

JACOBS®



Greater Dublin Drainage Project

Irish Water

Environmental Impact Assessment Report: Volume 3 Part A of 6

Chapter 25 Summary of Residual Impacts

June 2018

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25. Summary of Residual Impacts

This Chapter summarises the residual impacts, which result from the Construction Phase and Operational Phase of the Greater Dublin Drainage Project (hereafter referred to as the Proposed Project). For full impact assessments please refer to Chapters 6 to 21.

Residual Impacts are the final or intended impacts which occur after the proposed mitigation measures have been implemented. They refer to the degree of change that will occur after the proposed mitigation measures have taken effect. All other (not significant or imperceptible) impacts are detailed within Chapter 6 to Chapter 21 in Volume 3 Part A of this EIAR.

Table 25.1 presents the residual impact significance following implementation of mitigation as set out in Chapter 6 to Chapter 21, and mitigation as summarised in Chapter 24 Summary of Mitigation Measures. The residual impacts presented are adverse unless otherwise stated as positive/beneficial.

The terminology used in this chapter to describe the residual impact significance is a reflection of the assessment terminology and guidelines used within the Chapter 6 to Chapter 21. While the terminology in the Environmental Protection Agency's 2017 guidelines on information to be contained in environmental impact assessment reports is predominantly used, some chapters use discipline specific guidelines, and this terminology is presented within this summary chapter to maintain consistency with the assessments of Chapter 6 to Chapter 21.

The residual impacts of the proposed Regional Biosolids Storage Facility (RBSF) element of the Proposed Project, are addressed in Chapter 18, Volume 4 Part A of this EIAR.

Table 25.1: Summary of Residual Impacts from Construction Phase and Operational Phase

Environmental Aspect	Impact Description	Impact Significance	Residual Significance
Chapter 6: Population & Human Health: Population	Construction Phase		
	Restrictions on accessibility to Coolbrook Cottages, properties at Sillogue Green and Dubber Cottages.	Significant	Slight
	Access to Craobh Chiaráin GAA club.	Significant	Imperceptible
	Access to a waste recycling facility on Coolmine Road.	Significant	Slight
	Impact to National Sports Campus grounds (particularly the national cross-country track) for pipeline construction	Significant	Moderate
	Impact to Kinsealy Equine Centre lands as a result of pipeline construction	Significant	Moderate
	Operational Phase		
	Population: Support future population growth	Significant Positive	Significant Positive
	Economic Activity: Provision of direct employment	Slight Positive	Slight Positive
	Economic Activity: Provision of critical infrastructure	Significant Positive	Significant Positive
	Important Planning Schemes and Forthcoming Developments: Facilitation of future proposed developments	Significant Positive	Significant Positive
Chapter 7: Population and Human Health: Human Health	Construction Phase		
	Emissions to air from construction activities and construction vehicles.	Slight to Imperceptible	Not Significant to Imperceptible
	Noise and vibration impacts to sensitive receptors during construction works	Moderate to Imperceptible	Moderate to Imperceptible
	Impacts to road safety	Slight	Imperceptible
	Flooding and impacts to water quality during construction	Slight to Imperceptible	Imperceptible
	Impacts to construction workers as a result of excavation of contaminated lands	Moderate to Slight	Slight
	Psychological Impacts	Imperceptible	Imperceptible
	Operational Phase		
Health Improvement	Significant Positive	Significant Positive	
Chapter 8: Marine Water Quality	Construction Phase		
	Impacts to receiving waters from suspended solids during dredging operation.	Imperceptible	Imperceptible
	Operational Phase		
No Significant Operational Phase impacts predicted.	-	-	

Environmental Aspect	Impact Description	Impact Significance	Residual Significance
Chapter 9: Biodiversity (Marine)	Construction Phase		
	Tunnelling below Baldoyle Estuary: Air breakout (Saltmarsh Habitat)	Minor	Minor to Negligible
	Tunnelling below Baldoyle Estuary: Bentonite breakout (Saltmarsh Habitat)	Minor	Negligible
	Dredging of Outfall: Suspended sediment plume (Migratory fish and pinnipeds)	Minor	Negligible
	Dredging of Outfall: Suspended sediment plume (Reef habitat SAC)	Minor to Moderate	Negligible
	Dredging of Outfall: Suspended sediment plume (Harbour porpoise)	Minor	Minor
	Dredging of Outfall: Noise and vibration (Harbour porpoise)	Minor	Negligible
	Tunnel interface using piling and/or caisson installation (outside the SAC): Noise and vibration (Pinnipeds)	Minor	Negligible
	Tunnel interface using piling and/or caisson installation (outside the SAC): Noise and vibration (Harbour porpoise and dolphins)	Minor	Negligible
	Tunnel interface using piling and/or caisson installation (outside the SAC): Noise and vibration (Migratory Fish)	Minor	Minor
	Installation of proposed marine diffuser (inside the SAC): Noise and vibration (Harbour Porpoise)	Minor	Negligible
	Operational Phase		
	No significant Operational Phase impacts predicted		
Chapter 10: Marine Ornithology	Construction Phase		
	Disturbance / displacement due to vessel traffic in subsea section (Guillemot and Razorbill)	Moderate	Minor
	Disturbance / displacement due to vessel traffic and construction noise at marine diffuser Guillemot and Razorbill)	Moderate	Minor
	Disturbance / displacement due to vessel traffic (Common Scoter and red throated diver)	Moderate	Minor
	Operation Phase		
No significant Operational Phase impacts predicted			

Environmental Aspect	Impact Description	Impact Significance	Residual Significance
Chapter 11: Biodiversity (Terrestrial and Freshwater)	Construction Phase		
	Terrestrial Biodiversity		
	Disturbance to / displacement of protected species or reduction in habitat availability – (mixed) broadleaved woodland, scrub, hedgerows and treelines (disturbance to habitats used by protected species for movement)	Potentially Significant	Not Significant
	Disturbance to / displacement of protected species or reduction in habitat availability – bats (severance of foraging and commuting routes)	Potentially Significant	Not Significant
	Disturbance to / displacement of protected species or reduction in habitat availability – farmland birds (removal of nesting habitat and displacement of breeding species)	Potentially Significant	Not Significant
	Disturbance to / displacement of protected species or reduction in habitat availability – smooth newt (impacts on ponds, accidental harm to newts, Wildlife offence)	Potentially Significant	Not Significant
	Disturbance to / displacement of protected species or reduction in habitat availability – badgers (impacts on setts within wayleave, accidental harm to badgers, Wildlife offence)	Potentially Significant	Not Significant
	Freshwater Biodiversity		
	Suspended Solids Pollution	Moderate	Not Significant
	Pollution with other Substances	Moderate	Not Significant
	Introduction of Invasive Species	Significant	Not Significant
	Trenchless Crossing (Santry River, Mayne River, Cuckoo Stream)	Moderate	Not Significant
	Culvert and Bridge Construction (Mayne River Location 5)	Moderate	Not Significant
	Construction of Access Roads	Slight	Not Significant
	Compound Areas (Tolka River, Santry River, Mayne River (Location 3) & Cuckoo Stream)	Slight	Not Significant
	Hydrological Changes (Tolka River & Cuckoo Stream)	Moderate	Not Significant
	Hydrological Changes (Mayne River)	Slight	Not Significant
	Environmental Incidents and Accidents	Significant	Not Significant
	Operational Phase		
	No significant Operational Phase impacts predicted		

Environmental Aspect	Impact Description	Impact Significance	Residual Significance
Chapter 12: Landscape and Visual	Construction Phase		
	Landscape: Impact to low lying agriculture / urban fringe by proposed WwTP	Moderate to Slight	Moderate to Slight
	Operational Phase		
	Landscape: Impact to low lying agriculture / urban fringe by proposed WwTP	Moderate to Slight	Moderate to Slight
	VP1 - Visual: Impact on Clonshaugh Road (adjacent to proposed site access)	Substantial to Moderate	Moderate
	VP2 - Visual: Impact on top storey of Clayton Hotel Dublin Airport	Moderate	Moderate to Slight
	VP3 - Visual: Impact on local road at Springhill	Slight to Imperceptible	Imperceptible
	VP4 - Visual: Impact on private dwelling at Middletown	Substantial to Moderate	Moderate to Slight
	VP5 - Visual: Impact on Springhill House	Moderate to Slight	Slight
	VP8 – Glazed Skyway between sections of Dublin Airports Terminal 2	Slight to Imperceptible	Slight to Imperceptible
	VP12 - Visual: Impact on sports ground adjacent to Balgriffin Cemetery (Cumann Peil Innisfail)	Slight to Imperceptible	Imperceptible
	VP14 - Visual: Impact on St. Francis' Hospice (proposed Abbotstown pumping station view)	Slight to Imperceptible	Imperceptible
Chapter 13: Traffic and Transport	Construction Phase		
	No significant Construction Phase impacts predicted		
	Operational Phase		
	No significant Operational Phase impacts predicted		
Chapter 14: Air Quality, Odour and Climate	Construction Phase		
	Abbotstown Pumping Station: Excavation Dust emissions	Slight	Not Significant
	Abbotstown Pumping Station: Construction dust emissions	Slight	Not Significant
	Abbotstown Pumping Station: Construction traffic emissions	Slight	Not Significant
	WwTP: Soil Stripping Dust Emissions	Moderate	Not Significant
	WwTP: Excavations Dust Emissions	Slight	Not Significant
	WwTP: Concrete pours Dust Emissions	Slight	Not Significant
	WwTP: Landscaping & finishing Dust Emissions	Slight	Not Significant
	WwTP: Construction Traffic Dust Emissions	Moderate	Not Significant
	Operational Phase		
		No significant Operational Phase impacts predicted	

Environmental Aspect	Impact Description	Impact Significance	Residual Significance
Chapter 15: Noise and Vibration	Construction Phase		
	Abbotstown Pumping Station construction noise at R3 Noise Sensitive Receptors (Table 15.15)	Moderate to Slight	Short-term Moderate to Imperceptible
	Launch shaft construction noise at nearest Sensitive Receptors (Table 15.26)	R1 – Significant R2 – Slight R8 – Significant R19 – Slight R29 - Significant R31 – Slight	R1 – Significant* R2 – Slight* R8 – Significant* R19 – Slight* R29 – Significant* R31 – Slight*
	Tunnel Boring Machine (TBM) night time construction noise at nearest sensitive receptor (Table 15.29)	R29 - Moderate	R29 – Moderate*
	Marine compound TBM night time construction noise at nearest sensitive receptor (Table 15.33)	R35 - Moderate	R35 – Moderate*
	Sub-sea pipe laying works night time noise at nearest sensitive receptor (Table 15.36)	R35 - Moderate	R35 – Moderate*
	Cumulative night time noise impact on Golf Links Road house (Table 15.40)	R35 - Significant	R35 - Significant *
	Construction Traffic Noise Impact	N5, N21, N17 – Minor N19 - Moderate	N5, N21, N17 – Minor* N19 – Moderate*
	*Noise levels are however within the relevant criterion in all cases and short term in duration.		
	Operational Phase		
No significant Operational Phase impacts predicted			

Environmental Aspect	Impact Description	Impact Significance	Residual Significance
Chapter 16: Archaeological, Architectural and Cultural Heritage	Construction Phase		
	Recorded Monuments directly impacted by Construction (Table 16.11)	Very Significant to Moderate	Imperceptible
	Areas of Archaeological Potential directly impacted by Construction (Table 16.13)	Very Significant to Significant	Imperceptible
	Areas of Architectural Potential directly impacted by Construction (Table 16.14)	Very Significant to Moderate	Imperceptible
	Designed landscapes directly impacted by construction (Table 16.15)	Slight to Not Significant	Imperceptible
	Unrecorded built heritage site (railway bridge) indirectly impacted by Construction (Table 16.16)	Slight	Imperceptible
	Townland boundaries directly impacted by construction (Table 16.17)	Slight to Significant	Imperceptible
	Operational Phase		
	Indirect impacts to Areas of Archaeological Potential during operation of the WwTP (Table 16.20)	Slight	Imperceptible
	Indirect impacts to Designed Landscapes during operation of the WwTP (Table 16.21)	Moderate	Imperceptible
Indirect impacts to Unrecorded Built Heritage sites during operation of the WwTP (Table 16.22)	Moderate	Imperceptible	
Chapter 17: Hydrology and Hydrogeology	Construction Phase		
	Increased risk of flooding of waterbodies during construction	Slight	Imperceptible
	Possible surface water contamination of waterbodies and Baldoyle SAC due to accidental spillage or contaminated site runoff	Slight	Imperceptible
	Operational Phase		
	Possible surface water contamination of waterbodies and Baldoyle SAC due to accidental spillage or contaminated site runoff	Slight	Imperceptible
Possible groundwater contamination of due to accidental spillage or contaminated site runoff	Slight	Imperceptible	

Environmental Aspect	Impact Description	Impact Significance	Residual Significance
Chapter 18: Soils and Geology	Construction Phase		
	Loss of agricultural land and overburden	Moderate to Slight	Imperceptible
	Loss of solid geology	Moderate to Slight	Slight
	Contaminated ground: Large recent landfill site for mixed wastes, historic and operational graveyards	Moderate to Slight	Slight
	Loss of future quarry reserves	Moderate to Slight	Slight
	Mobilisation of sediments	Moderate to Slight	Slight
	Contaminated sediments	Moderate to Slight	Slight
	Effects of excavation on surrounding sediments	Moderate to Slight	Imperceptible
	Operational Phase		
	Leakage or Spillage of Wastewater to Agricultural land	Slight	None
	Leakage or Spillage of Wastewater to inert Soil and Subsoil Strata	Slight	None
Chapter 19: Agronomy	Construction Phase		
	Proposed Orbital Sewer Route and Outfall Pipeline Route (Land Based Section) - Impacts to 23 out of 26 individual agricultural holdings	Significant	Not Significant
	Proposed Abbotstown Pumping Station – acquiring of 0.5ha of land from one holding resulting in removal from production	Significant	Not Significant
	Proposed WwTP – acquiring of 5.65ha and 6.7ha of tillage land from two farms	Significant	Moderate
	Proposed WwTP – acquiring of 16.7ha of horticulture land from one farm	Very Significant	Very Significant
	Proposed North Fringe Sewer Diversion – Impacts to individual farms	Significant	Not Significant
	Operational Phase		
No Significant Operational Phase impacts predicted			
Chapter 20: Waste	Construction Phase		
	No Significant Construction Phase impacts predicted		
	Operational Phase		
No Significant Operational Phase impacts predicted			
Chapter 21: Material Assets	Impact on major utilities and natural features in the vicinity of the proposed project	Moderate	Moderate