

## Regional Water Resources Plan

Natura Impact Statement Appendix E

**South East** 







## **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 provides 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. The NIS reflects this transition from Irish Water to Uisce Éireann.

Baseline data included in the RWRP-SE 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-SE. 2019 was selected as the base year to align with the planning period (2019-2025) of the NWRP.

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

Preferred Option	Potential Effects – 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	Adverse Effects on S Integrity (Y/N)
TUDY AREA K					
	<ul> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Fermoy Town Centre Renewal Project  Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is adjacent to this scheme, however given the small scale of the works in Cahir no in-combination effects are predicted.  East Limerick Greenway, Newcastle West Greenway to the Suir Blueway at Cahir Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available so it is assumed there is a potential for in-com	Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall scheme.	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 Effects – 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 Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza Lower River Suir SAC is approximately 20km south and downstream from this scheme. The townhall is approximately 300m from a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing).  An Duiche Social Housing, Tipperary Town: and Tipperary Town Regeneration  Lower River Suir SAC is approximately 6km south and downstream from these schemes. The schemes are adjacent to or within 60m of a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Blackwater Community School, Lismore, Waterford  Lower River Suir SAC is approximately 16km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan  Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Kilbarry Social Housing, Waterford: and WIT Engineering, ICT and Teaching Building  Lower River Suir SAC is approximately 5km north and downstream from these schemes. The schemes are hydrologically linked to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution and dis	with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City North Quays scheme.		
Increase GW abstraction from existing spring and BH and upgrade Callan WTP to supply deficit.  Option study area is within the River Barrow And River Nore SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species.	<ul> <li>Habitat loss</li> <li>Mortality risk</li> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> <li>Water table/availability</li> </ul>	River Barrow And River Nore SAC is approximately 70km north-east of this scheme and therefore no in-combination impacts are predicted. River Nore SPA is approximately 70km north-east of this scheme and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  River Barrow And River Nore SAC is approximately 66km north-east of this scheme and therefore no in-combination impacts are predicted. River Nore SPA is approximately 80km north-east of this scheme and therefore no in-combination impacts are predicted.	Yes - from pollution, mortality, spread of invasive species and disturbance impacts on River Barrow And River Nore SAC and from pollution and disturbance on River Nore SPA if construction phase concurrent with the Callan Friary Complex/Upper Bridge St Regeneration & Masterplan and the Callan Town Regeneration	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	N

Preferred Option	Potential Effects – 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 the potential for the spread of invasive species within the SAC. During operation there is the potential for habitat degradation and a reduction in flow and water availability.  Option study area is within the Zone of Influence of the River Nore SPA which is 1.7km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is also potential for disturbance to birds given the proximity of works. No operational impacts predicted.		Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town: And the Callan Town Regeneration  River Barrow And River Nore SAC is adjacent to these schemes and hydrologically linked via King's river. No NIS available so it is assumed there is a potential for incombination effects from pollution, mortality, spread of invasive species and disturbance during construction. River Nore SPA is 1.4km downstream from these schemes and is hydrologically linked via the King's River. No NIS available so it is assumed there is a potential for incombination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. River Barrow And River Nore SAC is approximately 35km north-east of this scheme and therefore no in-combination impacts are predicted.  East Limerick Greenway. Newcastle West to Cahir River Barrow And River Nore SAC is approximately 35km north-east of this scheme and therefore no in-combination impacts are predicted.  East Limerick Greenway. Newcastle West to Cahir Town River Barrow And River Nore SAC is approximately 35km north-east of this scheme and therefore no in-combination impacts are predicted.  Cashel to Cahir Greenway - Cashel to Cahir Town River Barrow And River Nore SAC is approximately 22km east of this scheme and therefore no in-combination impacts are predicted.  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper River Barrow And River Nore SAC is approximately 45km north-east of this scheme and therefore no in-combination impacts are predicted. River Nore SPA is approximately 57km north-east of this scheme and therefore no in-combination impacts are predicted.  Suir Blueway - Manflield to Cahir, Manflield Village to Swiss Cottages	Yes - from pollution impacts on River Barrow And River Nore SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme and during operation from habitat degradation on the River Barrow And River Nore SAC.  Yes - from pollution, mortality and disturbance impacts on River Barrow And River Nore SAC if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan and during operation from habitat degradation and water table/availability on the River Barrow And River Nore SAC.  Yes - from pollution, mortality and disturbance impacts on River Barrow And River Nore SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from disturbance and pollution impacts on River Barrow And River Nore SAC if construction phase concurrent with the Waterford City North Quays scheme.	effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

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		impacts are predicted.  Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza River Barrow And River Nore SAC is approximately 22km east of this scheme and therefore no in-combination impacts are predicted. River Nore SPA is approximately 23km east of this scheme and therefore no in-combination impacts are predicted.  An Duiche Social Housing, Tipperary Town; and Tipperary Town Regeneration River Barrow And River Nore SAC is approximately 40km east of these schemes and therefore no in-combination impacts are predicted. River Nore SPA is approximately 54km east of these schemes and therefore no in-combination impacts are predicted.  Blackwater Community School, Lismore, Waterford. River Barrow And River Nore SAC is approximately 65km east of this scheme and therefore no in-combination impacts are predicted. River Nore SPA is approximately 67km north-east of this scheme and therefore no in-combination impacts are predicted.  Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan. River Barrow And River Nore SAC is 3.5km east from these schemes, and is hydrologically linked via the River Suir. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality and disturbance during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSEs for these schemes assumed as assessment not available at time of writing). River Nore SPA is approximately 23km north-east from these schemes and therefore no in-combination impacts are predicted.  Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building			
		River Barrow And River Nore SAC is 9.4km north-east from these schemes, and is hydrologically linked via the River Suir. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality and disturbance during construction. (LSEs for these schemes assumed as assessment not available at time of writing). River Nore SPA is approximately 23km north-east from these schemes and therefore no in-combination impacts are predicted.  Waterford City and Environs - North Quays  This development includes a new urban area with large commercial buildings, a new bridge across the River Suir and a new boardwalk along the bank of the River Suir. River Barrow And River Nore SAC is 6.7km east of this scheme. The NIS for this scheme identified pollution during construction, as well as disturbance and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction. River Nore SPA is approximately 23km north-east from the scheme and therefore no in-combination impacts are predicted.  Blackwater River Valley Regeneration Plan  River Barrow And River Nore SAC is approximately 60km east of this scheme and therefore no in-combination impacts are predicted. River Nore SPA is approximately 61km north-east of this scheme and therefore no in-combination impacts are predicted.			
SAK-106  Rationalise Templetuohy to Templemore [rationalise to College Hill WTP]. Rationalisation within WRZ. Increase GW abstraction, new pump, upgrade Templemore College Hill WTP, upgrade Whitefield WTP, and abandon	Habitat degradation	Fermoy Town Centre Renewal Project  Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted.	Yes - from pollution impacts on  Lower River Suir SAC if  construction phase concurrent with the East Limerick Greenway scheme.  Yes - from pollution impacts on	General Mitigation Measures are outlined in Section 6.3.3  With the implementation of mitigation as noted above there will be no adverse	N

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Templetuohy WTP.  Option study area is within the Zone of Influence and is hydrologically linked to the Lower River Suir SAC which is 9.7km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts predicted.		Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is adjacent to this scheme, however given the small scale of the works in Cahir no in-combination effects are predicted.  East Limerick Greenway. Newcastle West Greenway to the Suir Blueway at Cahir Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Cashel to Cahir Greenway - Cashel to Cahir Town  Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper Lower River Suir SAC is approximately 13km north from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Suir Blueway - Manflield to Cahir. Marflield Village to Swiss Cottages  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Carrick-on-Suir Regenerat	Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.	effects on the integrity of this European site, either alone or in-combination with other plans or projects.	

Preferred Option	Potential Effects – 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 Suir SAC is approximately 6km south and downstream from these schemes. The schemes are adjacent to or within 60m of a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Blackwater Community School, Lismore, Waterford.  Lower River Suir SAC is approximately 16km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan  Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building Lower River Suir SAC is approximately 5km north and downstream from these schemes. The schemes are hydrologically linked to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Waterford City and Environs - North Quays  This development includes a new urban area with large commercial buildings, a new bridge across the River Suir and a new boardwalk along the bank of the River Suir. Lower River Suir SAC is directly adjacent to this scheme. The NIS for this scheme identified pollution, habitat loss, mortality during construction, as well as disturbance and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution during construction.  Blackwater River Valley Regeneration Plan  Lower River Suir SAC is approximately 14km north of this scheme with no hy	Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City North Quays scheme.		
New SW abstraction from Aherlow River and upgrade Rossadrehid WTP, Thomastown Augmentation WTP, Springmount Source WTP and Farranamnagh WTP for WQ.  Option study area is within the Lower River Suir SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. During operation there is the potential for habitat degradation and a reduction in flow and water availability.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> </ul>	Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is adjacent to this scheme, however given the small scale of the works in Cahir no in-combination effects are predicted.  East Limerick Greenway, Newcastle West Greenway to the Suir Blueway at Cahir Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-combination effects from habitat	Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent	General Mitigation Measures are outlined in Section 6.3.3 Option Specific Measures as in Section 6.3.4 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 Effects – 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)
		loss, pollution, mortality, the spread of invasive species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Cashel to Cahir Greenway - Cashel to Cahir Town  Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, the spread of invasive species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper  Lower River Suir SAC is approximately 13km north from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Suir Blueway - Marifield to Cahir, Marifield Village to Swiss Cottages  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, the spread of invasive species and disturbance during construction. Incombination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing).  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, the spread of invasive species and disturbance during construction. Incombination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing).  Carrick-on-Suir Regeneration Plan  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the spread of invasive species and dist	with the Marlfield to Cahir Blueway scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution impacts on Lower River Suir SAC.		
		Lower River Suir SAC is approximately 6km south and downstream from these schemes. The schemes are adjacent to or within 60m of a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Blackwater Community School, Lismore, Waterford.  Lower River Suir SAC is approximately 16km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted.	Yes - from pollution impacts on  Lower River Suir SAC if  construction phase concurrent with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.		
			Yes - from pollution, mortality, the		

Preferred Option	Potential Effects – 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 Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the spread of invasive species and disturbance during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSEs for these schemes assumed as assessment not available at time of writing).  Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building Lower River Suir SAC is approximately 5km north and downstream from these schemes. The schemes are hydrologically linked to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Waterford City and Environs - North Quays  This development includes a new urban area with large commercial buildings, a new bridge across the River Suir and a new boardwalk along the bank of the River Suir.  Lower River Suir SAC is directly adjacent to this scheme. The NIS for this scheme identified pollution, habitat loss, mortality during construction, as well as disturbance and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from habitat loss, pollution, mortality and disturbance during construction.  Blackwater River Valley Regeneration Plan  Lower River Suir SAC is approximately 14km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted.	spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan and during operation from habitat degradation and water table/availability on the Lower River Suir SAC.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from habitat loss, pollution, mortality and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City North Quays scheme.		
New GW abstraction, new WTP to supply deficit and upgrade of Fawnagown WTP for WQ purposes.  Option study area is within the Zone of Influence and is hydrologically linked to the Lower River Suir SAC which is 2.2km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is the potential for disturbance to QI species. No operational impacts predicted.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is adjacent to this scheme, however given the small scale of the works in Cahir no in-combination effects are predicted.  East Limerick Greenway, Newcastle West Greenway to the Suir Blueway at Cahir Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Cashel to Cahir Greenway - Cashel to Cahir Town  Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination effects from pollution and it is assumed there is a potential for in-combination effects from pollution and it is assumed there is a potential for in-combination effects from pollution and it is assumed there is a potential for in-combination effects from pollution and it is assumed there is a	Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme.	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 Effects – 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 during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper  Lower River Suir SAC is approximately 13km north from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Suir Blueway - Marifield to Cahir, Marifield Village to Swiss Cottages  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Carrick-on-Suir Regeneration Plan  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Clonmel 2030 Regeneration Plan: Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel: and Prior Park Social Housing, Clonmel  Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza Lower River Suir SAC is approximately 300m from a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during constru	Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.		

Preferred Option	Potential Effects – 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)
		Assessment not available at time of writing).  Waterford City and Environs - North Quays  This development includes a new urban area with large commercial buildings, a new bridge across the River Suir and a new boardwalk along the bank of the River Suir.  Lower River Suir SAC is directly adjacent to this scheme. The NIS for this scheme identified pollution, habitat loss, mortality during construction, as well as disturbance and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction.  Blackwater River Valley Regeneration Plan  Lower River Suir SAC is approximately 14km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted.			
Increase GW abstraction from 2 BHs and upgrade Ballylooby Springs WTP to supply deficit.  Option study area is within the Lower River Suir SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. During operation there is the potential for habitat degradation and a reduction in flow and water availability.  Option study area is within the Zone of Influence of the Blackwater Callows SPA which is 16.6km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.	<ul> <li>Habitat loss</li> <li>Mortality risk</li> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> <li>Water table/availability</li> </ul>	Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 1.5km east and downstream from the scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 22km north from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted.  Blackwater Callows SPA is approximately 57km south-west from these schemes and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is adjacent to this scheme, however given the small scale of the works in Cahir no in-combination effects are predicted. Blackwater Callows SPA is approximately 25km south from this scheme and therefore no in-combination impacts are predicted.  East Limerick Greenway, Newcastle West Greenway to the Suir Blueway at Cahir Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-combination effects from habitatos, pollution, morta	Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Fermoy Town Centre Renewal Project.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Waterford Greenway Dungarvan to West of Ballyduff Upper link scheme.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC.	General Mitigation Measures are outlined in Section 6.3.3 Option Specific Measures as 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 alone or in-combination with other plans or projects.	N

Preferred Option	Potential Effects – 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)
		waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper Lower River Suir SAC is approximately 13km north from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Lismore and west of Ballyduff Upper. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Suir Blueway - Marffield to Cahir, Marffield Village to Swiss Cottages  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, the spread of invasive species and disturbance during construction. In- combination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 16km south-west from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, the spread of invasive species and disturbance during construction. In- combination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 42km south-west from this scheme and therefore no in-combination impacts are predicted.  Carrick-on-Suir Regeneration Plan  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the spread of invasive species	species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.  Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Blackwater Community School scheme.		

Preferred Option	Potential Effects – 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)
		effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 35km south from these schemes and therefore no in-combination impacts are predicted.  Blackwater Community School, Lismore, Waterford.  Lower River Suir SAC is approximately 16km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 900m north from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the spread of invasive species and disturbance during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSEs for these schemes assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 57km west from these schemes and therefore no in-combination impacts are predicted.  Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building Lower River Suir SAC is approximately 5km north and downstream from these schemes. The schemes are hydrologically linked to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 57km west from these schemes and therefore no in-combination impacts are predicted.  Waterford City and Environs - North Quays  This development includes a new urban area with large commerci	disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan and during operation from habitat degradation and water table/availability on the Lower River Suir SAC.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from habitat loss, pollution, mortality and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City North Quays scheme.  Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Blackwater River Valley Regeneration Plan.		
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit.  Option study area is hydrologically linked to the Blackwater River (Cork/Waterford) SAC which is 2.5km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts predicted.	Habitat degradation	Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not	Yes - from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the Fermoy Town Centre Renewal Project.  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	N

Preferred Option Potential Effects Types	Key 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)
	available at time of writing).  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; And the Callan Town Regeneration  Blackwater River (Cork/Waterford) SAC is approximately 43km south-west from these schemes and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites.  Blackwater River (Cork/Waterford) SAC is approximately 19km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  East Limerick Greenway, Newcastle West to Cahir  Blackwater River (Cork/Waterford) SAC is approximately 19km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Cashel to Cahir Greenway - Cashel to Cahir Town  Blackwater River (Cork/Waterford) SAC is approximately 19km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper  Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme and may be hydrologically linked via a number of watercourses between Cappoquin and Ballyduff Upper. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Suir Blueway - Marffield to Cahir. Marffield Village to Swiss Cottages  Blackwater River (Cork/Waterford) SAC is approximately 10km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden  Blackwater River (Cork/Waterford) SAC is approximately 30km south-west from this scheme and therefore no in-combination impacts are predicted.  Clomel 2	construction phase concurrent with the Regeneration of Youghal Town Centre scheme.  Yes - from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the Waterford Greenway Dungarvan to West of Ballyduff Upper link scheme.  Yes - from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the Blackwater River Valley Regeneration Plan.	with other plans or projects.	

Preferred Option	Potential Effects – 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)
Types		are predicted.  Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan Blackwater River (Cork/Waterford) SAC is approximately 45km south-west from these schemes and therefore no in-combination impacts are predicted.  Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building Blackwater River (Cork/Waterford) SAC is approximately 42km south-west from these schemes and therefore no in-combination impacts are predicted.  Waterford City and Environs - North Quays Blackwater River (Cork/Waterford) SAC is approximately 45km south-west from this scheme and therefore no in-combination impacts are predicted.  Blackwater River Valley Regeneration Plan Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme and. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Fermoy Town Centre Renewal Project  Dungarvan Harbour SPA is approximately 43km east from this scheme and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Dungarvan Harbour SPA is approximately 18km north-east from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in- combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; And the Callan Town Regeneration	Yes - from disturbance impacts on  Dungarvan Harbour SPA if  construction phase concurrent with the Regeneration of Youghal  Town Centre scheme.  Yes - from pollution and disturbance on Dungarvan Harbour SPA if construction phase concurrent with the Waterford Greenway Dungarvan to West of Ballyduff Upper link	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.	
		Dungarvan Harbour SPA is approximately 49km south-west from these schemes and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Dungarvan Harbour SPA is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted.  East Limerick Greenway, Newcastle West to Cahir  Dungarvan Harbour SPA is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted.  Cashel to Cahir Greenway - Cashel to Cahir Town  Dungarvan Harbour SPA is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted.  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper  Dungarvan Harbour SPA is adjacent to this scheme and may also be hydrologically linked via a number of watercourses around Dungarvan. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Suir Blueway - Marlfield to Cahir, Marlfield Village to Swiss Cottages  Dungarvan Harbour SPA is approximately 20km south-east from this scheme and therefore no in-combination impacts are predicted.  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden  Dungarvan Harbour SPA is approximately 27km south-west from this scheme and	Yes - from disturbance impacts on  Dungarvan Harbour SPA if  construction phase concurrent with the Blackwater River Valley Regeneration Plan.		

Preferred Option	Potential Effects – 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 impacts are predicted.  Carrick-on-Suir Regeneration Plan  Dungarvan Harbour SPA is approximately 29km south-west from this scheme and therefore no in-combination impacts are predicted.  Clonmel 2030 Regeneration Plan: Clonmel Community Nursing Unit: Suir Blueway - Gas House Bridge to Suir Island, Clonmel: and Prior Park Social Housing, Clonmel  Dungarvan Harbour SPA is approximately 27km south from these schemes and therefore no in-combination impacts are predicted.  Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza  Dungarvan Harbour SPA is approximately 78km south from this scheme and therefore no in-combination impacts are predicted.  An Duiche Social Housing, Tipperary Town: and Tipperary Town Regeneration  Dungarvan Harbour SPA is approximately 54km south-east from these schemes and therefore no in-combination impacts are predicted.  Blackwater Community School, Lismore, Waterford.  Dungarvan Harbour SPA is approximately 20km east from this scheme and therefore no in-combination impacts are predicted.  Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan.  Dungarvan Harbour SPA is approximately 37km south-west from these schemes and therefore no in-combination impacts are predicted.  Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building Dungarvan Harbour SPA is approximately 33km south-west from these schemes and therefore no in-combination impacts are predicted.  Waterford City and Environs - North Quays  Dungarvan Harbour SPA is approximately 37km south-west from this scheme and therefore no in-combination impacts are predicted.  Blackwater River Valley Regeneration Plan  Dungarvan Harbour SPA is 13km west of this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).			
New GW abstraction (karstic) and new WTP to supply deficit.  Option study area is within the Zone of Influence and is hydrologically linked to the Lower River Suir SAC which is 870m away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is the potential for disturbance to QI species. During operation there is the potential for habitat degradation and a reduction in flow and water availability.  Option study area is within the Zone of Influence of the Dungarvan Harbour SPA which is 16.7km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Blackwater Callows SPA	<ul> <li>Habitat degradation</li> <li>Disturbance</li> <li>Water table/availability</li> </ul>	Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 43km east from this scheme and therefore no incombination impacts are predicted. Blackwater Callows SPA is approximately 1.5km east and downstream from the scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 18km north-east from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction. (LSEs for the scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 22km north from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration	Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Fermoy Town Centre Renewal Project.  Yes - from disturbance impacts on Dungarvan Harbour SPA if construction phase concurrent with the Regeneration of Youghal Town Centre scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from disturbance and	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 alone or in-combination with other plans or projects.	N

Preferred Option	Potential Effects – 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)
which is 19km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.		Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 49km south-west from these schemes and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 57km south-west from these schemes and therefore no in-combination impacts are predicted. A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is adjacent to this scheme, however given the small scale of the works in Cahir no in-combination effects are predicted. Dungarvan Harbour SPA is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 25km south from this scheme and therefore no in-combination impacts are predicted. East Limerick Greenway, Newcastle West Greenway to the Suir Blueway at Cahir Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). Dungarvan Harbour SPA is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted. Cashel to Cahir Greenway - Cashel to Cahir Town  Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination impacts are predicted. Blackwater Callows SPA is adjac	pollution impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from disturbance on Dungarvan Harbour SPA and the Blackwater Callows SPA if construction phase concurrent with the Waterford Greenway Dungarvan to West of Ballyduff Upper link scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on- Suir Regeneration Plan and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from disturbance and pollution impacts on Lower River Suir SAC.  Yes - from disturbance and pollution impacts on Lower River Suir SAC.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes Plan and during operation from habitat degradation on the Lower River Suir SAC.		

Preferred Option	Potential Effects – 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 a potential for in-combination effects from pollution and disturbance during construction. In-combination effects during operation may result in habitat degradation. (LSEs for this scheme assumed as assessment not available at time of writing). Dungarvan Harbour SPA is approximately 27km south-west from this scheme and therefore no in-combination impacts are predicted.  Carrick-on-Suir Regeneration Plan  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction. In-combination effects from pollution and disturbance during construction. In-combination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). Dungarvan Harbour SPA is approximately 29km south-west from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 42km south-west from this scheme and therefore no in-combination impacts are predicted. Clonmel 2030 Regeneration Plan; Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel, and Prior Park Social Housing, Clonmel  Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction. In-combination effects during operation may result in habitat degradation (LSEs for these schemes assumed as assessment not available at time of writing). Dungarvan Harbour SPA is approximately 27km south from these schemes and therefore no in-combination impacts are predicted.  Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza Lower River Suir SAC is approximately 20km south and downstream from this scheme. The townhall is approximately 300m from a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-co	construction phase concurrent with the Templemore Town Hall scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.  Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Blackwater Community School scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan and during operation from habitat degradation and water table/availability on the Lower River Suir SAC.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City North Quays scheme.  Yes - from disturbance impacts on Dungarvan Harbour SPA and the Blackwater Callows SPA if construction phase concurrent with the Blackwater River Valley Regeneration Plan.		

Preferred Option	Potential Effects – 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 assumed there is a potential for in-combination effects from pollution and disturbance during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSEs for these schemes assumed as assessment not available at time of writing). Dungarvan Harbour SPA is approximately 37km south-west from these schemes and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 57km west from these schemes and therefore no in-combination impacts are predicted. Killbarry Social Housing, Waterford: and WIT Engineering, ICT and Teaching Building Lower River Suir SAC is approximately 5km north and downstream from these schemes. The schemes are hydrologically linked to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). Dungarvan Harbour SPA is approximately 33km south-west from these schemes and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 57km west from these schemes and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 57km west from these schemes and therefore no in-combination impacts are predicted. Waterford City and Environs - North Quays  This development includes a new urban area with large commercial buildings, a new bridge across the River Suir and a new boardwalk along the bank of the River Suir. Lower River Suir SAC is directly adjacent to this scheme. The NIS for this scheme identified pollution, habitat loss, mortality during construction, as well as disturbance and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination impacts are predicted. Blackwater Callows SPA is approximately 57km west from this scheme and therefore no in-combin			
Increase GW abstraction from Tooraneena BH and upgrade Touraneena WTP to supply deficit.  Option study area is within the Zone of Influence and is close to a hydrological link to the Blackwater River (Cork/Waterford) SAC which is 480m away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is the potential for disturbance to QI species. No operational impacts predicted.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; And the Callan Town Regeneration  Blackwater River (Cork/Waterford) SAC is approximately 43km south-west from these schemes and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture	Yes - from pollution and disturbance impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the Fermoy Town Centre Renewal Project.  Yes - from pollution and disturbance impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the Regeneration of Youghal Town Centre scheme.  Yes - from pollution and disturbance impacts on	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 Effects – 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 was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 19km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  East Limerick Greenway. Newcastle West to Cahir  Blackwater River (Cork/Waterford) SAC is approximately 19km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Cashel to Cahir Greenway - Cashel to Cahir Town  Blackwater River (Cork/Waterford) SAC is approximately 19km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper  Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme and may be hydrologically linked via a number of watercourses between Cappoquin and Ballyduff Upper. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Suir Blueway - Marifield to Cahir. Marifield Village to Swiss Cottages  Blackwater River (Cork/Waterford) SAC is approximately 10km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden  Blackwater River (Cork/Waterford) SAC is approximately 30km south-west from this scheme and therefore no in-combination impacts are predicted.  Carrick-on-Suir Regeneration Plan  Blackwater River (Cork/Waterford) SAC is approximately 25km south-west from this scheme and therefore no in-combination impacts are predicted.  Carrick-on-Suir Regeneration Plan: Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel: and Prior Park Social Housing, Clonmel Blackwater River (Cork/Waterford) SAC is approximately 45km south from these scheme and therefore no in	Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the Waterford Greenway Dungarvan to West of Ballyduff Upper link scheme.  Yes - from disturbance impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the Blackwater Community School works.  Yes - from pollution and disturbance impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the Blackwater River Valley Regeneration Plan.		

Preferred Option	Potential Effects – 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)
SAK-450	<ul> <li>Habitat degradation</li> </ul>	Waterford City and Environs - North Quays  Blackwater River (Cork/Waterford) SAC is approximately 45km south-west from this scheme and therefore no in-combination impacts are predicted.  Blackwater River Valley Regeneration Plan  Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme and. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Fermoy Town Centre Renewal Project	Yes - from disturbance impacts on	General Mitigation	N
Increase GW abstraction from Kilrossanty BH and upgrade Kilrossanty WTP to supply deficit.  Option study area is within the Zone of Influence of the Dungarvan Harbour SPA which is 6.2km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence and is close to a hydrological link to the Mid-Waterford Coast SPA which is 6.8km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. No operational impacts predicted.	• Disturbance	Dungarvan Harbour SPA is approximately 43km east from this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 52km east from this scheme and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Dungarvan Harbour SPA is approximately 18km north-east from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction. (LSEs for the scheme assumed as assessment not available at time of writing). Mid-Waterford Coast SPA is approximately 28km north-east from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; And the Callan Town Regeneration  Dungarvan Harbour SPA is approximately 49km south-west from these schemes and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 44km south from these schemes and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Dungarvan Harbour SPA is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 41km south-east from this scheme and therefore no in-combination impacts are predicted.  East Limerick Greenway , Newcastle West to Cahir  Dungarvan Harbour SPA is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted.  East Limerick Greenway - Cashel to Cahir Town  Dungarvan Harbour SPA is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted.  Waterford Greenway - Dungarvan -	Dungarvan Harbour SPA if construction phase concurrent with the Regeneration of Youghal Town Centre scheme.  Yes - from disturbance on Dungarvan Harbour SPA if construction phase concurrent with the Waterford Greenway Dungarvan to West of Ballyduff Upper link scheme.  Yes - from disturbance impacts on Dungarvan Harbour SPA if construction phase concurrent with the Blackwater River Valley Regeneration Plan.	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 Effects – 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)
		<b>Dungarvan Harbour SPA</b> is approximately 20km south-east from this scheme and therefore no in-combination impacts are predicted. <b>Mid-Waterford Coast SPA</b> is approximately 27km south-east from this scheme and therefore no in-combination impacts are predicted.			
		Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden			
		<b>Dungarvan Harbour SPA</b> is approximately 27km south-west from this scheme and therefore no in-combination impacts are predicted. <b>Mid-Waterford Coast SPA</b> is approximately 12km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.			
		Carrick-on-Suir Regeneration Plan			
		<b>Dungarvan Harbour SPA</b> is approximately 29km south-west from this scheme and therefore no in-combination impacts are predicted. <b>Mid-Waterford Coast SPA</b> is approximately 23km south from this scheme and therefore no in-combination impacts are predicted.			
		Clonmel 2030 Regeneration Plan; Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel; and Prior Park Social Housing, Clonmel			
		<b>Dungarvan Harbour SPA</b> is approximately 27km south from these schemes and therefore no in-combination impacts are predicted. <b>Mid-Waterford Coast SPA</b> is approximately 30km south-east from these schemes and therefore no in-combination impacts are predicted.			
		Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza			
		<b>Dungarvan Harbour SPA</b> is approximately 78km south from this scheme and therefore no in-combination impacts are predicted. <b>Mid-Waterford Coast SPA</b> is approximately 79km south-east from this scheme and therefore no in-combination impacts are predicted.  An Duiche Social Housing, Tipperary Town; and Tipperary Town Regeneration			
		Dungarvan Harbour SPA is approximately 54km south-east from these schemes and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 61km south-east from these schemes and therefore no in-combination impacts are predicted.			
		Blackwater Community School, Lismore, Waterford.			
		<b>Dungarvan Harbour SPA</b> is approximately 20km east from this scheme and therefore no in-combination impacts are predicted. <b>Mid-Waterford Coast SPA</b> is approximately 29km east from this scheme and therefore no in-combination impacts are predicted.			
		Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan.			
		<b>Dungarvan Harbour SPA</b> is approximately 37km south-west from these schemes and therefore no in-combination impacts are predicted. <b>Mid-Waterford Coast SPA</b> is approximately 11km south from these schemes with no hydrological link and therefore no in-combination impacts are predicted.			
		Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building			
		<b>Dungarvan Harbour SPA</b> is approximately 33km south-west from these schemes and therefore no in-combination impacts are predicted. <b>Mid-Waterford Coast SPA</b> is approximately 14km south from these schemes with no hydrological link and therefore no in-combination impacts are predicted.			
		Waterford City and Environs - North Quays			
		<b>Dungarvan Harbour SPA</b> is approximately 37km south-west from this scheme and therefore no in-combination impacts are predicted. <b>Mid-Waterford Coast SPA</b> is approximately 14km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.			
		Blackwater River Valley Regeneration Plan  Dungarvan Harbour SPA is 13km west of this scheme with no hydrological link. No			

Preferred Option	Potential Effects – 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)
		NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing). <b>Mid-Waterford Coast SPA</b> is approximately 24km east from this scheme and therefore no in-combination impacts are predicted.			
Increase GW abstraction from Ballyguiry BH and upgrade Ballyguiry WTP to supply deficit.  Option study area is within the Zone of Influence and is hydrologically linked to the Dungarvan Harbour SPA which is 2.1km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is also the potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Blackwater Callows SPA which is 17.7km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Fermov Town Centre Renewal Project  Dungarvan Harbour SPA is approximately 43km east from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 1.5km east and downstream from the scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Dungarvan Harbour SPA is approximately 18km north-east from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 22km north from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; And the Callan Town Regeneration  Dungarvan Harbour SPA is approximately 49km south-west from these schemes and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 57km south-west from these schemes and therefore no in-combination impacts are predicted. A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Dungarvan Harbour SPA is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 25km south from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 25km south from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 25km south from this scheme and therefore	Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Fermoy Town Centre Renewal Project.  Yes - from disturbance impacts on Dungarvan Harbour SPA if construction phase concurrent with the Regeneration of Youghal Town Centre scheme.  Yes - from pollution and disturbance on Dungarvan Harbour SPA and from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Waterford Greenway Dungarvan to West of Ballyduff Upper link scheme.  Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Blackwater Community School scheme.  Yes - from disturbance impacts on Dungarvan Harbour SPA and the Blackwater Callows SPA if construction phase concurrent with the Blackwater River Valley Regeneration Plan.	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	Effects – Key ypes	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				_	Integrity
		therefore no in-combination impacts are predicted. <b>Blackwater Callows SPA</b> is approximately 57km west from this scheme and therefore no in-combination impacts are predicted.			

Preferred Option	Potential Effects – 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 Valley Regeneration Plan  Dungarvan Harbour SPA is 13km west of this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction. Blackwater Callows SPA is within this scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).			
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit.  Option study area is within the Zone of Influence and is close to a hydrological link to the Blackwater River (CorkWaterford) SAC which is 2.2km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts predicted.	• Habitat degradation	Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; And the Callan Town Regeneration  Blackwater River (Cork/Waterford) SAC is approximately 43km south-west from these schemes and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 19km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  East Limerick Greenway, Newcastle West to Cahir  Blackwater River (Cork/Waterford) SAC is approximately 19km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Cashel to Cahir Greenway - Dungarvan - County Boundary West of Ballyduff Upper  Blackwater River (Cork/Waterford) SAC is approximately 19km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper  Blackwater River (Cork/Waterford) SAC is approximately 10km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Suir Blueway -	Yes - from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the Fermoy Town Centre Renewal Project.  Yes - from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the Regeneration of Youghal Town Centre scheme.  Yes - from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the Waterford Greenway Dungarvan to West of Ballyduff Upper link scheme.  Yes - from pollution impacts on Blackwater River (Cork/Waterford) SAC if construction phase concurrent with the Blackwater River Valley Regeneration Plan.	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 Effects – 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 scheme and therefore no in-combination impacts are predicted.  Clonmel 2030 Regeneration Plan; Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel; and Prior Park Social Housing, Clonmel Blackwater River (Cork/Waterford) SAC is approximately 15km south from these schemes with no hydrological link and therefore no in-combination impacts are predicted.  Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza Blackwater River (Cork/Waterford) SAC is approximately 65km south from this scheme and therefore no in-combination impacts are predicted.  An Duiche Social Housing, Tipperary Town; and Tipperary Town Regeneration Blackwater River (Cork/Waterford) SAC is approximately 28km south from these schemes and therefore no in-combination impacts are predicted. Blackwater Community School, Lismore, Waterford. Blackwater River (Cork/Waterford) SAC is approximately 800m north from this scheme, however no hydrological link exists and therefore no in-combination impacts are predicted.  Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan Blackwater River (Cork/Waterford) SAC is approximately 45km south-west from these schemes and therefore no in-combination impacts are predicted.  Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building Blackwater River (Cork/Waterford) SAC is approximately 42km south-west from these schemes and therefore no in-combination impacts are predicted.  Waterford City and Environs - North Quays Blackwater River (Cork/Waterford) SAC is approximately 45km south-west from this scheme and therefore no in-combination impacts are predicted.  Blackwater River (Cork/Waterford) SAC is approximately 45km south-west from this scheme and therefore no in-combination impacts are predicted.  Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme and.  No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs f			
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit.  Option study area is within the Zone of Influence and is close to a hydrological link to the Helvick Head to Ballyquin SPA which is 1.9km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is also the potential for disturbance to birds given the proximity of works. No operational impacts predicted.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Helvick Head to Ballyquin SPA is approximately 43km south-east from this scheme and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Helvick Head to Ballyquin SPA is approximately 11km east from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; And the Callan Town Regeneration  Helvick Head to Ballyquin SPA is approximately 54km south from these schemes and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Helvick Head to Ballyquin SPA is approximately 43km south-east from this scheme and therefore no in-combination impacts are predicted.  East Limerick Greenway, Newcastle West to Cahir  Helvick Head to Ballyquin SPA is approximately 43km south-east from this scheme and therefore no in-combination impacts are predicted.	Yes - from pollution impacts on  Helvick Head to Ballyquin SPA  if construction phase concurrent  with the Waterford Greenway,  Dungarvan to West of Ballyduff  Upper link scheme.	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 Effects – 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)
		Cashel to Cahir Greenway - Cashel to Cahir Town			
		<b>Helvick Head to Ballyquin SPA</b> is approximately 43km south-east from this scheme and therefore no in-combination impacts are predicted.			
		Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper			
		<b>Helvick Head to Ballyquin SPA</b> is 6km south of this scheme and is hydrologically linked to this scheme via the Colligan River and Dungarvan Harbour. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for this scheme assumed as assessment not available at time of writing).			
		Suir Blueway - Marlfield to Cahir, Marlfield Village to Swiss Cottages			
		<b>Helvick Head to Ballyquin SPA</b> is approximately 29km south-east from this scheme and therefore no in-combination impacts are predicted.			
		Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden			
		<b>Helvick Head to Ballyquin SPA</b> is approximately 28km south-west from this scheme and therefore no in-combination impacts are predicted.			
		Carrick-on-Suir Regeneration Plan			
		<b>Helvick Head to Ballyquin SPA</b> is approximately 33km south-east from this scheme and therefore no in-combination impacts are predicted.			
		Clonmel 2030 Regeneration Plan; Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel; and Prior Park Social Housing, Clonmel			
		<b>Helvick Head to Ballyquin SPA</b> is approximately 34km south from these schemes and therefore no in-combination impacts are predicted.			
		Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza			
		<b>Helvick Head to Ballyquin SPA</b> is approximately 84km south from this scheme and therefore no in-combination impacts are predicted.			
		An Duiche Social Housing, Tipperary Town; and Tipperary Town Regeneration			
		<b>Helvick Head to Ballyquin SPA</b> is approximately 62km south-east from these schemes and therefore no in-combination impacts are predicted.			
		Blackwater Community School, Lismore, Waterford.			
		<b>Helvick Head to Ballyquin SPA</b> is approximately 28km south-east from this scheme and therefore no in-combination impacts are predicted.			
		Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan			
		<b>Helvick Head to Ballyquin SPA</b> is approximately 36km south-west from these schemes and therefore no in-combination impacts are predicted.			
		Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building			
		<b>Helvick Head to Ballyquin SPA</b> is approximately 34km south-west from these schemes and therefore no in-combination impacts are predicted.			
		Waterford City and Environs - North Quays			
		<b>Helvick Head to Ballyquin SPA</b> is approximately 36km south-west from this scheme and therefore no in-combination impacts are predicted.			
		Blackwater River Valley Regeneration Plan			
		<b>Helvick Head to Ballyquin SPA</b> is approximately 11km east from this scheme with no hydrological link and therefore no in-combination impacts are predicted.			
SAK-525	Habitat degradation	Fermoy Town Centre Renewal Project	No	N/A	N
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit.		<b>Mid-Waterford Coast SPA</b> is approximately 52km east from this scheme and therefore no in-combination impacts are predicted.			
Option study area is within the Zone of Influence and is close to a hydrological link to the <b>Mid-Waterford Coast SPA</b> which is		Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse			
the white-waterioru Coast SFA which is		Mid-Waterford Coast SPA is approximately 28km north-east from this scheme and			

Preferred Option	Potential Effects – 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)
6.5km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. No		therefore no in-combination impacts are predicted. <u>Callan Friary Complex/Upper Bridge St Regeneration &amp; Masterplan for the historic</u>			
operational impacts predicted.		<ul> <li>core of Callan Town; And the Callan Town Regeneration</li> <li>Mid-Waterford Coast SPA is approximately 44km south from these schemes and therefore no in-combination impacts are predicted.</li> </ul>			
		A Pathway to the Regeneration of Cahir Town Centre			
		This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites.			
		Mid-Waterford Coast SPA is approximately 41km south-east from this scheme and therefore no in-combination impacts are predicted.			
		East Limerick Greenway, Newcastle West to Cahir			
		<b>Mid-Waterford Coast SPA</b> is approximately 41km south-east from this scheme and therefore no in-combination impacts are predicted.			
		Cashel to Cahir Greenway - Cashel to Cahir Town			
		<b>Mid-Waterford Coast SPA</b> is approximately 41km south-east from this scheme and therefore no in-combination impacts are predicted.			
		Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper			
		<b>Mid-Waterford Coast SPA</b> is approximately 7km east from this scheme with no hydrological link and therefore no in-combination impacts are predicted.			
		Suir Blueway - Marlfield to Cahir, Marlfield Village to Swiss Cottages			
		<b>Mid-Waterford Coast SPA</b> is approximately 27km south-east from this scheme and therefore no in-combination impacts are predicted.			
		Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden			
		<b>Mid-Waterford Coast SPA</b> is approximately 12km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.			
		Carrick-on-Suir Regeneration Plan			
		<b>Mid-Waterford Coast SPA</b> is approximately 23km south from this scheme and therefore no in-combination impacts are predicted.			
		Clonmel 2030 Regeneration Plan; Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel; and Prior Park Social Housing, Clonmel			
		<b>Mid-Waterford Coast SPA</b> is approximately 30km south-east from these schemes and therefore no in-combination impacts are predicted.			
		Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza			
		<b>Mid-Waterford Coast SPA</b> is approximately 79km south-east from this scheme and therefore no in-combination impacts are predicted.			
		An Duiche Social Housing, Tipperary Town; and Tipperary Town Regeneration			
		<b>Mid-Waterford Coast SPA</b> is approximately 61km south-east from these schemes and therefore no in-combination impacts are predicted.			
		Blackwater Community School, Lismore, Waterford			
		<b>Mid-Waterford Coast SPA</b> is approximately 29km east from this scheme and therefore no in-combination impacts are predicted.			
		Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan			
		<b>Mid-Waterford Coast SPA</b> is approximately 11km south from these schemes with no hydrological link and therefore no in-combination impacts are predicted.			
		Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building  Mid-Waterford Coast SPA is approximately 14km south from these schemes with no			
		hydrological link and therefore no in-combination impacts are predicted.  Waterford City and Environs - North Quays			

Preferred Option	Potential Effects – 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)
SAK-560 and SAK-618 combined	Habitat loss	Mid-Waterford Coast SPA is approximately 14km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Blackwater River Valley Regeneration Plan  Mid-Waterford Coast SPA is approximately 24km east from this scheme and therefore no in-combination impacts are predicted.  Fermoy Town Centre Renewal Project	Yes - from habitat loss, pollution,	General Mitigation	N
New GW abstraction and new WTP to partly supply deficit. Increase GW abstraction from Portlaw BH and Portlaw spring and upgrade Portlaw WTP to partly supply deficit.  Option study area is within the Lower River Suir SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. During operation there is the potential for habitat degradation and a reduction in flow and water availability.  Option study area is within the Zone of Influence of the Tramore Back Strand SPA which is 16.2km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.	<ul> <li>Mortality risk</li> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> </ul>	Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 78km east from this scheme and therefore no incombination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 54km north-east from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 45km south-east from these schemes and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is adjacent to this scheme, however given the small scale of the works in Cahir no in-combination effects are predicted. Tramore Back Strand SPA is approximately 58km south-east from this scheme and therefore no in-combination impacts are predicted.  East Limerick Greenway, Newcastle West Greenway to the Suir Blueway at Cahir Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, the spread of invasive species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of w	mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan and during operation from habitat degradation on the Lower River Suir SAC.	Measures are outlined in Section 6.3.3  Option Specific Measures as 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 alone or in-combination with other plans or projects.	

Preferred Option Potential Effects – 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 a potential for in-combination effects from habitat loss, pollution, mortality, the spread of invasive species and disturbance during construction. Incombination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). Tramore Back Strand SPA is approximately 46km south-east from this scheme and therefore no incombination impacts are predicted.  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, the spread of invasive species and disturbance during construction. Incombination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). Tramore Back Strand SPA is approximately 11km south-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Carrick-on-Suir Regeneration Plan  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the spread of invasive species and disturbance during construction. In-combination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). Tramore Back Strand SPA is approximately 27km south-east from this scheme and therefore no in-combination impacts are predicted.  Clonmel 2030 Regeneration Plan: Clonmel Community Nursing Unit: Suir Blueway-Gas House Bridge to Suir Island, Clonmel: and Prior Park Social Housing, Clonmel Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects during operation may result in habitat degradation (LSEs for these schemes assumed as assessment not available at time	spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC and from disturbance impacts on Tramore Back Strand SPA if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan and during operation from habitat degradation and water table/availability on the Lower River Suir SAC.  Yes - from pollution and disturbance impacts on Lower River Suir SAC.  Yes - from pollution and disturbance impacts on Tramore Back Strand SPA if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.		

Preferred Option	Potential Effects – 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 assumed there is a potential for in-combination effects from pollution, mortality, the spread of invasive species and disturbance during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availability. Tramore Back Strand SPA is approximately 9km south from these schemes. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Killbarry Social Housing. Waterford; and WIT Engineering. ICT and Teaching Building Lower River Suir SAC is approximately 5km north and downstream from these schemes. The schemes are hydrologically linked to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction. Tramore Back Strand SPA is approximately 7km south from these schemes. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Waterford City and Environs - North Quays  This development includes a new urban area with large commercial buildings, a new bridge across the River Suir and a new boardwalk along the bank of the River Suir. Lower River Suir SAC is directly adjacent to this scheme. The NIS for this scheme identified pollution, habitat loss, mortality during construction, as well as disturbance and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from habitat loss, pollution, mortality and disturbance during construction. Tramore Back Strand SPA is approximately 9km south from this scheme. Though the NIS did not identify any LSEs for this European site there is potential for in combination effects from disturbance during construction given its proximit	from disturbance impacts on Tramore Back Strand SPA if construction phase concurrent with the Waterford City North Quays scheme.		
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit.  Option study area is within the Zone of Influence and is close to a hydrological link to the Lower River Suir SAC which is 230m away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is the potential for disturbance to QI species. No operational impacts predicted.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is adjacent to this scheme, however given the small scale of the works in Cahir no in-combination effects are predicted.  East Limerick Greenway, Newcastle West Greenway to the Suir Blueway at Cahir Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-combination effects from pollution	Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme.	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 Effects – 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 disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Cashel to Cahir Greenway - Cashel to Cahir Town  Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper  Lower River Suir SAC is approximately 13km north from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Suir Blueway - Marlfield to Cahir, Marlfield Village to Swiss Cottages  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Carrick-on-Suir Regeneration Plan  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Clonmel 2030 Regeneration Plan; Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel; and Prior Park Social Housing, Clonmel  Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollu	concurrent with the Suir Blueway to Waterford Greenway Link scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.		
		Lower River Suir SAC is approximately 20km south and downstream from this scheme. The townhall is approximately 300m from a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing).  An Duiche Social Housing, Tipperary Town; and Tipperary Town Regeneration  Lower River Suir SAC is approximately 6km south and downstream from these schemes. The schemes are adjacent to or within 60m of a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Blackwater Community School, Lismore, Waterford.  Lower River Suir SAC is approximately 16km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan  Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment	Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City		

Preferred Option	Potential Effects – 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)
		Not available at time of writing).  Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building  Lower River Suir SAC is approximately 5km north and downstream from these schemes. The schemes are hydrologically linked to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Waterford City and Environs - North Quays  This development includes a new urban area with large commercial buildings, a new bridge across the River Suir and a new boardwalk along the bank of the River Suir.  Lower River Suir SAC is directly adjacent to this scheme. The NIS for this scheme identified pollution, habitat loss, mortality during construction, as well as disturbance and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction.  Blackwater River Valley Regeneration Plan  Lower River Suir SAC is approximately 14km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted.	North Quays scheme.		
Bring back Silverspring WTP to production and supply deficit.  Option study area is hydrologically linked to the Lower River Suir SAC which is 1.6km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is the potential for disturbance to QI species. During operation there is the potential for habitat degradation and a reduction in flow and water availability. Option study area is hydrologically linked to the River Barrow And River Nore SAC which is 7.2km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts predicted.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> <li>Water table/availability</li> </ul>	Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 70km north-east of this scheme and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 66km north-east of this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is adjacent to these schemes and hydrologically linked via King's river. No NIS available so it is assumed there is a potential for incombination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing).  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is adjacent to this scheme, however given the small scale of the works in Cahir no in-combination effects are predicted. River Barrow And River Nore SAC is approximately 35km north-east of this scheme and therefore no in-combination impacts are predicted.  East Limerick Greenway, Newcastle West Greenway to the Suir Blueway at Cahir Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-co	Yes - from pollution impacts on River Barrow And River Nore SAC if construction phase concurrent with the Callan Friary Complex/Upper Bridge St Regeneration & Masterplan and the Callan Town Regeneration schemes.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from disturbance and pollution impacts on Lower River Suir SAC and from pollution impacts on River Barrow And River Nore SAC if construction phase concurrent with the Suir	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 alone or in-combination with other plans or projects.	N

Preferred Option	Potential Effects – 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 Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 22km east of this scheme and therefore no in-combination impacts are predicted. Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper Lower River Suir SAC is approximately 13km north from this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 45km north-east of this scheme and therefore no in-combination impacts are predicted.  Suir Blueway - Marffield to Cahir, Marffield Village to Swiss Cottages Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction. In-combination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 27km north-east of this scheme and therefore no in-combination impacts are predicted.  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction. In-combination effects during operation may result in habitat degradation. River Barrow And River Nore SAC is approximately 19km east and downstream of this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction. In-combination defects during operation may result in habitat degradation (LSEs for this schem	Blueway to Waterford Greenway Link scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on- Suir Regeneration Plan and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from disturbance and pollution impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes Plan and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.  Yes - from disturbance and pollution impacts on Lower River Suir SAC and from pollution impacts on the River Barrow And River Nore SAC if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan and during operation from habitat degradation and water table/availability on the Lower River Suir SAC.		

Preferred Option Potential Effects – Types	(ey 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)
	effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 40km east of these schemes and therefore no in-combination impacts are predicted.  Blackwater Community School, Lismore, Waterford,  Lower River Suir SAC is approximately 16km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 65km east of this scheme and therefore no in-combination impacts are predicted.  Waterford City Wastewater Treatment Plant: and Waterford City Regeneration Plan Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availability. River Barrow And River Nore SAC is 3.5km east from these schemes, and is hydrologically linked via the River Suir. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Kilbarry Social Housing, Waterford: and WIT Engineering, ICT and Teaching Building Lower River Suir SAC is approximately 5km north and downstream from these schemes. The schemes are hydrologically linked to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction. River Barrow And River Nore SAC is 9.4km north-east from these schemes, and is hydrologically linked via the River Suir. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction. (LSEs for these schemes assumed as assessment not available at time of writing).  Waterford City and Environs - North Quays  This development includes a new urban	Yes - from disturbance and pollution impacts on Lower River Suir SAC and from pollution impacts on the River Barrow And River Nore SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from disturbance and pollution impacts on Lower River Suir SAC and from pollution impacts on the River Barrow And River Nore SAC if construction phase concurrent with the Waterford City North Quays scheme.		
SAK-837 (TG3-SAK-265, TG3-SAK-269, TG3-SAK-271, TG3-SAK-273, TG3-SAK-289)  New GW abstraction and new Linguan WTP to supply deficit. Rationalise Rathgormack, Ballyknock, Crehanagh and Garravoone WRZs.  Option study area is within the Zone of	Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic	Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on <b>Lower River Suir SAC</b> if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from pollution, mortality, the	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	N

Preferred Option	Potential Effects – 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)
Influence and is hydrologically linked to the Lower River Suir SAC which is 35m away. During construction there is the potential for the pollution of QI habitats and supporting habitats. As a result of this pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species adjacent to the SAC. No operational impacts predicted.		Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of Cahir Town Centre This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is adjacent to this scheme, however given the small scale of the works in Cahir no in-combination effects are predicted.  East Limerick Greenway. Newcastle West Greenway to the Suir Blueway at Cahir Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the spread of invasive species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Cashel to Cahir Greenway - Cashel to Cahir Town  Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the spread of invasive species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper Lower River Suir SAC is approximately 13km north from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Suir Blueway - Marifield to Cahir, Marifield Village to Swiss Cottages  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the spread of invasive species and disturbance during construction (LSEs for this scheme assumed as assessment not available at tim	spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall scheme.	integrity of this European site, either alone or incombination with other plans or projects.	

Preferred Option	Potential Effects – 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 Suir SAC is approximately 6km south and downstream from these schemes. The schemes are adjacent to or within 60m of a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Blackwater Community School, Lismore, Waterford.  Lower River Suir SAC is approximately 16km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan  Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the spread of invasive species and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building  Lower River Suir SAC is approximately 5km north and downstream from these schemes. The schemes are hydrologically linked to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Waterford City and Environs - North Quays  This development includes a new urban area with large commercial buildings, a new bridge across the River Suir and a new boardwalk along the bank of the River Suir.  Lower River Suir SAC is directly adjacent to this scheme. The NIS for this scheme identified pollution, habitat loss, mortality during construction, as well as disturbance and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution, mortality and disturbance during construction.  Blackwater Ri	Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from pollution, mortality and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City North Quays scheme.		
Increase abstraction at Mullinbawn spring and upgrade Mullinbawn WTP to supply deficit to neighbouring WRZ in deficit. Interconnect Coalbrook/Commons and Fethard & Mullenbawn and supply deficit from Fethard & Mullenbawn [Mullinbawn WTP].  Option study area is within the Lower River Suir SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. During operation there is the potential for habitat degradation and a reduction in flow and water availability.  Option study area is within the Zone of Influence and is hydrologically linked to the River Barrow And River Nore SAC which is	<ul> <li>Habitat loss</li> <li>Mortality risk</li> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> <li>Water table/availability</li> </ul>	Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 70km north-east of this scheme and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 66km north-east of this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is adjacent to these schemes and hydrologically linked via King's River. No NIS available so it is assumed there is a potential for incombination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing).  A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European	Yes - from pollution impacts on River Barrow And River Nore SAC if construction phase concurrent with the Callan Friary Complex/Upper Bridge St Regeneration & Masterplan and the Callan Town Regeneration schemes.  Yes - from habitat loss, pollution, mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from habitat loss, pollution, mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir	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 alone or in-combination with other plans or projects.	N

Preferred Option	Potential Effects – 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)
2.9km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts predicted.		sites. Lower River Suir SAC is adjacent to this scheme, however given the small scale of the works in Cahir no in-combination effects are predicted. River Barrow And River Nore SAC is approximately 35km north-east of this scheme and therefore no in-combination impacts are predicted.  East Limerick Greenway, Newcastle West Greenway to the Suir Blueway at Cahir Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, disturbance and spread of invasive species during construction (LSEs for this scheme assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 35km north-east of this scheme and therefore no in-combination impacts are predicted.  Cashel to Cahir Greenway - Cashel to Cahir Town  Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, disturbance and spread of invasive species during construction (LSEs for this scheme assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 22km east of this scheme and therefore no in-combination impacts are predicted.  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper Lower River Suir SAC is approximately 45km north-east of this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Suir Blueway - Marlfield to Cahir, Marlfield Village to Swiss Cottages  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, disturbance and spread of invasive species during construction. Incombin	Yes - from habitat loss, pollution, mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from habitat loss, pollution, mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC and from pollution impacts on the River Barrow And River Nore SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution, mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan and during operation from habitat degradation on the Lower River Suir SAC.		
		assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, disturbance and spread of invasive species during construction. Incombination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 19km east and downstream of this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Carrick-on-Suir Regeneration Plan  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, disturbance and spread of invasive species during construction. In-combination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 28km east of this scheme and therefore no in-combination impacts are predicted.  Clonmel 2030 Regeneration Plan; Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel; and Prior Park Social Housing, Clonmel	mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall		

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		Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, disturbance and spread of invasive species during construction. Incombination effects during operation may result in habitat degradation (LSEs for these schemes assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 24km north-east of these schemes and therefore no in-combination impacts are predicted.  Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza Lower River Suir SAC is approximately 300m from a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 22km east of this scheme and therefore no in-combination impacts are predicted.  An Duiche Social Housing, Tipperary Town; and Tipperary Town Regeneration  Lower River Suir SAC is approximately 6km south and downstream from these schemes. The schemes are adjacent to or within 60m of a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 40km east of these schemes and therefore no in-combination impacts are predicted.  Blackwater Community School, Lismore, Waterford.  Lower River Suir SAC is approximately 6km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 6km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 6km north of this scheme with no hy	Scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.  Yes - from habitat loss, pollution, mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC and from pollution impacts on the River Barrow And River Nore SAC if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan and during operation from habitat degradation and water table/availability on the Lower River Suir SAC.  Yes - from disturbance and pollution impacts on Lower River Barrow And River Nore SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from habitat loss, pollution, mortality and disturbance impacts on Lower River Suir SAC and from pollution impacts on River Barrow And River Nore SAC if construction phase concurrent with the Waterford City North Quays scheme.		

Preferred Option	Potential Effects – 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)
		potential impacts to this European site. Therefore, there is potential for in-combination effects from habitat loss, pollution, mortality and disturbance during construction. River Barrow And River Nore SAC is 6.7km east of this scheme. The NIS for this scheme identified pollution during construction, as well as disturbance and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution during construction.  Blackwater River Valley Regeneration Plan  Lower River Suir SAC is approximately 14km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 60km east of this scheme and therefore no in-combination impacts are predicted.			
SAK-949 (TG3-SAK-356, TG3-SAK-399, TG3-SAK-438, TG3-SAK-495, TG3-SAK-501, TG3-SAK-530, TG3-SAK-538, TG3-SAK-555, TG3-SAK-604 and TG3-SAK-608)  New SW abstraction from River Suir upstream of Carrick-on-Suir. Pump raw water to Adamstown WTP and treat at Adamstown WTP to supply deficit. Rationalise Ballyogarty, Kilmacthomas, Faha, Smoore, Fews, Kill/Ballylaneen, Scrahan, Dunhill – Cois Coille and Dunhill Ballinageeragh to East Waterford WRZ.  Option study area is within the Lower River Suir SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. During operation there is the potential for habitat degradation and a reduction in flow and water availability.  Option study area is within the Zone of Influence and is hydrologically linked to the River Barrow And River Nore SAC which is 14.4km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts predicted.  Option study area is within the Zone of Influence and is hydrologically linked to the Mid-Waterford Coast SPA which is 3.2km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is also the potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Tramore Back Strand SPA	<ul> <li>Mortality risk</li> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> </ul>	Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 70km north-east of this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 52km east from this scheme and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 78km east from this scheme and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 18km east from this scheme and therefore no in-combination impacts are predicted. Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 66km north-east of this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 28km north-east from this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 28km north-east from this scheme and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 18km north-east from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction. (LSEs for the scheme assumed as assessment not available at time of writing).  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is adjacent to these schemes and hydrologically linked via King's River. No NIS available so it is assumed there is a potential for in-combination	Yes - from disturbance impacts on  Dungarvan Harbour SPA if construction phase concurrent with the Regeneration of Youghal Town Centre scheme.  Yes - from pollution impacts on River Barrow And River Nore SAC if construction phase concurrent with the Callan Friary Complex/Upper Bridge St Regeneration & Masterplan and the Callan Town Regeneration schemes.  Yes - from habitat loss, pollution, mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from habitat loss, pollution, mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from disturbance on Dungarvan Harbour SPA if construction phase concurrent with the Waterford Greenway Dungarvan to West of Ballyduff Upper link scheme.  Yes - from habitat loss, pollution, mortality, disturbance and spread of invasive species impacts on	General Mitigation Measures are outlined in Section 6.3.3 Option Specific Measures as in Section 6.3.4 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 Effects – 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)
which is 4.5km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the <b>Dungarvan Harbour SPA</b> which is 10.5km away. During construction there is the potential for disturbance to birds		in-combination impacts are predicted. <b>Mid-Waterford Coast SPA</b> is approximately 41km south-east from this scheme and therefore no in-combination impacts are predicted. <b>Tramore Back Strand SPA</b> is approximately 58km south-east from this scheme and therefore no in-combination impacts are predicted. <b>Dungarvan Harbour SPA</b> is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted.  East Limerick Greenway, Newcastle West Greenway to the Suir Blueway at Cahir <b>Lower River Suir SAC</b> is adjacent to this scheme and may also be hydrologically	Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from habitat loss, pollution,		
there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.		linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, disturbance and spread of invasive species during construction (LSEs for this scheme assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 35km north-east of this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 41km south-east from this scheme and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 58km south-east from this scheme and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted. Cashel to Cahir Greenway - Cashel to Cahir Town	mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC and from pollution impacts on the River Barrow And River Nore SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme and during operation from habitat degradation on the Lower River Suir SAC.		
		Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, disturbance and spread of invasive species during construction (LSEs for this scheme assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 22km east of this scheme and therefore no incombination impacts are predicted. Mid-Waterford Coast SPA is approximately 41km south-east from this scheme and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 58km south-east from this scheme and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 35km south-east from this scheme and therefore no in-combination impacts are predicted.	Yes - from pollution, mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from habitat loss, pollution,		
		Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper  Lower River Suir SAC is approximately 13km north from this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 45km north-east of this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 7km east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 33km east from this scheme and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is adjacent to this scheme and may also be hydrologically linked via a number of watercourses around Dungarvan. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction. (LSEs for the scheme assumed as assessment not available at time of writing).	mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes and during operation from habitat degradation on the Lower River Suir SAC.		
		Suir Blueway - Marlfield to Cahir, Marlfield Village to Swiss Cottages  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, disturbance and spread of invasive species during construction. Incombination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 27km north-east of this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 27km south-east from this scheme and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 46km south-east from this scheme and therefore no in-combination impacts are predicted. Dungarvan Harbour	Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent		

Preferred Option	otential Effects – 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 20km south-east from this scheme and therefore no incombination impacts are predicted.  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, disturbance and spread of invasive species during construction. Incombination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 18km east and downstream of this scheme No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for this scheme assumed as assessment not available at time of writing). Mid-Waterford Coast SPA is approximately 12km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 11km south-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 27km south-west from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 27km south-west from this scheme and therefore no in-combination impacts are predicted.  Carrick-on-Suir Regeneration Plan  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, disturbance and spread of invasive species during construction. In-combination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 27km south-east from this scheme and therefore no in-combination impacts are predicted. Clonmel 2030 Regeneration Plan: Clonmel C	with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.  Yes - from habitat loss, pollution, mortality, disturbance and spread of invasive species impacts on Lower River Suir SAC, from pollution impacts on the River Barrow And River Nore SAC and from disturbance impacts on Tramore Back Strand SPA if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan and during operation from habitat degradation and water table/availability on the Lower River Suir SAC.  Yes - from disturbance and pollution impacts on Lower River Suir SAC, pollution impacts on the River Barrow And River Nore SAC and from disturbance impacts on Tramore Back Strand SPA if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from habitat loss, pollution, mortality and disturbance impacts on Lower River Suir SAC, pollution impacts on River Barrow And River Nore SAC and from disturbance impacts on Tramore Back Strand SPA if construction phase concurrent with the Waterford City North Quays scheme.  Yes - from disturbance impacts on Dungarvan Harbour SPA if construction phase concurrent with the Blackwater River Valley Regeneration Plan.		

Preferred Option Potential Effects – 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 scheme and therefore no in-combination impacts are predicted.  An Duiche Social Housing, Tipperary Town: and Tipperary Town Regeneration  Lower River Suir SAC is approximately 6km south and downstream from these schemes. The schemes are adjacent to or within 60m of a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing). River Barrow And River Nore SAC is approximately 40km east of these schemes and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 61km south-east from these schemes and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 54km south-east from these schemes and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 54km south-east from these schemes and therefore no in-combination impacts are predicted.  Blackwater Community School, Lismore, Waterford.  Lower River Suir SAC is approximately 16km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Barrow And River Nore SAC is approximately 65km east of this scheme and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 55km east from this scheme and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 55km east from this scheme and therefore no in-combination impacts are predicted. Waterford City Regeneration Plan Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, disturbance and spread of invasive species during construction. Incombination effects from plation offects from disturbance and spread of invasive species during construction. Incombination effects from pollution and disturbanc			

Preferred Option	Potential Effects – 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)
		Impacts are predicted.  Waterford City and Environs - North Quays  This development includes a new urban area with large commercial buildings, a new bridge across the River Suir and a new boardwalk along the bank of the River Suir.  Lower River Suir SAC is directly adjacent to this scheme. The NIS for this scheme identified pollution, habitat loss, mortality during construction, as well as disturbance and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from habitat loss, pollution, mortality and disturbance during construction.  River Barrow And River Nore SAC is 6.7km east of this scheme. The NIS for this scheme identified pollution during construction, as well as disturbance and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution during construction. Mid-Waterford Coast SPA is approximately 14km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 9km south from this scheme. Though the NIS did not identify any LSEs for this European site there is potential for in-combination effects from disturbance during construction given its proximity and the suitable supporting habitat adjacent to the scheme. Dungarvan Harbour SPA is approximately 37km south-west from this scheme and therefore no in-combination impacts are predicted.  Blackwater River Valley Regeneration Plan  Lower River Suir SAC is approximately 14km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 24km east from this scheme and therefore no in-combination impacts are predicted. Tramore Back Strand SPA is approximately 49km east from this scheme and therefore no in-combination impacts are predicted. Dungarva			
SAK-973 (TG3-SAK-672, TG3-SAK-673, TG3-SAK-674, TG3-SAK-675, TG3-SAK-676, TG3-SAK-677, TG3-SAK-756)  Increase GW (to include commissioning new TW) abstraction from existing BH and upgrade LCB Lismore Deerpark WTP to supply deficit. New GW abstraction and upgrade WTP LCB Cappoquin WTP to partly supply deficit. Rationalise Lacken, Kereen and Moores Well, Monatarriff, Carrignagower and Ballysaggart to Lismore/Cappoquin/Ballyduff (LCB) WRZ. Option study area is within the Blackwater River (Cork/Waterford) SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. During operation there is the potential for habitat degradation and a reduction in flow	<ul> <li>Habitat loss</li> <li>Mortality risk</li> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> <li>Water table/availability</li> </ul>	Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive species and disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 1.5km east and downstream from the scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing). Dungarvan Harbour SPA is approximately 43km east from this scheme and therefore no in-combination impacts are predicted. Blackwater Estuary SPA is approximately 31km south-east from this scheme, therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive species and disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 22km north from this scheme and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 18km north-east from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from	Yes - from habitat loss, mortality, pollution, spread of invasive species and disturbance impacts on Blackwater River (Cork/Waterford) SAC, and from pollution and disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Fermoy Town Centre Renewal Project.  Yes - from habitat loss, mortality, pollution, spread of invasive species and disturbance impacts on Blackwater River (Cork/Waterford) SAC, from disturbance impacts on Dungarvan Harbour SPA, and from pollution impacts on Blackwater Estuary SPA if construction phase concurrent with the Regeneration of Youghal	General Mitigation Measures are outlined in Section 6.3.3 Option Specific Measures as 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 alone or in-combination with other plans or projects.	N

Preferred Option	Potential Effects – 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 water availability.  Option study area is within the Zone of Influence and is hydrologically linked to the Blackwater Callows SPA which is 500m away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is also the potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Dungarvan Harbour SPA which is 8.8km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence and is hydrologically linked to the Blackwater Estuary SPA which is 9.9km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. No operational impacts predicted.		disturbance during construction. (LSEs for the scheme assumed as assessment not available at time of writing). Blackwater Estuary SPA is directly adjacent to this scheme and is hydrologically linked via the Muckridge watercourse and the Blackwater River. No NIS available so it is assumed there is a potential for incombination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; And the Callan Town Regeneration  Blackwater River (Cork/Waterford) SAC is approximately 43km south-west from these schemes and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 57km south-west from these schemes and therefore no in-combination impacts are predicted. Blackwater Estuary SPA is approximately 66km south-west from these schemes and therefore no in-combination impacts are predicted. Blackwater Estuary SPA is approximately 66km south-west from these schemes and therefore no in-combination impacts are predicted. A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Blackwater River (Cork/Waterford) SAC is approximately 19km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 25km south from this scheme and therefore no in-combination impacts are predicted. Blackwater on in-combination impacts are predicted. Blackwater River (Cork/Waterford) SAC is approximately 40km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 19km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 25k	Yes - from habitat loss, mortality, pollution, spread of invasive species and disturbance impacts on Blackwater River (Cork/Waterford) SAC, from pollution and disturbance impacts on Blackwater Callows SPA, from disturbance impacts on Dungarvan Harbour SPA and from pollution impacts on Blackwater Estuary SPA if construction phase concurrent with the Waterford Greenway Dungarvan to West of Ballyduff Upper link scheme.  Yes - from disturbance impacts on Blackwater River (Cork/Waterford) SAC and from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Blackwater Community School scheme.  Yes - from habitat loss, mortality, pollution, spread of invasive species and disturbance impacts on Blackwater River (Cork/Waterford) SAC, from pollution and disturbance impacts on Blackwater Callows SPA, from disturbance impacts on Dungarvan Harbour SPA, and from pollution impacts on Blackwater Estuary SPA if construction phase concurrent with the Blackwater River Valley Regeneration Plan and during operation from habitat degradation on Blackwater River (Cork/Waterford) SAC.		

Preferred Option	Potential Effects – 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 a potential for in-combination effects from disturbance during construction. (LSEs for the scheme assumed as assessment not available at time of writing). <b>Blackwater Estuary SPA</b> is approximately 14.3km south of this scheme and is hydrologically linked via various watercourses including the Blackwater River. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing).			
		Suir Blueway - Marlfield to Cahir, Marlfield Village to Swiss Cottages  Blackwater River (Cork/Waterford) SAC is approximately 10km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 16km south-west from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 20km south-east from this scheme and therefore no in-combination impacts are predicted. Blackwater Estuary SPA is approximately 29km south from this scheme and therefore no in-combination impacts are predicted.  Suir Blueway to Waterford Groopway Link - Carrick on Suir to Kilmoadon.			
		Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden  Blackwater River (Cork/Waterford) SAC is approximately 30km south-west from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 42km south-west from this scheme and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 27km south-west from this scheme and therefore no in-combination impacts are predicted. Blackwater Estuary SPA is approximately 49km south-west from this scheme and therefore no in-combination impacts are predicted.			
		Carrick-on-Suir Regeneration Plan  Blackwater River (Cork/Waterford) SAC is approximately 25km south-west from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 42km south-west from this scheme and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 29km south-west from this scheme and therefore no in-combination impacts are predicted. Blackwater Estuary SPA is approximately 47km south-west from this scheme and therefore no in-combination impacts are predicted.			
		Clonmel 2030 Regeneration Plan; Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel; and Prior Park Social Housing, Clonmel Blackwater River (Cork/Waterford) SAC is approximately 15km south from these schemes with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 28km south-west from these schemes and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 27km south from these schemes and therefore no in-combination impacts are predicted. Blackwater Estuary SPA is approximately 38km south-west from these schemes and therefore no in-combination impacts are predicted.			
		Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza  Blackwater River (Cork/Waterford) SAC is approximately 65km south from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 72km south from this scheme and therefore no in-combination impacts are predicted. Dungarvan Harbour SPA is approximately 78km south from this scheme and therefore no in-combination impacts are predicted. Blackwater Estuary SPA is approximately 86km south from this scheme and therefore no in-combination impacts are predicted.			
		An Duiche Social Housing, Tipperary Town; and Tipperary Town Regeneration  Blackwater River (Cork/Waterford) SAC is approximately 28km south from these schemes and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 35km south from these schemes and therefore no in-			

Preferred Option	Potential Effects – 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)
		combination impacts are predicted. <b>Dungarvan Harbour SPA</b> is approximately 54km south-east from these schemes and therefore no in-combination impacts are predicted. <b>Blackwater Estuary SPA</b> is approximately 54km south-east from these schemes and therefore no in-combination impacts are predicted. <b>Blackwater River (Cork/Waterford) SAC</b> is approximately 800m north from this scheme, however no hydrological link exists. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing). <b>Blackwater Callows SPA</b> is approximately 900m north from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing). <b>Dungarvan Harbour SPA</b> is approximately 20km east from this scheme and therefore no in-combination impacts are predicted. <b>Blackwater Estuary SPA</b> is approximately 14.1km south-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. <b>Waterford City Wastewater Treatment Plant</b> : and Waterford City Regeneration Plan <b>Blackwater River (Cork/Waterford) SAC</b> is approximately 45km south-west from these schemes and therefore no in-combination impacts are predicted. <b>Blackwater Callows SPA</b> is approximately 57km west from these schemes and therefore no in-combination impacts are predicted. <b>Blackwater Estuary SPA</b> is approximately 37km south-west from these schemes and therefore no in-combination impacts are predicted. <b>Blackwater Estuary SPA</b> is approximately 42km south-west from these schemes and therefore no in-combination impacts are predicted. <b>Blackwater Estuary SPA</b> is approximately 42km south-west from these schemes and therefore no in-combination impacts are predicted. <b>Blackwater Estuary SPA</b> is approximately 45km south-west from these schemes and therefore no in-combi			
		Blackwater River (Cork/Waterford) SAC is within and adjacent to this scheme and. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive species and disturbance during construction. In-combination effects during operation may result in habitat degradation (LSEs for the scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is within this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing). Dungarvan Harbour SPA is 13km west of this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing). Blackwater Estuary SPA is approximately 7.5km south from this scheme and is hydrologically linked via the Blackwater River. No NIS			

Preferred Option	Potential Effects – 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)
		available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing).			
SAK-975 (TG3-SAK-684, TG3-SAK-685, TG3-SAK-686, TG3-SAK-689)  Supply spare capacity from Thurles to neighbouring WRZs in deficit. Rationalise Horse and Jockey, Littleton, and Two Mile Borris to Thurles WRZ. Interconnect Dundrum Regional and Thurles and supply deficit from Thurles. Rationalise Glengar to Dundrum regional WRZ.  Option study area is within the Lower River Suir SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. No operational impacts predicted.  Option study area is within the Zone of Influence and is hydrologically linked to the Lower River Shannon SAC which is 140m away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is the potential for disturbance to QI species. There is also the potential for the SAC. No operational impacts predicted.  Option study area is within the Zone of Influence and is hydrologically linked to the Philipstown Marsh SAC which is 1.6km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts predicted.  Option study area is within the Zone of Influence and is hydrologically linked to the Philipstown Marsh SAC which is 1.6km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts predicted.  Option study area is within the Zone of Influence of the Slievefelim to Silvermines Mountains SPA which is 2.9km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.		Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Lower River Shannon SAC is approximately 48km north from this scheme and therefore no in-combination impacts are predicted. Philipstown Marsh SAC is approximately 47km north from this scheme and therefore no in-combination impacts are predicted. Silevefelim to Silvermines Mountains SPA is approximately 54km north from this scheme and therefore no in-combination impacts are predicted. Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted. Lower River Shannon SAC is approximately 74km north-west from this scheme and therefore no in-combination impacts are predicted. Philipstown Marsh SAC is approximately 70km north-west from this scheme and therefore no in-combination impacts are predicted. Silevefelim to Silvermines Mountains SPA is approximately 79km north-west from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted. Lower River Shannon SAC is approximately 54km north-west from these schemes and therefore no in-combination impacts are predicted. Philipstown Marsh SAC is approximately 52km west from these schemes and therefore no in-combination impacts are predicted. Silevefelim to Silvermines Mountains SPA is approximately 49km north-west from these schemes and therefore no in-combination impacts are predicted. Silevefelim to Silvermines Mountains SPA is approximately 34km north-west from this scheme and therefore no in-combination impacts are predicted.  A Pathway to the Regeneration of C	Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC and from pollution impacts on Lower River Shannon SAC if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan.	General Mitigation Measures are outlined in Section 6.3.3 Option Specific Measures as 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 alone or in-combination with other plans or projects.	N

Preferred Option	Potential Effects – 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					Adverse Effects on Site Integrity
		Carrick-on-Suir Regeneration Plan  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the spread of invasive species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). Lower River Shannon SAC is approximately 60km north-west from this scheme and therefore no in-combination impacts are predicted. Philipstown Marsh SAC is approximately 56km north-west from this scheme and therefore no in-combination impacts are predicted. Slievefelim to Silvermines Mountains SPA is approximately 58km north-west from this scheme and therefore no in-combination impacts are predicted.  Clonmel 2030 Regeneration Plan; Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel; and Prior Park Social Housing, Clonmel Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the			

stread of Invasive soutines and dissubstants during contraction (1.25E for liveer Rever Shatters SAC is apportunitely 42cm notifives from these softeness and investigation from the softeness and investigation of the softeness and investigation in the softeness and investigation in the contraction of the softeness and investigation in community and contraction and softeness are incombinated investigation and produced.  Teambersonal Room half Contractions and Contraction in community and contraction. The softeness and investigation in produced in the softeness and contraction in the softeness and contraction of the softeness and contraction anotation and contraction and contraction and contraction and contr	Preferred Option Potential Effects – 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)
available so it is assumed there is a potential for in-combination effects from pollution		schemes assumed as assessment not available at time of writing). Lower River Shannon SAC is approximately 42km north-west from these schemes and therefore no in-combination impacts are predicted. Philipstown Marsh SAC is approximately 237km north-west from these schemes and therefore no in-combination impacts are predicted. Silevefelim to Silvermines Mountains SPA is approximately 42km north-west from these schemes and therefore no in-combination impacts are predicted. Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza Lower River Suir SAC is approximately 20km south and downstream from this scheme. The townhall is approximately 300m from a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing). Lower River Shannon SAC is approximately 21km south-west from these schemes and therefore no in-combination impacts are predicted. Philipstown Marsh SAC is approximately 33km south-west from these schemes and therefore no in-combination impacts are predicted. Silevefelim to Silvermines Mountains SPA is approximately 71.5km south-west from these schemes and therefore no in-combination impacts are predicted due to the distance from the works and the QI present.  An Duiche Social Housing, Tipperary Town: and Tipperary Town Regeneration Lower River Suir SAC is approximately 6km south and downstream from these schemes. The schemes are adjacent to or within 60m of a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes asmed as assessment not available at time of writing). Lower River Shannon SAC is approximately 9.8km north-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted. Silevefelim to Silvermines Mountains SPA is approximately 98km nor			(Y/N)

Preferred Option	Potential Effects – 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 disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). Lower River Shannon SAC is approximately 83km north-west from these schemes and therefore no in-combination impacts are predicted. Philipstown Marsh SAC is approximately 78km north-west from these schemes and therefore no in-combination impacts are predicted. Slievefelim to Silvermines Mountains SPA is approximately 81km north-west from these schemes and therefore no in-combination impacts are predicted.  Waterford City and Environs - North Quays  This development includes a new urban area with large commercial buildings, a new bridge across the River Suir and a new boardwalk along the bank of the River Suir. Lower River Suir SAC is directly adjacent to this scheme. The NIS for this scheme identified pollution, habitat loss, mortality during construction, as well as disturbance and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from habitat loss, pollution, mortality and disturbance during construction. Lower River Shannon SAC is approximately 83km north-west from this scheme and therefore no in-combination impacts are predicted. Philipstown Marsh SAC is approximately 78km north-west from this scheme and therefore no in-combination impacts are predicted. Blackwater River Valley Regeneration Plan  Lower River Suir SAC is approximately 14km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted. Lower River Shannon SAC is approximately 49km north-west from this scheme and therefore no in-combination impacts are predicted.			
SAK-983 (TG3-SAK-733, TG3-SAK-734, TG3-SAK-735, TG3-SAK-736, TG3-SAK-739, TG3-SAK-740, TG3-SAK-741, TG3-SAK-742, TG3-SAK-743)  New abstraction from the River Suir and new WTP at Barne site to supply deficit. Interconnect Templetney/Brackford Bridge and Ardfinnan Regional with Clonmel WRZ. Rationalise Russelstown, Kilmanahan, Tullohea, Kilcash, Ahenny and Ballinvir, Glenagad and Poulavanogue.  Option study area is within the Lower River Suir SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. During operation there is the potential for habitat degradation and a reduction in flow and water availability.	<ul> <li>Habitat loss</li> <li>Mortality risk</li> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> <li>Water table/availability</li> </ul>	Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 1.5km east and downstream from the scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 22km north from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 57km south-west from these schemes and therefore no in-combination impacts are predicted. A Pathway to the Regeneration of Cahir Town Centre  This development includes a public realm resurfacing and upgrades to street furniture and was screened out for AA, therefore there will be no potential impact on European sites. Lower River Suir SAC is adjacent to this scheme, however given the small scale of the works in Cahir no in-combination effects are predicted. Blackwater Callows SPA is approximately 25km south from this scheme and therefore no in-combination effects are predicted.	Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Fermoy Town Centre Renewal Project.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent	General Mitigation Measures are outlined in Section 6.3.3 Option Specific Measures as in Section 6.3.4 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 Effects – 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 the Zone of Influence of the Blackwater Callows SPA which is 13km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.		East Limerick Greenway, Newcastle West Greenway to the Suir Blueway at Cahir  Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Newcastle West. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, the spread of invasive species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 25km south from this scheme and therefore no in-combination impacts are predicted.  Cashel to Cahir Greenway - Cashel to Cahir Town  Lower River Suir SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, the spread of invasive species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 25km south from this scheme and therefore no incombination impacts are predicted.  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper  Lower River Suir SAC is approximately 13km north from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Lismore and west of Ballyduff Upper. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Suir Blueway - Marffield to Cahir, Marlfield Village to Swiss Cottages  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, the spread	with the Waterford Greenway Dungarvan to West of Ballyduff Upper link scheme.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from habitat loss, pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Carrick- on-Suir Regeneration Plan and		
		scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 16km south-west from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution, mortality, the spread of invasive species and disturbance during construction. Incombination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 42km south-west from this scheme and therefore no in-combination impacts are predicted.  Carrick-on-Suir Regeneration Plan  Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the spread of invasive species and disturbance during construction. In-combination effects during operation may result in habitat degradation (LSEs for this scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 42km south-west from this scheme and therefore no in-combination impacts are predicted.  Clonmel 2030 Regeneration Plan; Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel; and Prior Park Social Housing, Clonmel Lower River Suir SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution, mortality, the	during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes and during operation from habitat degradation on the Lower River Suir SAC.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall scheme.		

Preferred Option	Potential Effects – 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)
		spread of invasive species and disturbance during construction. In-combination effects during operation may result in habitat degradation (LSEs for these schemes assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 28km south-west from these schemes and therefore no incombination impacts are predicted.  Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza Lower River Suir SAC is approximately 200m from a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for the scheme assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 72km south from this scheme and therefore no in-combination impacts are predicted.  An Duiche Social Housing, Tipperary Town: and Tipperary Town Regeneration  Lower River Suir SAC is approximately 6km south and downstream from these schemes. The schemes are adjacent to or within 60m of a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing). Blackwater Callows SPA is approximately 35km south from these schemes and therefore no in-combination impacts are predicted.  Blackwater Community School, Lismore, Waterford.  Lower River Suir SAC is approximately 16km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 900m north from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes, No NIS available so it is assumed there is a potential for in-combination effects from pollution may result in habitat degradation and changes to water table/availability, (LSEs for these schemes and the	Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.  Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Blackwater Community School scheme.  Yes - from pollution, mortality, the spread of invasive species and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan and during operation from habitat degradation and water table/availability on the Lower River Suir SAC.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from habitat loss, pollution, mortality and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City North Quays scheme.  Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Blackwater River Valley Regeneration Plan.		

Preferred Option	Potential Effects – 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 Valley Regeneration Plan  Lower River Suir SAC is approximately 14km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is within this scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).			
SAK-985c (TG3-SAK-748, TG3-SAK-749, TG3-SAK-750, TG3-SAK-751, TG3-SAK-752, TG3-SAK-753)  Rationalise Carrigmore, Kilteely, Herbertstown, Knocklong/Hospital, Ballylanders and Galbally to Clareville WTP (Limerick City). This option involves the increased SW abstraction at Clareville (SA8).  Option study area is within the Lower River Shannon SAC. During construction there is the potential for the pollution of QI habitats and supporting habitats. As a result of this pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. During operation there is the potential for habitat degradation and a reduction in flow and water availability.  Option study area is within the Zone of Influence and is hydrologically linked to the Lower River Suir SAC which is 6.5km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is also the potential for disturbance to QI species. No operational impacts predicted.  Option study area is within the Zone of Influence and is hydrologically linked to the River Shannon and River Fergus Estuaries SPA which is 6.2km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is also the potential for the pollution of protected and supporting habitats for QI birds. There is also the potential for disturbance to birds given the proximity of works. No operational impacts predicted.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> </ul>	Lower River Shannon SAC is approximately 48km north from this scheme and therefore no in-combination impacts are predicted. Lower River Suir SAC is approximately 16km north-east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Shannon and River Fergus Estuaries SPA is approximately 62km north-west from this scheme and therefore no in-combination impacts are predicted.  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Counthouse  Lower River Shannon SAC is approximately 74km north-west from this scheme and therefore no in-combination impacts are predicted. Lower River Suir SAC is approximately 36km north from this scheme and therefore no in-combination impacts are predicted. River Shannon and River Fergus Estuaries SPA is approximately 95km north-west from this scheme and therefore no in-combination impacts are predicted. River Shannon and River Fergus Estuaries SPA is approximately 95km north-west from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; and the Callan Town Regeneration  Lower River Shannon SAC is approximately 54km north-west from these schemes and therefore no in-combination impacts are predicted. Lower River Suir SAC is approximately 12km south-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted. River Shannon and River Fergus Estuaries SPA is approximately 85km north-west from these schemes and therefore no in-combination impacts are predicted. River Shannon and River Fergus Estuaries SPA is approximately 85km north-west from these schemes and therefore no in-combination impacts are predicted. River Shannon and River Fergus Estuaries SPA is approximately 59km north-west from this scheme and therefore no in-combination impacts are predicted. River Shannon and River Fergus Estuaries SPA is approximately 59km north-west from	Yes - from pollution impacts on Lower River Shannon SAC and from pollution and disturbance impacts on Lower River Suir SAC and River Shannon and River Fergus Estuaries SPA if construction phase concurrent with the East Limerick Greenway scheme.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Cashel to Cahir Greenway scheme.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Marlfield to Cahir Blueway scheme.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Suir Blueway to Waterford Greenway Link scheme.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Carrick-on-Suir Regeneration Plan, the Clonmel 2030 Regeneration Plan, the Clonmel Community Nursing Unit, the Gas House Bridge to Suir Island Blueway, and the Prior Park Social Housing schemes.	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 N

Preferred Option	Potential Effects – 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 23km north-west from this scheme and therefore no in-combination impacts are predicted. Lower River Sur SAC is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Cahir and Cashel. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). River Shannon and River Fergus Estuaries SPA is approximately 53km north-west from this scheme and therefore no in-combination impacts are predicted.  Waterford Greenway - Dungarvan - County Boundary West of Ballyduff Upper Lower River Shannon SAC is approximately 49km north-west from this scheme and therefore no in-combination impacts are predicted. Lower River Suir SAC is approximately 13km north from this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Shannon and River Fergus Estuaries SPA is approximately 70km north-west from this scheme and therefore no in-combination impacts are predicted.  Suir Blueway - Martfield to Cahir, Martfield Village to Swiss Cottages  Lower River Shannon SAC is approximately 32km north-west from this scheme and therefore no in-combination impacts are predicted. Lower River Suir SAC is directly adjacent to this scheme. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). River Shannon and River Fergus Estuaries SPA is approximately 59km north-west from this scheme and therefore no in-combination impacts are predicted.  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Klimeaden  Lower River Shannon SAC is approximately 60km north-west from this scheme and therefore no in-combination impacts are predicted.  Lower River Shannon SAC is approximately 91km north-west from this scheme and therefore no	Lower River Suir SAC if construction phase concurrent with the Templemore Town Hall scheme.  Yes - from pollution impacts on Lower River Suir SAC if construction phase concurrent with the An Duiche Social Housing scheme, and the Tipperary Town Regeneration plan.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City Wastewater Treatment Plant scheme, and the Waterford City Regeneration Plan.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Kilbarry Social Housing scheme, and the WIT Engineering, ICT and Teaching Building scheme.  Yes - from pollution and disturbance impacts on Lower River Suir SAC if construction phase concurrent with the Waterford City North Quays scheme.		

Preferred Option	Potential Effects – 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 (LSEs for the scheme assumed as assessment not available at time of writing). River Shannon and River Fergus Estuaries SPA is approximately 55km south-west from these schemes and therefore no in-combination impacts are predicted.  An Duiche Social Housing, Tipperary Town: and Tipperary Town Regeneration  Lower River Shannon SAC is approximately 12.6km north-west from these schemes with no hydrological link and therefore no in-combination impacts are predicted. Lower River Suir SAC is approximately 6km south and downstream from these schemes. The schemes are adjacent to or within 60m of a hydrological link to this European site. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing). River Shannon and River Fergus Estuaries SPA is approximately askm north-west from these schemes and therefore no in-combination impacts are predicted.  Blackwater Community School. Lismore, Waterford.  Lower River Shannon SAC is approximately 38km north-west from this scheme and therefore no in-combination impacts are predicted. River Shannon and River Fergus Estuaries SPA is approximately 16km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted. River Shannon and River Fergus Estuaries SPA is approximately 77km north-west from this scheme and therefore no in-combination impacts are predicted.  Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan Lower River Shannon SAC is approximately 82km north-west from these schemes and therefore no in-combination impacts are predicted. Lower River Sur SAC is directly adjacent to these schemes. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). River Shannon SAC is approximately SAkm north-west from these s			(Y/N)
		therefore no in-combination impacts are predicted. Lower River Suir SAC is			

Preferred Option	Potential Effects – 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 14km north of this scheme with no hydrological link and therefore no in-combination impacts are predicted. <b>River Shannon and River Fergus Estuaries SPA</b> is approximately 71km north-west from this scheme and therefore no incombination impacts are predicted.			
Increase GW abstraction and upgrade Ballinamuck WTP to supply deficit. Rationalise Graiguenageeha and Stradbally to Dungarvan WRZ.  Option study area is within the Dungarvan Harbour SPA. During construction there is the potential for the loss and pollution of supporting habitats for QI. There is the potential for disturbance to QI species. No operational impacts predicted.  Option study area is within the Zone of Influence and is hydrologically linked to the Mid-Waterford Coast SPA which is 25m away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is also the potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Blackwater Callows SPA which is 19.8km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.	<ul> <li>Habitat loss</li> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Permoy Town Centre Renewal Project  Dungarvan Harbour SPA is approximately 43km east from this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 52km east from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 1.5km east and downstream from the scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Regeneration of Youghal Town Centre and the Development of a future vision for the disused former Courthouse  Dungarvan Harbour SPA is approximately 18km north-east from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction. (LSEs for the scheme assumed as assessment not available at time of writing). Mid-Waterford Coast SPA is approximately 28km north-east from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 22km north from this scheme and therefore no in-combination impacts are predicted.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town; And the Callan Town Regeneration  Dungarvan Harbour SPA is approximately 49km south-west from these schemes and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 44km south from these schemes and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 44km south from these schemes and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 41km south from these schemes and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 41km south-east from this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 41km south-e	Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Fermoy Town Centre Renewal Project.  Yes - from disturbance impacts on Dungarvan Harbour SPA if construction phase concurrent with the Regeneration of Youghal Town Centre scheme.  Yes - from habitat loss, pollution and disturbance on Dungarvan Harbour SPA and from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Waterford Greenway Dungarvan to West of Ballyduff Upper link scheme.  Yes - from disturbance impacts on Blackwater Callows SPA if construction phase concurrent with the Blackwater Community School scheme.  Yes - from disturbance impacts on Dungarvan Harbour SPA and the Blackwater Callows SPA if construction phase concurrent with the Blackwater River Valley Regeneration Plan.	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 N

Preferred Option	Potential Effects – 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)
		east from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is adjacent to this scheme and may also be hydrologically linked via a number of watercourses between Lismore and west of Ballyduff Upper. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).  Suir Blueway - Marlfield to Cahir, Marlfield Village to Swiss Cottages  Dungarvan Harbour SPA is approximately 20km south-east from this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 27km south-east from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 16km south-west from this scheme with no hydrological link and therefore no in-combination impacts are predicted.  Suir Blueway to Waterford Greenway Link - Carrick on Suir to Kilmeaden  Dungarvan Harbour SPA is approximately 27km south-west from this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 12km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 42km south-west from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 42km south-west from this scheme and therefore no in-combination impacts are predicted.			
		Carrick-on-Suir Regeneration Plan  Dungarvan Harbour SPA is approximately 29km south-west from this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 23km south from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 42km south-west from this scheme and therefore no in-combination impacts are predicted.			
		Clonmel 2030 Regeneration Plan; Clonmel Community Nursing Unit; Suir Blueway - Gas House Bridge to Suir Island, Clonmel; and Prior Park Social Housing, Clonmel  Dungarvan Harbour SPA is approximately 27km south from these schemes and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 30km south-east from these schemes and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 28km south-west from these schemes and therefore no in-combination impacts are predicted.			
		Templemore Town Hall: Enterprise and Cultural Centre, with associated Civic Plaza  Dungarvan Harbour SPA is approximately 78km south from this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 79km south-east from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 72km south from this scheme and therefore no in-combination impacts are predicted.  An Duiche Social Housing, Tipperary Town; and Tipperary Town Regeneration  Dungarvan Harbour SPA is approximately 54km south-east from these schemes and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 61km south-east from these schemes and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 35km south from			
		these schemes and therefore no in-combination impacts are predicted.  Blackwater Community School, Lismore, Waterford.  Dungarvan Harbour SPA is approximately 20km east from this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 29km east from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 900m north from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing).			

Preferred Option	Potential Effects – 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)
		Waterford City Wastewater Treatment Plant; and Waterford City Regeneration Plan.  Dungarvan Harbour SPA is approximately 37km south-west from these schemes and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 11km south from these schemes with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 57km west from these schemes and therefore no in-combination impacts are predicted.  Kilbarry Social Housing, Waterford; and WIT Engineering, ICT and Teaching Building Dungarvan Harbour SPA is approximately 33km south-west from these schemes and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 14km south from these schemes with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 57km west from these schemes and therefore no in-combination impacts are predicted.  Waterford City and Environs - North Quays  Dungarvan Harbour SPA is approximately 37km south-west from this scheme and therefore no in-combination impacts are predicted. Mid-Waterford Coast SPA is approximately 14km south from this scheme with no hydrological link and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 57km west from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 57km west from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is approximately 24km east from this scheme and therefore no in-combination effects from disturbance during construction (LSEs for the scheme assumed as assessment not available at time of writing). Mid-Waterford Coast SPA is approximately 24km east from this scheme and therefore no in-combination impacts are predicted. Blackwater Callows SPA is within this scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construc			
All Preferred Options  The European sites that may be impacted by options within Study Area K are Blackwater River (Cork/Waterford) SAC, Lower River Shannon SAC, Lower River Suir SAC, Philipston Marsh SAC, River Barrow And River Nore SAC, Blackwater Callows SPA, Blackwater Estuary SPA, Dungarvan Harbour SPA, Helvick Head to Ballyquin SPA, Mid-Waterford Coast SPA, River Nore SPA, River Shannon and River Fergus Estuaries SPA, Slievefelim to Silvermines Mountains SPA, and Tramore Back Strand SPA.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> </ul>	All Preferred Options  There is potential for in-combination effects from the projects within SAK to the Blackwater River (Cork/Waterford) SAC given that options SAK-386, SAK-444, SAK-477 and SAK-973 have the potential for impacts. Potential for in-combination effects from pollution (all options) and disturbance (SAK-444 and SAK-973).  There is potential for in-combination effects from the projects within SAK to the Lower River Shannon SAC given that options SAK-975 and SAK-985c have the potential for impacts. Potential for in-combination effects from pollution (all options), disturbance (all options) and spread of invasive non-native species (all options).  There is potential for in-combination effects from the projects within SAK to the Lower River Suir SAC given that options SAK-073, SAK-106, SAK-120, SAK-180, SAK-211, SAK-441, SAK-560 & SAK-618 combined, SAK-569, SAK-648, SAK-837, SAK-853, SAK-949, SAK-975, SAK-983 and SAK-985c have the potential for impacts. Potential for in-combination effects from habitat loss (SAK-120, SAK-211, SAK-560 & SAK-618 combined, SAK-853, SAK-949, SAK-975, SAK-983), pollution (all options), mortality (SAK-120, SAK-211, SAK-560 & SAK-618 combined, SAK-837, SAK-983), spread of invasive species (SAK-120, SAK-211, SAK-560 & SAK-618 combined, SAK-837, SAK-837, SAK-853, SAK-949, SAK-975, SAK-983), and disturbance (SAK-073, SAK-120, SAK-180, SAK-211, SAK-441, SAK-560 & SAK-618 combined, SAK-648, SAK-837, SAK-853, SAK-949, SAK-975, SAK-983, SAK-985c), during construction and during operation from habitat degradation (SAK-120, SAK-211, SAK-560 & SAK-618 combined, SAK-648, SAK-853, SAK-949, SAK-975, SAK-983, SAK-949, SAK-983), and water table/availability (SAK-120, SAK-211, SAK-441, SAK-560 & SAK-618 combined, SAK-648, SAK-653, SAK-949, SAK-983).	Yes – from pollution and disturbance impacts on Blackwater River (Cork/Waterford) SAC if construction of options is concurrent.  Yes – from pollution, spread of invasive non-native species and disturbance impacts on Lower River Shannon SAC if construction of options is concurrent.  Yes – from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance impacts on Lower River Suir SAC if construction of options is concurrent and during operation from habitat degradation and water table/availability.  Yes – from pollution impacts on	General Mitigation Measures are outlined in Section 6.3.3 Option Specific Measures as 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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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 SAK-975 is the only option within SAK with potential for impacts on Philipston Marsh SAC. Therefore, there is no potential for in-combination effects to this European site.  There is potential for in-combination effects from the projects within SAK to the River Barrow And River Nore SAC given that options SAK-077, SAK-648, SAK-853 and SAK-949 have the potential for impacts. Potential for in-combination effects from pollution (all options) during construction.  There is potential for in-combination effects from the projects within SAK to the Blackwater Callows SPA given that options SAK-211, SAK-441, SAK-472, SAK-973, SAK-983 and SAK-995 have the potential for impacts. Potential for in-combination effects from and disturbance (all options).  Option SAK-973 is the only option within SAK with potential for impacts on 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 SAK to the Dungarvan Harbour SPA given that options SAK-387, SAK-441, SAK-450, SAK-472, SAK-949, SAK-973 and SAK-995 have the potential for impacts. Potential for incombination effects from pollution (SAK-387, SAK-472, SAK-995) and disturbance (all options).  Option SAK-478 is the only option within SAK with potential for impacts on Helvick Head to Ballyquin 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 SAK to the Mid-Waterford Coast SPA given that options SAK-450, SAK-525, SAK-949 and SAK-995 have the potential for impacts. Potential for in-combination effects from pollution (all options) and disturbance (SAK-949 and SAK-995).  Option SAK-975 is the only option within SAK with potential for impacts on River Nore SPA. Therefore, there is no potential for in-combination effects to this European site.  Option SAK-975 is the only option within SAK with potential for impacts on River Shannon and River Fergus Es	River Barrow And River Nore SAC if construction of options is concurrent.  Yes – from disturbance impacts on Blackwater Callows SPA if construction of options is concurrent.  Yes – from pollution and disturbance impacts on Dungarvan Harbour SPA if construction of options is concurrent.  Yes – from pollution and disturbance impacts on Mid- Waterford Coast SPA if construction of options is concurrent.  Yes – from disturbance impacts on Tramore Back Strand SPA if construction of options is concurrent.		

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

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 L					
Increase GW abstraction from Busherstown Springs and upgrade Glenmore WTP to supply deficit.  Option study area is hydrologically linked to the River Barrow And River Nore SAC which is 670m away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is also the potential for disturbance to QI species. During operation there is the potential for habitat degradation and a reduction in flow and water availability.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> <li>Water table/availability</li> </ul>	River Barrow And River Nore SAC is directly adjacent to the scheme, and is hydrologically linked via the River Barrow and a number of other watercourses. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Carlow Public Realm and Pedestrian Linkage Project. Carlow Wastewater Treatment Plant, and IT Carlow Science & Health Building  River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the River Barrow and the River Burren. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSEs for these schemes assumed as assessment not available at time of writing).  Abbey Quarter  River Barrow And River Nore SAC is directly adjacent to the scheme, and is hydrologically linked via the River Breagagh. The NIS for this scheme identified deterioration of water quality and disturbance to key species during construction as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town, and Callan Town Regeneration  River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the King's River. No NIS available so it is assumed there is a potential for in-combination effects from pollution and as assessment not available at time of writing).  Crokers Hill, Kennyswell Road, Kilkenny  River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the River Breagagh. The NIS for this scheme identified pollution from surface water run-off and the subsequent effects such as mortality of species during construc	Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Barrow Valley Greenway works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Carlow Public Realm and Pedestrian Linkage Project, Carlow Wastewater Treatment Plant, and IT Carlow Science & Health Building works and during operation from habitat degradation and water table/availability on the River Barrow And River Nore SAC.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Abbey Quarter works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town, and Callan Town Regeneration works.  Yes – from pollution impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Crokers Hill, Kennyswell Road works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Crokers Hill, Kennyswell Road works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Crokers Hill, Kennyswell Road works.	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)
		potential for in-combination effects from pollution during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSEs for these schemes assumed as assessment not available at time of writing).  Waterford City and Environs - North Quays  River Barrow And River Nore SAC is 6.7km east from this scheme, and is hydrologically linked via the River Suir. The NIS for this scheme identified reduction in water quality from accidental pollution, and disturbance from noise and light during construction, and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction.  Clonhaston, Enniscorthy, Wexford  River Barrow And River Nore SAC is 19.7km west from the scheme with no hydrological link and therefore no in-combination impacts are predicted.  Enniscorthy Flood Relief Scheme  River Barrow And River Nore SAC is 19km west from this scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted.  Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill, Wexford, Phase 1  River Barrow And River Nore SAC is 32km west from these schemes and therefore no in-combination impacts are predicted.  South East Greenway- Section from New Ross to Waterford  River Barrow And River Nore SAC is directly adjacent to this scheme, and is hydrologically linked via the River Barrow as well as a number of smaller watercourses along the route. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Trinity Whaff  River Barrow And River Nore SAC is 33km west from these schemes and therefore no in-combination impacts are predicted.  Wexfordia - the Ne	Plant, and Kilkenny Wastewater Network works and during operation from habitat degradation and water table/availability on the River Barrow And River Nore SAC.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with St Columba's Hospital, Thomastown, and Thomastown Regeneration Phase 2 works.  Yes – from pollution impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Waterford City Wastewater Treatment Plant, Waterford City Regeneration, WIT Engineering, ICT and Teaching Building, and Kilbarry Social Housing, Waterford works and during operation from habitat degradation and water table/availability on the River Barrow And River Nore SAC.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Waterford City and Environs - North Quays works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with South East Greenway - Section from New Ross to Waterford works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with South East Greenway - Section from New Ross to Waterford works.		
SAL-073  New GW abstraction/wellfield located south of New Ross WRZ and new WTP to	<ul><li>Habitat degradation</li><li>Disturbance</li></ul>	Barrow Valley Greenway - Bagenalstown to Place East  River Barrow And River Nore SAC is directly adjacent to the scheme, and is hydrologically linked via the River Barrow and a number of other watercourses. No	Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC and from disturbance impacts on	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.  Option study area is hydrologically linked to the River Barrow And River Nore SAC which is 230m away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is also the potential for disturbance to QI species. No operational impacts predicted.  Option study area is hydrologically linked to the Bannow Bay SAC which is 9km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts predicted.  Option study area is within the Zone of Influence of the Wexford Harbour and Slobs SPA which is 9.8km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.  Option study area is hydrologically linked to the Bannow Bay SPA which is 12.9km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Ballyteige Burrow SPA which is 18.8km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.		NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). Bannow Bay SAC is approximately 16km south-east from the scheme and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 16km east from the scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction given the location of some of the works (LSEs for this scheme assumed as assessments not available at time of writing). Bannow Bay SPA is approximately 19km south from the scheme with no hydrological link. No NIS available as it is assumed there is a potential for in-combination effects from disturbance during construction given the location of some of the works (LSEs for this scheme assumed as assessments not available at time of writing). Ballyteige Burrow SPA is approximately 25km south-east from the scheme and therefore no in-combination impacts are predicted.  Carlow Public Realm and Pedestrian Linkage Project. Carlow Wastewater Treatment Plant, and IT Carlow Science & Health Building  River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the River Burrow and the River Burren. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). Bannow Bay SAC is approximately 59km south-east from these schemes and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 43km south-east from these schemes and therefore no in-combination impacts are predicted.  Ballyteige Burrow SPA is approximately 68km south-east from these schemes and therefore no in-combination impacts are predicted.  Ballyteige Burrow SPA is approximately 68km south-east from these scheme and therefore no in	the Wexford Harbour and Slobs SPA and the Bannow Bay SPA if construction phase is concurrent with Barrow Valley Greenway works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Carlow Public Realm and Pedestrian Linkage Project, Carlow Wastewater Treatment Plant, and IT Carlow Science & Health Building works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Abbey Quarter works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town, and Callan Town Regeneration works.  Yes – from pollution impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Crokers Hill, Kennyswell Road works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Kilkenny City Enhanced Livability Study, Kilkenny Regional Water Supply Scheme - Upgrade of Troyswood Water Treatment Plant, and Kilkenny Wastewater Network works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Silkenny Wastewater Network 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)
		hydrologically linked via the River Breagagh. The NIS for this scheme identified pollution from surface water run-off and the subsequent effects such as mortality of species during construction as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution during construction. Bannow Bay SAC is approximately 56km south-east from the scheme and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 50km south-east from the scheme and therefore no in-combination impacts are predicted. Bannow Bay SPA is approximately 55km south-east from the scheme and therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is approximately 61km south-east from the scheme and therefore no in-combination impacts are predicted.  Kilkenny City Enhanced Livability Study, Kilkenny Regional Water Supply Scheme - Upgrade of Troyswood Water Treatment Plant, Kilkenny Wastewater Network River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the River Breagagh and the River Nore. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). Bannow Bay SAC is approximately 52km south-east from these schemes and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 49km south-east from these schemes and therefore no in-combination impacts are predicted.  St Columba's Hospital, Thomastown, Thomastown Regeneration Phase 2  River Barrow And River Nore SAC is approximately 37km south-east from these schemes and therefore no in-combination impacts are predicted.  St Columba's Hospital, Thomastown, Thomastown Regeneration Phase 2  River Barrow And River Nore SAC is approximated as assessment not available at time of writing). Bannow Bay SAC is approximately 37km south-east from these schemes and therefore no in-	Thomastown, and Thomastown Regeneration Phase 2 works.  Yes – from pollution impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Waterford City Wastewater Treatment Plant, Waterford City Regeneration, WIT Engineering, ICT and Teaching Building, and Kilbarry Social Housing, Waterford works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Waterford City and Environs - North Quays works.  Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA and the Ballyteige Burrow SPA if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC and from disturbance impacts on the River Barrow And River Nore SAC and from disturbance impacts on the River Barrow And River Nore SAC and from disturbance impacts on the River Barrow And River Nore SAC and from disturbance impacts on Bannow Bay SPA if construction phase is concurrent with South East Greenway- Section from New Ross to Waterford works.		

Preferred Unition	l 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)
		operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction. Bannow Bay SAC is approximately 18km south-east from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 38km north-east from the scheme and the refore no in-combination impacts are predicted. Bannow Bay SPA is approximately 18km south-east from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is approximately 27km south-east from the scheme and therefore no in-combination impacts are predicted. Clonhaston, Enniscorthy, Wexford  River Barrow And River Nore SAC is 19.7km west from the scheme with no hydrological link and therefore no in-combination impacts are predicted. Bannow Bay SAC is approximately 26km south-west from the scheme and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction given the location of the works (LSEs for this scheme assumed as assessments not available at time of writing). Bannow Bay SPA is approximately 30km south-west from the scheme and therefore no in-combination impacts are predicted. Bellyteige Burrow SPA is approximately 32km south-west from the scheme and therefore no in-combination impacts are predicted. Enniscorthy Flood Relief Scheme  River Barrow And River Nore SAC is 19km west from this scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Bannow Bay SAC is approximately 24km south-west from the scheme and therefore no in-combination impacts are predicted. Bannow Bay SAC is approximately 1	on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Wexford General Hospital Ward Block works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Wexfordia - the New Ross Tourism Transformation 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)
		scheme assumed as assessment not available at time of writing). Bannow Bay SAC is approximately 14.8km south-east from the scheme with no hydrological links and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 26km east from the scheme and therefore no in-combination impacts are predicted. Bannow Bay SPA is approximately 15.3km south-east from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction given the location of some of the works (LSEs for this scheme assumed as assessments not available at time of writing). Ballyteige Burrow SPA is approximately 24km south-east from the scheme and therefore no in-combination impacts are predicted.  Trinity Wharf  River Barrow And River Nore SAC is 35km west from this scheme and therefore no in-combination impacts are predicted. Bannow Bay SAC is approximately 19km south-west from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is directly adjacent to the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified pollution and habitat loss during construction, and pollution during operation as potential impacts to this European site. Therefore, no in-combination impacts are predicted. Bannow Bay SPA is approximately 22km south-west from the scheme and therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is approximately 18km south-west from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted.			
		Wexford General Hospital Ward Block River Barrow And River Nore SAC is 33km west from these schemes and therefore no in-combination impacts are predicted. Bannow Bay SAC is approximately 17.3km south-west from the scheme with no hydrological links and therefore no incombination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 300m north from the scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Bannow Bay SPA is approximately 20km south-west from the scheme and therefore no incombination impacts are predicted. Ballyteige Burrow SPA is approximately 17.5km south-east from the scheme. Given the urban location of the works, no in-combination impacts are predicted.			
		Wexfordia - the New Ross Tourism Transformation  River Barrow And River Nore SAC is within this scheme, and is hydrologically linked via the River Barrow. No NIS available so it is assumed there is a potential for incombination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). Bannow Bay SAC is approximately 17km south-east from the scheme with no hydrological links and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 25km east from the scheme and therefore no incombination impacts are predicted. Bannow Bay SPA is approximately 18km southeast from the scheme with no hydrological link. Given the urban location of the works, no in-combination impacts are predicted. Ballyteige Burrow SPA is approximately 24km south-east from the scheme and therefore no in-combination impacts are predicted.			
New GW abstraction and new WTP for Bennettsbridge.  Option study area is within the River Barrow And River Nore SAC. During construction there is the potential for the loss and pollution	<ul><li>Habitat loss</li><li>Mortality risk</li><li>Habitat degradation</li><li>Disturbance</li></ul>	Barrow Valley Greenway - Bagenalstown to Place East  River Barrow And River Nore SAC is directly adjacent to the scheme, and is hydrologically linked via the River Barrow and a number of other watercourses. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for this scheme assumed as assessment not	Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Barrow	General Mitigation Measures are outlined in Section 6.3.3 Hydrological modelling as in Section 6.3.5 Hydrogeological modelling	N

Preferred Option	Potential Impacts – Key	Potential for In-combination Implications on European Sites	Potential for Likely Significant	Mitigation and	In-combination Adverse Effects on Site
	Types	Project(s) being assessed against identified underlined	Effects in-combination (Yes/No)	Conclusion	Integrity (Y/N)
of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. During operation there is the potential for habitat degradation and a reduction in flow and water availability.  Option study area is within the Zone of Influence of the River Nore SPA which is 30m away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is also potential for disturbance to birds given the proximity of works. No operational impacts predicted.	Types	available at time of writing). River Nore SPA is 7.5km north-west from this scheme, with no hydrological links, and therefore no in-combination impacts are predicted. Carlow Public Realm and Pedestrian Linkage Project. Carlow Wastewater Treatment Plant, and IT Carlow Science & Health Building River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the River Barrow and the River Burren. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSEs for these schemes assumed as assessment not available at time of writing). River Nore SPA is approximately 25km west from these schemes and therefore no in-combination impacts are predicted.  Abbey Quarter River Barrow And River Nore SAC is directly adjacent to the scheme, and is hydrologically linked via the River Breagagh. The NIS for this scheme identified deterioration of water quality and disturbance to key species during construction as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction. River Breagagh. The NIS for this scheme identified habitat loss and disturbance to kingfisher during construction as potential impacts to this European site. Therefore, there is potential for in-combination effects from disturbance during construction.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town, and Callan Town Regeneration  River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the King's River. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these s	Valley Greenway works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Carlow Public Realm and Pedestrian Linkage Project, Carlow Wastewater Treatment Plant, and IT Carlow Science & Health Building works and during operation from habitat degradation and water table/availability on the River Barrow And River Nore SAC.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC and from disturbance impacts on River Nore SPA if construction phase is concurrent with Abbey Quarter works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Nore SPA if construction phase is concurrent with Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town, and Callan Town Regeneration works.  Yes – from mortality and pollution impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Crokers Hill, Kennyswell Road works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Nore SAC in construction phase is concurrent with Crokers Hill, Kennyswell Road works.	Conclusion  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.	Integrity

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 during construction (LSEs for these schemes assumed as assessment not available at time of writing).  St Columba's Hospital, Thomastown, Thomastown Regeneration Phase 2  River Barrow And River Nore SAC is 245m east from these schemes, and is hydrologically linked via the River Nore and Nore Stream. No NIS available so it is assumed there is a potential for in-combination effects from mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). River Nore SPA is 240m east from these schemes and is hydrologically linked via the River Nore and Nore Stream. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Waterford City Wastewater Treatment Plant, Waterford City Regeneration, WIT Engineering, ICT and Teaching Building, Kilbarry Social Housing, Waterford  River Barrow And River Nore SAC is 6.7km north-east from these schemes, and is hydrologically linked via the River Suir. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availablity (LSEs for these schemes assumed as assessment not available at time of writing). River Nore SPA is approximately 23km north-east from these schemes and therefore no in-combination impacts are predicted.  Waterford City and Environs - North Quays  River Barrow And River Nore SAC is 6.7km east from this scheme, and is hydrologically linked via the River Suir. The NIS for this scheme identified reduction in water quality from accidental pollution, and disturbance from noise and light during construction, and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore	with Kilkenny City Enhanced Livability Study, Kilkenny Regional Water Supply Scheme - Upgrade of Troyswood Water Treatment Plant, and Kilkenny Wastewater Network works and during operation from habitat degradation and water table/availability on the River Barrow And River Nore SAC.  Yes – from mortality, pollution, spread of invasive non-native species and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Nore SPA if construction phase is concurrent with St Columba's Hospital, Thomastown, and Thomastown Regeneration Phase 2 works.  Yes – from pollution impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Waterford City Wastewater Treatment Plant, Waterford City Regeneration, WIT Engineering, ICT and Teaching Building, and Kilbarry Social Housing, Waterford works and during operation from habitat degradation and water table/availability on the River Barrow And River Nore SAC.		
		River Barrow And River Nore SAC is 19km west from this scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no incombination impacts are predicted. River Nore SPA is approximately 32km west from the scheme and therefore no in-combination impacts are predicted.  Kerloque Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill, Wexford, Phase 1  River Barrow And River Nore SAC is 32km west from these schemes and therefore no in-combination impacts are predicted. River Nore SPA is approximately 42km north-west from these schemes and therefore no in-combination impacts are predicted.  South East Greenway- Section from New Ross to Waterford  River Barrow And River Nore SAC is directly adjacent to this scheme, and is hydrologically linked via the River Barrow as well as a number of smaller watercourses along the route. No NIS available so it is assumed there is a potential for incombination effects from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). River Nore SPA is 9km north-west	Yes – from habitat loss, pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Waterford City and Environs - North Quays works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with South East Greenway- Section from New Ross to Waterford 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)
		from this scheme and is hydrologically linked via the River Nore and the River Barrow. However, the works are downstream of this European site, and therefore no incombination impacts are predicted.  Trinity Wharf  River Barrow And River Nore SAC is 35km west from this scheme and therefore no incombination impacts are predicted. River Nore SPA is approximately 42km northwest from the scheme and therefore no incombination impacts are predicted.  Wexford General Hospital Ward Block  River Barrow And River Nore SAC is 33km west from these schemes and therefore no incombination impacts are predicted. River Nore SPA is approximately 39km northwest from the scheme and therefore no incombination impacts are predicted.  Wexfordia - the New Ross Tourism Transformation  River Barrow And River Nore SAC is within this scheme, and is hydrologically linked via the River Barrow. No NIS available so it is assumed there is a potential for incombination effects from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). River Nore SPA is 9km north-west from this scheme and is hydrologically linked via the River Nore and the River Barrow. However, the works are downstream of this European site, and therefore no in-combination impacts are predicted.	Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Wexfordia - the New Ross Tourism Transformation works.		
Upgrade Troyswood WTP and abandon Radestown WTP. Rationalise Ballyragget to Kilkenny City WRZ for increased resilience and long term OPEX savings.  Option study area is within the River Barrow And River Nore SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. No operational impacts predicted.  Option study area is within the River Nore SPA. During construction there is the potential for the loss and pollution of protected and supporting habitats. As a result of this habitat loss and pollution there is a risk of mortality to QI birds and their prey. There is also the potential for disturbance to QI birds. No operational impacts predicted.	<ul> <li>Habitat loss</li> <li>Mortality risk</li> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> </ul>	River Barrow And River Nore SAC is directly adjacent to the scheme, and is hydrologically linked via the River Barrow and a number of other watercourses. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). River Nore SPA is 7.5km north-west from this scheme, with no hydrological links, and therefore no in-combination impacts are predicted.  Carlow Public Realm and Pedestrian Linkage Project, Carlow Wastewater Treatment Plant, and IT Carlow Science & Health Building  River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the River Barrow and the River Burren. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). River Nore SPA is approximately 25km west from these schemes and therefore no incombination impacts are predicted.  Abbey Quarter  River Barrow And River Nore SAC is directly adjacent to the scheme, and is hydrologically linked via the River Breagagh. The NIS for this scheme identified deterioration of water quality and disturbance to key species during construction as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction. River Nore SPA is directly adjacent to the scheme and is hydrologically linked via the River Breagagh. The NIS for this scheme identified habitat loss and disturbance to kingfisher during construction as potential impacts to this European site. Therefore, there is potential for incombination effects from habitat loss and disturbance during construction.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan f	Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Barrow Valley Greenway works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Carlow Public Realm and Pedestrian Linkage Project, Carlow Wastewater Treatment Plant, and IT Carlow Science & Health Building works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC and from habitat loss and disturbance impacts on River Nore SPA if construction phase is concurrent with Abbey Quarter works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And	General Mitigation Measures are outlined in Section 6.3.3 Option Specific Measures as 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 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)
		assumed as assessment not available at time of writing). River Nore SPA is 1.4km east from these schemes and is hydrologically linked via the King's River. No NIS available so it is assumed there is a potential for in-combination effects mortality, pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Crokers Hill, Kennyswell Road, Kilkenny  River Barrow And River Nore SAC is 900m east from this scheme, and is hydrologically linked via the River Breagagh. The NIS for this scheme identified pollution from surface water run-off and the subsequent effects such as mortality of species during construction as potential impacts to this European site. Therefore, there is potential for in-combination effects from mortality and pollution during construction. River Nore SPA is 900m east from this scheme and is hydrologically linked via the River Breagagh. However, the NIS for this scheme did not identify any potential impacts on this European site from the scheme. Therefore, no in-combination impacts are predicted.  Kilkenny City Enhanced Livability Study. Kilkenny Regional Water Supply Scheme - Upgrade of Troyswood Water Treatment Plant, Kilkenny Wastewater Network  River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the River Breagagh and the River Nore. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these schemes and as assessment not available at time of writing).  St Columba's Hospital. Thomastown, Thomastown Regeneration Phase 2  River Barrow And River Nore SAC is 245m east from these schemes, and is hydrologically linked via the River Nore and Nore Stream. No NIS available as it in assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during constructio	River Nore SAC and from mortality, pollution and disturbance impacts on the River Nore SPA if construction phase is concurrent with Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town, and Callan Town Regeneration works.  Yes – from mortality and pollution impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Crokers Hill, Kennyswell Road works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC and from habitat loss, mortality, pollution and disturbance impacts on the River Nore SPA if construction phase is concurrent with Kilkenny City Enhanced Livability Study, Kilkenny Regional Water Supply Scheme - Upgrade of Troyswood Water Treatment Plant, and Kilkenny Wastewater Network works.  Yes – from mortality, pollution, spread of invasive non-native species and disturbance impacts on the River Barrow And River Nore SAC and from mortality, pollution and disturbance impacts on the River Barrow And River Nore SAC and From mortality, pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with St Columba's Hospital, Thomastown, and Thomastown Regeneration Phase 2 works.  Yes – from pollution impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Waterford City Wastewater Treatment Plant, Waterford City Regeneration, WIT Engineering, ICT and Teaching Building, and Kilbarry Social Housing, Waterford 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)
		Clonhaston, Enniscorthy, Wexford  River Barrow And River Nore SAC is 19.7km west from the scheme with no hydrological link and therefore no in-combination impacts are predicted. River Nore SPA is approximately 33km south-west from the scheme and therefore no incombination impacts are predicted.  Enniscorthy Flood Relief Scheme  River Barrow And River Nore SAC is 19km west from this scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no incombination impacts are predicted. River Nore SPA is approximately 32km west from the scheme and therefore no in-combination impacts are predicted. Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill, Wexford, Phase 1  River Barrow And River Nore SAC is 32km west from these schemes and therefore no in-combination impacts are predicted. River Nore SPA is approximately 42km north-west from these schemes and therefore no in-combination impacts are predicted.  South East Greenway- Section from New Ross to Waterford  River Barrow And River Nore SAC is directly adjacent to this scheme, and is hydrologically linked via the River Barrow as well as a number of smaller watercourses along the route. No NIS available so it is assumed there is a potential for incombination effects from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). River Nore SPA is 9km north-west from this scheme and is hydrologically linked via the River Nore SPA is approximately 42km north-west from the scheme and therefore no in-combination impacts are predicted. River Nore SPA is approximately 42km north-west from the scheme and therefore no in-combination impacts are predicted. River Nore SPA is approximately 39km north-west from the scheme and therefore no in-combination impacts are predicted. River Nore SPA is approximately 39km north-west from the scheme and therefore no in-combination impact	Yes – from habitat loss, pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Waterford City and Environs - North Quays works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with South East Greenway- Section from New Ross to Waterford works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Wexfordia - the New Ross Tourism Transformation works.		
SAL-521 (TG3-SAL-036, TG3-SAL-039)  New GW abstraction and upgrade Thomastown WTP to supply deficit. Rationalise Graiguenamanagh to Thomastown WRZ.  Option study area is within the River Barrow And River Nore SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a	<ul> <li>Habitat loss</li> <li>Mortality risk</li> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> <li>Water table/availability</li> </ul>	Barrow Valley Greenway - Bagenalstown to Place East  River Barrow And River Nore SAC is directly adjacent to the scheme, and is hydrologically linked via the River Barrow and a number of other watercourses. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). River Nore SPA is 7.5km north-west from this scheme, with no hydrological links, and therefore no in-combination impacts are predicted.  Carlow Public Realm and Pedestrian Linkage Project, Carlow Wastewater Treatment	Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Barrow Valley Greenway works.  Yes – from habitat loss, mortality,	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	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)
result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. During operation there is the potential for habitat degradation and a reduction in flow and water availability.  Option study area is within the Zone of Influence of the River Nore SPA which is 30m away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is also potential for disturbance to birds given the proximity of works. No operational impacts predicted.		Plant, and IT Carlow Science & Health Building  River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the River Barrow and the River Burren. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSEs for these schemes assumed as assessment not available at time of writing). River Nore SPA is approximately 25km west from these schemes and therefore no in-combination impacts are predicted.  Abbey Quarter  River Barrow And River Nore SAC is directly adjacent to the scheme, and is hydrologically linked via the River Breagagh. The NIS for this scheme identified deterioration of water quality and disturbance to key species during construction as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction. River Nore SPA is directly adjacent to the scheme and is hydrologically linked via the River Breagagh. The NIS for this scheme identified habitat loss and disturbance to kingfisher during construction as potential impacts to this European site. Therefore, there is potential for in-combination effects from disturbance during construction.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town, and Callan Town Regeneration  River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the King's River. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Crokers Hill, Kennyswell Road, Kilkenny  River Barrow And River Nore SAC is 900m east from th	pollution, spread of invasive non- native species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Carlow Public Realm and Pedestrian Linkage Project, Carlow Wastewater Treatment Plant, and IT Carlow Science & Health Building works and during operation from habitat degradation and water table/availability on the River Barrow And River Nore SAC.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC and from disturbance impacts on River Nore SPA if construction phase is concurrent with Abbey Quarter works.  Yes – from habitat loss, mortality, pollution, spread of invasive non- native species and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Nore SPA if construction phase is concurrent with Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town, and Callan Town Regeneration works.  Yes – from mortality and pollution impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Crokers Hill, Kennyswell Road works.  Yes – from habitat loss, mortality, pollution, spread of invasive non- native species and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Nore SPA if construction phase is concurrent with Kilkenny City Enhanced Livability Study, Kilkenny Regional Water Supply Scheme - Upgrade of Troyswood Water Treatment	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)
		River Barrow And River Nore SAC is 2.45m east from these schemes, and is hydrologically linked via the River Nore and Nore Stream. No NIS available so it is assumed there is a potential for in-combination effects from mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these schemes assumed as assessment on available at time of witing). River Nore SPA is 240m east from these schemes and is hydrologically linked via the River Nore and Nore Stream. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Waterford City Wastewater Treatment Plant, Waterford City Regeneration. WIT Engineering, ICT and Teaching Building, Kilbarry Social Housing, Waterford River Barrow And River Nore SAC is 6.7km north-east from these schemes, and is hydrologically linked via the River Suir. No NIS availables oit is assumed there is a potential for in-combination effects from pollution during construction. In-combination effects during operation may result in habitat degradation and changes to water table/availability (LSEs for these schemes assumed as assessment not available at time of writing). River Nore SPA is approximately 23km north-east from these schemes and therefore no in-combination impacts are predicted.  Waterford City and Environs - North Quays River Barrow And River Nore SAC is 6.7km east from this scheme, and is hydrologically linked via the River Suir. The NIS for this scheme identified reduction in water quality from accidental pollution, and disturbance from noise and light during construction, and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination impacts are predicted.  River Barrow And River Nore SAC is 19km west from the scheme and therefore no in-combination impacts are predicted.  Rive	Plant, and Kilkenny Wastewater Network works and during operation from habitat degradation and water table/availability on the River Barrow And River Nore SAC.  Yes – from mortality, pollution, spread of invasive non-native species and disturbance impacts on the River Barrow And River Nore SAC and from pollution and disturbance impacts on the River Nore SPA if construction phase is concurrent with St Columba's Hospital, Thomastown, and Thomastown Regeneration Phase 2 works.  Yes – from pollution impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Waterford City Wastewater Treatment Plant, Waterford City Regeneration, WIT Engineering, ICT and Teaching Building, and Kilbarry Social Housing, Waterford works and during operation from habitat degradation and water table/availability on the River Barrow And River Nore SAC.  Yes – from habitat loss, pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Waterford City and Environs - North Quays works.  Yes – from habitat loss, mortality, pollution, spread of invasive non- native species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with South East Greenway- Section from New Ross to Waterford works.  Yes – from habitat loss, mortality, pollution, spread of invasive non- native species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with South East Greenway- Section from New Ross to Waterford 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)
		River Barrow And River Nore SAC is 35km west from this scheme and therefore no in-combination impacts are predicted. River Nore SPA is approximately 42km north-west from the scheme and therefore no in-combination impacts are predicted.  Wexford General Hospital Ward Block  River Barrow And River Nore SAC is 33km west from these schemes and therefore no in-combination impacts are predicted. River Nore SPA is approximately 39km north-west from the scheme and therefore no in-combination impacts are predicted.  Wexfordia - the New Ross Tourism Transformation  River Barrow And River Nore SAC is within this scheme, and is hydrologically linked via the River Barrow. No NIS available so it is assumed there is a potential for incombination effects from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). River Nore SPA is 9km north-west from this scheme and is hydrologically linked via the River Nore and the River Barrow. However, the works are downstream of this European site, and therefore no in-combination impacts are predicted.	River Nore SAC if construction phase is concurrent with Wexfordia - the New Ross Tourism Transformation works.		
SAL-526 (TG3-SAL-083, TG3-SAL-084, TG3-SAL-085)  New GW abstraction and new WTP located at Woodquater to supply full demand and maintain existing abstraction. Rationalise Ballinkillen and Borris WRZs to Gowran-Goresbridge-Paulstown WRZ.  Option study area is within the River Barrow And River Nore SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. No operational impacts predicted.	<ul> <li>Habitat loss</li> <li>Mortality risk</li> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> </ul>	River Barrow And River Nore SAC is directly adjacent to the scheme, and is hydrologically linked via the River Barrow and a number of other watercourses. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing  Carlow Public Realm and Pedestrian Linkage Project, Carlow Wastewater Treatment Plant, and IT Carlow Science & Health Building  River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the River Barrow and the River Burren. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Abbey Quarter  River Barrow And River Nore SAC is directly adjacent to the scheme, and is hydrologically linked via the River Breagagh. The NIS for this scheme identified deterioration of water quality and disturbance to key species during construction as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction.  Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town, and Callan Town Regeneration  River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the King's River. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Crokers Hill, Kennyswell Road, Kilkenny  River Barrow And River Nore SAC is 900m east from this scheme, and is hydrologically linked via the River Breagagh	Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Barrow Valley Greenway works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Carlow Public Realm and Pedestrian Linkage Project, Carlow Wastewater Treatment Plant, and IT Carlow Science & Health Building works.  Yes – from pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Abbey Quarter works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Callan Friary Complex/Upper Bridge St Regeneration & Masterplan for the historic core of Callan Town, and Callan Town Regeneration works.	General Mitigation Measures are outlined in Section 6.3.3 Option Specific Measures as 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 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)
	Upgrade of Troyswood Water Treatment Plant, Kilkenny Wastewater Network			
	River Barrow And River Nore SAC is within these schemes, and is hydrologically linked via the River Breagagh and the River Nore. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  St Columba's Hospital, Thomastown, Thomastown Regeneration Phase 2	Yes – from mortality and pollution impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Crokers Hill, Kennyswell Road works.		
	River Barrow And River Nore SAC is 245m east from these schemes, and is hydrologically linked via the River Nore and Nore Stream. No NIS available so it is assumed there is a potential for in-combination effects from mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Waterford City Wastewater Treatment Plant, Waterford City Regeneration, WIT Engineering, ICT and Teaching Building, Kilbarry Social Housing, Waterford  River Barrow And River Nore SAC is 6.7km north-east from these schemes, and is hydrologically linked via the River Suir. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessment not available at time of writing).	Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Kilkenny City Enhanced Livability Study, Kilkenny Regional Water Supply Scheme - Upgrade of Troyswood Water Treatment Plant, and Kilkenny Wastewater Network		
	Waterford City and Environs - North Quays	works.		
	River Barrow And River Nore SAC is 6.7km east from this scheme, and is hydrologically linked via the River Suir. The NIS for this scheme identified reduction in water quality from accidental pollution, and disturbance from noise and light during construction, and barriers to connectivity for otters during both construction and operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from habitat loss, pollution and disturbance during construction.  Clonhaston, Enniscorthy, Wexford  River Barrow And River Nore SAC is 19.7km west from the scheme with no hydrological link and therefore no in-combination impacts are predicted.	Yes – from mortality, pollution, spread of invasive non-native species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with St Columba's Hospital, Thomastown, and Thomastown Regeneration Phase 2 works.		
	· · · ·	Z WOING.		
	Enniscorthy Flood Relief Scheme  River Barrow And River Nore SAC is 19km west from this scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no incombination impacts are predicted.  Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill, Wexford, Phase 1  River Barrow And River Nore SAC is 32km west from these schemes and therefore no in-combination impacts are predicted.	Yes – from pollution impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Waterford City Wastewater Treatment Plant, Waterford City Regeneration, WIT Engineering, ICT and Teaching Building, and Kilbarry Social		
	South East Greenway- Section from New Ross to Waterford	Housing, Waterford works.		
	River Barrow And River Nore SAC is directly adjacent to this scheme, and is hydrologically linked via the River Barrow as well as a number of smaller watercourses along the route. No NIS available so it is assumed there is a potential for incombination effects from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Trinity Wharf  River Barrow And River Nore SAC is 35km west from this scheme and therefore no in-combination impacts are predicted.	Yes – from habitat loss, pollution and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Waterford City and Environs - North Quays works.		
	Wexford General Hospital Ward Block	Yes – from habitat loss, mortality,		
	<b>River Barrow And River Nore SAC</b> is 33km west from these schemes and therefore no in-combination impacts are predicted.	pollution, spread of invasive non- native species and disturbance		
	Wexfordia - the New Ross Tourism Transformation  River Barrow And River Nore SAC is within this scheme, and is hydrologically linked	impacts on the River Barrow And River Nore SAC if construction phase is concurrent with South		

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)
		via the River Barrow. No NIS available so it is assumed there is a potential for incombination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).	East Greenway- Section from New Ross to Waterford works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the River Barrow And River Nore SAC if construction phase is concurrent with Wexfordia - the New Ross Tourism Transformation works.		
All Preferred Options  The European sites that may be impacted by options within Study Area L are Bannow Bay SAC, River Barrow And River Nore SAC, Ballyteige Burrow SPA, Bannow Bay SPA, River Nore SPA and Wexford Harbour and Slobs SPA.	<ul><li>Habitat degradation</li><li>Disturbance</li></ul>	All Preferred Options Option SAL-073 is the only option within SAL with potential for impacts on <b>Bannow Bay SAC</b> . Therefore, there is no potential for in-combination effects to this European site.  There is potential for in-combination effects from the projects within SAL to the <b>River Barrow And River Nore SAC</b> given that options SAL-015, SAL-073, SAL-078, SAL-511, SAL-521 and SAL-526 have the potential for impacts. Potential for in-combination effects from habitat loss (SAL-078, SAL-511, SAL-521 and SAL-526), mortality (SAL-078, SAL-511, SAL-521 and SAL-526), mortality (SAL-078, SAL-511, SAL-521 and SAL-526), pollution (all options), spread of invasive non-native species (SAL-078, SAL-511, SAL-521 and SAL-526) and disturbance (all options) during construction and during operation from habitat degradation (SAL-015, SAL-078 and SAL-521).  Option SAL-073 is the only option within SAL with potential for impacts on <b>Ballyteige Burrow SPA</b> . Therefore, there is no potential for in-combination effects to this European site.  Option SAL-073 is the only option within SAL with potential for impacts on <b>Bannow Bay SPA</b> . Therefore, there is no potential for in-combination effects to this European site.  There is potential for in-combination effects from the projects within SAL to the <b>River Nore SPA</b> given that options SAL-078, SAL-511 and SAL-521 have the potential for impacts. Potential for in-combination effects from pollution (all options) and disturbance (all options) during construction.  Option SAL-073 is the only option within SAL with potential for impacts on <b>Wexford Harbour and Slobs SPA</b> . Therefore, there is no potential for in-combination effects to this European site.	Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on River Barrow And River Nore SAC if construction of options is concurrent and during operation from habitat degradation and water table/availability.  Yes – from pollution and disturbance impacts on River Nore SPA if construction of options is concurrent.	General Mitigation Measures are outlined in Section 6.3.3 Option specific mitigation as 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 alone or in- combination with other plans or projects.	N

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

Preferred Option	Potential Effects – 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-combina Advers Effects on Integrit (Y/N)
TUDY AREA M					
pgrade existing WTP for water quality improvements.  Option study area is within the Zone of influence of the Cahore Marshes SPA which is 15.6km away. During construction there is ne potential for disturbance to birds given the roximity of works. No operational impacts are predicted.  Option study area is within the Zone of influence of the Wexford Harbour and Slobs IPA which is 17.6km away. During construction there is the potential for isturbance to birds given the proximity of forks. No operational impacts are predicted.	• Disturbance	Cohnaston, Enniscorthy, Wexford Cahore Marshes SPA is 21km north-east from this scheme and therefore no incombination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Enniscorthy Flood Relief Scheme Cahore Marshes SPA is approximately 22km north-east from the scheme and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 300m south from the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified pollution, disturbance from noise and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during construction as potential impacts to this European site. Therefore, there is potential for in-combination effects from disturbance during construction.  Ferrycarralg Experimental Archaeology Cahore Marshes SPA is 28km north-east from this scheme and therefore no incombination impacts are predicted. Wexford Harbour and Slobs SPA is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill, Wexford, Phase 1  Cahore Marshes SPA is 27km north-east from these schemes and therefore no incombination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 120m east from these scheme assumed as assessment	Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from disturbance impacts on the Cahore Marshes SPA if construction phase is concurrent with Ramstown, Gorey works.  Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Ramstown, Gorey 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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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 and new WTP to partly supply full demand (abandon existing SW source).  Option study area is hydrologically linked to the Slaney River Valley SAC which is 1.1km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is the potential for disturbance to QI species. During operation there is the potential for habitat degradation and a reduction in flow and water availability. Option study area is within the Zone of Influence of and hydrologically linked to the Wexford Harbour and Slobs SPA which is 11.8km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Cahore Marshes SPA which is 18.8km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.		Clonhaston, Enniscorthy, Wexford  Slaney River Valley SAC is approximately 510m south from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Cahore Marshes SPA is 21km north-east from this scheme and therefore no in-combination impacts are predicted.  Enniscorthy Flood Relief Scheme  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, pollution, disturbance from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for incombination effects from pollution and disturbance during construction, and from habitat degradation and changes to water table/availability during operation. Wexford Harbour and Slobs SPA is approximately 300m south from the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified pollution, disturbance from noise and wholated degradation from hydrological changes during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction. Cahore Marshes SPA is approximately 22km north-east from the scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effect	Yes – from disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works and during operation from habitat degradation and water table/availability on the Slaney River Valley SAC.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Drinagh, Wexford, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from disturbance impacts on the Cahore Marshes SPA if construction phase is concurrent with Ramstown, Gorey works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC and from pollution impacts on the Slaney River Valley SAC and from pollution impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Trinity Wharf works and during operation from habitat degradation on the Slaney River Valley SAC.	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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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)
		combination impacts are predicted. Cahore Marshes SPA is approximately 13.8km south-east from this scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Trinity Wharf  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified habitat loss, fish mortality due to effects on migration and subsequent impacts on otter, water pollution, spread of invasive non-native species, and disturbance to QI species from noise, light, and vibration during construction, and water pollution and spread of invasive non-native species during operation as impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction, and from habitat degradation during operation. Wexford Harbour and Slobs SPA is directly adjacent to the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified pollution and habitat loss during construction, and pollution during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution during construction. Cahore Marshes SPA is 26km north-east from this scheme and therefore no in-combination impacts are predicted.  Wexford General Hospital Ward Block  Slaney River Valley SAC is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available a	Yes – from disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Wexford General Hospital Ward Block works.		
New GW abstraction and upgrade Carrickduff WTP to supply deficit.  Option study area is within the Slaney River Valley SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. During operation there is the potential for habitat degradation and a reduction in flow and water availability.  Option study area is within the Zone of Influence of the Wexford Harbour and Slobs SPA which is 19km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.	<ul> <li>Habitat loss</li> <li>Mortality risk</li> <li>Habitat degradation</li> <li>Disturbance</li> <li>Spread of invasive non-native species</li> <li>Water table/availability</li> </ul>	Slaney River Valley SAC is approximately 510m south from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Enniscorthy Flood Relief Scheme  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, pollution, disturbance from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for incombination effects from habitat degradation and changes to water table/availability during operation. Wexford Harbour and Slobs SPA is approximately 300m south from the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified pollution, disturbance from noise and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from disturbance during construction.	Yes – from disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from habitat loss, mortality, pollution and disturbance impacts on the Slaney River Valley SAC and from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works and during operation from habitat degradation and water table/availability on the Slaney River Valley SAC.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the Slaney River Valley SAC and from disturbance impacts on the Wexford Harbour	General Mitigation Measures are outlined in Section 6.3.3 Option Specific Measures as 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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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)
		Staney River Valley SAC is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill, Wexford, Phase 1  Slaney River Valley SAC is directly adjacent to these schemes and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these schemes assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is approximately 120m east from these schemes with a hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing).  Ramstown, Gorey, Co. Wexford  Slaney River Valley SAC is approximately 2.8km west from this scheme with no hydrological link, therefore no in-combination impacts are predicted.  Trinity Wharf  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified habitat loss, fish mortality due to effects on migration and subsequent impacts on otter, water pollution, spread of invasive non-native species and disturbance to QI species from noise, light, and vibration	and Slobs SPA if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the Slaney River  Valley SAC and from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the Slaney River  Valley SAC if construction phase is concurrent with Trinity Wharf works and during operation from habitat degradation on the Slaney River Valley SAC.  Yes – from disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Wexford General Hospital Ward Block works.		
SAM-044 Increase GW abstraction and upgrade Ballycrystal WTP to supply deficit. Option study area is adjacent to a		Clonhaston, Enniscorthy, Wexford  Slaney River Valley SAC is approximately 510m south from the scheme with no hydrological link, therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-	Yes – from disturbance impacts on the <b>Wexford Harbour and Slobs SPA</b> if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.	General Mitigation Measures are outlined in Section 6.3.3	N

Preferred Option	Potential Effects – 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 Slaney River Valley SAC which is 7.7km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts are predicted.  Option study area is within the Zone of Influence of and adjacent to a hydrological link to the Wexford Harbour and Slobs SPA which is 14.3km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is potential for disturbance to birds given the proximity of works. No operational impacts predicted.		combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Enniscorthy Flood Relief Scheme  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, pollution, disturbance from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for incombination effects from pollution during construction. Wexford Harbour and Slobs SPA is approximately 300m south from the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified pollution, disturbance from noise and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during poeration as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction.  Ferrycarraig Experimental Archaeology  Slaney River Valley SAC is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Wexford Harbour and Slobs SPA is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessments not available at time of	Yes – from pollution impacts on the Slaney River Valley SAC and from pollution and disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from pollution impacts on the Slaney River Valley SAC and from pollution and disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from pollution impacts on the Slaney River Valley SAC and from pollution and disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from pollution impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Trinity Wharf works.  Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Trinity Wharf works.	With the implementation of mitigation as noted above there will be no adverse effects on the integrity of these European sites, either alone or in-combination with the other options.	

Preferred Option	Potential Effects – 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)
		Slaney River Valley SAC is approximately 300m north from the scheme with no hydrological link, therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).			
Increase GW abstraction and upgrade Ballindaggin WTP to supply deficit.  Option study area is adjacent to a hydrological link to the Slaney River Valley SAC which is 7.1km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts are predicted.  Option study area is within the Zone of Influence of and adjacent to a hydrological link to the Wexford Harbour and Slobs SPA which is 11.9km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is potential for disturbance to birds given the proximity of works. No operational impacts predicted.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Clonhaston, Enniscorthy, Wexford  Slaney River Valley SAC is approximately 510m south from the scheme with no hydrological link, therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Enniscorthy Flood Relief Scheme  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, pollution, disturbance from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for incombination effects from pollution during construction. Wexford Harbour and Slobs SPA is approximately 300m south from the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified pollution, disturbance from noise and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during construction as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction.  Ferrycarraig Experimental Archaeology  Slaney River Valley SAC is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for this scheme assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is directly adjacent to these schemes and is hydrologically linked via the Slaney River. No NIS	Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from pollution impacts on the Slaney River Valley SAC and from pollution and disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from pollution impacts on the Slaney River Valley SAC and from pollution and disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from pollution impacts on the Slaney River Valley SAC and from pollution and disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from pollution impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Trinity Wharf works.  Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Trinity Wharf 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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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)
		Wexford Harbour. The NIS for this scheme identified habitat loss, fish mortality due to effects on migration and subsequent impacts on otter, water pollution, spread of invasive non-native species, and disturbance to QI species from noise, light, and vibration during construction, and water pollution and spread of invasive non-native species during operation as impacts to this European site. Therefore, there is potential for in-combination effects from pollution during construction. Wexford Harbour and Slobs SPA is directly adjacent to the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified pollution and habitat loss during construction, and pollution during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution during construction.  Wexford General Hospital Ward Block  Slaney River Valley SAC is approximately 300m north from the scheme with no hydrological link, therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).	works.		
Increase GW abstraction and upgrade Monageer WTP to supply deficit.  Option study area is adjacent to a hydrological link to the Slaney River Valley SAC which is 2.3km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is the potential for disturbance to QI species. No operational impacts are predicted.  Option study area is within the Zone of Influence of and adjacent to a hydrological link to the Wexford Harbour and Slobs SPA which is 7.1km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of The Raven SPA which is 15.1km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.  Option study area is within the Zone of Influence of the Cahore Marshes SPA which is 16.9km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.	Habitat degradation     Disturbance	Slaney River Valley SAC is approximately 510m south from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). The Raven SPA is 17km south-east from this scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Cahore Marshes SPA is 21km north-east from this scheme and therefore no in-combination impacts are predicted.  Enniscorthy Flood Relief Scheme  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, pollution, disturbance from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for incombination effects from pollution and disturbance during construction. Wexford Harbour and Slobs SPA is approximately 300m south from the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified pollution, disturbance from noise and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during	Yes – from disturbance impacts on the Slaney River Valley SAC, Wexford Harbour and Slobs SPA and The Raven SPA if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA and from disturbance impacts on The Raven SPA if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA and from disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA and from disturbance impacts on The Raven SPA if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon,	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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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)
		Harbour and Slobs SPA is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). The Raven SPA is 8.7km east from this scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Cahore Marshes SPA is 28km north-east from this scheme and therefore no in-combination impacts are predicted.  Kerloque Manor. Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill. Wexford, Phase 1  Slaney River Valley SAC is directly adjacent to these schemes and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is approximately 120m east from these schemes with a hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). The Raven SPA is 4.6km east from these schemes. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). The Raven SPA is 4.6km east from these schemes and therefore no in-combination impacts are predicted.  Ramstown, Gorey, Co. Wexford  Slaney River Valley SAC is approximately 2.8km west from this scheme and therefore no in-combination impacts are predicted. Cahore Marshes SPA is approximately 13.8km south-east from this scheme and is hydrologically linked via the	Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from disturbance impacts on the Cahore Marshes SPA if construction phase is concurrent with Ramstown, Gorey works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC and from pollution impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Trinity Wharf works.  Yes – from disturbance impacts on the Slaney River Valley SAC, Wexford Harbour and Slobs SPA and The Raven SPA if construction phase is concurrent with Wexford General Hospital Ward Block works.		

Preferred Option	Potential Effects – 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)
		Slobs SPA is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). The Raven SPA is approximately 6.6km east from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Cahore Marshes SPA is 27km north-east from this scheme and therefore no in-combination impacts are predicted.			
New GW abstraction and upgrade Clonroche WTP to supply full demand.  Option study area is hydrologically linked to the Slaney River Valley SAC which is 4.3km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts are predicted.  Option study area is within the Zone of Influence of and hydrologically linked to the Wexford Harbour and Slobs SPA which is 11.7km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Bannow Bay SPA which is 18.6km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Clonhaston, Enniscorthy, Wexford  Slaney River Valley SAC is approximately 510m south from the scheme with no hydrological link, therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Bannow Bay SPA is approximately 30km south-west from the scheme and therefore no in-combination impacts are predicted.  Enniscorthy Flood Relief Scheme  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, pollution, disturbance from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for incombination effects from pollution during construction. Wexford Harbour and Slobs SPA is approximately 300m south from the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified pollution, disturbance from noise and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction. Bannow Bay SPA is approximately 28km south-west from the scheme and is hydrologically linked via the Slaney River. No NIS available at time of writing). Wexford Harbour and Slobs SPA is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available at time of writing). Bannow Bay SPA is 18.6km south-west from this sch	Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from pollution impacts on the Slaney River Valley SAC and from pollution and disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from pollution impacts on the Slaney River Valley SAC, from pollution and disturbance impacts on the Wexford Harbour and Slobs SPA and from disturbance impacts on the Bannow Bay SPA if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from pollution impacts on the Slaney River Valley SAC and from pollution and disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from pollution impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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 and disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). Bannow Bay SPA is approximately 20km south-west from these schemes and therefore no in-combination impacts are predicted.  Ramstown, Gorey, Co. Wexford  Slaney River Valley SAC is approximately 2.8km west from this scheme with no hydrological link, therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is 26km south-west from this scheme and therefore no in-combination impacts are predicted. Bannow Bay SPA is 54km south-west from this scheme and therefore no in-combination impacts are predicted.  Trinity Wharf  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified habitat loss, fish mortality due to effects on migration and subsequent impacts on otter, water pollution, spread of invasive non-native species, and disturbance to QI species from noise, light, and vibration during construction, and water pollution and spread of invasive non-native species during operation as impacts to this European site. Therefore, there is potential for in-combination effects from pollution during construction. Wexford Harbour and Slobs SPA is directly adjacent to the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified pollution and habitat loss during construction, and pollution during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution during construction. Bannow Bay SPA is approximately 22km south-west from the scheme and therefore no in-combination impacts are predicted.  Wexford General Hospital Ward Block  Slaney River Valley SAC is approximately 300m north from the scheme with no hydrological link, therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assume	Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Wexford General Hospital Ward Block works.		
Increase GW abstraction and upgrade WTP to partly supply deficit. New GW and new WTP to partly supply deficit.  Option study area is hydrologically linked to the Screen Hills SAC which is 430m away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts are predicted.  Option study area is hydrologically linked to the Slaney River Valley SAC which is 1.3km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is the potential for disturbance to QI species. No operational impacts are predicted.  Option study area is within the Zone of Influence of and hydrologically linked to the Wexford Harbour and Slobs SPA which is 1.3km away. During construction there is the	<ul> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Screen Hills SAC is 14.8km south-east from this scheme with no hydrological link, therefore no in-combination impacts are predicted. Slaney River Valley SAC is approximately 510m south from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). The Raven SPA is 17km south-east from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Cahore Marshes SPA is 21km north-east from this scheme and therefore no in-combination impacts are predicted.  Enniscorthy Flood Relief Scheme  Screen Hills SAC is approximately 13.2km south-east from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no incombination impacts are predicted. Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, pollution, disturbance	Yes – from disturbance impacts on the Slaney River Valley SAC, Wexford Harbour and Slobs SPA and The Raven SPA if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA and from disturbance	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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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)
potential for the pollution of protected and supporting habitats for QI birds. There is potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of and hydrologically linked to The Raven SPA which is 2km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Cahore Marshes SPA which is 11.4km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.		from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction. Wexford Harbour and Slobs SPA is approximately 300m south from the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified pollution, disturbance from noise and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction. The Raven SPA is approximately 16.8m south-east from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Cahore Marshes SPA is approximately 22km north-east from the scheme and therefore no in-combination impacts are predicted.  Ferrycarraig Experimental Archaeology  Screen Hills SAC is 9.2km east from this scheme with no hydrological link, therefore no in-combination impacts are predicted. Slaney River Valley SAC is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Cahore Marshes SPA is 28km north-east from this scheme	impacts on The Raven SPA if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA and from disturbance impacts on The Raven SPA if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from disturbance impacts on the Cahore Marshes SPA if construction phase is concurrent with Ramstown, Gorey works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC and from pollution impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Trinity Wharf works.  Yes – from disturbance impacts on the Slaney River Valley SAC, Wexford Harbour and Slobs SPA and The Raven SPA if construction phase is concurrent with Wexford General Hospital Ward Block works.		

Preferred Option	Potential Effects – 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 during construction (LSEs for this scheme assumed as assessment not available at time of writing).  Trinity Wharf  Screen Hills SAC is approximately 7.8km north-east from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no incombination impacts are predicted. Slaney River Valley SAC is within the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified habitat loss, fish mortality due to effects on migration and subsequent impacts on otter, water pollution, spread of invasive non-native species, and disturbance to QI species from noise, light, and vibration during construction, and water pollution and spread of invasive non-native species during operation as impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction. Wexford Harbour and Slobs SPA is directly adjacent to the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified pollution and habitat loss during construction, and pollution during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution during construction. The Raven SPA is approximately 4.7km north-east from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Cahore Marshes SPA is 26km north-east from this scheme and therefore no in-combination impacts are predicted. Wexford General Hospital Ward Block  Screen Hills SAC is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assumed th			
Increase GW abstraction and upgrade Ballinavortha WTP to supply deficit.  Option study area is adjacent to a hydrological link to the Slaney River Valley SAC which is 3.9km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts are predicted.		Slaney River Valley SAC is approximately 510m south from the scheme with no hydrological link, therefore no in-combination impacts are predicted.  Enniscorthy Flood Relief Scheme  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, pollution, disturbance from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for incombination effects from pollution during construction.  Ferrycarraig Experimental Archaeology  Slaney River Valley SAC is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford,	Yes – from pollution impacts on the Slaney River Valley SAC if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from pollution impacts on the Slaney River Valley SAC if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from pollution impacts on the Slaney River Valley SAC if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon,	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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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)
		Whiterock Hill, Wexford, Phase 1  Slaney River Valley SAC is directly adjacent to these schemes and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessments not available at time of writing).  Ramstown, Gorey, Co. Wexford  Slaney River Valley SAC is approximately 2.8km west from this scheme with no hydrological link, therefore no in-combination impacts are predicted.  Trinity Wharf  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified habitat loss, fish mortality due to effects on migration and subsequent impacts on otter, water pollution, spread of invasive non-native species, and disturbance to QI species from noise, light, and vibration during construction, and water pollution and spread of invasive non-native species during operation as impacts to this European site. Therefore, there is potential for in-combination effects from pollution during construction.  Wexford General Hospital Ward Block  Slaney River Valley SAC is approximately 300m north from the scheme with no hydrological link, therefore no in-combination impacts are predicted.	Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from pollution impacts on the Slaney River Valley SAC if construction phase is concurrent with Trinity Wharf works.		
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit.  Option study area is hydrologically linked to the Slaney River Valley SAC which is 4.7km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts are predicted.	• Habitat degradation	Clonhaston, Enniscorthy, Wexford  Slaney River Valley SAC is approximately 510m south from the scheme with no hydrological link, therefore no in-combination impacts are predicted.  Enniscorthy Flood Relief Scheme  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, pollution, disturbance from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for incombination effects from pollution during construction.  Ferrycarraig Experimental Archaeology  Slaney River Valley SAC is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill, Wexford, Phase 1  Slaney River Valley SAC is directly adjacent to these schemes and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution during construction (LSEs for these schemes assumed as assessments not available at time of writing).  Ramstown, Gorey, Co. Wexford  Slaney River Valley SAC is approximately 2.8km west from this scheme with no hydrological link, therefore no in-combination impacts are predicted.  Trinity Wharf  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified habitat loss, fish mortality due to effects on migration and subsequent impacts on otter, water pollution, spread of invasive non-native species, and disturbance to QI species fro	Yes – from pollution impacts on the Slaney River Valley SAC if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from pollution impacts on the Slaney River Valley SAC if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from pollution impacts on the Slaney River Valley SAC if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from pollution impacts on the Slaney River Valley SAC if construction phase is concurrent with Trinity Wharf 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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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 in-combination effects from pollution during construction.  Wexford General Hospital Ward Block  Slaney River Valley SAC is approximately 300m north from the scheme with no hydrological link, therefore no in-combination impacts are predicted.			
Upgrade existing WTP for water quality improvements. The WRZ is not in deficit.  Option study area is adjacent to a hydrological link to the Slaney River Valley SAC which is 870m away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is the potential for disturbance to QI species. No operational impacts are predicted.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Clonhaston, Enniscorthy, Wexford  Slaney River Valley SAC is approximately 510m south from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Enniscorthy Flood Relief Scheme  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, pollution, disturbance from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, pollution, disturbance from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for incombination effects from pollution and disturbance during construction.  Ferrycarraig Experimental Archaeology  Slaney River Valley SAC is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for incombination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill, Wexford, Phase 1  Slaney River Valley SAC is directly adjacent to these schemes and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for incombination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessments not available at time of writing).  Ramstown, Gorey, Co. Wexford  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identi	Yes – from disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Trinity Wharf works.  Yes – from disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Trinity Wharf works.  Yes – from disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Trinity Wharf 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 these European sites, either alone or in-combination with the other options.	N .
SAM-148  New GW abstraction and upgrade Mayglass WTP to supply deficit. Bring unused BHs back to production (GW abstraction from existing BHs currently not in supply).  Option study area is adjacent to a	<ul><li>Habitat degradation</li><li>Disturbance</li></ul>	Clonhaston, Enniscorthy, Wexford  Ballyteige Burrow SAC is approximately 32km south-west from the scheme and therefore no in-combination impacts are predicted. Tacumshin Lake SPA is approximately 33km south from the scheme and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for	Yes – from disturbance impacts on the <b>Wexford Harbour and Slobs SPA</b> and <b>The Raven SPA</b> if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.	General Mitigation Measures are outlined in Section 6.3.3  With the implementation of mitigation as noted above there will be no	N

Preferred Option	Potential Effects – 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 which is 7.9km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts are predicted.  Option study area is within the Zone of Influence of the Tacumshin Lake SPA which is 4.3km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.  Option study area is within the Zone of Influence of the Wexford Harbour and Slobs SPA which is 5.1km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.  Option study area is within the Zone of Influence of and adjacent to a hydrological link to the Ballyteige Burrow SPA which is 8.5km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of The Raven SPA which is 10.7km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.  Option study area is within the Zone of Influence of the Bannow Bay SPA which is 16.8km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.		this scheme assumed as assessments not available at time of writing). Ballyteige Burrow SPA is approximately 32km south-west from the scheme and therefore no incombination impacts are predicted. The Raven SPA is 17km south-east from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Bannow Bay SPA is approximately 30km south-west from the scheme and therefore no in-combination impacts are predicted. Enniscorthy Flood Relief Scheme  Ballyteige Burrow SAC is approximately 29km south from the scheme and therefore no in-combination impacts are predicted. Tacumshin Lake SPA is approximately 30km south from the scheme and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 300m south from the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified pollution, disturbance from noise and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes burrow SPA is approximately 30km south from the scheme and therefore no in-combination impacts are predicted. Therefore, there is potential for in-combination impacts are predicted. The Raven SPA is approximately 16.3km south-east from the scheme and the NIS for this scheme and therefore no in-combination impacts are predicted. Sannow Bay SPA is approximately 28km south-west from this scheme with no hydrological link, therefore no in-combination impacts are predicted. Sannow Bay SPA is 4.9km south-west from thi	Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from disturbance impacts on the Tacumshin Lake SPA, Wexford Harbour and Slobs SPA, Ballyteige Burrow SPA, The Raven SPA and Bannow Bay SPA if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from disturbance impacts on the Tacumshin Lake SPA, Wexford Harbour and Slobs SPA, Ballyteige Burrow SPA and The Raven SPA if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA and The Raven SPA if construction phase is concurrent with Wexford General Hospital Ward Block works.	adverse effects on the integrity of these European sites, either alone or in-combination with the other options.	

Preferred Option	Potential Effects – 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)
		15.6km south-west from these schemes with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). The Raven SPA is 4.6km east from these schemes. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). Bannow Bay SPA is approximately 20km south-west from these schemes and therefore no in-combination impacts are predicted. Ramstown, Gorev. Co. Wexford  Ballyteige Burrow SAC is 55km south-west from this scheme and therefore no in-combination impacts are predicted. Tacumshin Lake SPA is 55km south-west from this scheme and therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is 55km south-west from this scheme and therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is 55km south-west from this scheme and therefore no in-combination impacts are predicted. The Raven SPA is 26km south from this scheme and therefore no in-combination impacts are predicted. The Raven SPA is 26km south from this scheme and therefore no in-combination impacts are predicted. The Raven SPA is 36km south-west from this scheme and therefore no in-combination impacts are predicted. Sannow Bay SPA is 54km south-west from this scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Tacumshin Lake SPA is approximately 33.5km south-west from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is directly adjacent to the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted.			
SAM-149 New GW wellfield at Adamstown and new	<ul><li>Habitat degradation</li><li>Disturbance</li></ul>	Clonhaston, Enniscorthy, Wexford  Slaney River Valley SAC is approximately 510m south from the scheme with no	Yes – from disturbance impacts on the Slaney River Valley SAC, Wexford Harbour and Slobs	General Mitigation Measures are outlined in	N

Preferred Option	Potential Effects – 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)
WTP to supply deficit.  Option study area is 330m from the Slaney River Valley SAC. During construction there is the potential disturbance to QI species. No operational impacts are predicted.  Option study area is hydrologically linked to the Bannow Bay SAC which is 5.5km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts are predicted.  Option study area is hydrologically linked to the Ballyteige Burrow SAC which is 10.6km away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts are predicted.  Option study area is within the Zone of Influence of the Wexford Harbour and Slobs SPA which is 1km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.  Option study area is within the Zone of Influence of The Raven SPA which is 8km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.  Option study area is within the Zone of Influence of and hydrologically linked to the Bannow Bay SPA which is 9.5km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.  Option study area is within the Zone of Influence of and hydrologically linked to the Bannow Bay SPA which is 9.5km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of and hydrologically linked to the Ballyteige Burrow SPA which is 10.8km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Tacumshin Lake SPA which is 14.4km away. During construction there is the potential for distu		hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Bannow Bay SAC is approximately 27km south-west from the scheme and therefore no in-combination impacts are predicted. Ballyteige Burrow SAC is approximately 27km south-west from the scheme and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). The Raven SPA is 17km south-east from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Bannow Bay SPA is approximately 30km south-west from the scheme and therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is approximately 32km south-west from the scheme and therefore no in-combination impacts are predicted. Sealing the scheme in the scheme and therefore no in-combination impacts are predicted. Ensiscorthy Flood Relief Scheme  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, pollution, disturbance from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for in-combination impacts are predicted. Ballyteige Burrow SAA is approximately 29km south from the scheme and therefore no in-combination impacts	SPA and The Raven SPA if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from disturbance impacts on the Slaney River Valley SAC and the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from disturbance impacts on the Slaney River Valley SAC, Wexford Harbour and Slobs SPA, The Raven SPA, Bannow Bay SPA, Ballyteige Burrow SPA and Tacumshin Lake SPA if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from disturbance impacts on the Slaney River Valley SAC, Wexford Harbour and Slobs SPA, The Raven SPA, Ballyteige Burrow SPA and Tacumshin Lake SPA if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Trinity Wharf works.  Yes – from disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Trinity Wharf works.  Yes – from disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Trinity Wharf works.	Section 6.3.3  With the implementation of mitigation as noted above there will be no adverse effects on the integrity of these European sites, either alone or in-combination with the other options.	

Preferred Option	Potential Effects – 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)
		scheme assumed as assessments not available at time of writing). Bannow Bay SPA is 18.6km south-west from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Ballyteige Burrow SPA is 16.2km south-west from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Tacumshin Lake SPA is 14.9km south from this scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Kerloque Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill, Wexford, Phase 1  Slaney River Valley SAC is directly adjacent to these schemes and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for these schemes assumed as assessments not available at time of writing). Bannow Bay SAC is approximately 17.4km west from these schemes with no hydrological link, and therefore no in-combination impacts are predicted. Ballyteige Burrow SAC is 51.5km south-west from these schemes with no hydrological link, therefore no in-combination impacts are predicted. Ballyteige Burrow SAC is 15.1km south-west from these schemes with a hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for these schemes assumed as assessment not available at time of writing). Bannow Bay SAC is 4km east from these schemes. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during constructio			

Preferred Option	Potential Effects – 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 in-combination effects from disturbance during construction. Bannow Bay SAC is approximately 19km south-west from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Ballyteige Burrow SAC is approximately 17.6km south-west from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is directly adjacent to the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified pollution and habitat loss during construction, and pollution during operation as potential impacts to this European site. Therefore, no in-combination impacts are predicted. The Raven SPA is approximately 4.7km north-east from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Bannow Bay SPA is approximately 22km south-west from the scheme and therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is approximately 18km south-west from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Tacumshin Lake SPA is approximately 13.5km south-west from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted.  Wexford General Hospital Ward Block Slaney River Valley SAC is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Bannow Bay SAC is approximately 17.4km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during constr			
Rationalise Ballingate to Tinahely WRZ (not in deficit).  Option study area is hydrologically linked to the Slaney River Valley SAC which is 940m away. During construction there is the potential for the pollution of QI habitats and supporting habitats. There is the potential for disturbance to QI species. No operational impacts are predicted.	<ul> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Clonhaston, Enniscorthy, Wexford  Slaney River Valley SAC is approximately 510m south from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Enniscorthy Flood Relief Scheme  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, pollution, disturbance from noise and vibration, mortality and migration barriers during construction, and habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for incombination effects from pollution and disturbance during construction.	Yes – from disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Enniscorthy Flood Relief Scheme 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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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)
		Slaney River Valley SAC is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill, Wexford, Phase 1  Slaney River Valley SAC is directly adjacent to these schemes and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from pollution and disturbance during construction (LSEs for these schemes assumed as assessments not available at time of writing).  Ramstown, Gorey, Co. Wexford  Slaney River Valley SAC is approximately 2.8km west from this scheme with no hydrological link, therefore no in-combination impacts are predicted.  Trinity Wharf  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified habitat loss, fish mortality due to effects on migration and subsequent impacts on otter, water pollution, spread of invasive non-native species, and disturbance to QI species from noise, light, and vibration during construction, and water pollution and spread of invasive non-native species during operation as impacts to this European site. Therefore, there is potential for in-combination effects from pollution and disturbance during construction.  Wexford General Hospital Ward Block  Slaney River Valley SAC is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).	Yes – from pollution and disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from pollution and disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Trinity Wharf works.  Yes – from disturbance impacts on the Slaney River Valley SAC if construction phase is concurrent with Trinity Wharf works.		
Rationalise Carrigbyrne to South Regional WRZ.  Option study area is hydrologically linked to the Bannow Bay SAC which is 990m away. During construction there is the potential for the pollution of QI habitats and supporting habitats. No operational impacts are predicted.  Option study area is within the Zone of Influence of and hydrologically linked to the Bannow Bay SPA which is 2.8km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Ballyteige Burrow SPA which is 9.1km away. During construction there is potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Wexford Harbour and Slobs	<ul> <li>Habitat degradation</li> <li>Disturbance</li> </ul>	Clonhaston, Enniscorthy, Wexford  Bannow Bay SAC is approximately 27km south-west from the scheme and therefore no in-combination impacts are predicted. Bannow Bay SPA is approximately 30km south-west from the scheme and therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is approximately 32km south-west from the scheme and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Tramore Back Strand SPA is 51km south-west from this scheme and therefore no in-combination impacts are predicted.  Enniscorthy Flood Relief Scheme  Bannow Bay SAC is approximately 24km south-west from the scheme and therefore no in-combination impacts are predicted. Bannow Bay SPA is approximately 28km south-west from the scheme and therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is approximately 30km south from the scheme and therefore no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 300m south from the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified pollution, disturbance from noise and habitat degradation from hydrological changes during construction, and mortality and habitat degradation from hydrological changes during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from disturbance during construction. Tramore Back Strand SPA is approximately 48km south-west from the scheme and therefore no in-combination impacts are predicted.  Ferrycarraig Experimental Archaeology	Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from disturbance impacts on the Bannow Bay SPA, Ballyteige Burrow SPA and Wexford Harbour and Slobs SPA if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from disturbance impacts on the Ballyteige Burrow SPA and Wexford Harbour and Slobs SPA if construction phase is concurrent with Kerlogue Manor,	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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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 which is 14.4km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted. Option study area is within the Zone of Influence of the Tramore Back Strand SPA which is 17.8km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.		Bannow Bay SAC is 15.2km south-west from this scheme with no hydrological link, therefore no in-combination impacts are predicted. Bannow Bay SPA is 18.6km south-west from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Ballyteige Burrow SPA is 16.2km south-west from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Tramore Back Strand SPA is 42km south-west from this scheme and therefore no in-combination impacts are predicted. Kerlogue Manor. Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill, Wexford, Phase 1  Bannow Bay SAC is approximately 17.4km west from these schemes with no hydrological link, and therefore no in-combination impacts are predicted. Balnow Bay SPA is approximately 20km south-west from these schemes and therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is 15.6km south-west from these schemes and therefore no in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessment not available at time of writing). Wexford Harbour and Slobs SPA is approximately 120m east from these schemes with a hydrological link. No NIS available so it is assumed there is a potential for in-combination impacts are predicted. Bannow Bay SAC is 50km south-west from this scheme and therefore no in-combination impacts are predicted. Bannow Bay SAC is	Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Wexford General Hospital Ward Block works.		

Preferred Option	Potential Effects – 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)
		Bay SPA is approximately 20km south-west from the scheme and therefore no incombination impacts are predicted. Ballyteige Burrow SPA is approximately 17.5km south-east from the scheme with no hydrological link. Given the urban location of the works and distance from this site, no in-combination impacts are predicted. Wexford Harbour and Slobs SPA is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Tramore Back Strand SPA is approximately 44km south-west from the scheme and therefore no incombination impacts are predicted.			
SAM-576 (TG3-SAM-226, TG3-SAM-227, TG3-SAM-228, TG3-SAM-229, TG3-SAM-230)  Increase SW abstraction from River Slaney and upgrade Vinegar Hill WTP to supply deficit. Rationalise Bree, Ballyhogue, Glynn and Marshalstown to Enniscorthy WRZ.  Option study area is within and hydrologically linked to the Slaney River Valley SAC. During construction there is the potential for the loss and pollution of QI habitats and supporting habitats. As a result of this loss and pollution there is risk of mortality to QI species and their prey. There is the potential for disturbance to QI species. There is also the potential for the spread of invasive species within the SAC. No operational impacts are predicted.  Option study area is adjacent to and hydrologically linked to the Wexford Harbour and Slobs SPA which is 45m away. During construction there is the potential for the loss and pollution of protected and supporting habitats. There is also the potential for disturbance to QI birds. No operational impacts predicted.  Option study area is within the Zone of Influence of and hydrologically linked to The Raven SPA which is 13.6km away. During construction there is the potential for the pollution of protected and supporting habitats for QI birds. There is potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Bannow Bay SPA which is 16.6km away. During construction there is potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Bannow Bay SPA which is 16.6km away. During construction there is potential for disturbance to birds given the proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Ballyteige Burrow SPA which is 17.2km away. During construction there is potential for disturbance to birds given		Clonhaston, Enniscorthy, Wexford  Slaney River Valley SAC is approximately 510m south from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is approximately 2.1km south-west from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). The Raven SPA is 17km south-east from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Bannow Bay SPA is approximately 30km south-west from the scheme and therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is approximately 32km south-west from the scheme and therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is approximately 32km south-west from the scheme and therefore no in-combination impacts are predicted. Enniscorthy Flood Relief Scheme  Slaney River Valley SAC is within the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified habitat loss, habitat degradation from hydrological changes, hydromorphology changes, and changes in flow regimes during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from habitat loss, mortality, pollution and disturbance during construction. Wexford Harbour and Slobs SPA is approximately 300m south from the scheme and is hydrologically linked via the Slaney River. The NIS for this scheme identified pollution, disturbance from noise and habitat degradation from hydrological changes during operation as potential impacts are predict	Yes – from disturbance impacts on the Slaney River Valley SAC, Wexford Harbour and Slobs SPA and The Raven SPA if construction phase is concurrent with Clonhaston, Enniscorthy, Wexford works.  Yes – from habitat loss, mortality, pollution and disturbance impacts on the Slaney River Valley SAC and from pollution and disturbance impacts on the Wexford Harbour and Slobs SPA if construction phase is concurrent with Enniscorthy Flood Relief Scheme works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the Slaney River Valley SAC, from habitat loss, pollution and disturbance impacts on Wexford Harbour and Slobs SPA, and from disturbance impacts on The Raven SPA, Bannow Bay SPA, Ballyteige Burrow SPA and Tacumshin Lake SPA if construction phase is concurrent with Ferrycarraig Experimental Archaeology works.  Yes – from habitat loss, mortality, pollution, spread of invasive nonnative species and disturbance impacts on the Slaney River Valley SAC, from habitat loss, pollution and disturbance impacts on the Slaney River Valley SAC, from habitat loss, pollution and disturbance impacts on Wexford Harbour and Slobs SPA, and from disturbance impacts on The Raven SPA, Ballyteige Burrow SPA and Tacumshin Lake SPA if construction phase 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 these European sites, either alone or in-combination with the other options.	N N

Preferred Option	Potential Effects – 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 proximity of works. No operational impacts predicted.  Option study area is within the Zone of Influence of the Tacumshin Lake SPA which is 19.1km away. During construction there is the potential for disturbance to birds given the proximity of works. No operational impacts are predicted.		is directly adjacent to this scheme and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, pollution and disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). The Raven SPA is 8.7km east from this scheme. No NIS available at time of writing). Bannow Bay SPA is 18.6km south-west from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Ballyteige Burrow SPA is 16.2km south-west from this scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Tacumshin Lake SPA is 14.9km south from this scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Tacumshin Lake SPA is 14.9km south from this scheme. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing).  Kerlogue Manor. Roxborough. Drinagh, Wexford, Roxborough, Mulgannon, Wexford, Whiterock Hill, Wexford, Phase 1  Slaney River Valley SAC is directly adjacent to these schemes and is hydrologically linked via the Slaney River. No NIS available so it is assumed there is a potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction (LSEs for these schemes assumed as assessments not available at time of writing). The Raven SPA is 4.6km east from these schemes. No NIS available so it is	with Kerlogue Manor, Roxborough, Drinagh, Wexford, Roxborough, Mulgannon, Wexford, and Whiterock Hill, Wexford, Phase 1 works.  Yes – from habitat loss, mortality, pollution, spread of invasive non- native species and disturbance impacts on the Slaney River Valley SAC, and from habitat loss and pollution impacts on Wexford Harbour and Slobs SPA if construction phase is concurrent with Trinity Wharf works.  Yes – from disturbance impacts on the Slaney River Valley SAC, Wexford Harbour and Slobs SPA and The Raven SPA if construction phase is concurrent with Wexford General Hospital Ward Block works.		

Preferred Option	Potential Effects – 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 during operation as impacts to this European site. Therefore, there is potential for in-combination effects from habitat loss, mortality, pollution, spread of invasive non-native species and disturbance during construction. Wexford Harbour and Slobs SPA is directly adjacent to the scheme and is hydrologically linked via the Wexford Harbour. The NIS for this scheme identified pollution and habitat loss during construction, and pollution during operation as potential impacts to this European site. Therefore, there is potential for in-combination effects from pollution and habitat loss during construction. The Raven SPA is approximately 4.7km north-east from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Bannow Bay SPA is approximately 22km south-west from the scheme and therefore no in-combination impacts are predicted. Ballyteige Burrow SPA is approximately 18km south-west from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted. Tacumshin Lake SPA is approximately 13.5km south-west from the scheme and the NIS for this scheme did not identify any impacts on this European site, therefore no in-combination impacts are predicted.  Wexford General Hospital Ward Block  Slaney River Valley SAC is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for incombination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Wexford Harbour and Slobs SPA is approximately 300m north from the scheme with no hydrological link. No NIS available so it is assumed there is a potential for in-combination effects from disturbance during construction (LSEs for this scheme assumed as assessments not available at time of writing). Bannow Bay SPA is approximately 20km south-west from the scheme and therefore n			
All Preferred Options  The European sites that may be impacted by options within Study Area M are: Ballyteige Burrow SAC, Bannow Bay SAC, Screen Hills SAC, Slaney River Valley SAC, Ballyteige Burrow SPA, Bannow Bay SPA, Cahore Marshes SPA, Tacumshin Lake SPA, The Raven SPA, Tramore Back Strand SPA, and Wexford Harbour and Slobs SPA.	<ul><li>Habitat degradation</li><li>Disturbance</li><li>Spread of invasive non-native species</li></ul>	All Preferred Options  There is potential for in-combination effects from the projects within SAM to the Ballyteige Burrow SAC given that options SAM-148 and SAM-149 have the potential for impacts. Potential for in-combination effects from pollution (all options) during construction.  There is potential for in-combination effects from the projects within SAM to the Bannow Bay SAC given that options SAM-149 and SAM-575 have the potential for impacts. Potential for in-combination effects from pollution (all options) during construction.  Option SAM-127 & SAM-207 combined is the only option within SAM with potential for impacts on Screen Hills SAC. Therefore, there is no potential for in-combination effects to this European site.  There is potential for in-combination effects from the projects within SAM to the Slaney River Valley SAC given that options SAM-029, SAM-036, SAM-044, SAM-050, SAM-061, SAM-100, SAM-127 and SAM-207 combined, SAM-141, SAM-144, SAM-146, SAM-149, SAM-547 and SAM-576 have the potential for impacts. Potential for in-combination effects from habitat loss (SAM-036 and SAM-576), mortality (SAM-036 and SAM-576), pollution (SAM-029, SAM-036, SAM-044, SAM-050, SAM-061, SAM-100, SAM-127 and SAM-207 combined, SAM-141, SAM-144, SAM-146, SAM-100, SAM-127 and SAM-207 combined, SAM-141, SAM-144, SAM-146, SAM-146, SAM-147, SAM-147, SAM-148, S	Yes – from pollution impacts on  Ballyteige Burrow SAC if construction of options is concurrent.  Yes – from pollution impacts on Bannow Bay SAC if construction of options is concurrent.  Yes – from habitat loss, mortality, pollution, spread of invasive non- native species and disturbance impacts on Slaney River Valley SAC if construction of options is concurrent and during operation from habitat degradation and water table/availability.	General Mitigation Measures are outlined in Section 6.3.3 Option specific mitigation as 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 these European sites, either alone or in-combination with the other options.	N

Preferred Option	Potential Effects – 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)
		547 and SAM-576), spread of invasive non-native species (SAM-036 and SAM-576) and disturbance (SAM-029, SAM-036, SAM-061, SAM-127 and SAM-207 combined, SAM-146, SAM-149, SAM-547 and SAM-576) during construction and during operation from habitat degradation (SAM-029 and SAM-036) and water table/availability (SAM-029 and SAM-036).	Yes – from pollution and disturbance impacts on <b>Ballyteige Burrow SPA</b> if construction of options is concurrent.		
		There is potential for in-combination effects from the projects within SAM to the <b>Ballyteige Burrow SPA</b> given that options SAM-148, SAM-149, SAM-575 and SAM-576 have the potential for impacts. Potential for in-combination effects from pollution (SAM-148 and SAM-149) and disturbance (all options) during construction.	Yes – from pollution and disturbance impacts on <b>Bannow Bay SPA</b> if construction of options is concurrent.		
		There is potential for in-combination effects from the projects within SAM to the <b>Bannow Bay SPA</b> given that options SAM-100, SAM-148, SAM-149, SAM-575 and SAM-576 have the potential for impacts. Potential for in-combination effects from pollution (SAM-149 and SAM-575) and disturbance (all options) during construction.	Yes – from disturbance impacts on <b>Cahore Marshes SPA</b> if construction of options is		
		There is potential for in-combination effects from the projects within SAM to the <b>Cahore Marshes SPA</b> given that options SAM-017, SAM-029, SAM-061 and SAM-127 & SAM-207 combined have the potential for impacts. Potential for in-combination effects from disturbance (all options) during construction.	concurrent.  Yes – from disturbance impacts on Tacumshin Lake SPA if		
		There is potential for in-combination effects from the projects within SAM to the <b>Tacumshin Lake SPA</b> given that options SAM-148, SAM-149 and SAM-576 have the potential for impacts. Potential for in-combination effects from disturbance (all options) during construction.	construction of options is concurrent.		
		There is potential for in-combination effects from the projects within SAM to <b>The Raven SPA</b> given that options SAM-061, SAM-127 & SAM-207 combined, SAM-148, SAM-149 and SAM-576 have the potential for impacts. Potential for in-combination effects from pollution (SAM-127 & SAM-207 combined and SAM-576) and disturbance (all options) during construction.	Yes – from pollution and disturbance impacts on <b>The Raven SPA</b> if construction of options is concurrent.		
		Option SAM-575 is the only option within SAM with potential for impacts on <b>Tramore Back Strand SPA</b> . Therefore, there is no potential for in-combination effects to this European site.	Yes – from pollution and disturbance impacts on <b>Wexford</b> <b>Harbour and Slobs SPA</b> if		
		There is potential for in-combination effects from the projects within SAM to the <b>Wexford Harbour and Slobs SPA</b> given that options SAM-017, SAM-029, SAM-036, SAM-044, SAM-050, SAM-061, SAM-100, SAM-127 & SAM-207 combined, SAM-148, SAM-149, SAM-575 and SAM-576 have the potential for impacts. Potential for in-combination effects from pollution (SAM-029, SAM-044, SAM-050, SAM-061, SAM-100, SAM-127 & SAM-207 combined and SAM-576) and disturbance (all options) during construction.	construction of options is concurrent.		

Table E4: Potential in-combination effects between SAs within the SE 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)
River Barrow And River Nore SAC (002162)	• SAK • SAL	Habitat loss – There is potential for some loss of/damage to QI habitats and supporting habitats of QI species during construction works (all SAs).  Mortality risk – Habitat loss and pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact on QI species or fish and restrict access to spawning habitats effecting QI species and their prey (all SAs).  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 loss (all SAs), mortality risk (all SAs), habitat degradation (all SAs), disturbance (all SAs) and the spread of invasive nonnative 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).	<ul> <li>General Mitigation Measures are outlined in Section 6.3.3</li> <li>Option Specific Measures as in Section 6.3.4</li> <li>Hydrological modelling as in Section 6.3.5</li> <li>Hydrogeological modelling as in Section 6.3.5</li> <li>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.</li> </ul>	N
River Nore SPA (004233)	• SAK • SAL	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 to kingfisher, given the works are within or in the vicinity of the SPA (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
Tramore Back Strand SPA (004027)	• SAK • SAM	<b>Disturbance</b> – 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 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
Ballyteige Burrow SPA (004020)	• SAL • SAM	<b>Disturbance</b> – 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 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
Bannow Bay SAC (000697)	<ul><li>SAL</li><li>SAM</li></ul>	<b>Habitat degradation</b> – Potential pollution of watercourses during construction could affect 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	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)
				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.	
Bannow Bay SPA (004033)	<ul><li>SAL</li><li>SAM</li></ul>	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
Wexford Harbour and Slobs SPA (004076)	• SAL • SAM	<b>Disturbance</b> – 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 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 SE region, NW region, 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)
River Barrow And River Nore SAC (002162)	• EM • SE	Habitat loss – There is potential for some loss of/damage to QI/Annex 1 habitats and/or supporting habitats during construction works (both regions).  Mortality risk – Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact species and restrict access to spawning habitat effecting QI species and their prey (both regions).  Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (both regions).  Disturbance – There is potential for disturbance to QI species during construction (both regions).  Spread of invasive non-native species – There is the potential for the spread of invasive non-native species during construction (both 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 (both regions).  Water table/availability – There is potential for impacts on aquatic QI species or habitats utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels during operation (both regions).	Yes – from habitat loss (both regions), mortality risk (both regions), habitat degradation (both regions) and the spread of invasive non-native species (both regions) if construction of options within these regions is concurrent, and during operation from water table/availability (both regions) and habitat degradation impacts (both regions).	<ul> <li>General Mitigation Measures are outlined in Section 6.3.3</li> <li>Option specific mitigation measures are outlined in Section 6.3.4</li> <li>Hydrogeological modelling as in Section 6.3.5</li> <li>Hydrological modelling as in Section 6.3.5</li> <li>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.</li> </ul>	N
River Nore SPA (004233)	• EM • SE	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 (both regions).  Disturbance – There is potential for disturbance to kingfisher, given the works are within or in the vicinity of the SPA (both regions).	Yes – from habitat degradation (both regions) and disturbance (both 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
Slaney River Valley SAC (000781)	• EM • SE	<ul> <li>Habitat loss – There is potential for some loss of/damage to QI/Annex 1 habitats and/or supporting habitats during construction works (both regions).</li> <li>Mortality risk – Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact species and restrict access to spawning habitat effecting QI species and their prey (both regions).</li> <li>Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (both regions).</li> <li>Disturbance – There is potential for disturbance to QI species during construction (both regions).</li> <li>Spread of invasive non-native species – There is the potential for the spread of invasive non-native species during construction (both regions).</li> </ul>	Yes – from habitat loss (both regions), mortality risk (both regions), habitat degradation (both regions), disturbance (both regions) and the spread of invasive non-native species (both regions) if construction of options within these regions is concurrent.	<ul> <li>General Mitigation Measures are outlined in Section 6.3.3</li> <li>Option specific mitigation measures are outlined in Section 6.3.4</li> <li>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.</li> </ul>	N
Slievefelim to Silvermines Mountains SPA (004165)	• EM • SE	<b>Disturbance</b> – 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) (both regions).	Yes – from disturbance (both 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

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)
Blackwater Callows SPA (004094)	• SE • SW	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 (both regions).  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) (both regions).	Yes – from habitat degradation (both regions) and disturbance (both 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 Estuary SPA (004028)	• SE • SW	<b>Habitat degradation</b> – 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 (both regions).	Yes – from habitat degradation (both 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
Four Roads Turlough SPA (004140)	• EM • NW	<b>Disturbance</b> – 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) (both regions).	Yes – from disturbance (both 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
Lough Derravarragh SPA (004043)	• EM • NW	<b>Disturbance</b> – 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) (both regions).	Yes – from disturbance (both 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
Lough Ree SAC (000440)	• EM • NW	<ul> <li>Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (both regions).</li> <li>Disturbance – There is potential for disturbance to QI species during construction (both regions).</li> <li>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 (both regions).</li> <li>Water table/availability – There is potential for impacts on aquatic QI species or habitats utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels during operation (both regions).</li> </ul>	Yes – from habitat degradation (both regions) and disturbance (both regions) if construction of options within these regions is concurrent, and during operation from water table/availability (both regions) and habitat degradation impacts (both regions).	<ul> <li>General Mitigation Measures are outlined in Section 6.3.3</li> <li>Hydrogeological modelling as in Section 6.3.5</li> <li>Hydrological modelling as in Section 6.3.5</li> <li>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.</li> </ul>	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)
Lough Ree SPA (004064)	<ul><li>EM</li><li>NW</li></ul>	<ul> <li>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 (both regions).</li> <li>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) (both regions).</li> </ul>	Yes – from habitat degradation (both regions) and disturbance (both 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
River Boyne and River Blackwater SAC (002299)	<ul><li>EM</li><li>NW</li></ul>	<ul> <li>Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (both regions).</li> <li>Disturbance – There is potential for disturbance to QI species during construction (both regions).</li> <li>Spread of invasive non-native species – There is the potential for the spread of invasive non-native species during construction (both regions).</li> </ul>	Yes – from habitat degradation (both regions), disturbance (both regions) and the spread of invasive non-native species (both 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
River Boyne and River Blackwater SPA (004232)	<ul><li>EM</li><li>NW</li></ul>	<ul> <li>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 (both regions).</li> <li>Disturbance – Potential for disturbance to kingfisher during construction given that the works are within and/or in close proximity to the SPA boundary (both regions).</li> </ul>	Yes – from habitat degradation (both regions) and disturbance (both 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
River Suck Callows SPA (004097)	• EM • NW	<ul> <li>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 (both regions).</li> <li>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) (both regions).</li> </ul>	Yes – from habitat degradation (both regions) and disturbance (both 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)	• EM • SW	<b>Disturbance</b> – 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) (both regions).	Yes – from disturbance (both 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)	<ul><li>EM</li><li>SE</li><li>SW</li></ul>	<ul> <li>Habitat loss – There is potential for some loss of/damage to QI/Annex 1 habitats and/or supporting habitats during construction works (SE and SW only).</li> <li>Mortality risk – Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact species and restrict access to spawning habitat effecting QI species and their prey (SE and SW only).</li> <li>Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (all three regions).</li> <li>Disturbance – There is potential for disturbance to QI species during</li> </ul>	Yes – from habitat loss (SE and SW only), mortality risk (SE and SW only), habitat degradation (all three regions), disturbance (SE and SW only) and the spread of invasive non-native species (SE and SW only) if construction of options within these regions is concurrent, and during operation from water table/availability (SE and SW	<ul> <li>General Mitigation Measures are outlined in Section 6.3.3</li> <li>Option specific mitigation measures are outlined in Section 6.3.4</li> <li>Hydrogeological modelling as in Section 6.3.5</li> <li>Hydrological modelling as in Section 6.3.5</li> </ul>	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)
		construction (SE and SW only).  Spread of invasive non-native species – There is the potential for the spread of invasive non-native species during construction (SE and SW 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 (SE and SW only).  Water table/availability – There is potential for impacts on aquatic QI species or habitats utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels during operation (SE and SW only).	only) and habitat degradation impacts (SE and SW only).	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.	
Lower River Suir SAC (002137)	• EM • SE • SW	<ul> <li>Habitat degradation – Potential pollution of watercourses during construction could affect QI species and hydrologically connected habitats (all three regions).</li> <li>Disturbance – There is potential for disturbance to QI species during construction (EM and SE only).</li> <li>Spread of invasive non-native species – There is the potential for the spread of invasive non-native species during construction (EM and SE only).</li> </ul>	Yes – from habitat degradation (all three regions), disturbance (EM and SE only) and the spread of invasive non-native species (EM and SE only) if construction of options within these regions is concurrent.	<ul> <li>General Mitigation Measures are outlined in Section 6.3.3</li> <li>Option specific mitigation measures are outlined in Section 6.3.4</li> <li>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.</li> </ul>	N
Lower River Shannon SAC (002165)	<ul><li>EM</li><li>NW</li><li>SE</li><li>SW</li></ul>	Habitat loss – There is potential for some loss of/damage to QI/Annex 1 habitats and/or supporting habitats during construction works (EM, NW and SW only).  Mortality risk – Pollution of water courses during construction (associated with sediment runoff, or accidental spillage) could impact species and restrict access to spawning habitat effecting QI species and their prey (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 QI species 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 (EM, SE and SW only).  Water table/availability – There is potential for impacts on aquatic QI species or habitats utilising watercourses hydrologically linked to this European site through a reduction in flows/water levels during operation (EM, SE and SW only).	Yes – from habitat loss (EM, NW and SW only), 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 (EM, SE and SW only) and habitat degradation impacts (EM, SE and SW only).	<ul> <li>General Mitigation Measures are outlined in Section 6.3.3</li> <li>Option specific mitigation measures are outlined in Section 6.3.4</li> <li>Hydrogeological modelling as in Section 6.3.5</li> <li>Hydrological modelling as in Section 6.3.5</li> <li>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.</li> </ul>	N
River Shannon and River Fergus Estuaries SPA (004077)	<ul><li>EM</li><li>NW</li><li>SE</li><li>SW</li></ul>	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).  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) (EM, NW and SE only).	Yes – from habitat degradation (all regions) and disturbance (EM, NW and SE only) 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