in-combination impacts precided. Midition: Westrewater. Nivotok, and Midition. Westrewater. transfer, project. Nive pumps ablained. 52m waterimizer and constitution/upcardate to networks between Midition and Cardigweihill. The Courtmachery Statusy SAC and the Courtmachery Bay SPA are approximately 40km south-west from these schemes and therefore no in-combination impacts predicted. The AA screening concluded that there were no LSEs, so no incombination efforts are possible. Macroom Community Hespital, Macroom Gards Status. Macroom Community Hespital, Macroom Gards Status. Macroom Community Hespital, Macroom Gards Status. The Courtmachery Estuary SAC and the Courtmachery Bay SPA are 30.0km south from these schemes and therefore no in-combination impacts predicted. Bandon Villate Main and Shreet Network, Uppradix a uppdating, of Stan of combined severs and removal of 10 combined sever cereflows. The Courtmachery Estuary SAC and the Courtmachery Bay SPA are 8.3km west of the achieves. However, there is no hydrological link and therefore no in-combination impacts predicted. Beschipping, Classifile, 57 social housing units being delivered. The Courtmachery Estuary SAC and the Courtmachery Bay SPA are 9.3km east of the scheme. However, there is no hydrological link and therefore no in-combination impacts predicted. Disrey bland Cabbo Cast and Vision Control understand therefore no in-combination impacts producted. Disrey bland Cabbo Cast and Vision Control understand provide workspace for up to 50 people. The Courtmachery Estuary SAC and the Courtmachery Bay SPA are 9.5km south-east of the scheme and therefore no in-combination impacts produced. Cities Uhik Rathaight: constitute a Digital Hub that will provide workspace for up to 50 people. The Courtmachery Estuary SAC and the Courtmachery Bay SPA are 10.5.7km east of the scheme and therefore no in-combination impacts produced. Kinsalo Community Hospital - Phase 1: constitute there are						
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Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 29km south-east of the scheme and therefore no in-combination effects are predicted. N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 27km south-east of the scheme and therefore no in-combination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 39km south-east of the scheme and therefore no in-combination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 72km south-east of the scheme and therefore no in-combination effects are predicted. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 61km south-east of the scheme and therefore no in-combination effects are predicted. The A screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 35.1km east of the scheme and therefore no in-combination effects are predicted.			
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit. The option study area is within the Barley Cove to Ballyrisode Point SAC. There is a potential for habitat degradation by pollution of watercourses during construction impacting QI habitats within the SAC and surrounding supporting habitats. There are no operational impacts predicted.		Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. Barley Cove to Ballyrisode Point SAC is approximately 60km south from the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds Barley Cove to Ballyrisode Point SAC is approximately 60km south from the scheme and therefore no in-combination effects are predicted. Carrigaline Western Relief Road: 750m road and bridge to bypass main street Barley Cove to Ballyrisode Point SAC is 94.2km south-west from the scheme and therefore no in-combination effects are predicted. Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. Barley Cove to Ballyrisode Point SAC is approximately 90km south-west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible. Blackpool FRS: flood relief scheme for Blackpool, Cork city. Barley Cove to Ballyrisode Point SAC is approximately 90km south-west from the scheme and therefore no in-combination effects are predicted.	No	N/A	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City.			
		Barley Cove to Ballyrisode Point SAC is approximately 90km south-west from the scheme and therefore no in-combination effects are predicted.			
		M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy.			
		Barley Cove to Ballyrisode Point SAC is approximately 90km south-west from the scheme and therefore no in-combination effects are predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		Barley Cove to Ballyrisode Point SAC is approximately 90km south-west from the scheme and therefore no in-combination effects are predicted.			
		Schemes within Cork City*:			
		Barley Cove to Ballyrisode Point SAC is approximately 90km south-west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		Barley Cove to Ballyrisode Point SAC is approximately 110km south-west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		Barley Cove to Ballyrisode Point SAC is approximately 110km south-west from these schemes. The AA screening concluded that there were no LSEs, so no incombination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		Barley Cove to Ballyrisode Point SAC is 64.9km south-west from these schemes and therefore no in-combination effects are predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		Barley Cove to Ballyrisode Point SAC is 63.9km west from the scheme and therefore no in-combination effects are predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		Barley Cove to Ballyrisode Point SAC is 54km west from the scheme and therefore no in-combination effects are predicted.			
		Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.			
		Barley Cove to Ballyrisode Point SAC is 30km south of the scheme and therefore no in-combination effects are predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		Barley Cove to Ballyrisode Point SAC is 49.5km south-east from the scheme and therefore no in-combination effects are predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Barley Cove to Ballyrisode Point SAC is 81.7km west from the scheme and therefore no in-combination effects are predicted. N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick. Barley Cove to Ballyrisode Point SAC is 88km south-west of the scheme and therefore no in-combination effects are predicted. N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway. Barley Cove to Ballyrisode Point SAC is 59km south-west of the scheme and therefore no in-combination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. Barley Cove to Ballyrisode Point SAC is 108km west of the scheme and therefore no in-combination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. Barley Cove to Ballyrisode Point SAC is 39km south of the scheme and therefore no in-combination effects are predicted. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. Barley Cove to Ballyrisode Point SAC is 41km south of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. Barley Cove to Ballyrisode Point SAC is 28.2km west from the scheme and there is no hydrological link. Therefore, no in-combination effects are predicted.			
Increase existing GW abstraction from infiltration gallery and supply deficit. Rationalise Dungourney WTP to Mogeely WRZ. The option study area is hydrologically linked to the Ballymacoda (Clonpriest and Pilmore) SAC which is 9.3km away. There is a potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats. No operational impacts predicted. The option study area is hydrologically linked to the Ballymacoda Bay SPA which is 6.7km away. Potential pollution of watercourses during construction could affect the hydrologically connected SPA and supporting habitats used by bird species. No operational impacts predicted.	Habitat degradation	Ballymakeera. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 85km east of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 85km east of the scheme and therefore no in-combination effects predicted. Carrigaline Western Relief Road: 750m road and bridge to bypass main street The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 33.4km east of the scheme and therefore no in-combination effects predicted. Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 35km east from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible. Blackpool FRS: flood relief scheme for Blackpool, Cork city.	No	N/A	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 35km east of the scheme and therefore no in-combination effects predicted.			
		Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 35km east of the scheme and therefore no in-combination effects predicted.			
		M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 35km east of the scheme and therefore no in-combination effects predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 35km east of the scheme and therefore no in-combination effects predicted.			
		Schemes within Cork City*:			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 35km east from these schemes and therefore no in-combination effects predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 16km east from these schemes. However, there is no hydrological link and therefore no in-combination effects predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 16km east from these schemes. However, there is no hydrological link. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 71.5km east from these schemes and therefore no in-combination effects predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 55.9km east of the scheme and therefore no in-combination effects predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 74km north-east of the scheme and therefore no in-combination effects predicted.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 155km east of the scheme and therefore no in-combination effects are predicted. Geteic Uibh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 160.6km north-east of the scheme and therefore no in-combination effects predicted. Kinsale Community Hospital - Phase 1: construct three new buildings. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 46.1km east of the scheme and therefore no in-combination effects predicted. N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 38km east of the scheme and therefore no in-combination effects are predicted. N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 68km east of the scheme and therefore no in-combination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 17km east of the scheme. However, there is no hydrological link and therefore no in-combination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 17km east of the scheme and therefore no in-combination effects are predicted. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 113km east of the sche			
Group 897 (TG2-SAI-399, TG2-SAI-434) Increase SW abstraction from Curraghlicky Lake and upgrade WTP. Interconnect Dunmanway and Drinagh	Habitat degradation	Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Bandon River SAC is approximately 18km south of the scheme, however, there is no hydrological link. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.	No	N/A	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
WRZ. Supply deficit from Curraghlicky		Coláiste Íosagáin Campus: Repurposing of existing building and grounds			
Lake. The option study area is hydrologically linked		The Bandon River SAC is approximately 18km south of the scheme, however, there is no hydrological link and therefore no in-combination effects are predicted.			
to the Bandon River SAC which is 1km away. There is the potential for habitat		Carrigaline Western Relief Road: 750m road and bridge to bypass main street			
degradation by pollution of watercourses during construction impacting hydrologically		The Bandon River SAC is 48.1km west of the scheme and therefore no incombination effects are predicted.			
connected QI habitats and QI species such as FWPM. No operational impacts predicted.		Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units.			
		The Bandon River SAC is approximately 45km west from these schemes. The AA screening for both projects concluded that there were no LSEs, so no in-combination effects are possible.			
		Blackpool FRS: flood relief scheme for Blackpool, Cork city.			
		The Bandon River SAC is approximately 45km west of the scheme and therefore no in-combination effects are predicted.			
		Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City.			
		The Bandon River SAC is approximately 45km west of the scheme and therefore no in-combination effects are predicted.			
		M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy.			
		The Bandon River SAC is approximately 45km west of the scheme and therefore no in-combination effects are predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		The Bandon River SAC is approximately 45km west of the scheme and therefore no in-combination effects are predicted.			
		Schemes within Cork City*:			
		The Bandon River SAC is approximately 45km west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Bandon River SAC is approximately 65km west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Bandon River SAC is approximately 65km west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Bandon River SAC is 16.8km south from these schemes, however, there is no hydrological link and therefore no in-combination effects are predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Bandon River SAC is 18.1km west and of the scheme. There is a hydrological link, however, the SAC is upstream of the scheme and therefore no in-combination effects are predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Bandon River SAC is 15km north-west of the scheme, however, there is no hydrological link and therefore no in-combination effects are predicted.			
		Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.			
		The Bandon River SAC is 73km east of the scheme and therefore no in-combination effects are predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		The Bandon River SAC is 79.5km east of the scheme and therefore no incombination effects are predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		The Bandon River SAC is 37.4km west of the scheme and therefore no incombination effects are predicted.			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			
		The Bandon River SAC is 40km west of the scheme and therefore no in-combination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			
		The Bandon River SAC is 16km south-west of the scheme. However, there is no hydrological link and therefore no in-combination effects are predicted.			
		N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton.			
		The Bandon River SAC is 35km west of the scheme and therefore no in-combination effects are predicted.			
		N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70.			
		The Bandon River SAC is 47km south-east of the scheme and therefore no incombination effects are predicted.			
		N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road.			
		The Bandon River SAC is 35km south-east of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital.			
		The Bandon River SAC is 19.9km north of the scheme, however, there is no hydrological link and therefore no in-combination effects are predicted.			
Group 923 (TG2-SAI-641, TG2-SAI-642)	Mortality of speciesHabitat degradation	Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera.	Yes – from pollution on The Kenmare River SAC if construction phase is concurrent	General Mitigation Measures are outlined in Section 6.3.3	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Increase abstraction from Lough Currane and supply Caherdaniel. Supplement Caherdaniel from Waterville. The option study area is within the Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC. There is the potential for the spread of invasive species within the SAC and supporting habitats during upgrade constructions. Construction also has the potential for species disturbance to otter and bat, and habitat degradation via pollution to watercourses and habitats within the SAC. During operation there is potential for habitat degradation of hydrologically connected habitats due to reduced flow and changes in water quality/availability. The option study area is hydrologically linked to The Kenmare River SAC which is 200m away. There is the potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats and QI species. There is also the potential for disturbance to QI species, such as otter, and the spread of invasive due to the proximity to the SAC boarder. No operational impacts predicted. The option study is hydrologically linked to The Ballinskelligs Bay and Inny Estuary SAC which is 1.5km away. There is the potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats and QI species. No operational impacts predicted.	 Disturbance Water table/availability Spread of invasive species 	The Killarney National Park, Macgillycuddy's Reeks and Caragh River SAC is approximately 6.5km north of this scheme. The Kenmare River SAC is approximately 70km west of the scheme. The Ballinskelligs Bay and Inny Estuary SAC is approximately 70km west of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 6.5km north of this scheme however no hydrological link exists and therefore no in-combination effects are predicted. The Kenmare River SAC is approximately 30km west of the scheme and therefore no in-combination effects are predicted. The Ballinskelligs Bay and Inny Estuary SAC is approximately 70km west of the scheme and therefore no in-combination effects are predicted. The Ballinskelligs Bay and Inny Estuary SAC is approximately 70km west of the scheme and therefore no in-combination effects are predicted. Carrigaline Western Relief Road: 750m road and bridge to bypass main street The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 55.9km west of this scheme and therefore no in-combination effects are predicted. The Kenmare River SAC is 8.2 km west of the scheme and therefore no in-combination effects are predicted. Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 75km west from these schemes. The Kenmare River SAC is approximately 75km west from these schemes. The Ballinskelligs Bay and Inny Estuary SAC is approximately 115km west from these schemes. The Ballinskelligs Bay and Inny Estuary SAC is approximately 45km north-west from these schemes. The Ballinskelligs Bay and Inny Estuary SAC is approximately 115km west of the scheme and therefore no in-combination effects are predicted. The Ballinskelligs Bay and Inn	with Dursey Island Cable Car and Visitor Centre works. Yes – from pollution, spread of invasive non-native species and disturbance on The Kenmare River SAC if construction phase is concurrent with Gteic Uíbh Ráthaigh works. Yes – from pollution, spread of invasive non-native species and disturbance on The Kenmare River SAC if construction phase is concurrent with N70 Sneem to Blackwater Bridge works. Yes – from pollution, on the Ballinskelligs Bay and Inny Estuary SAC if construction phase is concurrent with Gteic Uíbh Ráthaigh works.	Hydrological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Ballinskelligs Bay and Inny Estuary SAC is approximately 115km west of the scheme and therefore no in-combination effects are predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 45km north-west of this scheme and therefore no in-combination effects are predicted. The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects are predicted. The Ballinskelligs Bay and Inny Estuary SAC is approximately 115km west of the scheme and therefore no in-combination effects are predicted.			
		Schemes within Cork City*:			
		The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 45km north-west from these schemes and therefore no in-combination effects are predicted. The Kenmare River SAC is approximately 75km west from these schemes and therefore no in-combination effects are predicted. The Ballinskelligs Bay and Inny Estuary SAC is approximately 115km west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 65km north-west from these schemes and therefore no in-combination effects are predicted. The Kenmare River SAC is approximately 95km west from these schemes and therefore no in-combination effects are predicted. The Ballinskelligs Bay and Inny Estuary SAC is approximately 135km west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is approximately 65km north-west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. The Kenmare River SAC is approximately 95km west from these schemes and therefore no in-combination effects are predicted. The Ballinskelligs Bay and Inny Estuary SAC is approximately 135km west from these schemes and therefore no in-combination effects are predicted.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 16.9km north from these schemes and there is no hydrological link therefore no in-combination effects are predicted. The Kenmare River SAC is 42.1km west from these schemes and therefore no in-combination effects are predicted. The Ballinskelligs Bay and Inny Estuary SAC is 83.1km west from these schemes and therefore no in-combination effects are predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 37.8km north-west of this scheme and therefore no in-combination effects are predicted. The Kenmare River SAC is 55.1km north-west of the scheme and therefore no in-combination effects are predicted. The Ballinskelligs Bay and			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Inny Estuary SAC is 94.7km west of the scheme and therefore no in-combination effects are predicted. Beechgrove, Clonakilty: 57 social housing units being delivered. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 47.4km north of this scheme and therefore no in-combination effects are predicted. The Kenmare River SAC is 54.4km north-west of the scheme and therefore no in-combination effects are predicted. The Ballinskelligs Bay and Inny Estuary SAC is 89.9km north-west of the scheme and therefore no in-combination effects are predicted. Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 18.8km north of this scheme. However, there is no hydrological link and the NIS did not identify any LSEs therefore no in-combination effects predicted. The Kenmare River SAC is 0m from this scheme NIS available which identified pollution to some habitats during construction and habitat loss during operation as LSEs for this European site. There is the potential for in-combination effects from pollution during construction. The Ballinskelligs Bay and Inny Estuary SAC is 19km north of the scheme, the NIS did not identify any LSEs and therefore no in-combination effects are predicted. Gteic Uibh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people. The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 6.6km east of this scheme, However, there is no hydrological link and therefore no in-combination impacts predicted. The Kenmare River SAC is 9.8km south from this scheme and hydrologically linked via Ballinskelligs Bay. No NIS available and it is assumed there is potential for in-combination effects from pollution, disturbance and spread of invasive species. The Ballinskelligs Bay and Inny Estuary SAC is 600m south of the scheme and hydrologically linked via streams. No NIS available			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 4.7km north of this scheme. However, there is no hydrological link and therefore no in-combination effects are predicted. The Kenmare River SAC is 28km south of the scheme and therefore no in-combination effects are predicted. The Ballinskelligs Bay and Inny Estuary SAC is 69km west of the scheme and therefore no in-combination effects are predicted.			
		N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton.			
		The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 61km west of this scheme. However, there is no hydrological link and therefore no in-combination effects are predicted. The Kenmare River SAC is 91km south of the scheme and therefore no in-combination effects are predicted. The Ballinskelligs Bay and Inny Estuary SAC is 133km west of the scheme and therefore no in-combination effects are predicted.			
		N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70.			
		The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 2.1km north of the scheme. However, there is no hydrological link and the NIS did not identify any LSEs therefore no in-combination effects predicted. The Kenmare River SAC is adjacent to the site. NIS available which identified pollution to some habitats, spread of invasive species, habitat loss and disturbance to otter as LSEs for this European site. There is the potential for in-combination effects from pollution, spread of invasive species and disturbance to otter. The Ballinskelligs Bay and Inny Estuary SAC is 22km west of the scheme and therefore no incombination effects predicted.			
		N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road.			
		The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 3.5km north of this scheme but is not hydrologically linked. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. The Kenmare River SAC is 1km south of the scheme. The Finnihy River connects the scheme to this SAC. The Ballinskelligs Bay and Inny Estuary SAC is 40km west of the scheme and therefore no in-combination effects are predicted.			
		Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital.			
		The Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is 46.1km north of this scheme and therefore no in-combination effects are predicted. The Kenmare River SAC is 41.2km north-west of the scheme and therefore no in-combination effects are predicted. The Ballinskelligs Bay and Inny Estuary SAC is 68.2km north of the scheme and therefore no in-combination effects are predicted.			
Group 949 (TG2-SAI-830, TG2-SAI-831, TG2-SAI-832, TG2-SAI-833) New GW abstraction (karstic) and new WTP to supply deficit. Rationalise Knockadoon, Ballymacoda and Kilcraheen to Youghal (new GW source).	 Physical loss of habitat Mortality of species Habitat degradation Water table/availability Disturbance 	Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 85km east of the scheme. The Blackwater River SAC is approximately 12km east from the scheme, however, there is no hydrological link. The Blackwater Estuary SPA is approximately 85km east of the scheme. The AA	Yes – from pollution, spread of invasive non-native species and disturbance on the Blackwater River (Cork/Waterford) SAC if construction phase is concurrent with N/M20 Cork to Limerick Road Improvement Scheme works and	General Mitigation Measures are outlined in Section 6.3.3 Hydrogeological modelling as in Section 6.3.5 Hydrological modelling as	N
The option study area is within The Ballymacoda (Clonpriest and Pilmore) SAC. There is the potential for habitat loss	 Spread of invasive species 	screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds	during operation from habitat degradation and water table/availability on Blackwater	in Section 6.3.5	

Project of being assessment against devoted underlined. The Pallymacoda Complete application places and Pillion 19.5C and apportunition of the pallymacoda Complete and Pillion 19.5C and apportunition of the pallymacoda Complete and Pillion 19.5C and apportunition of the pallymacoda Complete and Pillion 19.5C and apportunition of the pallymacoda Complete and Pillion 19.5C and apportunition of the pallymacoda Complete and Pillion 19.5C and apportunition of the pallymacoda Complete and Pillion 19.5C and apportunition of the pallymacoda Complete and Pillion 19.5C and the Ballymacoda Complete Ballymacoda Complete and Pillion 19.5C and the Ballymacoda Complete Ballymacoda Complete Ballymacoda Complete Ballymacoda Complete Bal		Potential Impacts – Key	Potential for In-combination Implications on European Sites	Potential for Likely Significant	Mitigation and	In-combination Adverse
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and exporting histoliates unity supposed contractions. Contractions also has the product of the State degradation via political to via observation degradation via observation degr				(Teshto)		(Y/N)
constructions. Confirmation is so in as the predicted, the Blackwater River SAC is approximately 12m early or prediction and the production of the productio				River (Cork/Waterford) SAC.	With the implementation of	
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Blackware River SAC is 24-km out from the outhern on the modern of the protein of	habitats due to reduced flow and changes in					
Inspiration of the Blackwater River SAC within its SOOM maxing. There is the potential for habitat degradation by pollution of watercoares during construction in the potential for habitat degradation by pollution of watercoares during construction. The Blackwater River SAC is pacified to the potential pollution of the promiting to the SAC within the SAC was not been seen as FVM. As approximately 350n and from these schemes. The Blackwater River SAC is pacified to the proximity to the SAC and the pollution of the SAC and the Bullymaced Bay SPA. The option study area is within the Ballymaced Control of the SAC and the Bullymaced Bay SPA as personnel to the pollution of the SAC and the Bullymaced Bay SPA. There is the potential for habitat despondation of hydrologically connected habitate due to reduced flow and changes in water qualifystival belief. The option study area is within the pollution of the SAC and the Bullymaced Bay SPA as approximately 550n easi of the notion and therebore and provided the pollution of SPA habitats are produced. The Blackwater River is approximately 550n easi for the scheme and pollution of SPA habitats and supporting habitate constructions during one pollution of SPA habitats and supporting habitates with the pollution of SPA habitats and supporting habitates and produced the scheme and therefore and	water quality/availability.		·			
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Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
habitats due to reduced flow and changes in water quality/availability.	Types	Schemes within Cork City*: The Ballymacoda (Cionpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 35km east from these schemes and therefore no in-combination effects are predicted. The Blackwater River is approximately 15km east from these schemes, however, there is no hydrological link and therefore no in-combination effects are predicted. The Blackwater Estuary SPA is approximately 40km east from these schemes and therefore no in-combination effects are predicted. The Blackwater Estuary SPA is approximately 40km east from these schemes and therefore no in-combination effects are predicted. Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme The Ballymacoda (Cionpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 15km east from these schemes. However, there is no hydrological link and therefore no in-combination effects predicted. The Blackwater River SAC is approximately 20km east from these schemes, however, there is no hydrological link and therefore no in-combination effects predicted. Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill. The Ballymacoda (Cionpriest and Pilmore) SAC and the Ballymacoda Bay SPA are approximately 15km east from these schemes. However, there is no hydrological link. The Blackwater River SAC is approximately 31km north from these schemes, however, there is no hydrological link. The Blackwater River SAC is provimately 15km north from these schemes, however, there is no hydrological link. The Blackwater River SAC is approximately 15km of the schemes, however, there is no hydrological link. The Blackwater River SAC is 15.2km north from these schemes, however, there is no hydrological link and therefore no in-combination effects predicted. The Blackwater River SAC is 15.2km north from these schemes, however, there is no hydrological link a		Conclusion	
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 55.9km east of the scheme and therefore no in-combination effects predicted. The Blackwater River SAC is 35.9km north from the scheme and therefore no incombination effects predicted. The Blackwater Estuary SPA is 62.4km east of the scheme and therefore no in-combination effects predicted Beechgrove, Clonakilty: 57 social housing units being delivered. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 74km north-east of the scheme and therefore no in-combination effects predicted. The Blackwater River SAC is 47.2km north from the scheme and therefore no incombination effects predicted. The Blackwater Estuary SPA is 80.1km east of the scheme and therefore no in-combination effects predicted. Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 155km east of the scheme and therefore no in-combination effects are predicted. The Blackwater River SAC is 80km north-east from the scheme and therefore no incombination effects predicted. The Blackwater Estuary SPA is 161km east of the scheme and therefore no in-combination effects are predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 160.6km north-east of the scheme and therefore no in-combination effects predicted. The Blackwater River SAC is 74.6km north from the scheme and therefore no in-combination effects predicted. The Blackwater Estuary SPA is 164.2km east of the scheme and therefore no in-combination effects predicted			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 46.1km east of the scheme and therefore no in-combination effects predicted. The Blackwater River SAC is 36.3km north-east from the scheme and therefore no incombination effects predicted. The Blackwater Estuary SPA is 52.4km east of the scheme and therefore no in-combination effects predicted.			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 38km east of the scheme and therefore no in-combination effects are predicted. The Blackwater River SAC is 0m from the scheme. No NIS available and it is assumed there is potential for in-combination effects from pollution, disturbance, and the spread of invasive non-native species during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availability. (LSE for the N/M20 Cork to Limerick Road Improvement Scheme assumed as assessment not available at time of writing). The Blackwater Estuary SPA is 42km east of the scheme and therefore no in-combination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 68km east of the scheme and therefore no in-combination effects are predicted. The Blackwater River SAC is 13km north-east from the scheme, however there is no hydrological link and therefore no in-combination effects are predicted. The Blackwater Estuary SPA is 72km east of the scheme and therefore no incombination effects are predicted.			
		N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 17km east of the scheme. However, there is no hydrological link and therefore no in-combination effects are predicted. The Blackwater River SAC is 12km north of this scheme, however, there is no hydrological link and therefore no in-combination effects are predicted. The Blackwater Estuary SPA is 21km east of the scheme. However, there is no hydrological link and therefore no in-combination effects are predicted.			
		N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 127km east of the scheme and therefore no in-combination effects are predicted.			

The Blackware River SAC is allow cost of the software and therefore no in-combination of their product. The Blackware Estuary SPA are 191m asked for sombination of their product. The Blackware Estuary SPA are 191m asked for passes, injuring, considering strong 1,15m of mod. N7071 Continuative, salety, improvement stores, admin provided (copasite, injuring, considering strong 1,15m of mod.) The Blafymacoda (Congress and Plenore) SAC and the Blafymacoda Blay SPA are 190m ested of the software and therefore no in-combination effects are revised. The Continuative salety of the software and therefore in continuation effects are revised. The Blafymacoda (Congress and Plenore) SAC and the Blafymacoda Blay SPA are 58m north-seal of the software and therefore no in-continuation effects are predicted. The As someting conclused that there were no. 1556, so no in-combination effects are predicted. The As someting conclused and the north-seal of the north-seal	Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are approximately 35km east and therefore no in-combination effects predicted.	Increase GW abstraction (karstic) and supply deficit. Rationalise Ballykilty to Killeagh WRZ. The option study area is hydrologically linked to The Ballymacoda (Clonpriest and Pilmore) SAC which is 2.8km away. There is the potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats and QI species. No operational impacts predicted. The option study area is hydrologically linked to The Ballymacoda Bay SPA which is 2.8km away. Potential pollution of watercourses during construction could affect the hydrologically connected SPA and supporting habitats used by bird species. No	• Habitat degradation	combination effects predicted. The Blackwater Estuary SPA are 131km east of the scheme and therefore no in-combination effects are predicted. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1,3km of road. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 113km east of the scheme and therefore no in-combination effects are predicted. The Blackwater River SAC and is 30km east from the scheme and therefore no in-combination effects predicted. The Blackwater Estuary SPA is 117km east of the scheme and therefore no in-combination effects are predicted. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 98.8km north-east of the scheme and therefore no in-combination effects are predicted. The Blackwater River SAC is 40km north of the scheme and therefore no in-combination effects predicted. The Blackwater River SAC is 40km north of the scheme and therefore no in-combination effects predicted. The Blackwater River SAC is 40km north of the scheme and therefore no in-combination effects predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are approximately 85km east of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are approximately 85km east of the scheme and therefore no in-combination effects predicted. Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are approximately 35	No	N/A	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are approximately 35km east and therefore no in-combination effects predicted.			
		Schemes within Cork City*:			
		The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are approximately 35km east from these schemes and therefore no in-combination effects predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are approximately 15km east from these schemes. However, there is no hydrological link and therefore no in-combination effects predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are approximately 15km east from these schemes. however, there is no hydrological link. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are 71.5km east from these schemes and therefore no in-combination effects predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are 55.9km east of the scheme and therefore no in-combination effects predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are 74km north-east of the scheme and therefore no in-combination effects predicted.			
		<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.</u>			
		The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are 155km east of the scheme and therefore no in-combination effects are predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and The Ballymacoda Bay SPA are 160.6km north-east of the scheme and therefore no in-combination effects predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 46.1km east of the scheme and therefore no in-combination effects predicted.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Group 955 (TG2-SAI-861, TG2-SAI-862, TG2-SAI-863, TG2-SAI-864, TG2-SAI-865) New Inchybegga Impoundment (Cullomane) and new WTP. To supply Bantry deficit and transfer west to supply WRZs full demands. Rationalise Castletownbere, Glengarriff, Adrigole and Reenmeen west to Bantry. The option study area is within the Caha Mountains SAC. There is the potential for habitat loss, particularly that of the lesser horseshoe bat, and the spread of invasive species within the SAC and supporting habitats during upgrade constructions. Construction also has the potential for species disturbance, mortality, and habitat degradation via pollution to watercourses and habitats within the SAC. No operational impacts predicted.	 Physical loss of habitat Mortality of species Habitat degradation Disturbance Spread of invasive species 	NM20 Cork to Limerick. Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 38km east of the scheme and therefore no in-combination effects are predicted. N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 68km east of the scheme and therefore no in-combination effects are predicted. N25 Carriotohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carriqtohill to Midleton. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 17km east of the scheme. However, there is no hydrological link and therefore no in-combination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 127km east of the scheme and therefore no in-combination effects are predicted. N70/T1 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 131km east of the scheme and therefore no in-combination effects are predicted. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. The Ballymacoda (Clonpriest and Pilmore) SAC and the Ballymacoda Bay SPA are 98.8km north-east of the scheme and therefore no in-combination effects are predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Caha Mountains SAC and Glengarriff Harbour and Woodland SAC are approximately 30km west from the scheme. The Roaringwater Bay and Islands SAC is approximately 45km south from the scheme. The Roaringwater Bay and Islands SAC i	Yes – from pollution on the Roaringwater Bay and Islands SAC if construction phase is concurrent with Skibbereen Community Hospital works.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
The option study area is within The Glengarriff Harbour and Woodland SAC. There is the potential for habitat loss and the spread of invasive species within the SAC and supporting habitats during upgrade constructions. Construction also has the potential for species disturbance (in particular bats and otter), mortality and habitat degradation via pollution to watercourses and habitats within the SAC. No operational impacts predicted. The option study area is hydrologically connected to The Roaringwater Bay and Islands SAC which is 20km away. There is the potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats and QI species. No operational impacts predicted.			Effects in-combination		Integrity
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill. The Caha Mountains SAC and the Glengarriff Harbour and Woodland SAC are approximately 95km west from these schemes. The Roaringwater Bay and Islands SAC is approximately 90km south-west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Macroom Community Hospital, Macroom Garda Station:			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Caha Mountains SAC and the Glengarriff Harbour and Woodland SAC is approximately 40km west from these schemes and therefore no in-combination effects predicted. The Roaringwater Bay and Islands SAC is 48.9km south-west from these schemes and therefore no in-combination effects are predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Caha Mountains SAC is 51.1km and the Glengarriff Harbour and Woodland SAC is 48.5km west from the scheme and therefore no in-combination effects predicted. The Roaringwater Bay and Islands SAC is 45.2km west from the scheme and therefore no in-combination effects are predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Caha Mountains SAC is 46.6km and the Glengarriff Harbour and Woodland SAC is 43.9km west from the scheme and therefore no in-combination effects predicted. The Roaringwater Bay and Islands SAC is 34.3km west from the scheme and therefore no in-combination effects are predicted.			
		<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to</u> mainland and new visitor center.			
		The Caha Mountains SAC is 29km and the Glengarriff Harbour and Woodland SAC is 42km east of the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 37km south of the scheme and therefore no in-combination effects are predicted and therefore no in-combination effects predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		The Caha Mountains SAC is 35.8km and the Glengarriff Harbour and Woodland SAC is 45.4km east from the scheme and therefore no in-combination effects predicted. The Roaringwater Bay and Islands SAC is 57.6km south-east from the scheme and therefore no in-combination effects are predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		The Caha Mountains SAC is 70.9km and the Glengarriff Harbour and Woodland SAC is 68.2km west from the scheme and therefore no in-combination effects predicted. The Roaringwater Bay and Islands SAC is 62.2km west from the scheme and therefore no in-combination effects are predicted.			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			
		The Caha Mountains SAC and The Glengarriff Harbour and Woodland SAC are 69km south-west of the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 71km south-west of the scheme and therefore no in-combination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			
		The Caha Mountains SAC and The Glengarriff Harbour and Woodland SAC are 33km south-west of the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 46km south-west of the scheme and therefore no in-combination effects are predicted.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Group 960 (TG2-SAI-882, TG2-SAI-883) Rationalise Allihies to Ballydonegan GWS. Rationalise Cluain Court Allihies to Allihies. The option study area is hydrologically linked to the Kenmare River SAC which is 100m away. There is the potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats and QI species. There is also the potential for disturbance to otters and spread of invasive species. No operational impacts predicted. The option study area is hydrologically linked to the Beara Peninsula SPA which is 100m away. Potential pollution of watercourses during construction could affect the hydrologically connected SPA and supporting habitats used by bird species. Due to its proximity, there is potential for the disturbance of bird species and the spread of invasive species. No operational impacts predicted.	 Habitat degradation Disturbance Spread of invasive species 	N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. The Caha Mountains SAC and The Glengarriff Harbour and Woodland SAC are 92km west of the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 89km west of the scheme and therefore no in-combination effects are predicted. N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Caha Mountains SAC is 8km and the Glengarriff Harbour and Woodland SAC is 14km south of the scheme. However, there is no hydrological link and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is 38km south of the scheme and therefore no in-combination effects are predicted. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. The Caha Mountains SAC is 9km and the Glengarriff Harbour and Woodland SAC is 11km south of the scheme. The Roaringwater Bay and Islands SAC is 36km south of the scheme. The Roaringwater Bay and Islands SAC is 36km south of the scheme. The Roaringwater Bay and Islands SAC is 36km south of the scheme. The Roaringwater Bay and Islands SAC is 36km south of the scheme. The Roaringwater Bay and Islands SAC is 26.1km north from the scheme and therefore no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. The Caha Mountains SAC is 29.5km and the Glengarriff Harbour and Woodland SAC is 26.1km north from the scheme and therefore no in-combination effects predicted. The Roaringwater Bay and Islands SAC is 11.2km west from the scheme and hydrologically linked via the River Ilen No NIS available and it is assumed there is potential for in-combination effects from habitat degradation by pollution during construction (LSE for the Skibbereen Community Hospital assumed as assessment not available at time of writing). Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ba	Yes – from pollution on the Kenmare River SAC and from disturbance on the Beara Peninsula SPA if construction phase is concurrent with Dursey Island Cable Car and Visitor Centre works Yes – from pollution, spread of invasive non-native species and disturbance on the Kenmare River SAC if construction phase is concurrent with Gteic Uíbh Ráthaigh works. Yes – from pollution, spread of invasive non-native species and disturbance on the Kenmare River SAC if construction phase is concurrent with N70 Sneem to Blackwater Bridge works.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. The Beara Peninsula SPA is approximately 95km west from the scheme and therefore no in-combination effects predicted.			
		Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City.			
		The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. The Beara Peninsula SPA is approximately 95km west from the scheme and therefore no in-combination effects predicted.			
		M/N28 Cork to Ringaskiddy Road: upgrade of 12.8km of N28 from the N40 south Ring Road to the Port in Ringaskiddy.			
		The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. The Beara Peninsula SPA is approximately 95km west from the scheme and therefore no in-combination effects predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		The Kenmare River SAC is approximately 75km west of the scheme and therefore no in-combination effects predicted. The Beara Peninsula SPA is approximately 95km west from the scheme and therefore no in-combination effects predicted.			
		Schemes within Cork City*:			
		The Kenmare River SAC is approximately 75km west from these schemes and therefore no in-combination effects predicted. The Beara Peninsula SPA is approximately 95km west from these schemes and therefore no in-combination effects predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Kenmare River SAC is approximately 95km west from these schemes and therefore no in-combination effects predicted. The Beara Peninsula SPA is approximately 115km west from these schemes and therefore no in-combination effects predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Kenmare River SAC is approximately 95km west from these schemes. The Beara Peninsula SPA is approximately 115km west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Kenmare River SAC is 42.1km west from these schemes and therefore no incombination effects predicted. The Beara Peninsula SPA is 65.9km west from these schemes and therefore no in-combination effects predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Kenmare River SAC is 55.1km north-west of the scheme and therefore no incombination effects predicted. The Beara Peninsula SPA is 70.7km west from the scheme and therefore no in-combination effects predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Kenmare River SAC is 54.4km north-west of the scheme and therefore no incombination effects predicted. The Beara Peninsula SPA is 63.6km west from the scheme and therefore no in-combination effects predicted.			
		<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.</u>			
		The Kenmare River SAC is 0m from the scheme. NIS available which identified pollution to some habitats during construction and habitat loss during operation as LSEs for this European site. There is the potential for in-combination effects from pollution during construction. Beara Peninsula SPA surrounds this scheme. NIS available which identified disturbance as an LSE for this European site. There is the potential for in-combination effects from disturbance during construction.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		The Kenmare River SAC is 9.8km south from this scheme and hydrologically linked via Ballinskelligs Bay. No NIS available and it is assumed there is potential for incombination effects from pollution, disturbance and spread of invasive species. (LSE for the Gteic Uíbh Ráthaigh assumed as assessment not available at time of writing). The Beara Peninsula SPA is 21.9km south from this scheme but no hydrological connection exists and therefore no in-combination effects are predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		The Kenmare River SAC is 75km north-west of the scheme and therefore no incombination effects predicted. The Beara Peninsula SPA is 89.9km west from this scheme and therefore no in-combination effects are predicted.			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			
		The Kenmare River SAC is 63km south of the scheme and therefore no incombination effects are predicted. The Beara Peninsula SPA is 92km west of these schemes and therefore no incombination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			
		The Kenmare River SAC is 28km south of the scheme and therefore no incombination effects are predicted. The Beara Peninsula SPA is 67km west of these schemes and therefore no in-combination effects are predicted.			
		N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton.			
		The Kenmare River SAC is 91km south of the scheme and therefore no incombination effects are predicted. The Beara Peninsula SPA is 112km west of these schemes and therefore no in-combination effects are predicted.			
		N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70.			
		The Kenmare River SAC is adjacent to the site. The NIS identified pollution to some habitats, spread of invasive species, habitat loss and disturbance to otter as LSEs for this European site. There is the potential for in-combination effects from pollution and disturbance to otter. The Beara Peninsula SPA is 24km south-west of the scheme. The Kenmare River hydrologically connects the scheme to this SPA, however, the NIS did not identify any LSEs for this European site.			

Un grade Religible WTR and a work and a Disturbance on the Roaringwater Measures are of Measur	Effects in-combination Combination	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential Impacts – Key Types	Preferred Option
capacity to Skibbereen 2 - Baltimore and Schull WRZ. Upgrade Lake Cross WTP and supply deficit from Skibbereen 1 WRZ. Option study area is hydrologically linked to the Roaringwater Bay and Islands SAC is approximately 45km south of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. The Roaringwater Bay and Islands SAC is approximately 45km south from the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Roaringwater Bay and Islands SAC is approximately 45km south from the which is 1.7km away. There is the potential for babilitate devadelise has alone or in-combination effects are predicted. The Lough Hyne	scheme, adding 2m wide footpaths, lighting, of the scheme. The Finnihy River connects seninsula SPA is 42km south-west of the y connects the scheme to this SPA. The AA or LSEs, so no in-combination effects are ses), construction of three new buildings and west of the scheme and therefore no ineara Peninsula SPA is 39.1km north-west bination effects are predicted. Tood Relief Scheme for Ballyvourney to bination effects are predicted. Tood Relief Scheme for Ballyvourney to construction phase is concurrent with Skibbereen Community Hospital works. To a samproximately 45km south from the neffects are predicted. The Lough Hyne proximately 45km south from the neffects are predicted. The Lough Hyne Author Reserve west of the scheme and edicted. The Lough Hyne Author Reserve west of the scheme and therefore no instance Reserve and Environs SAC is approximately 75km south-west from the ses schemes. The AA screening for both LSEs, so no in-combination effects are ackpool, Cork city. It is approximately 75km south-west from the neffects are predicted. The Lough Hyne Suth-west from the neffects are predicted. The Lough Hyne Suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted. The Lough Hyne suth-west from the neffects are predicted.	The Kenmare River SAC is 1km south of the scheme. The Finnihy River connect the scheme to this SAC. The Beara Peninsula SPA is 42km south-west of the scheme in The Kenmare River hydrologically connects the scheme to this SPA. The A screening concluded that there were no LSEs, so no in-combination effects a possible. Skibbereen Community Hospital (St Annes): construction of three new buildings are refurbishment of existing hospital. Kenmare River SAC is 41.2km north-west of the scheme and therefore no is combination effects are predicted. The Beara Peninsula SPA is 39.1km north-west from the scheme and therefore no in-combination effects are predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney Ballymakeera. The Roaringwater Bay and Islands SAC is approximately 45km south from the scheme. The Lough Hyne Nature Reserve and Environs SAC is approximate 45km south of the scheme. The AA screening concluded that there were no LSEs, so in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds The Roaringwater Bay and Islands SAC is approximately 45km south from the scheme and therefore no in-combination effects are predicted. The Roaringwater Bay and Islands SAC is approximately 45km south of the scheme and therefore no in-combination effects are predicted. Carrigaline Western Relief Road: 750m road and bridge to bypass main street The Roaringwater Bay and Islands SAC is 75.1km south-west from the scheme and Environs SAC is 69.8km south-west of the scheme and therefore no in-combination effects are predicted. Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing unit and SAC is approximately 75km south-west from these schemes. The Lough Hyne Nature Reserve and Environs SAC approximately 70km south-west from these schemes. The Lough Hyne Nature Reserve and Environs SAC approximately 75km south-west from the scheme and therefore no in-combination effects are predicted. The Lough Hyn Nature Reserve and Environs	DisturbanceSpread of invasive	Upgrade Ballyhilty WTP and supply spare capacity to Skibbereen 2 - Baltimore and Schull WRZ. Upgrade Lake Cross WTP and supply deficit from Skibbereen 1 WRZ. Option study area is hydrologically linked to the Roaringwater Bay and Islands SAC which is 1.7km away. There is the potential for habitat degradation by pollution of water courses during construction impacting hydrologically connected QI habitats and QI species. There is also the potential for disturbance to otter during construction. No operational impacts predicted. The option study area is hydrologically linked to the Lough Hyne Nature Reserve and Environs SAC which is 3.9km away. There is the potential for habitat degradation by pollution of water courses during construction impacting hydrologically connected QI habitats and QI species. There is also the potential for the spread of invasive species during construction. No operational

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Roaringwater Bay and Islands SAC is approximately 75km south-west from the scheme and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is approximately 70km south-west of the scheme and therefore no in-combination effects are predicted.			
		Remediation of Haulbowline Island: remediation project for the east tip of the island.			
		The Roaringwater Bay and Islands SAC is approximately 75km south-west from the scheme and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is approximately 70km south-west of the scheme and therefore no in-combination effects are predicted.			
		Schemes within Cork City*:			
		The Roaringwater Bay and Islands SAC is approximately 75km south-west from these schemes and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is approximately 70km south-west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme			
		The Roaringwater Bay and Islands SAC is approximately 90km south-west from these schemes and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is approximately 85km south-west from these schemes and therefore no in-combination effects are predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill.			
		The Roaringwater Bay and Islands SAC is approximately 90km south-west from these schemes. The Lough Hyne Nature Reserve and Environs SAC is approximately 85km south-west from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible.			
		Macroom Community Hospital, Macroom Garda Station:			
		The Roaringwater Bay and Islands SAC is 48.9km south-west from these schemes and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is 48.8km south from these schemes and therefore no in-combination effects are predicted.			
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers			
		N/ and removal of 10 combined sewer overflows.			
		The Roaringwater Bay and Islands SAC is 45.2km west from the scheme and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is 40.9km west of the scheme and therefore no in-combination effects are predicted.			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Roaringwater Bay and Islands SAC is 34.3km west from the scheme and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is 28.4km west of the scheme and therefore no in-combination effects are predicted.			
		<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.</u>			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Roaringwater Bay and Islands SAC is 37km south of the scheme and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is 60km east of the scheme and therefore no in-combination effects are predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		The Roaringwater Bay and Islands SAC is 57.6km south-east from the scheme and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is 74.8km south-east of the scheme and therefore no incombination effects are predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		The Roaringwater Bay and Islands SAC is 62.2km west from the scheme and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is 56.2km west of the scheme and therefore no in-combination effects are predicted.			
		M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			
		The Roaringwater Bay and Islands SAC is 71km south-west of the scheme and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is 71km south-west of the scheme and therefore no incombination effects are predicted.			
		N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			
		The Roaringwater Bay and Islands SAC is 46km south-west of the scheme and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is 47km south of the scheme and therefore no in-combination effects are predicted.			
		N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton.			
		The Roaringwater Bay and Islands SAC is 89km west of the scheme and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is 85km west of the scheme and therefore no in-combination effects are predicted.			
		N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70.			
		The Roaringwater Bay and Islands SAC is 38km south of the scheme and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is 50km south of the scheme and therefore no in-combination effects are predicted.			
		N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road.			
		The Roaringwater Bay and Islands SAC is 36km south of the scheme and therefore no in-combination effects are predicted. The Lough Hyne Nature Reserve and Environs SAC is 46km south of the scheme and therefore no in-combination effects are predicted. The AA screening concluded that there were no LSEs, so no incombination effects are possible.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Group 963 (TG2-SAI-889, TG2-SAI-890,	 Habitat degradation 	Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. The Roaringwater Bay and Islands SAC is 11.2km west from the scheme and hydrologically linked via the River Ilen. No NIS available and it is assumed there is potential for in-combination effects from habitat degradation by pollution and disturbance during construction (LSE for the Skibbereen Community Hospital assumed as assessment not available at time of writing). The Lough Hyne Nature Reserve and Environs SAC is 6.4km south of the scheme. However, there is no hydrological link and therefore no in-combination impacts predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to	Yes – from pollution on the Cork	General Mitigation	N
New GW abstraction and upgrade Minane Bridge WTP. Interconnect Nohoval and Minane Bridge WRZs and supply deficit from Minane WRZ. The option study area is hydrologically linked to the Cork Harbour SPA which is 2.6km away. There is the potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats and QI species. No operational impacts predicted.	• mabilial degradation •	Ballymakeera. Cork Harbour SPA is approximately 50km east of the scheme. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Coláiste Íosagáin Campus: Repurposing of existing building and grounds Cork Harbour SPA is approximately 50km east of the scheme therefore no incombination effects are predicted. Carrigaline Western Relief Road: 750m road and bridge to bypass main street Cork Harbour SPA is 0m south of the scheme, no NIS available and it is assumed there is potential for in-combination effects from pollution during construction (LSE for the Carrigaline Western Relief Road assumed as assessment not available at time of writing). Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. Cork Harbour SPA is <5km east from these schemes. However, the AA screening concluded that there were no LSEs, so no in-combination effects are possible. Blackpool FRS: flood relief scheme for Blackpool, Cork city. Cork Harbour SPA is 5 km downstream, and the NIS concluded that there was LSEs predicted for pollution, spread of invasive species and disturbance. There is the potential for in-combination effects from pollution during construction. Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City. Cork Harbour SPA is 200m downstream, and the NIS concluded that there was LSEs predicted for pollution and disturbance. There is the potential for in-combination effects from pollution and disturbance. There is the potential for in-combination effects from pollution and disturbance. There is the potential for in-combination effects from pollution and disturbance. There is the potential for in-combination effects from pollution and disturbance. There is the potential for in-combination effects from pollution and disturbance. There is the potential for in-combination effects from pollution and disturbance. There is the potential for in-combination effects from pollution and disturbance. There is the potential for in-combination effects from pollut	Harbour SPA if construction phase is concurrent with Carrigaline Western Relief Road works. Yes – from pollution on the Cork Harbour SPA if construction phase is concurrent with Blackpool FRS works. Yes – from pollution on the Cork Harbour SPA if construction phase is concurrent with Glashaboy FRS works. Yes – from pollution on the Cork Harbour SPA if construction phase is concurrent with M/N28 Cork to Ringaskiddy Road works. Yes – from pollution on the Cork Harbour SPA if construction phase is concurrent with Remediation of Haulbowline Island works. Yes – from pollution on the Cork Harbour SPA if construction phase is concurrent with the Remediation of Haulbowline Island works. Yes – from pollution on the Cork Harbour SPA if construction phase is concurrent with the Schemes within Cork City. Yes – from pollution on the Cork Harbour SPA if construction phase is concurrent with Midleton Schemes within Cork City.	Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Preferred Option			Effects in-combination		Adverse Effects on Site Integrity
		between Cork and Limerick. Cork Harbour SPA is 7km south-east of this scheme, the River Martin and River Lee hydrologically connect the scheme to this SPA. No NIS available and it is assumed there is potential for in-combination effects from pollution during construction (LSE for the N/M20 Scheme assumed as assessment not available at time of writing). N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National Primary Route from Ballyvourney to Macroom to a dual carriageway.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
TG2-SAI-941, TG2-SAI-942, TG2-SAI-943, TG2-SAI-944, TG2-SAI-945, TG2-SAI-946, TG2-SAI-947, TG2-SAI-948, TG2-SAI-949, TG2-SAI-950, TG2-SAI-951, TG2-SAI-952,	 Physical loss of habitat Mortality of species Habitat degradation Disturbance Spread of invasive species 	Cork Harbour SPA is 34km south-east of the scheme. The Sullane River and River Lee hydrologically connect the scheme to this SPA however, no in-combination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton. Cork Harbour SPA is 0m from this scheme, the River Lee hydrologically connects the scheme to this SPA. No NIS available and it is assumed there is potential for in-combination effects from pollution during construction (LSE for the N25 Scheme assumed as assessment not available at time of writing). N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. Cork Harbour SPA is 79km south-east of the scheme therefore no in-combination effects are predicted. N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. Cork Harbour SPA is 79km south-east of the scheme therefore no in-combination effects are predicted. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. Cork Harbour SPA is 66.6km north-east of the scheme therefore no in-combination effects are predicted. Ballyvourney and Ballymakeera FRS: Flood Relief Scheme for Ballyvourney to Ballymakeera. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 40km south of the scheme. Cork Harbour SPA is approximately 50km east of the scheme. The Great Island Channel SAC is approximately 55km east of the scheme. The Sovereign Islands SPA is approximately 55km south-east from the scheme. The SAC serveign Islands SPA is approximately 55km south-east from the scheme. The SAC serveign Islands SPA is approximately 55km south-east from the scheme. The SAC is approximately 55km east of the scheme therefore no in-combination effects are predicted. The Great Island Channel SAC is approximately 55km south-east from the scheme therefore no in-combination effects	Yes – from pollution on the Cork Harbour SPA, the Great Island Channel SAC and the Sovereign Islands SPA if construction phase is concurrent with the Carrigaline Western Relief Road works. Yes – from pollution on the Cork Harbour SPA and the Great Island Channel SAC if construction phase is concurrent with the Blackpool FRS works. Yes – from pollution on the Cork Harbour SPA and the Great Island Channel SAC if construction phase is concurrent with the Glashaboy FRS works. Yes – from pollution on the Cork Harbour SPA and the Great Island Channel SAC if construction phase is concurrent with the Mynase is concurrent with the Mynase is concurrent with the Mynase is concurrent	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
watercourses during construction impacting hydrologically connected QI habitats. No operational impacts predicted. The option study area is within the Courtmacsherry Bay SPA. There is the potential for habitat loss and the spread of invasive species within the SPA and supporting habitats constructions due to its proximity. Potential pollution of SPA habitats and supporting habitats used by QI bird species. There is also the potential for disturbance and mortality of QI bird species via pollution of habitats, spread of invasive species and construction activities. No operational impacts predicted. The option study area is hydrologically linked to The Cork Harbour SPA which is 1km away. Potential pollution of watercourses during construction could affect the hydrologically connected SPA and supporting habitats used by bird species. No operational impacts predicted. The option study area is hydrologically linked to The Great Island Channel SAC which is 1.5km away. There is the potential for habitat degradation by pollution of watercourses during construction impacting hydrologically connected QI habitats and QI species. No operational impacts predicted. The option study area is hydrologically linked to The Sovereign Islands SPA which is 11.9km away. Potential pollution of watercourses during construction could affect the hydrologically connected SPA and supporting habitats used by bird species. No operational impacts predicted.		during construction (LSE for the Carrigaline Western Relief Road assumed as assessment not available at time of writing). Denroche's Cross: 43 social housing units and Miles Stream: 42 social housing units. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 20km south-west from these schemes, however the AA screening did not identify LSEs for this European site so no in-combination effects predicted. The Great Island Channel SAC is <10km east from these schemes, however the AA screening did not identify LSEs for this European site so no in-combination effects predicted. The Sovereign Islands SPA is approximately 20km south from these schemes. The AA screening did not identify LSEs for these European sites so no in-combination effects predicted. Blackpool FRS: flood relief scheme for Blackpool, Cork city. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 30km south-west of the scheme and therefore no in-combination effects predicted. Cork Harbour SPA is 5 km downstream, and the NIS concluded that there was LSEs predicted for pollution, spread of invasive species and disturbance. There is the potential for in-combination effects from pollution during construction. Great Islands Channel SAC is 9km downstream and the NIS concluded that there was LSEs predicted for pollution and spread of invasive species. There is the potential for in-combination effects from pollution during construction. The Sovereign Islands SPA is approximately 20km south from the scheme, however, the NIS did not identify LSEs for these European sites so no in-combination effects predicted. Glashaboy FRS: Flood Relief Scheme for Glashaboy, Cork City. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 30km south-west of the scheme and therefore no in-combination effects predicted. Cork Harbour SPA is 200m downstream, and the NIS concluded that three was LSEs predicted for pollution during construction. There is the potential for in-combination effects pr	Ringaskiddy Road works. Yes – from pollution on the Cork Harbour SPA and the Great Island Channel SAC if construction phase is concurrent with the Remediation of Haulbowline Island works. Yes – from pollution on the Cork Harbour SPA and the Great Island Channel SAC if construction phase is concurrent with the Schemes within Cork City works. Yes – from pollution on the Cork Harbour SPA and the Great Island Channel SAC if construction phase is concurrent with the Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals and Midleton Water Supply Scheme works. Yes – from pollution on Sovereign Islands SPA if construction phase is concurrent with Bandon Water Main works Yes – from pollution on Sovereign Islands SPA if construction phase is concurrent with Kinsale Community Hospital works Yes – from pollution on the Cork Harbour SPA and the Great Island Channel SAC if construction phase is concurrent with the N/M20 Cork to Limerick Road Improvement Scheme works. Yes – from pollution on the Cork Harbour SPA and the Great Island Channel SAC if construction phase is concurrent		(Y/N)

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		concluded that there was LSEs predicted for pollution and disturbance. There is the potential for in-combination effects from pollution during construction. Great Islands Channel SAC is 4.2km and the NIS concluded that there was LSEs predicted for pollution. There is the potential for in-combination effects from pollution during construction. The Sovereign Islands SPA is approximately 20km south from the scheme, however, the NIS did not identify LSEs for these European sites so no incombination effects predicted.	Midleton Upgrade Scheme works.		
		Schemes within Cork City*: The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 30km south-west from these schemes and therefore no in-combination effects predicted. Cork Harbour SPA is <5km east from these schemes. No NIS available and it is assumed there is potential for in-combination effects from habitat degradation by pollution during construction. The Great Island Channel SAC is <10km east from these schemes. No NIS available and it is assumed there is potential for in-combination effects from habitat degradation by pollution. (LSE for these schemes assumed as assessment not available at time of writing). The Sovereign Islands SPA is approximately 20km south from these schemes, however, the NIS did			
		Midleton Flood Relief Scheme, Midleton Main Street, Midleton Permeability package of proposals, Midleton Water Supply Scheme The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 40km south-west from these schemes and therefore no in-combination impacts predicted. Cork Harbour SPA is 800m south from these schemes. No NIS available and it is assumed there is potential for in-combination effects from habitat degradation by pollution during construction. The Great Island Channel SAC is 800m south from these schemes. No NIS available and it is assumed there is potential for in-combination effects from habitat degradation by pollution. (LSE for these schemes assumed as assessment not available at time of writing). The Sovereign Islands SPA is approximately 30km south from the scheme and therefore no in-combination impacts predicted.			
		Midleton Wastewater Network and Midleton Wastewater transfer project: New pumping stations, 6.2km watermains and construction/upgrades to networks between Midleton and Carrigtwohill. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are approximately 40km south-west from these schemes and therefore no in-combination impacts predicted. Cork Harbour SPA is 800m south from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. The Great Island Channel SAC is 800m south from these schemes. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. The Sovereign Islands SPA is approximately 30km south from these schemes and therefore no in-combination impacts predicted. Macroom Community Hospital, Macroom Garda Station: The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 30.6km south from these schemes and therefore no in-combination impacts predicted. Cork Harbour SPA is 37km east from these schemes and therefore no in-combination impacts predicted. The Great Island Channel SAC is 43.8km east from these schemes and therefore no in-combination impacts predicted. The Sovereign Islands			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Bandon Water Main and Sewer Network Upgrade: upgrading of 5km of combined sewers and removal of 10 combined sewer overflows.			
		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 8.3km west of the scheme. However, there is no hydrological link and therefore no incombination impacts predicted. Cork Harbour SPA is 24.5km north-east of the scheme and therefore no in-combination impacts predicted. The Great Island Channel SAC is 30.6km north-east from the scheme and therefore no in-combination impacts predicted. The Sovereign Islands SPA is 19.9km south and is hydrologically linked via Bandon River. No NIS available and it is assumed there is potential for incombination effects from habitat degradation by pollution during construction. (LSE for Bandon Water Main and Sewer Network Upgrade assumed as assessment not available at time of writing).			
		Beechgrove, Clonakilty: 57 social housing units being delivered.			
		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 9.3km east of the scheme. However, there is no hydrological link and therefore no incombination impacts predicted. Cork Harbour SPA is 42km north-east of the scheme and therefore no in-combination impacts predicted. The Great Island Channel SAC is 49.1km north-east from the scheme and therefore no in-combination impacts predicted. The Sovereign Islands SPA is 31.6km east from the scheme and therefore no in-combination impacts predicted.			
		<u>Dursey Island Cable Car and Visitor Centre: upgrade cable car from Dursey Island to mainland and new visitor center.</u>			
		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 95km south-east of the scheme and therefore no in-combination effects are predicted. Cork Harbour SPA is 122km south-east of the scheme therefore no in-combination effects are predicted. The Great Island Channel SAC is 129km west from the scheme therefore no in-combination effects are predicted. The Sovereign Islands SPA is 117km west from the scheme and therefore no in-combination effects are predicted.			
		Gteic Uíbh Ráthaigh: construct a Digital Hub that will provide workspace for up to 50 people.			
		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 105.7km east of the scheme and therefore no in-combination impacts predicted. Cork Harbour SPA is 125.8km east of the scheme and therefore no in-combination impacts predicted. The Great Island Channel SAC is 132.6km east from the scheme and therefore no in-combination impacts predicted. The Sovereign Islands SPA is 126.2km east from the scheme and therefore no in-combination impacts predicted.			
		Kinsale Community Hospital - Phase 1: construct three new buildings.			
		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 11.2km west of the scheme. However, there is no hydrological link and therefore no incombination impacts predicted. Cork Harbour SPA is 14.2km north-east of the scheme. However, there is no hydrological link and therefore no in-combination impacts predicted. The Great Island Channel SAC is 23.1km north-east from the scheme and therefore no in-combination impacts predicted. The Sovereign Islands SPA is 6.5km south from the scheme and is hydrologically linked via the port of Kinsale. No NIS available and it is assumed there is potential for in-combination effects from habitat degradation by pollution during construction, (LSEs for Kinsale Community Hospital assumed as assessment not available at time of writing)			
		N/M20 Cork to Limerick Road Improvement Scheme: upgrade/construct the N/M20 between Cork and Limerick.			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 29km south-east of the scheme and therefore no in-combination effects are predicted. Cork Harbour SPA is 7km south-east of this scheme, the River Martin and River Lee hydrologically connect the scheme to this SPA. No NIS available and it is assumed there is potential for in-combination effects from pollution during construction. The Great Island Channel SAC is 10km south from the scheme, the River Martin and River Lee hydrologically connect the scheme to this SPA. No NIS available and it is assumed there is potential for in-combination effects from pollution during construction. (LSEs for the N/M20 Scheme assumed as assessment not available at time of writing). The Sovereign Islands SPA is 27km south from the scheme and therefore no in-combination effects are predicted. N22 Baile Bhuirne to Macroom Road Development: 22km upgrade of the N22 National			
		Primary Route from Ballyvourney to Macroom to a dual carriageway. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 27km south-east of the scheme and therefore no in-combination effects are predicted. Cork Harbour SPA is 34km south-east of the scheme. The Sullane River and River Lee hydrologically connect the scheme to this SPA however, no in-combination effects are predicted. The Great Island Channel SAC is 41km east from the scheme. The Sullane River and River Lee hydrologically connect the scheme to this SPA however, no in-combination effects are predicted. The Sovereign Islands SPA is 40km south from the scheme and therefore no in-combination effects are predicted. N25 Carrigtohill to Midleton Upgrade Scheme: upgrade 5km of N25 from Carrigtohill to Midleton.			
		The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 39km south-east of the scheme and therefore no in-combination effects are predicted. Cork Harbour SPA is 0m from this scheme, the River Lee hydrologically connects the scheme to this SPA. No NIS available and it is assumed there is potential for incombination effects from pollution during construction. The Great Island Channel SAC is also 0m from the scheme. A number of streams hydrologically connects the scheme at a number of points to this SPA and no NIS available and it is assumed there is potential for in-combination effects from pollution during construction. (LSE for the N25 Scheme assumed as assessment not available at time of writing). The Sovereign Islands SPA is 28km south from the scheme and therefore no incombination effects are predicted.			
		N70 Sneem to Blackwater Bridge: upgrade 4.5km of the N70. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 72km south-east of the scheme and therefore no in-combination effects are predicted. Cork Harbour SPA is 92km south-east of the scheme therefore no in-combination effects are predicted. The Great Island Channel SAC is 99km south-east from the scheme therefore no in-combination effects are predicted. The Sovereign Islands SPA is 93km south-east from the scheme and therefore no in-combination effects are predicted.			
		N70/71 Gortamullen: safety improvement scheme, adding 2m wide footpaths, lighting, crossings along 1.3km of road. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 61km south-east of the scheme and therefore no in-combination effects are predicted. Cork Harbour SPA is 79km south-east of the scheme therefore no in-combination effects are predicted. The Great Island Channel SAC is 86km south-east from the scheme therefore no in-combination effects are predicted. The Sovereign Islands SPA is 82km south-east from the scheme and therefore no in-combination effects are			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
All Preferred Options	 Habitat loss 	predicted. The AA screening concluded that there were no LSEs, so no in-combination effects are possible. Skibbereen Community Hospital (St Annes): construction of three new buildings and refurbishment of existing hospital. The Courtmacsherry Estuary SAC and the Courtmacsherry Bay SPA are 35.1km east of the scheme and therefore no in-combination effects are predicted. Cork Harbour SPA is 66.6km north-east of the scheme therefore no in-combination effects are predicted. The Great Island Channel SAC is 73.1km north-west from the scheme therefore no in-combination effects are predicted. The Sovereign Islands SPA is 57.3km east from the scheme and therefore no in-combination effects are predicted.	Yes – from pollution impacts on	General Mitigation	N
The European sites that may be impacted by options within Study Area I are Mullaghanish to Musheramore Mountains SPA, The Gearagh SAC, The Gearagh SPA, Cork Harbour SPA, Ballymacoda (Clonpriest and Pilmore) SAC, Ballymacoda Bay SPA, Blackwater River SAC, Blackwater Estuary SPA, Barley Cove to Ballyrisode Point SAC, Caha Mountains SAC, Glengarriff Harbour and Woodland SAC, Beara Peninsula SPA, Roaringwater Bay and Islands SAC, Kenmare River SAC, Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC, Courtmacsherry Estuary SAC, Courtmacsherry Bay SPA, Ballycotton Bay SPA, Kilgarvan Ice House SAC, Farranamanagh Lough SAC, Sheep's Head SAC, Sheep's Head to Toe Head SPA, Bandon River SAC, Ballinskelligs Bay and Inny Estuary SAC, Great Island Channel SAC, Sovereign Islands SPA, Lough Hyne Nature Reserve and Environs SAC.	 Mortality risk Habitat degradation Disturbance Spread of invasive non-native species Water table/availability 	Option SAI-011 is the only option with potential for impacts on the Mullaghanish to Musheramore Mountains SPA, Therefore, there is no potential for in-combination effects to this European site. There is potential for in-combination effects from the projects within SAI to The Gearagh SAC given that options SAI-060 and SAI-771 have the potential for impacts. Potential for in-combination effects from pollution during construction. There is potential for in-combination effects from the projects within SAI to The Gearagh SPA given that options SAI-060 and SAI-771 have the potential for impacts. Potential for in-combination effects from pollution during construction (all options). There is potential for in-combination effects from the projects within SAI to the Cork Harbour SPA given that options SAI-963 and SAI-971 have the potential for impacts. Potential for in-combination effects from pollution during construction (all options). There is potential for in-combination effects from the projects within SAI to the Ballymacoda (Clonpriest and Pilmore) SAC given that options SAI-877, SAI-949 and SAI-950 have the potential for impacts. Potential for in-combination effects from the projects within SAI to the Ballymacoda By SPA given that options SAI-877, SAI-949 and SAI-950 have the potential for in-combination effects from the projects within SAI to the Ballymacoda By SPA given that options SAI-877, SAI-949 and SAI-950 have the potential for in-combination effects from pollution during construction (all options). Option SAI-949 is the only option within SAI with potential for impacts on the Blackwater River SAC therefore, there is no potential for in-combination effects to this European site. Option SAI-949 is the only option within SAI with potential for impacts on the Blackwater Estuary SPA therefore, there is no potential for in-combination effects to this European site. There is potential for in-combination effects from the projects within SAI to the Barley Cove to Ballyrisode Point SAC given that options SAI-	The Gearagh SAC if construction of options is concurrent. Yes – from pollution impacts on The Gearagh SPA if construction of options is concurrent. Yes – from pollution impacts on Cork Harbour SPA if construction of options is concurrent. Yes – from pollution impacts on Ballymacoda (Clonpriest and Pilmore) SAC if construction of options is concurrent. Yes – from pollution impacts on Ballymacoda Bay SPA if construction of options is concurrent. Yes – from pollution impacts on Barley Cove to Ballyrisode Point SAC if construction of options is concurrent. Yes – from pollution, disturbance and spread of invasive non-native species impacts on Caha Mountains SAC if construction of options is concurrent. Yes – from pollution, disturbance and spread of invasive non-native species impacts on Glengarriff Harbour and Woodland SAC if	Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		There is potential for in-combination effects from the projects within SAI to the Glengarriff Harbour and Woodland SAC given that options SAI-488 and SAI-955 have the potential for impacts. Potential for in-combination effects from pollution, spread of invasive species and disturbance during construction (all options). There is potential for in-combination effects from the projects within SAI to The Beara Peninsula SPA given that options SAI-480, SAI-788 and SAI-960 have the potential for impacts. Potential for in-combination effects from habital toss (SAI-480 and SAI-788), pollution (all options), disturbance (all options) and spread of invasive non-native species (all options) during construction. There is potential for in-combination effects from the projects within SAI to The Roaringwater Bay and Islands SAC given that options SAI-498, SAI-955 and SAI-962 have the potential for impacts. Potential for in-combination effects from pollution during construction (all options). There is potential for in-combination effects from the projects within SAI to The Kenmare River SAC given that options SAI-630, SAI-643, SAI-645, SAI-652, SAI-768, SAI-923 and SAI-960 have the potential for impacts. Potential for in-combination effects from pollution during construction (SAI-630, SAI-768, SAI-923 and SAI-960) and disturbance during construction (SAI-630, SAI-768, SAI-923 and SAI-960) and disturbance during construction (SAI-630, SAI-768, SAI-923 and SAI-960) and disturbance during construction (SAI-630, SAI-768, SAI-923 and SAI-960) and disturbance during construction (all options). There is potential for in-combination effects from the projects within SAI to the Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC given that options SAI-643 and SAI-971 have the potential for impacts. Potential for in-combination effects from pollution during construction (all options). There is potential for in-combination effects from the projects within SAI to the Courtmacsherry Bay SPA given that options S	construction of options is concurrent. Yes – from habitat loss, pollution, disturbance and spread of invasive non-native species impacts on Beara Peninsula SPA if construction of options is concurrent. Yes – from pollution impacts on Roaringwater Bay and Islands SAC if construction of options is concurrent. Yes – from pollution, disturbance and spread of invasive non-native species impacts on Kenmare River SAC if construction of options is concurrent Yes – from pollution, disturbance and spread of invasive non-native species impacts on the Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC if construction of options is concurrent Yes – from pollution impacts on the Courtmacsherry Estuary SAC if construction of options is concurrent Yes – from pollution impacts on the Courtmacsherry Bay SPA if construction of options is concurrent		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Option SAI-897 is the only option within SAI with potential for impacts on the Bandon River SAC . Therefore, there is no potential for in-combination effects to this European site.			
		Option SAI-923 is the only option within SAI with potential for impacts on the Ballinskelligs Bay and Inny Estuary SAC . Therefore, there is no potential for incombination effects to this European site.			
		Option SAI-971 is the only option within SAI with potential for impacts on the Great Island Channel SAC. Therefore, there is no potential for in-combination effects to this European site.			
		Option SAI-971 is the only option within SAI with potential for impacts on the Sovereign Islands SPA . Therefore, there is no potential for in-combination effects to this European site.			
		Option SAI-962 is the only option with potential for impacts on the Lough Hyne Nature Reserve and Environs SAC. Therefore, there is no potential for incombination effects to this European site.			

* Cork City projects with no NIS available (within 5km buffer):

Ballyvolane and Monard Wastewater Network: new Ballyvolane Pumping Station and watermains to cater for growth in the area.

Cork City Docklands: this project is complementary to the Port of Cork project and will facilitate enabling infrastructure for the Cork Docklands and relates to a) the Eastern Gateway Bridge, and b) Land acquisition of City Docks north and south Quays

Cork City Docklands 2: this project will unlock Cork City Docklands potential to develop as a vibrant, high-quality district that will attract investment in relation to mixed use development, leisure, and cultural facilities.

Cork City Events Centre: construction of a 6,000-capacity venue along the River Lee

Cork City Water Supply Scheme - Ballynora Ballincollig Reservoir: new high-level reservoir being built in greenfield site

Cork City Water Supply Scheme - Upgrade of Water Treatment Plant: Lee Road WTP upgrade

Cork City Wastewater Network: drainage area plans are being prepared by Irish Water for Glanmire, Glounthaune and Little Island which drain to Carrigrenan wastewater treatment plant, as well as the Ballincollig wastewater network

Rochestown, Cork City: Building a new nursing home on a greenfield site.

Cork University Business School (CUBS): demolition and construction of new building on south terrace in Cork City

Cork University Hospital Paediatric Phase 2: five story building extension to Cork University Hospital

Cork University Hospital, New Helipad - Phase 1: Replace carpark with helipad and construction of new 2 story car park.

Grand Parade Quarter: development of the Grand Parade Quarter will include a new library, rejuvenation of parks and other public spaces

Green Lane, Blackpool, Cork City: 112 new social housing units in apartments.

Kent Station Yard (site enabling): Remediation works for future developments. Potentially complete. Limited information online

Lower Lee (Cork City) FRS: Flood Relief Scheme for Cork City up to Inniscarra Dam

M8/N25 Dunkettle Interchange: Upgrading of the Dunkettle Interchange to a fully free flow junction (except for the M8 to N8south west movement). A new dumbbell interchange will be provided to the east of the main interchange for Little Island. Improvements will also be made to the Silversprings junction on the N8 into the City.

Mercy University Hospital Ward Block: New ward with 30 beds being build replacing existing buildings

MTU Cork Campus Learning Resource Centre: A new Learning Resource Centre building which will consist of classrooms, learning resource spaces and administration spaces.

Passage west Ringaskiddy Carrigaline Harbour Cluster: project planning and design and the initial site assembly that will facilitate the future delivery of a suite of co-ordinated and linked transformative projects targeted at the towns of Carrigaline and Passage west. Include urban renewal and extension of an existing cycleway.

Phase 1C Knocknaheeny: 41 Social Housing units being delivered.

Phase 2B Knocknahee: 38 Social Housing units being delivered.

Redforge Road, Blackpool, Cork City: 72 Units for social housing will be delivered.

Regeneration of Town Centre and the Development of a future vision for the disused former Courthouse: This proposal is for the regeneration of the town centre through public realm renewal and the redevelopment of a disused former Courthouse as a visitor experience

Springville House, Bulls Lane, Blackrock Road, Cork: Demolish office block. 35 Social Housing units being delivered

Tivoli Docks: This project and the Cork City Docklands project are complementary. This relates to the proposed relocation of the Port to Ringaskiddy and funding relates to preparatory programme for relocation and redevelopment of Tivoli Docks.

Upgrading of the Tyndall National Institute: Demolition of former industrial building and construction of new research facility

Watercourse Road, Blackpool, Cork: 37 Social Housing units being delivered.

Table E3: SAJ-Potential in-combination effects with other projects and options within SAJ

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAJ-291 Upgrade existing WTP for water quality improvements. The WRZ is not in deficit. Option study area is 2.6km from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. No operational impacts are predicted. Option study area is 6.5km from and hydrologically linked to Blackwater Estuary SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are predicted.	• Habitat degradation	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 44km east of the southern extent of the scheme therefore no incombination effects are predicted. N7Z/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution (LSE for N7Z/N73 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 52km south-east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. Therefore, there may be in-combination effects from pollution. Blackwater Estuary SPA is approximately 61km south-east of the southern extent of the scheme therefore no in-combination effects for moplution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 55km south-east of the scheme therefore no in-combination effects for moplulution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 55km south-east of the scheme; no in-combination effects are possible. Blackwater Estuary SPA is approximately 21km north-east of the eastern extent of the scheme; no in-combination effects are possible. Blalc	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC and from pollution impacts on Blackwater Estuary SPA if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N .

Ablanim, Greendown, Youghal, Youghal Community, Hospital (St. Rastwells), Youghal Politic Library schemes assumed as sessement or available in the of St. Debitak, Community Hospital Retinour, constitution of a retinour in the control of the control of the community of the commu	Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
no in-combination effects are predicted.			Youghal Public Library schemes assumed as assessment not available at time of writing). St Patrick's Community Hospital Fermoy: construction of a single extension to an existing ward, a single-story extension to another ward, and external works including alterations to the 'service access' road This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 20m north of the scheme; no in-combination effects are possible. Blackwater Estuary SPA is approximately 29km south-east of the scheme; no in-combination effects are possible. St. Joseph's Community Hospital, Millistreet: includes demolition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 400m north-east of the scheme therefore may be in-combination effects from pollution (LSE for the St Joseph's Community Hospital, Millistreet scheme assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 82km south-east of the scheme therefore no in-combination effects are predicted. Kanturk Community Hospital: includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 385m north-east of the scheme therefore there may be in-combination effects from pollution (LSE for the Kanturk Community Hospital scheme assumed as assessment not available at time of writing), Blackwater Estuary SPA is approximately 73km south-east of the scheme therefore there may be in-combination effects from pollution of the scheme therefore there may be in-combination effects from pollution of the scheme therefore of ordinary of sections of the sewer network in Mallow Blackwater Tivet (Cork/Waterford)	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 94km south-east of the scheme therefore no in-combination effects are predicted. R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings, footpath and junction alterations, installation of new signage and road markings, new tree planting, new central medians and narrowing of carriageway lanes This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC crosses the scheme; no in-combination effects are possible. Blackwater Estuary SPA is approximately 28km south-east of the scheme; no in-combination effects are possible.			
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit. Option study area is 4.8km from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as lamprey, as well as freshwater pearl mussel as the study area is within the FWPM catchment area. No operational impacts are predicted. Option study area is 13.8km from and hydrologically linked to Blackwater Estuary SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are predicted.		N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 44km east of the southern extent of the scheme therefore no incombination effects are predicted. N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 52km south-east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. Therefore, there may be in-combination effects from pollution. Blackwater Estuary SPA is approximately 61km south-east of the southern extent of the scheme therefore no in-combination effects are predicted. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 55km south-east of the scheme therefore no in-combination effects are predicted. MY Greenway - Midleton to Youghal: development of a 22km gr	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC and from pollution impacts on Blackwater Estuary SPA if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library and the renovation and extension of a public library and the renovation and extension of a public library and the renovation and extension of a public library and the renovation and extension of a public library and the renovation (LSE for the schemes therefore there may be in-combination effects from pollution (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 340m east of the schemes therefore there may be in-combination effects from pollution (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). St Patrick's Community Hospital Fermoy: construction of a single extension to an existing ward, a single-story extension to another ward, and external works including alterations to the 'service access' road This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 20m north of the scheme; no in-combination effects are possible. St Joseph's Community Hospital, Millstreet: includes demolition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 400m north-east of the scheme therefore there may be in-combination effects fro	Library works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Blackwater Estuary SPA is approximately 70km south-east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 94km south-east of the scheme therefore no in-combination effects are predicted. R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings, footpath and junction alterations, installation of new signage and road markings, new tree planting, new central medians and narrowing of carriageway lanes This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC crosses the scheme; no in-combination effects are possible. Blackwater Estuary SPA is approximately 28km south-east of the scheme; no in-combination effects are possible.			
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit. Option study area is in close proximity to a hydrological link to and 2.4km from Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. No operational impacts are predicted.	Habitat degradation	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. Therefore, there may be in-combination effects from pollution. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from pollution (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). St Patrick's Community Hospital Fermoy: construction of a single extension to an existing ward, a single-story extension to another ward, and external works including alterations to the 'service access' road This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 20m north of the scheme; no in-combination effects are possible. St Joseph's Community Hospital, Millstreet: includes demolition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 385m north-east of the scheme therefore there may be in-combination effects from pollution (LSE for the St Joseph's Community Hospital, includes demolition of sections of hospital, construction of three si	construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing). R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings, footpath and junction alterations, installation of new signage and road markings, new tree planting, new central medians and narrowing of carriageway lanes This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC crosses the scheme; no in-combination effects are possible.			
Conjunctive use of existing spring and trial well and upgrade existing Castletownroche WTP. Option study area is within and hydrologically linked to Blackwater River (Cork/Waterford) SAC. There is potential for some loss of/damage to Ql/Annex 1 habitats during construction works given that the works are within the SAC boundary. Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species given that the works are within the SAC boundary. Option includes a GW abstraction. There is a risk this groundwater abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. Therefore, there is potential for impacts on aquatic QI species utilising this European site through a reduction in flows/water levels. There is a risk this groundwater abstraction will reduce water flow in the underground aquifer. This groundwater abstraction is within a karstic aquifer, which the SAC overlies. Therefore, there is potential for impacts on QI	 Habitat loss Mortality risk Habitat degradation Disturbance Spread of invasive non-native species Water table/availability 	Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 44km east of the southern extent of the scheme therefore no in-combination effects are predicted. N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 52km southeast of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. LSE from pollution during operation also identified. Therefore, there may be in-combination effects are predicted. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native speci	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, habitat loss, disturbance and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works and during operation from habitat degradation on Blackwater River (Cork/Waterford) SAC	General Mitigation Measures are outlined in Section 6.3.3 Hydrological modelling as in Section 6.3.5 Hydrogeological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
utilising watercourses hydrologically linked to this European site through a reduction in flows/water. Option study area is 14.8km from and hydrologically linked to Blackwater Estuary SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are predicted.		MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Blackwater Estuary SPA is approximately 2.1km north-east of the eastern extent of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Blackwater Estuary SPA is approximately 55km south-east of the scheme; no in-combination effects are possible. Cois Abhaim, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library. Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 340m east of the schemes therefore there may be in-combination effects from pollution (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). St Patrick's Community Hospital Fermov, construction of a single extension to an existing ward, a singl	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC and from pollution impacts on Blackwater Estuary SPA if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		(LSE for the Kanturk Community Hospital scheme assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 73km southeast of the scheme therefore no in-combination effects are predicted. Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic QI species and habitats including disturbance and mortality. Therefore, there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and poliution. In-combination effects during operation may result in habitat degradation and changes to water table/availability. Blackwater Estuary SPA is approximately 52km south-east of the scheme therefore no in-combination effects are predicted. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events. This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Blackwater Estuary SPA is approximately 70km south-east of the scheme; no in-combination peffects are predicted. Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Blackwater River (Cork/Waterford) SAC is approximately 9.4km south-east of the sch	disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC		
SAJ-188 Upgrade existing WTPs for water quality improvements. The WRZ is not in deficit.	Habitat degradation	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent	General Mitigation Measures are outlined in Section 6.3.3	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Option study area is 2.8km from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. No operational impacts are predicted.		Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. Therefore, there may be in-combination effects from pollution. Mallow Town Regeneration: development of Mallow Castle Visitor Centre. Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north of the scheme; no in-combination effects are possible. St Joseph'	with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works	With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Kanturk Community Hospital: includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 385m north-east of the scheme therefore there may be in-combination effects from pollution (LSE for the Kanturk Community Hospital scheme assumed as assessment not available at time of writing). Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic OI species and habitats including disturbance and mortality. Therefore, there may be in-combination effects from pollution. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-co	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works		
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit. Option study area is in close proximity to a hydrological link to and 2.5km from Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. No		N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing).	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
operational impacts are predicted.	Types	Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. Therefore, there may be in-combination effects from pollution. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from pollution (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: schemes assumed as assessment not available at time of writing). S	with N72/N73 Mallow Relief Road works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Manture Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works	Conclusion	Integrity
		of writing). Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow	Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic QI species and habitats including disturbance and mortality. Therefore, there may be in-combination effects from pollution. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events. This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts. Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing). R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgradding pedestrian crossings, footpath and junction alterations, installation of new	Enhancement works		
Increase GW abstraction from Kilgobnet (Spring) and upgrade Laharan Abbeys Well WTP to supply deficit. Option study area is 2km from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. No operational impacts are predicted.		N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. Therefore, there may be in-combination effects from pollution. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing).	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library; works associated with two separate residential care centres and the renovation and extension of a public library Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from pollution (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). St Patrick's Community Hospital Fermoy, construction of a single extension to an existing ward, a single-story extension to another ward, and external works including alterations to the service access' road This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 20m north of the scheme; no in-combination effects are possible. St Joseph's Community Hospital, Millstreet: includes demolition of sections of hospital, construction of single-storye extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 400m north-east of the scheme therefore there may be in-combination effects from pollution (LSE for the St Joseph's	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAJ-167 Increase GW abstraction from Lyre spring and upgrade Lyre WTP to supply deficit. Option study area is in close proximity to a hydrological link to and 1.8km from Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. No operational impacts are predicted.	• Habitat degradation	Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts. Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing). R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings, footpath and junction alterations, installation of new signage and road markings, new tree planting, new central medians and narrowing of carriageway lanes This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC crosses the scheme; no in-combination effects are possible. N/M20 Cork to Limerick Road Improvement Scheme; 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution. (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works and during operation from habitat degradation Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
	Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from pollution (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). St Patrick's Community Hospital Fermoy: construction of a single extension to an existing ward, a single-story extension to another ward, and external works including alterations to the 'service access' road This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 20m north of the scheme; no in-combination effects are possible. St Joseph's Community Hospital, Millstreet: includes demolition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 400m north-east of the scheme therefore there may be in-combination effects from pollution (LSE for the St Joseph's Community Hospital, includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 385m north-east of the scheme therefore there may be in-combination effects from pollution (LSE for the Kanturk Community Hospital scheme assumed as assessment not available at time of writing). Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections o	with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing). R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings, footpath and junction alterations, installation of new signage and road markings, new tree planting, new central medians and narrowing of carriageway lanes This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC crosses the scheme; no in-combination effects are possible.			
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit. Option study area is 1.8km from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. No operational impacts are predicted. Option study area is 8.9km from and hydrologically linked to Blackwater Callows SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are predicted.		N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 24km east of the scheme therefore no in-combination effects are predicted. N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 23km east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. Therefore, there may be in-combination effects from pollution. Blackwater Callows SPA is approximately 31km south-east of the southern extent of the scheme therefore no in-combination effects are predicted. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 26km east of the eastern extent of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 22km north of the scheme; no in-combinatio	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal Community Hospital (St Raphael's), Youghal Public Library works	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from pollution (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 21km north-west of the schemes therefore no in-combination effects are predicted. St Patrick's Community Hospital Fermoy: construction of a single extension to an existing ward, a single-story extension to another ward, and external works including alterations to the 'service access' road This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 20m north of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 450m north of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 450m north of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately addition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 400m north-east of the scheme therefore no in-combination effects from pollution (LSE for the St Joseph's Community Hospital; includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 355m north-east of the scheme therefore no in-combination effects from pollution (LSE for	Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works		
		refurbished as an Arts, Heritage and Cultural Centre, development of interpretative			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Blackwater Callows SPA is approximately 12.4km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 67km east of the scheme therefore no in-combination effects are predicted. R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings, footpath and junction alterations, installation of new signage and road markings, new tree planting, new central medians and narrowing of carriageway lanes This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC crosses the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 7km north-east of the scheme; no in-combination effects are possible.			
Rationalise Gortnaskehy to Ballyheaphy WRZ. Increase GW abstraction from Ballyheaphy BH and upgrade Ballyheaphy WTP to supply spare capacity to neighbouring scheme. Option study area is within and hydrologically linked to Blackwater River (Cork/Waterford) SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary. Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species given that the works are within the SAC boundary. Option includes a GW abstraction. There is a risk this groundwater abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. Therefore, there is potential for impacts on aquatic QI species utilising this European site	 Habitat loss Mortality risk Habitat degradation Disturbance Spread of invasive non-native species Water table/availability 	Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 24km east of the scheme therefore no in-combination effects are predicted. N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 23km east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. LSE from pollution during operation also identified. Therefore, there may be in-combination effects are predicted. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combina	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, habitat loss, disturbance and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works and during operation from	General Mitigation Measures are outlined in Section 6.3.3 Hydrological modelling as in Section 6.3.5 Hydrogeological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in- combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
through a reduction in flows/water levels. There is a risk this increased groundwater abstraction will reduce surface water flows in the SAC due to the hydrological link between the ZOC and the SAC. Therefore, there is potential for impacts on QI habitats and species utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels due to the groundwater abstraction. However, the abstraction is not expected to impact any GWDTHs due to the distance from the abstraction to the habitats, and due to the impact being on the surface water flow. Option study area is 6km from and hydrologically linked to Blackwater Callows SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are predicted.		Regeneration assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 26km east of the scheme therefore no in-combination effects are predicted. MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 22km north of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library. Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). Blackwater Callows SPA is approxima	habitat degradation on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		(LSE for the Kanturk Community Hospital scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 45km east of the scheme therefore no in-combination effects are predicted. Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity. construction of a new pump station, and upgrading of sections of the sewer network in Mallow Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic Olysecies and habitats including disturbance and mortality. Therefore, there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability. Blackwater Callows SPA is approximately 25km east of the scheme therefore no in-combination effects are predicted. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events. This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the s	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC		
SAJ-601 Increase existing GW abstraction from Ballybeg BHs and new GW from no. TWs upgrade Mitchelstown South WTP to	Habitat degradation	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Callows SPA	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road	General Mitigation Measures are outlined in Section 6.3.3	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
supply deficit. Improve interconnectivity between Mitchelstown North and Mitchelstown South WSZs. Rationalise Glenduff to Mitchelstown (planned for 2022). Option study area is 3.9km from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. No operational impacts are predicted. Option study area is 9km from and hydrologically linked to Blackwater Callows SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are predicted.		is approximately 24km east of the scheme therefore no in-combination effects are predicted. NT2/NT3 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution (LSE for NT2/NT3 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 23km east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fanistown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. Therefore, there may be in-combination effects from pollution. Blackwater Callows SPA is approximately 31km south-east of the southern extent of the scheme therefore no in-combination effects predicted. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 26km east of the scheme therefore no in-combination effects are predicted. MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 22km north of the sche	Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works	With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		SPA is approximately 450m north of the scheme; no in-combination effects are possible. St Joseph's Community Hospital. Millistreet: includes demolition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 400m north-east of the scheme therefore there may be in-combination effects from pollution (LSE for the St Joseph's Community Hospital, Millistreet scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 57km north-east of the scheme therefore no in-combination effects are predicted. Kanturk Community Hospital, includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 385m north-east of the scheme therefore there may be in-combination effects from pollution (LSE for the Kanturk Community Hospital scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 45km east of the scheme therefore no in-combination effects are predicted. Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic QI species and habitats including disturbance and mortality. Therefore, there may be in-combination effects from pollution. Blackwater Callows SPA is approximately 25km east of the scheme roin-combin	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works		(Y/N)
		Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings,			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAJ-597	Habitat loss	footpath and junction alterations, installation of new signage and road markings, new tree planting, new central medians and narrowing of carriageway lanes This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC crosses the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 7km north-east of the scheme; no in-combination effects are possible. N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick	Yes – from habitat loss, mortality, disturbance, spread of invasive	General Mitigation Measures are outlined in	N
Increase GW abstraction at Box Cross and upgrade Box Cross WTP to supply deficit. Rationalise Gortnagreige, Ballinamona, Monaparson, Bottlehill, Killavullen, Knoppogue, Monee & Knockabrack and Rahan to Mallow. Option study area is within and hydrologically linked to Blackwater River (Cork/Waterford) SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary. Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species given that the works are within the SAC boundary. Option includes a GW abstraction. There is a risk this groundwater abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. Therefore, there is potential for impacts on aquatic QI species utilising this European site through a reduction in flows/water levels. There is a risk this increased groundwater abstraction is within a karstic aquifer adjacent to the SAC, and the SAC overlies this aquifer. However, the ZOC for the abstraction does not overlap with the SAC, so the SAC is less likely to be impacted by the abstraction, but impacts cannot be ruled out at this stage. Therefore, there is potential for impacts on QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water. Option study area is 17.5km from and hydrologically linked to Blackwater Callows		Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 24km east of the scheme therefore no in-combination effects are predicted. N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 23km east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. LSE from pollution during operation also identified. Therefore, there may be in-combination effects are predicted. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects are predicted. MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal	non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, habitat loss, disturbance and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works and during operation from habitat degradation on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC	Measures are outlined in Section 6.3.3 Option specific mitigation as in Section 6.3.4 Hydrological modelling as in Section 6.3.5 Hydrogeological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or incombination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are predicted.		SPA is approximately 28km east of the scheme; no in-combination effects are possible. Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 21km north-west of the schemes therefore no in-combination effects are predicted. St Patrick's Community Hospital Fermov: construction of a single extension to an existing ward, a single-story extension to another ward, and external works including alterations to the 'service access' road This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 20m north of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 450m north of the scheme; no in-combination effects are possible. St Joseph's Community Hospital, Millstreet; includes demolition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 400m north-east of the scheme therefore there may be in-combination effects from mortallty, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Kan	Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		approximately 25km east of the scheme therefore no in-combination effects are predicted. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 44km east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Blackwater Callows SPA is approximately 12.4km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 67km east of the scheme therefore no in-combination effects are predi	non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Increase GW abstraction from Mount North (spring) and upgrade Mountnorth WTP to supply spare capacity to neighboring WRZ. Increase GW abstraction from Mountnorth & Ballyclough (spring) and upgrade Ballyclough WTP to supply spare capacity to neighboring WRZ. Rationalise Boherascrub to Ballyclough & Mount North WRZ. Option study area is 3.2km from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. No operational impacts are predicted.		NM20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). NT2/NT3 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution (LSE for NT2/NT3 Mallow Relief Road assumed as assessment not available at time of writing). Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. LSE from pollution during operation also identified Therefore, there may be in-combination effects from pollution. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackw	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N .

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Kanturk Community Hospital: includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 385m north-east of the scheme therefore there may be in-combination effects pollution (LSE for the Kanturk Community Hospital scheme assumed as assessment not available at time of writing). Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic QI species and habitats including disturbance and mortality. Therefore, there may be in-combination effects from pollution. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts. Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combina	(Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works		
Increase GW at Grallagh and rationalise Tiknock/Tinnabina, Ballycurrane and Clashmore/Whitewell WRZs Option study area is within and hydrologically linked to Blackwater River (Cork/Waterford) SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary. Pollution of water courses during construction	 Habitat loss Mortality risk Habitat degradation Disturbance Spread of invasive non-native species 	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 44km east of the southern extent of the scheme therefore no incombination effects are predicted. N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from mortality,	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from mortality, disturbance, spread of invasive non-native	General Mitigation Measures are outlined in Section 6.3.3 Option specific mitigation as in Section 6.3.4 With the implementation of mitigation as noted above there will be no adverse effects on the	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
(associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species given that the works are within the SAC boundary. No operational impacts are predicted. Option study area is 465m from and hydrologically linked to Blackwater Estuary SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. There is potential for disturbance to QI birds given the proximity of the study area to the SPA and due to QI birds using supporting habitats in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland). No operational impacts are predicted.		disturbance, spread of invasive non-native species and pollution (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing), Blackwater Estuary SPA is approximately 52km south-east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure. Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. Therefore, there may be in-combination effects from mortality, habitat loss, disturbance and pollution. Blackwater Estuary SPA is approximately 61km southeast of the southern extent of the scheme therefore no in-combination effects are predicted. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 55km south-east of the scheme therefore no in-combination effects are predicted. My Greenway- Midleton to Youghal: development of a 22km greenway from Midleton to Youghal This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential imp	species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works Yes – from mortality, habitat loss, disturbance and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC and from disturbance and pollution impacts on Blackwater Estuary SPA if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works	integrity of this European site, either alone or incombination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		SPA is approximately 29km south-east of the scheme; no in-combination effects are possible. St Joseph's Community Hospital, Millstreet includes demolition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 400m north-east of the scheme therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution (LSE for the St Joseph's Community Hospital, Millstreet scheme assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 82km south-east of the scheme therefore no in-combination effects are predicted. Kanturk Community Hospital: includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 385m north-east of the scheme therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution (LSE for the Kanturk Community Hospital scheme assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 73km south-east of the scheme therefore no in-combination effects are predicted Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sever network in Mallow Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic Q1 species and habitats including as the species, impacts on	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAJ-627	Habitat loss Mortality rick	Blackwater Estuary SPA is approximately 94km south-east of the scheme therefore no in-combination effects are predicted. R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings, footpath and junction alterations, installation of new signage and road markings, new tree planting, new central medians and narrowing of carriageway lanes This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC crosses the scheme; no in-combination effects are possible. Blackwater Estuary SPA is approximately 28km south-east of the scheme; no in-combination effects are possible. N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick	Yes – from habitat loss, mortality, disturbance, spread of invasive	General Mitigation Measures are outlined in	N
Increase GW abstraction at Downing Bridge BH and upgrade existing Dowing. Increase GW abstraction from existing Spring and upgrade Castletownroche. Rationalise Macroney to Ballyhooly WRZ (Downing Bridge WTP). Option study area is within and hydrologically linked to Blackwater River (Cork/Waterford) SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary. Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species given that the works are within the SAC boundary. Option includes GW abstractions. There is a risk these groundwater abstractions could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. Therefore, there is potential for impacts on aquatic QI species utilising this European site through a reduction in flows/water levels. There is a risk these groundwater abstractions will reduce water flow in the underground aquifer. These groundwater abstractions are within the SAC and overlie a karstic aquifer. Therefore, there is potential for impacts on QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water. Option study area is 1.3km from and hydrologically linked to Blackwater Callows	 Habitat degradation Disturbance Spread of invasive non-native species 	Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 24km east of the scheme therefore no in-combination effects are predicted. N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 23km east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. LSE from pollution during operation also identified. Therefore, there may be in-combination effects from mortality, habitat loss, disturbance and pollution. Blackwater Callows SPA is approximately 31km south-east of the southern extent of the scheme therefore no in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/avail	non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, habitat loss, disturbance and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works and during operation from habitat degradation on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works and during operation from	Section 6.3.3 Option specific mitigation as in Section 6.3.4 Hydrological modelling as in Section 6.3.5 Hydrogeological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or incombination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. There is potential for disturbance to QI birds given the proximity of the study area to the SPA and due to QI birds using supporting habitats in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland). No operational impacts are predicted.		This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 28km east of the scheme; no in-combination effects are possible. Cois Abhainn. Greenclovne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library; works associated with two separate residential care centres and the renovation and extension of a public library. Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing), Blackwater Callows SPA is approximately 21km north-west of the schemes therefore no in-combination effects are predicted. St Patrick's Community Hospital Fermoy: construction of a single extension to an existing ward, a single-story extension to another ward, and external works including alterations to the 'service access' road This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 20m north of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 450m north of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 450m north of the scheme; no in-combination effects are possible. Blackwater River (Cork/Waterford) SAC is approximately 40m north-east of the scheme therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination	habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Rive		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability. Blackwater Callows SPA is approximately 25km east of the scheme therefore no in-combination effects are predicted. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events. This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 44km east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Blackwater Callows SPA is approximately 12.4km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement: spread of	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC		
New GW abstraction in karstic region and new WTP to supply deficit. Rationalise Kilmore-Kilbeg to Tallow WRZ. Rationalise Ballymoate Upper to Tallow WRZ. Option study area is 150m from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for disturbance to otter from	 Mortality risk Habitat degradation Disturbance Spread of invasive non-native species Water table/availability 	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 44km east of the southern extent of the scheme therefore no in-combination effects are predicted. N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 52km south-	Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River	General Mitigation Measures are outlined in Section 6.3.3 Hydrological modelling as in Section 6.3.5 Hydrogeological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in- combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
construction works. There is also potential for the spread of invasive species given that the works are in close proximity to the SAC boundary. Option includes a GW abstraction. There is a risk this groundwater abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. Therefore, there is potential for impacts on aquatic QI species utilising this European site through a reduction in flows/water levels. There is a risk this groundwater abstraction will reduce water flow in the underground aquifer. This groundwater abstraction is adjacent to the SAC, and both the abstraction and the SAC overly a karstic aquifer. The aquifer and the river may be linked, and so a reduction of water flow in the aquifer may reduce the surface water flow of the river within the SAC. The impacts are unlikely due to the depths the boreholes will be drilled at and the scale of the abstraction (3% of Q95) but cannot rule out impacts at this stage. Therefore, there is potential for impacts on QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water. Option study area is 10.3km from and hydrologically linked to Blackwater Estuary SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are predicted.		east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. LSE from pollution during operation also identified.Therefore, there may be in-combination effects from mortality, disturbance and pollution. Blackwater Estuary SPA is approximately 61km south-east of the southern extent of the scheme therefore no in-combination effects are predicted. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects are postation and changes to water table/availability (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 55km south-east of the scheme therefore no in-combination effects are predicted. My Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal. This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Blackwater Estuary SPA is approximately 2.1km north-east of the eastern extent of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: developmen	(Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works and during operation from habitat degradation on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC and from pollution impacts on Blackwater Estuary SPA if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC		

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		SPA is approximately 29km south-east of the scheme; no in-combination effects are possible. St Joseph's Community Hospital. Millstreet: includes demolition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 400m north-east of the scheme therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the St Joseph's Community Hospital, Millstreet scheme assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 82km south-east of the scheme therefore no in-combination effects are predicted. Kanturk Community Hospital: includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 385m north-east of the scheme therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Kanturk Community Hospital scheme assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 73km southeast of the scheme therefore no in-combination effects are predicted. Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality duri	Hospital, Millstreet works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 94km south-east of the scheme therefore no in-combination effects are predicted. R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings, footpath and junction alterations, installation of new signage and road markings, new tree planting, new central medians and narrowing of carriageway lanes This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC crosses the scheme; no in-combination effects are possible. Blackwater Estuary SPA is approximately 28km south-east of the scheme; no in-combination effects are possible.			
Increase existing GW abstraction from infiltration gallery alongside Blackwater River and upgrade Coolrue WTP. Additional treatment is provided when the infiltration gallery floods. Rationalise Ballyvadonna, Strawhall, Knockdrumalough, Coolagown and Kilmagnier to Fermoy WRZ. Option study area is within and hydrologically linked to Blackwater River (Cork/Waterford) SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary. Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species given that the works are within the SAC boundary. Option includes a GW abstraction. There is a risk this groundwater abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. Therefore, there is potential for impacts on aquatic QI species utilising this European site through a reduction in flows/water levels. There is a risk this groundwater abstraction will reduce water flow in the underground aquifer. This groundwater abstraction is within the SAC, and both the abstraction and the	 Habitat loss Mortality risk Habitat degradation Disturbance Spread of invasive non-native species Water table/availability 	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 24km east of the scheme therefore no in-combination effects are predicted. N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 23km east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. LSE from pollution during operation also identified. Therefore, there may be in-combination effects are predicted. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, dis	Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, habitat loss, disturbance and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works and during operation from habitat degradation on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution	General Mitigation Measures are outlined in Section 6.3.3 Hydrological modelling as in Section 6.3.5 Hydrogeological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in- combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
SAC overly a karstic aquifer. Therefore, there is potential for impacts on QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water. Option study area is 415m from and hydrologically linked to Blackwater Callows SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. There is potential for disturbance to QI birds given the proximity of the study area to the SPA and due to QI birds using supporting habitats in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland). No operational impacts are predicted.		north-east of the eastern extent of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 22km north of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 28km east of the scheme; no in-combination effects are possible. Cois Abhainn. Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 21km north-west of the schemes therefore no in-combination effects are predicted. St Patrick's Community Hospital Fermoy: construction of a single extension to an existing ward. a single-story extension to another ward, and external works including alterations to the 'service access' road This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 20m north of the scheme; no in-combination effects are possible. St Joseph's Community Hospital, Millstreet: includes demolition of sections of hospital, construction of single-storey extensions to existing	impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic QI species and habitats including disturbance and mortality. Therefore, there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability. Blackwater Callows SPA is approximately 25km east of the scheme therefore no in-combination effects are predicted. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events. This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 44km east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater Callows SPA is approximately 12.4km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Blalkdesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, the	with Mallow Wastewater Treatment Plant works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC		
Rationalise Bweeng to Donoughmore WRZ (SAI-212) Option study area is 5.9km from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment	Habitat degradation	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing).	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
area. No operational impacts are predicted.		Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. Therefore, there may be in-combination effects from pollution. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres	with N72/N73 Mallow Relief Road works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community		Integrity
		and the renovation and extension of a public library Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from pollution (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). St Patrick's Community Hospital Fermoy: construction of a single extension to an existing ward, a single-story extension to another ward, and external works including alterations to the 'service access' road This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 20m north of the scheme; no in-combination effects are possible. St Joseph's Community Hospital, Millstreet: includes demolition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 400m north-east of the scheme therefore there may be in-combination effects from pollution (LSE for the St Joseph's Community Hospital, Millstreet scheme assumed as assessment not available at time of writing). Kanturk Community Hospital: includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 385m north-east of the scheme therefore there may be in-combination effects from pollution (LSE for the Kanturk Community Hospital scheme assumed as assessment not available at time of writing). Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow	Hospital (St Raphael's), Youghal Public Library works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic QI species and habitats including disturbance and mortality. Therefore, there may be in-combination effects from pollution. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events. This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing). R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings, footpath and junction alterations, installation of new s	Enhancement works		
New GW and new WTP for Glanworth / Ballykenley/Johnstown & rationalise Knockanevin Option study area is 6.8km from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. No operational impacts are predicted. Option study area is 7.7km from and hydrologically linked to Blackwater Callows SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are	Habitat degradation	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 24km east of the scheme therefore no in-combination effects are predicted. N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 23km east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. Therefore, there may be in-combination effects from pollution. Blackwater Callows SPA is approximately 31km south-east of the southern extent of the scheme therefore no in-combination effects are predicted.	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
predicted.		Mallow Town Regeneration: development of Mallow Castle Visitor Centre. Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme therefore there may be in-combination effects from pollution (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 26km east of the scheme therefore no in-combination effects are predicted. MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 22km north of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 22km north of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 28km east of the scheme; no in-combination effects are possible. Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library. Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from pollution (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). Blackwater River (Cork/Waterf	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		of writing). Blackwater Callows SPA is approximately 45km east of the scheme therefore no in-combination effects are predicted. Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic CI species and habitats including disturbance and mortality. Therefore, there may be in-combination effects from pollution. Blackwater Callows SPA is approximately 25km east of the scheme therefore no in-combination effects are predicted. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events. This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 44km east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvement			
Rationalise Kilmurry (Mitchelstown) to Inchinleamy (SAK Waterford) WRZ. This WRZ is not in deficit and spare capacity can cover the demand in Kilmurry (Mitchelstown). Option study area is 610m from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Pollution of water courses during construction (associated with		N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 24km east of the scheme therefore no in-combination effects are predicted. N72/N73 Mallow Relief Road: 5km relief road outside of Mallow	Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Blackwater	General Mitigation Measures are outlined in Section 6.3.3 Hydrological modelling as in Section 6.3.5 Hydrogeological modelling as in Section 6.3.5 With the implementation of mitigation as noted	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species given that the works are in close proximity to the SAC boundary. Option includes a GW abstraction. There is a risk this groundwater abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. Therefore, there is potential for impacts on aquatic QI species utilising this European site through a reduction in flows/water levels. There is a risk this groundwater abstraction will reduce water flow in the underground aquifer. This groundwater abstraction is within 1km of the SAC, and the SAC overlies both a karstic aquifer and productive fissured bedrock. Therefore, there is potential for impacts on QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water. Option study area is 615m from and hydrologically linked to Blackwater Callows SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. There is potential for disturbance to QI birds given the proximity of the study area to the SPA and due to QI birds using supporting habitats in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland). No operational impacts are predicted.		Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 23km east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. LSE from pollution during operation also identified. Therefore, there may be in-combination effects from mortality, disturbance and pollution. Blackwater Callows SPA is approximately 31km south-east of the southern extent of the scheme therefore no incombination effects are predicted. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 26km east of the scheme therefore no in-combination effects are possible. Miscrept Miscr	Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works and during operation from habitat degradation on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC	above there will be no adverse effects on the integrity of this European site, either alone or incombination with other plans or projects.	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 20m north of the scheme; no in-combination effects are possible. St. Joseph's Community Hospital, Millstreet; includes demolition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 400m north-east of the scheme therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the St Joseph's Community Hospital, Millstreet scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 57km north-east of the scheme therefore no in-combination effects are predicted. Kanturk Community Hospital: includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 385m north-east of the scheme therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Kanturk Community Hospital scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 45km east of the scheme therefore no in-combination effects are predicted. Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the seven retwork in Mallow Blackwater Ri	Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 67km east of the scheme therefore no in-combination effects are predicted. R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings, footpath and junction alterations, installation of new signage and road markings, new tree planting, new central medians and narrowing of carriageway lanes This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC crosses the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 7km north-east of the scheme; no in-combination effects are possible.			
Rationalise Labbamollogga to Ballylanders WRZs (SAK). Option study area is 9.8km from and hydrologically linked to Lower River Suir SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. No operational impacts are predicted. Option study area is 15.1km from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. No operational impacts are predicted. Option study area is 19.6km from and hydrologically linked to Blackwater Callows SPA. There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species. No operational impacts are predicted.	Habitat degradation	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Lower River Suir SAC is approximately 31km east of the scheme therefore no incombination effects are predicted. Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from pollution (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 24km east of the scheme therefore no in-combination effects are predicted. N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Lower River Suir SAC is approximately 33km north-east of the eastern extent of the scheme therefore no in-combination effects are predicted. Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from pollution (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 23km east of the eastern extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Lower River Suir SAC is approximately 22km east of the northern extent of the scheme therefore no in-combination effects are predicted. Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. Therefore, there may be incombination effects from pollution, mortality and disturbance. Therefore, there may be incombination effects from pollution are predicted. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Lower River Suir SAC is approximately 37km north-east of the scheme the	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in-combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		This development was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is approximately 36km north of the scheme; no in-combination effects are possible. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 22km north of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is approximately 38km north-east of the scheme; no in-combination effects are possible. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 28km east of the scheme, no in-combination effects are possible. Cois Abhainn. Greencloyne. Youghal. Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library Lower River Suir SAC is approximately 35km north of the schemes therefore no in-combination effects are predicted. Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects from pollution (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 21km north-west of the schemes therefore no in-combination effects are predicted. St Patrick's Community Hospital Fermoy: construction of a single extension to an existing ward, a single-story extension to another ward, and external works including alterations to the 'schore expectation' shall be no potential impact on European sites. Lower River	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to Increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow Lower River Suir SAC is approximately 36km north-east of the scheme therefore no in-combination effects are predicted. Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic OI species and habitats including disturbance and mortality. Therefore, there may be in-combination effects from pollution. Blackwater Callows SPA is approximately 25km east of the scheme therefore no in-combination effects are predicted. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavillon, a museum/exhibitor area, café, shop, car park, and a communal area for events. This development was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is approximately 54km north-east of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 44km east of the scheme; no in-combination effects are possible. Blackwater Callows SPA is approximately 44km east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter. Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park. Lower River Suir SAC is approximately 9km east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Blackwater River (Cork/Waterford) S			
SAJ-600 Rationalise Stagmount to Rockchapel WRZ (planned for 2022). Rationalise	Habitat lossMortality risk	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Lower River Shannon SAC is approximately 30km west of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West	Yes – from habitat loss and disturbance impacts on Stack's to Mullaghareirk Mountains, West	General Mitigation Measures are outlined in Section 6.3.3	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
Stagmount to Rockchapel WRZ (planned for 2022). Supply spare capacity. Option study area is within and hydrologically linked to Lower River Shannon SAC. There is potential for some loss of/damage to QI/Annex 1 habitats during construction works given that the works are within the SAC boundary. Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species given that the works are within the SAC boundary. No operational impacts are predicted. Option study area is within Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA. There is potential for some loss of/damage to supporting habitats (e.g. foraging habitats) to QI species during construction works given that the works are within the SPA boundary. There is potential for disturbance to hen harrier given the study area is within the SPA and due to hen harrier using supporting habitats in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland). No operational impacts are predicted.	 Habitat degradation Disturbance Spread of invasive non-native species 	Limerick Hills and Mount Eagle SPA is approximately 20km west of the scheme therefore no in-combination effects are predicted. NTZ/NT3 Mallow Relief Road: 5km relief road outside of Mallow Lower River Shannon SAC is approximately 34km north-west of the western extent of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareir Mountains, West Limerick Hills and Mount Eagle SPA is approximately 28km north-west of the western extent of the scheme therefore no in-combination effects are predicted. Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Lower River Shannon SAC is approximately 29km west of the southern extent of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 22km west of the southern extent of the scheme therefore no in-combination effects are predicted. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Lower River Shannon SAC is approximately 36km north-west of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 30km north-west of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 30km north-west of the scheme; no in-combination effects are possible. Stack's to multipapareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 30km north-west of the western extent of the scheme; no in-combination effects are possible. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 70km north-west of the scheme; no in-combination effects are possible. Stack's to Mullaghareirk Mountains, West Limerick Hil	Limerick Hills and Mount Eagle SPA if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works	With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or incombination with other plans or projects	

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		St Joseph's Community Hospital, Millstreet: includes demolition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Lower River Shannon SAC is approximately 23km north-west of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 17km north-west of the scheme therefore no in-combination effects are predicted. Kanturk Community Hospital: includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Lower River Shannon SAC is approximately 18km north-west of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 11km north-west of the scheme with no hydrological link, therefore no in-combination effects are predicted. Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater			
		Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow Lower River Shannon SAC is approximately 38km north-west of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 31km north-west of the scheme therefore no in-combination effects are predicted.			
		Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events This development was screened out for AA, therefore there will be no potential impact on European sites. Lower River Shannon SAC is approximately 26km north-west of the scheme; no in-combination effects are possible. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 16km north-west of the scheme; no in-combination effects are possible.			
		Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park			
		Lower River Shannon SAC is approximately 58km west of the scheme therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 52km west of the scheme therefore no in-combination effects are predicted.			
		Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village			
		Lower River Shannon SAC is approximately 7.5km north of the scheme with no hydrological link, therefore no in-combination effects are predicted. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA crosses the scheme, therefore there may be in-combination effects from habitat loss and disturbance (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing).			
		R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings, footpath and junction alterations, installation of new signage and road markings, new tree planting, new central medians and narrowing of carriageway lanes This development was screened out for AA, therefore there will be no potential impact on European sites. Lower River Shannon SAC is approximately 61km north-west of			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		the scheme; no in-combination effects are possible. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is approximately 56km north-west of the scheme; no in-combination effects are possible.			
SAJ-628	Habitat degradation	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick	No	N/A	N
Rationalise Monabricka to South West Regional Scheme WRZ.		Lower River Shannon SAC is approximately 30km west of the scheme therefore no in-combination effects are predicted.			
Option study area is 19km from and		N72/N73 Mallow Relief Road: 5km relief road outside of Mallow			
hydrologically linked to Lower River Shannon SAC. Potential pollution of watercourses during construction could affect		Lower River Shannon SAC is approximately 34km north-west of the western extent of the scheme therefore no in-combination effects are predicted.			
QI species and hydrologically connected habitats. No operational impacts are		Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure			
predicted.		Lower River Shannon SAC is approximately 29km west of the southern extent of the scheme therefore no in-combination effects are predicted.			
		Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites			
		Lower River Shannon SAC is approximately 36km north-west of the scheme therefore no in-combination effects are predicted.			
		MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal			
		This development was screened out for AA, therefore there will be no potential impact on European sites. Lower River Shannon SAC is approximately 81km north-west of the western extent of the scheme; no in-combination effects are possible.			
		Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms			
		This development was screened out for AA, therefore there will be no potential impact on European sites. Lower River Shannon SAC is approximately 34km north-west of the scheme; no in-combination effects are possible.			
		Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library			
		Lower River Shannon SAC is approximately 94km north-west of the schemes therefore no in-combination effects are predicted.			
		St Patrick's Community Hospital Fermoy: construction of a single extension to an existing ward, a single-story extension to another ward, and external works including alterations to the 'service access' road			
		This development was screened out for AA, therefore there will be no potential impact on European sites. Lower River Shannon SAC is approximately 61km north-west of the scheme; no in-combination effects are possible.			
		St Joseph's Community Hospital, Millstreet: includes demolition of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities			
		Lower River Shannon SAC is approximately 23km north-west of the scheme therefore no in-combination effects are predicted.			
		Kanturk Community Hospital: includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities			
		Lower River Shannon SAC is approximately 18km north-west of the scheme therefore no in-combination effects are predicted.			
		Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow			

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Lower River Shannon SAC is approximately 38km north-west of the scheme therefore no in-combination effects are predicted. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events This development was screened out for AA, therefore there will be no potential impact on European sites. Lower River Shannon SAC is approximately 26km north-west of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Lower River Shannon SAC is approximately 58km west of the scheme therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Lower River Shannon SAC is approximately 7.5km north of the scheme with no hydrological link, therefore no in-combination effects are predicted. R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian crossings, footpath and junction alterations, installation of new signage and road markings, new tree planting, new central medians and narrowing of carriageway lanes This development was screened out for AA, therefore there will be no potential impact on European sites. Lower River Shannon SAC is approximately 61km north-west of the scheme; no in-combination effects are possible.			
New GW abstraction and upgrade Charleville WRZ to supply deficit. Rationalise Castlewrixon and Skahanagh WRZs to Charleville/Doneraile WRZ. Option study area is within and hydrologically linked to Blackwater River (Cork/Waterford) SAC. There is potential for some loss of/damage to Ql/Annex 1 habitats during construction works given that the works are within the SAC boundary. Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species given that the works are within the SAC boundary. Option includes GW abstractions. There is a risk these groundwater abstractions could lead to hydrological changes (reduced flows – impacting on water	 Habitat loss Mortality risk Habitat degradation Disturbance Spread of invasive non-native species Water table/availability 	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. LSE from pollution during operation also identified. Therefore, there may be in-combination effects from mortality, habitat loss, disturbance and pollution. Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result	Yes – from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, habitat loss, disturbance and pollution impacts	General Mitigation Measures are outlined in Section 6.3.3 Option specific mitigation as in Section 6.3.4 Hydrological modelling as in Section 6.3.5 Hydrogeological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in- combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
quality) that could impact aquatic QI species or habitats. Therefore, there is potential for impacts on aquatic QI utilising this European site through a reduction in flows/water levels. There is a risk these groundwater abstractions will reduce water flow in the underground aquifer. These groundwater abstractions are all within 2km of the SAC, and the SAC overlies both a karstic aquifer and productive fissured bedrock. Therefore, there is potential for impacts on QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water.					Effects on Site Integrity
		spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the St Joseph's Community Hospital, Millstreet scheme assumed as assessment not available at time of writing). Kanturk Community Hospital: includes demolition of sections of hospital, construction of three single-storey extensions to existing hospital, provision of landscaped outdoor amenities and extension of carparking facilities Blackwater River (Cork/Waterford) SAC is approximately 385m north-east of the scheme therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Kanturk Community Hospital scheme assumed as assessment not available at time of writing). Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic QI species and	Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		habitats including disturbance and mortality. Therefore, there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events. This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts. Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available at time of writing). R639 Public Realm and Streetscape Regeneration Scheme, Rathcormac: part of the Rathcormac Development Plan 2030. Includes upgrading pedestrian cros	with Kanturk Community Hospital works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC		
New GW abstraction (karstic) and new WTP to supply full demand. Decommission Freemount WTP. Rationalise Kilbrin Garran an Darra to Allow regional WRZ. Option study area is 3.9km from and hydrologically linked to Blackwater River (Cork/Waterford) SAC. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. There is potential for the spread of invasive species. Option includes GW abstraction. There is a risk this groundwater abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. Therefore, there is potential for impacts on aquatic QI utilising this European site through a reduction in flows/water levels.	 Habitat degradation Spread of invasive non-native species Water table/availability 	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. LSE from pollution during operation also identified. Therefore, there may be in-combination effects from pollution.	Yes – from spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N72/N73 Mallow Relief Road works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC	General Mitigation Measures are outlined in Section 6.3.3 Hydrological modelling as in Section 6.3.5 Hydrogeological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in- combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
There is a risk this groundwater abstraction will reduce water flow in the underground aquifer. This groundwater abstraction is within 5km of the SAC, and the SAC overlies a karstic aquifer. Therefore, there is potential for impacts on QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water.		Mallow Town Regeneration: development of Mallow Castle Visitor Centre, Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Cois Abhainn. Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library Blackwater River (Cork/Waterford) SAC is approximately 340m east of the schemes therefore there may be in-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at time of writing). St Patrick's Community Hospital Fermov: construction of a single extension to an existing ward, a single-story extension to another ward, and extension of sections of hospital, construction of single-storey extension to existing hospital, provision of landscaped outdoor amenities and extension of carparking f	Yes – from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works and during operation from habitat degradation on Blackwater River (Cork/Waterford) SAC Yes – from spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Blackwater River (Cork/Waterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic QI species and habitats including disturbance and mortality. Therefore, there may be in-combination effects from spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events. This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for Ballydesmond Village Public Realm and Placemaking Enhancement assumed as assessment not available	habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC		
New GW abstraction in the vicinity of Ballinatona WTP, upgrade existing Ballinatona WTP and supply deficit. New GW abstraction from Ketragh Springs and new WTP to supply deficit. Rationalise Ballydesmond/Kiskeam to Newmarket WRZ. Interconnect Newmarket with Banteer and rationalise Toureen Derry to Banteer. Interconnect Newmarket with Millstreet and rationalise Glenleigh and Kilcorney to Millstreet. Option study area is within and hydrologically linked to Blackwater River (Cork/Waterford) SAC. There is potential for some loss of/damage to Ql/Annex 1 habitats during construction works given that the works are within the SAC boundary. Pollution of water courses during construction	 Habitat loss Mortality risk Habitat degradation Disturbance Spread of invasive non-native species Water table/availability 	N/M20 Cork to Limerick Road Improvement Scheme: 80km from Cork to Limerick Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N/M20 Cork to Limerick Road assumed as assessment not available at time of writing). N72/N73 Mallow Relief Road: 5km relief road outside of Mallow Blackwater River (Cork/Waterford) SAC is approximately 1km south of the eastern extent of the scheme, therefore there may be in-combination effects from mortality, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for N72/N73 Mallow Relief Road assumed as assessment not available at time of writing). Cork Line Level Crossings: works between Fantstown and Buttevant train stations spanning across approximately 25km of railways and associated infrastructure Blackwater River (Cork/Waterford) SAC crosses the scheme, and the LSEs identified in the NIS for this scheme were habitat fragmentation, habitat/supporting habitat loss, habitat degradation including pollution, mortality and disturbance. LSE	Yes – from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with N/M20 Cork to Limerick Road Improvement Scheme works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent	General Mitigation Measures are outlined in Section 6.3.3 Option specific mitigation as in Section 6.3.4 Hydrological modelling as in Section 6.3.5 Hydrogeological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either alone or in- combination with other plans or projects.	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
(associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel. Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats, such as freshwater pearl mussel as the study area is within the FWPM catchment area. There is potential for disturbance to otter from construction works. There is also potential for the spread of invasive species given that the works are within the SAC boundary. Option includes GW abstractions. There is a risk these groundwater abstractions could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats. Therefore, there is potential for impacts on aquatic QI utilising this European site through a reduction in flows/water levels. There is a risk these groundwater abstractions will reduce water flow in the underground aquifer. One of these groundwater abstractions is within 1km of the SAC, and the SAC overlies both a karstic aquifer and productive fissured bedrock. Therefore, there is potential for impacts on QI utilising watercourses hydrologically linked to this European site through a reduction in flows/water.		from pollution during operation also identified. Therefore, there may be in-combination effects from mortality, habitat loss, disturbance and pollution. Mallow Town Regeneration: development of Mallow Castle Visitor Centre. Mallow Town Centre and Main Street Public realm, and the redevelopment of brownfield sites Blackwater River (Cork/Waterford) SAC crosses the scheme, therefore there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSE for Mallow Town Regeneration assumed as assessment not available at time of writing). MY Greenway - Midleton to Youghal: development of a 22km greenway from Midleton to Youghal: development of a 22km greenway from Midleton to Youghal: development of a 22km greenway from Midleton to Town to Youghal: development of sevelopment was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 240m north-east of the eastern extent of the scheme; no in-combination effects are possible. Mallow General Hospital Ward Block: development of two medical wards with 48 new single bedrooms This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 1.8km north of the scheme; no in-combination effects are possible. Cois Abhainn, Greencloyne, Youghal. Youghal Community Hospital (St Raphael's), Youghal Public Library: works associated with two separate residential care centres and the renovation and extension of a public library and the renovation and extension of a public library and the renovation and extension of a public library schemes assessment not availablity (LSE for the Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library schemes assumed as assessment not available at t	with N72/N73 Mallow Relief Road works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, habitat loss, disturbance and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cork Line Level Crossings works and during operation from habitat degradation on Blackwater River (Cork/Waterford) SAC Yes – from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Town Regeneration works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Cois Abhainn, Greencloyne, Youghal, Youghal Community Hospital (St Raphael's), Youghal Public Library works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with St Joseph's Community Hospital, Millstreet works and during operation from habitat degradation and water table/availability on Blackwater		

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		Mallow Wastewater Treatment Plant: includes the alteration of Mallow Wastewater Treatment Plant to increase wastewater treatment capacity, construction of a new pump station, and upgrading of sections of the sewer network in Mallow Blackwater River (CorkWaterford) SAC crosses the scheme and the LSEs identified in the NIS for this scheme were impacts on water quality during construction and/or operation, spread of invasive species, impacts on migration of fish species, flooding impacts, loss of or damage to habitats and impacts to aquatic QI species and habitats including disturbance and mortality. Therefore, there may be in-combination effects from mortality, habitat loss, disturbance, spread of invasive non-native species and pollution. In-combination effects during operation may result in habitat degradation and changes to water table/availability. Banteer Amenity Project: upgrade of recreational and commercial facilities in Banteer including a multi-purpose Astro turf pitch and spectator area and sports pavilion, a museum/exhibitor area, café, shop, car park, and a communal area for events This development was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 370m east of the scheme; no in-combination effects are possible. Georgian Cultural/Heritage Quarter, Mitchelstown: includes a church being refurbished as an Arts, Heritage and Cultural Centre, development of interpretative signage, information points and landscaping along Georges Street and Kings Square, and the development of a three hectare woodland park Blackwater River (Cork/Waterford) SAC is approximately 8.3km south-east of the scheme with no hydrological link, therefore no in-combination effects are predicted. Ballydesmond Village Public Realm and Placemaking Enhancement: key village centre improvements, including enhanced streetscapes, walkways and park areas to support the social and economic development of the village Blackwater River (Cork/Waterford	Yes – from mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Kanturk Community Hospital works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Mallow Wastewater Treatment Plant works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC Yes – from habitat loss, mortality, disturbance, spread of invasive non-native species and pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with Ballydesmond Village Public Realm and Placemaking Enhancement works and during operation from habitat degradation and water table/availability on Blackwater River (Cork/Waterford) SAC		
All Preferred Options The European sites that may be impacted by options within Study Area J are Blackwater River (Cork/Waterford) SAC, Blackwater Estuary SPA, Blackwater Callows SPA, Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA, Lower River Suir SAC and Lower River Shannon SAC.	 Habitat loss Mortality risk Habitat degradation Disturbance Spread of invasive non-native species Water table/availability 	All Preferred Approach Options There is potential for in-combination effects from the projects within SAJ to Blackwater River (Cork/Waterford) SAC given that options SAJ-291, SAJ-223, SAJ-272, SAJ-128, SAJ-188, SAJ-262, SAJ-162, SAJ-167, SAJ-281, SAJ-531, SAJ-601, SAJ-597, SAJ-520, SAJ-611, SAJ-627, SAJ-609, SAJ-595, SAJ-616, SAJ-617, SAJ-614, SAJ-613, SAJ-629, SAJ-630 and SAJ-631 have the potential for impacts. Potential for incombination from habitat loss (options 128, 531, 597, 611, 627, 595, 629 and 631 only), mortality (options 128, 531, 597, 611, 627, 609, 595, 614, 629 and 631 only), spread of invasive non-native species (options 128, 531, 597, 611, 627, 609, 595, 614, 629, 630 and 631 only) and pollution (all options) impacts during construction, and hydrological changes (options 128, 531, 597, 627, 609, 595, 614, 629, 630 and 631 only) and water table/availability (options 128, 531, 597, 627, 609, 595, 614, 629, 630 and 631 only) impacts during operation.	Yes – from habitat loss, mortality, spread of invasive non-native species, disturbance and habitat degradation impacts on Blackwater River (Cork/Waterford) SAC if construction of options is concurrent and during operation from habitat degradation and water table/availability. Yes – from habitat degradation impacts on Blackwater Estuary SPA if construction of options is	General Mitigation Measures are outlined in Section 6.3.3 Option specific mitigation as in Section 6.3.4 Hydrological modelling as in Section 6.3.5 Hydrogeological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the	N

Preferred Option	Potential Impacts – Key Types	Potential for In-combination Implications on European Sites Project(s) being assessed against identified underlined	Potential for Likely Significant Effects in-combination (Yes/No)	Mitigation and Conclusion	In-combination Adverse Effects on Site Integrity (Y/N)
		There is potential for in-combination effects from the projects within SAJ to Blackwater Estuary SPA given that options SAJ-291, SAJ-223, SAJ-128, SAJ-611 and SAJ-609 have the potential for impacts. Potential for in-combination effects from pollution during construction (all options). There is potential for in-combination effects from the projects within SAJ to Blackwater Callows SPA given that options SAJ-281, SAJ-531, SAJ-601, SAJ-597, SAJ-627, SAJ-595, SAJ-617, SAJ-614 and SAJ-613 have the potential for impacts. Potential for in-combination from disturbance (options 627, 595 and 614 only) and pollution (all options) during construction. There is potential for in-combination effects from the projects within SAJ to Lower River Shannon SAC given that options SAJ-600 and SAJ-628 have the potential for impacts. Potential for in-combination from pollution (all options) during construction. Option SAJ-600 is the only option within SAJ with potential for impacts on Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA. Therefore, there is no potential for in-combination effects to this European site Option SAJ-613 is the only option within SAJ with potential for impacts on Lower River Suir SAC. Therefore, there is no potential for in-combination effects to this European site.	concurrent. Yes – from disturbance and habitat degradation impacts on Blackwater Callows SPA if construction of options is concurrent. Yes – from habitat degradation impacts on Lower River Shannon SAC if construction of options is concurrent.	integrity of this European site, either alone or incombination with other plans or projects.	

Table E4: Potential in-combination effects between SAs within the SW region

European Site	Study Areas with Potential for Impacts on this European Site	Potential Impact on European Site	Potential for Likely Significant Effects In-combination (Yes/No)	Mitigation and Conclusion	In- combination Adverse Effects on Site Integrity (Y/N)
Ballinskelligs Bay and Inny Estuary SAC (000335)	SAHSAI	Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (all SAs).	Yes – from habitat degradation (all SAs) if construction of options within these SAs is concurrent.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either from the options within individual SAs or in-combination between SAs.	N
Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC (000365)	• SAH • SAI	Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (all SAs). Disturbance – There is potential for disturbance to otter during construction (all SAs). Spread of invasive non-native species – There is the potential for the spread of invasive non-native species during construction (all SAs). Habitat degradation – A new/increase in abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats during operation (all SAs). Water table/availability – There is potential for impacts on aquatic QI species utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels during operation (all SAs).	Yes – from habitat degradation (all SAs), disturbance (all SAs) and spread of invasive non-native species (all SAs) if construction of options within these SAs is concurrent, and during operation from water table/availability (all SAs) and habitat degradation impacts (all SAs).	 General Mitigation Measures are outlined in Section 6.3.3 Hydrogeological modelling as in Section 6.3.5 Hydrological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either from the options within individual SAs or in-combination between SAs. 	N
Blackwater River (Cork/Waterford) SAC (002170)	SAHSAISAJ	 Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (all SAs). Disturbance – There is potential for disturbance to otter during construction (SAI and SAJ only). Spread of invasive non-native species – There is the potential for the spread of invasive non-native species during construction (SAI and SAJ only). Habitat degradation – A new/increase in abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats during operation (SAI and SAJ only). Water table/availability – There is potential for impacts on aquatic QI species utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels during operation (SAI and SAJ only). 	Yes – from habitat degradation (all SAs), disturbance (SAI and SAJ only) and spread of invasive non-native species (SAI and SAJ only) if construction of options within these SAs is concurrent, and during operation from water table/availability (SAI and SAJ only) and habitat degradation impacts (SAI and SAJ only).	 General Mitigation Measures are outlined in Section 6.3.3 Option specific mitigation measures are outlined in Section 6.3.4 Hydrogeological modelling as in Section 6.3.5 Hydrological modelling as in Section 6.3.5 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either from the options within individual SAs or in-combination between SAs. 	N
Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (004161)	SAHSAJ	Disturbance – There is potential for disturbance during construction to hen harrier using habitats situated within the immediate hinterland of the SPA or in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland) (all SAs).	Yes – from disturbance (all SAs) if construction of options within these SAs is concurrent.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either from the options within individual SAs or in-combination between SAs.	N
Lower River Shannon SAC (002165)	SAHSAJ	 Habitat loss – There is potential for some loss of/damage to QI/Annex 1 habitats during construction works (all SAs). Mortality risk – Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel (all SAs). Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (all SAs). 	Yes – from habitat loss (all SAs), mortality risk (all SAs), habitat degradation (all SAs), disturbance (all SAs) and the spread of invasive non- native species (all SAs) if construction of options within these SAs is concurrent.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either from the	N

European Site	Study Areas with Potential for Impacts on this European Site	Potential Impact on European Site	Potential for Likely Significant Effects In-combination (Yes/No)	Mitigation and Conclusion	In- combination Adverse Effects on Site Integrity (Y/N)
		Disturbance – There is potential for disturbance to otter during construction (all SAs). Spread of invasive non-native species – There is the potential for the spread of invasive non-native species during construction (all SAs).		options within individual SAs or in-combination between SAs.	
Blackwater Estuary SPA (004028)	SAISAJ	Habitat degradation – There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species (all SAs). Disturbance – There is potential for disturbance during construction to QI birds using habitats situated within the immediate hinterland of the SPA or in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland) (all SAs).	Yes – from habitat degradation (all SAs) and disturbance (all SAs) if construction of options within these SAs is concurrent.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either from the options within individual SAs or in-combination between SAs.	N

Table E5: Potential in-combination effects between the SW region and the EM region

European Site	Regions with Potential for Impacts on this European Site	Potential Impact on European Site	Potential for Likely Significant Effects In-combination (Yes/No)	Mitigation and Conclusion	In- combination Adverse Effects on Site Integrity (Y/N)
Lower River Suir SAC (002137)	• SW • EM	Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (all regions).	Yes – from habitat degradation (all regions) if construction of options within these regions is concurrent.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either from the options within individual regions or in-combination between regions.	N
Blackwater River (Cork/Waterford) SAC (002170)	• SW • EM	Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (all regions).	Yes – from habitat degradation (all regions) if construction of options within these regions is concurrent.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either from the options within individual regions or in-combination between regions.	N
Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (004161)	• SW • EM	Disturbance – There is potential for disturbance during construction to hen harrier using habitats situated within the immediate hinterland of the SPA or in areas outside of the SPA but ecologically connected to it (e.g. grassland, arable farmland) (all regions).	Yes – from disturbance (all regions) if construction of options within these regions is concurrent.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either from the options within individual regions or in-combination between regions.	N
Lower River Shannon SAC (002165)	• SW • EM	Habitat loss – There is potential for some loss of/damage to QI/Annex 1 habitats during construction works (all regions). Mortality risk – Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact fish, restrict access to spawning habitat and smother freshwater pearl mussel (all regions). Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (all regions). Disturbance – There is potential for disturbance to otter during construction (all regions). Spread of invasive non-native species – There is the potential for the spread of invasive non-native species during construction (all regions). Habitat degradation – A new/increase in abstraction could lead to hydrological changes (reduced flows – impacting on water quality) that could impact aquatic QI species or habitats during operation (all regions). Water table/availability – There is potential for impacts on aquatic QI species utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels during operation (all regions).	Yes – from habitat loss (all regions), mortality risk (all regions), habitat degradation (all regions), disturbance (all regions) and the spread of invasive non-native species (all regions) if construction of options within these regions is concurrent, and during operation from water table/availability (all regions) and habitat degradation impacts (all regions).	 General Mitigation Measures are outlined in Section 6.3.3 Hydrogeological modelling as in Section 6.3.5 Hydrological modelling as in Section 6.3.5 Option specific mitigation measures are outlined in Section 6.3.4 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either from the options within individual regions or in-combination between regions. 	N
River Shannon and River Fergus Estuaries SPA (004077)	• SW • EM	Habitat degradation – There is potential for pollution of waterbodies during construction that could impact on the wetland habitat used by QI bird species. Potential pollution of watercourses during construction could have indirect effects on QI bird species through impacts upon prey species (all regions).	Yes – from habitat degradation (all regions) if construction of options within these regions is concurrent.	General Mitigation Measures are outlined in Section 6.3.3 With the implementation of mitigation as noted above there will be no adverse effects on the integrity of this European site, either from the	N

European Site	Regions with Potential for Impacts on this European Site	Potential Impact on European Site	Potential for Likely Significant Effects In-combination (Yes/No)	Mitigation and Conclusion	In- combination Adverse Effects on Site Integrity (Y/N)
				options within individual regions or in-combination between regions.	