



**Appendix B  
Risk & Opportunities  
Statement**

Climate Hazard: Extreme Rainfall									
Observed & Projected Information:									
An increase in the number of dry periods (> 5 consecutive days with less than 1mm rainfall) are projected across all seasons with largest increase projected for summer with "likely" values ranging from 12% to 40%. Increase in the number of "wet days" (>20mm rainfall) for winter (mean value 24%) and autumn (mean value 18%). Increase in the number of "very wet days" (>30mm rainfall) for winter (mean value 24%) and autumn (mean value 49%)									
Operational Area	Risk & Opportunities Statement	Exposure & Sensitivity	Timing of Risk & Opportunity			Projected Change in Consequences / Level of Risk	Priority	Relevant Policies/Legislation	Relevant Actors (External)
			< 5 Years	5-10 Years	> 10 Years				
Building & Critical Infrastructure	Increased frequency of extreme precipitation leading to an increased risk of flooding with impacts on infrastructure, property and transport movement, leading to road and rail closures, and damage to homes and businesses.	Exposure of national primary and secondary routes/bridges due to flooding and erosion. County wide but with specific sensitivity in areas as highlighted in OPW Flood maps	✓	✓	✓	Increase	High	Winter Maintenance Programme	TII, RSA,
	Increased frequency of extreme precipitation leading to increased risk of flooding and disruption to public transport, cycling and pedestrian networks, leading to a switch to alternative modes of transport and increased traffic disruption	Greenways, cycle paths		✓	✓	Increase	Medium		Faite Ireland
	Increased frequency of extreme precipitation leading to increase the risk of pluvial and fluvial flooding and ground water and drainage surcharge resulting in damage to infrastructure and buildings.	Countywide, CFRAM identified areas	✓	✓	✓	Increase	High		
	Increased frequency of extreme precipitation leading to increased risk of slope erosion and landslides, resulting in injury/death and damage to property and infrastructure	Countywide	✓	✓	✓	Increase	High		
	Increased frequency of extreme precipitation leading to an increase in flooding and damage to buildings/infrastructure resulting in loss of asset, repair costs, increased maintenance costs with potential loss of insurance or increased insurance costs	Coastlines and River, CFRAM identified areas	✓	✓	✓	Increase	High	Flood Management Plans - CFRAM Flood Planning Guidelines	OPW, NPWS
	Increased frequency of extreme precipitation leading to flooding of council housing and buildings in vulnerable areas, resulting in increased in repair costs and temporary accommodation	??	✓	✓		Increase	Medium	Tenant Handbook, Housing Regulations	
	Increased frequency of extreme precipitation leading to an increase in leachate production at landfills, resulting to increased treatment capacities and costs.	Poolboy, Kilconnell Landfills	✓	✓	✓	Increase	High	EPA Waste Licence,	EPA, Regional Waste Office, Irish Water
	Increased frequency of extreme precipitation leading to increased incidence of failure of surface water networks in urban areas, resulting in flooding of streets and businesses.		✓	✓	✓	Increase	High		
	Increased frequency of extreme precipitation leading to an increase flooding, resulting additional waste production from flood damage and/or inability of waste collection contractors to access flood areas a for schedule waste collections.	Poolboy, Kilconnell Landfills	✓	✓	✓	Increase	High		
Natural & Cultural Capital	Increased frequency of extreme precipitation leading to requirement for increased slurry storage capacity and risk of inappropriate spreading of slurry, resulting in increased requirements for inspections.	Countywide		✓	✓	Increase	Medium	GAP Regulations, Mayo Agricultural Strategy	Dept of Agriculture, IFA, Teagasc
	Increased frequency of extreme precipitation leading to flooding of habitats and changes to the structure or geomorphology of river and coastal units, leading to impacts on biodiversity and ecosystems.	Countywide	✓	✓	✓	Increase	High	Wildlife Act and Habitats Directive	NPWS, EPA, Inland Fisheries Ireland
	Increased frequency of extreme precipitation leading to flooding of Built and Natural heritage sites, resulting in damage or access difficulties (Tourism Impact)	Countywide	✓	✓	✓	Increase	High		
	Increased frequency of extreme precipitation resulting in increased risk of flooding leading to an increase vulnerable historical buildings and key heritage and cultural assets to flood damage.	Countywide	✓	✓	✓	Increase	High		
	Increased frequency of extreme precipitation leading to a deterioration of water bodies and wetlands	Countywide	✓	✓	✓	Increase	High		
	Increased frequency of extreme precipitation leading to effluent ponding at domestic wastewater treatment systems, resulting in run-off with subsequent impacts on water quality			✓	✓	Increase	Medium	Water Services Act, Water Pollution Act, Tourism Development Plan	EPA, NPWS, OPW, Faite Ireland

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			< 5 Years	5-10 Years	> 10 Years				
Water Resource & Flood Risk Management	Increased frequency of extreme precipitation leading to increased flooding, runoff and discharge of untreated material directly into waterways, resulting in increased sediment and nutrient loads into waterways	Countywide	✓	✓	✓	Increase	High	Water Pollution Act. Water Framework Directive	
	Increased frequency of extreme precipitation leading to flooding of Water Treatment Plants, or restricted access, resulting in disruption and/or contamination of water supplies	Water Treatment Plants	✓	✓	✓	Increase	High	Water Pollution Act. Water Framework Directive	ESB, Irish Water
	Increased frequency of extreme precipitation leading to flooding Wastewater Treatment Plants, or restricted access, resulting in overflows of untreated or partially treated effluent to water bodies, with subsequent on water quality and health	Wastewater Treatment Plants	✓	✓	✓	Increase	High	Water Pollution Act. Water Framework Directive	ESB, Irish Water
	Increased frequency of extreme precipitation leading to increase the risk of pluvial and fluvial flooding and ground water and drainage surcharge resulting in damage to infrastructure, buildings and risk to life.	Countywide	✓	✓	✓	Increase	High		
	Increased frequency of extreme precipitation resulting in overwhelmed surface water collection networks, resulting in flooding of streets and roads and emergency overflows of combined sewers to water bodies	Urban Areas	✓	✓	✓	Increase	High		
	Increased frequency of extreme precipitation resulting in increased flooding and areas vulnerable to flooding, resulting in property damage and an increase in Emergency Responses and adaptation resources.	Countywide	✓	✓	✓	Increase	High	Flood Management Plans - CFRAM Flood Planning Guidelines Emergency Flood Response Plan	OPW, Community Groups
Services/Health and Wellbeing	Increased frequency of extreme precipitation leading to an increase in flooding, resulting in increased demand on the Emergency Response team and resources, and increased exposure to S&H risks.	Flood Risk Areas	✓	✓	✓	Increase	High	Emergency Response Plan. MCC Safety Management Systems & Plans	OPW, Garda Siochana
	Increased frequency of extreme precipitation, leading to increased incidence of localised and widespread flooding, resulting in increased number of emergency call-outs and implementation of the Emergency Flood Response Plan	Flood Risk Areas	✓	✓	✓	Increase	High		
	Increased frequency of extreme precipitation, leading to increased incidence of localised and widespread flooding, leading to Civil Defence providing additional support HSE ambulances, boats provided transport for home help, public health nurses, prescriptions and transporting critical staff to workplace, evacuating people from their homes and providing supplies and support.	Flood Risk Areas	✓	✓	✓	Increase	High	Emergency Response Framework and	HSE, Garda Siochana
	Increased frequency of extreme precipitation leading to difficult driving conditions and an increase in road accidents, resulting in an increase pressure on emergency services	Countywide	✓	✓	✓	Increase	High		HSE, Garda Siochana
	Increased frequency in extreme precipitation resulting in increases in flooding leading to increase loss of business, demands from affected communities, vacancy and dereliction, loss of investment - rates income and loss of confidence by business community	Flood prone areas	✓	✓	✓	Increase	High	Annual Budget, Corporate Plan	Chambers of Commerce, Office of Government Procurement
	Increased frequency of extreme precipitation leading to disruptions to operations and essential community services due to flooding and waterlogged ground conditions, leading to impacts on meeting statutory obligations	Countywide		✓	✓	Increase	Medium		

Climate Hazard: Strong winds									
Observed & Projected Information:									
Projections indicate a decrease in wind speeds for summer and increases for winter. Projected increases in mean wind speed/energy for winter were found to be insignificant (~1%). Projected decreases in the summer wind energy content ranging from 3% to 10% for medium/low emission scenarios. Small projected increases in extreme wind speeds over Ireland. Decrease in the frequency of extreme wind storms affecting western Europe but an increase in the intensity									
Operational Area	Risk & Opportunities Statement	Exposure & Sensitivity	Timing of Risk			Projected Change in Consequences / Level of Risk	Priority	Relevant Policies/Legislation	Relevant Actors (External)
			< 5 Years	5-10 Years	> 10 Years				
Building & Critical Infrastructure	Increase in frequency and intensity of strong winds and flying debris, leading to increased damage to critical infrastructure, buildings and risk to life.	Countywide	✓	✓	✓	Increase	High		TII, RSA, land owners
	Increase in frequency and intensity of strong winds leading to damage or destruction of critical infrastructure, buildings, bridges, personal property, and turning loose debris into flying projectiles, resulting in interruption of services, particularly transport networks, and increased replacement, repair and maintenance costs, as well as risk to life.	Countywide	✓	✓	✓	Increase	High		
	Increase in frequency and intensity of strong winds leading to mature trees blowing over, causing damage or injury, road traffic accidents and road closures, resulting in increased demand on local services to remove blockages, with subsequent risk to health and safety. This will be especially important if storm events occur in summer months when broadleaf trees are in leaf.	Countywide	✓	✓	✓	Increase	High		
	Increase in frequency and intensity of strong winds leading to damage to power and communication infrastructure, resulting in major service disruption across all departments	Countywide	✓	✓	✓	Increase	High		
	Increase in frequency and intensity of strong winds leading to sea surge resulting in damage to buildings, critical infrastructure and risk to life in coastal areas.		✓	✓	✓	Increase	High		
	Increase in frequency and intensity of strong winds leading to construction site shut-downs, damage and sources of flying debris, resulting in delays and repaired costs on construction projections.	Sites under construction	✓	✓	✓	Increase	Low		Contractors, insurers, HSA
Natural & Cultural Capital	Increase in frequency and intensity of strong winds leading to sea surge and waves that result in damage beach and dune ecosystems as well as structures. .	Coastal areas	✓	✓	✓	Increase	High		Community, cultural and sporting groups/organisations
	Increase in frequency and intensity of strong winds leading to damage to older and historic buildings, and cultural assets, resulting in complete loss or repair costs.	County wide		✓	✓	Increase	Medium		
	Increase in frequency and intensity of strong winds leading to erosion of soil and damage to vegetation and ecosystems, resulting in these areas being prone to even more wind erosion in the future.	County wide		✓	✓	Increase	Medium		
Water Resource & Flood Risk Management	Increase in frequency and intensity of strong winds leading to leading to storm damage to Water and Wastewater assets, resulting in disruption to water services	Water and Wastewater assets county wide	✓	✓	✓	Increase	High		Irish Water
	Increase in frequency and intensity of strong winds leading to increase in sea level due to surge, resulting in flooding and damage to property and risk to life	Coastal areas	✓	✓	✓	Increase	High		
	Increase in frequency and intensity of strong winds leading to sea surge and coastal erosion, resulting in landslides and other instabilities, and increased turbidity of nearshore waters which has negative effects on coastal ecosystems.	Coastal areas	✓	✓	✓	Increase	High		
	Increase in frequency and intensity of strong winds leading to potential for power disruptions at Water and Wastewater Treatment Plants and Pumping Stations and related assets causing service disruptions	Water and Wastewater assets county wide	✓	✓	✓	Increase	High		Irish Water, ESB
Services / Health & Wellbeing	Increase in intensity of storms leading to increased number of emergency call-outs, resulting in a demand on resources and H&S risks to staff attending emergencies during storm events	County wide	✓	✓	✓	Increase	High		HSA

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Operational Area	Risk & Opportunities Statement	Exposure & Sensitivity	Timing of Risk			Projected Change in Consequences / Level of Risk	Priority	Relevant Policies/Legislation	Relevant Actors (External)
			< 5 Years	5-10 Years	> 10 Years				
	Increase in intensity of storms leading to increased in flying debris resulting in increase risk to life and property.	County wide	✓	✓	✓	Increase	High		
	Increase in frequency and intensity of strong winds resulting in interruption to community, cultural and sporting events in cancellation of community/sporting events, leading to loss of income and/or reputational damage	County wide	✓	✓	✓	Increase	High		
	Increase in frequency and intensity of strong winds leading to increase in unsafe driving conditions and office closures, resulting in staff absence and loss of essential services to the community just at the point when demand for these services is acute due to the immediate impacts of the severe weather.	Across local authority services	✓	✓	✓	Increase	High	Framework for Major Emergency Management	Office of Emergency Planning
	Increase in frequency and intensity of strong winds leading to disruption to the WAN (Wireless Area Network) causing disruption of IT services to Area Offices, Libraries etc. . Power Outages may increase during these extreme weather events, staff shortages due to travel conditions and school closures	Council Offices		✓	✓	Increase	Medium	IS Strategic Plan and National IS Strate	LGCSB - Local Government Computer Services Board

Climate Hazard: Sea Level Rise (Coastal Erosion)									
Observed & Projected Information:									
Estimates for the 20th century show a global average sea level rise of 1.7mm per year, satellite measurements for the period 1993-2012 indicate a rise of 3.18mm per year (Dwyer, 2012). Global sea level rise for 2081-2100 relative to 1986-2005 will likely range from 0.26 to 0.55 m for a low emissions scenario and 0.52 to 0.98 m for the high emission scenario (IPCC, 2013).									
Operational Area	Risk & Opportunities Statement	Exposure & Sensitivity	Timing of Risk & Opportunity			Projected Change in Consequences / Level of Risk	Priority	Relevant Policies/Legislation	Relevant Actors (External)
			< 5 Years	5-10 Years	> 10 Years				
Building & Critical Infrastructure	Rising sea levels and increased frequency of storm surges resulting in flooding and erosion of coastal roads, leading to damage and transport disruption and increased maintenance and repair costs.	Coastal Areas	✓	✓	✓	Increase	High	Mayo County Development Plan	TII, RSA,
	Increase in sea level rise and coastal erosion resulting in erosion of areas of soft coastline resulting in impacts/damage/usability of nearby buildings and critical infrastructure.	Coastal Areas		✓	✓	Increase	Medium		
	Rising sea levels and increased frequency of storm surges resulting in increased damage to coastal defences and infrastructure (pier, harbours, navigational aids, carparks etc.), leading to increased costs of repair and maintenance.	Coastal Areas	✓	✓	✓	Increase	High	1 - Statutory plans - MCDP 2014 – 2020, Vols 1 & 2; Town & Environs Plans for Castlebar, Ballina & Westport; Ireland West Airport Knock LAP). These plans are underpinned by principles of sustainability	
Natural and Cultural Capital	Increase in sea level rise leading to changes to coastal geomorphology and habitats due to flooding and accelerated coastal erosion, resulting in damage to coastal habitats and natural protections, in particular sand-dune and machair systems.	Soft coastlines, beaches, islands	✓	✓	✓	Increase	High	National Marine Spatial Plan and Mayo Marine Development Plan Mayo Agricultural Strategy	NPWS, OPW, IFA, Taigas, Dept of Agriculture
	Rising sea levels and the impacts of coastal erosion leading to an increase in vulnerable historic archaeology and coastal landscapes at risk of damage or loss	Coastal Areas		✓	✓	Increase	Medium	EPA	EPA
	Rising sea levels and increased frequency of storm surges leading to flooding and damage to cycling and pedestrian networks, resulting in additional maintenance and repair costs and impacts on tourism	Greenways, cycle paths in coastal areas		✓		Increase	Medium	Destination Mayo County Development Plan	Faite Ireland
	Rising Sea Level rise and increase in coastal erosion leading to loss of cultural heritage, impacting local communities and coastal tourism businesses (Wild Atlantic Way)	Coastal Areas		✓	✓	Increase	Medium	Habitats directive and Wildlife Act	NPWS, Teagasc, IFAOPW
Water Resource & Flood Risk Management	Rising sea levels and increased frequency of sea surge resulting in more widespread coastal flooding and erosion, leading to additional repair and maintenance costs, and increased demand for flood protection measures	Coastal Areas	✓	✓	✓	Increase	High	Water Pollution Act. Water Framework Directive.IS Strategic Plan and National IS Strategic Plan	Irish Water, EPA,LGCSB - Local Government Computer Services Board
	Rising sea level and increased frequency in storm surge resulting in flooding of Water Services Infrastructure Plant, resulting in disruption to the service	Water Services infrastructure in coastal areas		✓	✓	Increase	Medium	Water Pollution Act. Water Framework Directive.IS Strategic Plan and National IS Strategic Plan	Irish Water, EPA,LGCSB - Local Government Computer Services Board
	Rising sea level leading to low-lying sites becoming temporarily submerged - potential damage to Domestic Waste Water Treatment Systems and pollution of waters	Coastal Areas		✓	✓	Increase	Medium		
Services, Health and Well Being	Rising sea levels and increased frequency of sea surge resulting in more widespread coastal flooding and erosion, leading to additional emergency response call-outs, and associated risks to staff	Coastal Areas	✓	✓	✓	Increase	High		
	Rising sea levels and increased frequency of sea surge, leading to a general increase in public health and safety risks	Coastal Areas, Coastal Communities	✓	✓	✓	Increase	Medium	Community futures Plan?	

Climate Hazard: High Temperature (& Drought)									
Observed & Projected Information:									
Future climate simulations for the period 2041-2060 indicate a rise of 1-1.6°C in mean annual temperatures. Projected warming is greatest for extreme days (i.e. hot or cold days). The warmest 5% of daily maximum summer temperatures are projected to increase by 0.7-2.6°C. Increase in the length of the growing season of between 35 and 40 days per year is projected for the period 2041-2060									
Operational Area	Risk & Opportunities Statement	Exposure & Sensitivity	Timing of Risk & Opportunity			Projected Change in Consequences / Level of Risk	Priority	Relevant Policies/Legislation	Relevant Actors (External)
			< 5 Years	5-10 Years	> 10 Years				
Building & Critical Infrastructure	Increase in frequency of high temperatures and low precipitation in summer months leading to deterioration of surfaces (melting) and foundations (subsidence) of regional and local roads, resulting in failure and/or increased maintenance costs	County wide, particularly regional and local roads built on peaty ground		✓	✓	Increased risk	Medium		TII
	Increase in frequency of high temperature and low precipitation in the summers months, leading to an increase in visitors and traffic to amenities, resulting in congestion and potential loss to economic development	County wide, particular roads/carparks serving beaches		✓	✓	Increased risk	Medium		
	Increase in frequency of high temperature and low precipitation allowing people to use different modes of transport, resulting in an increased demand for cycle lanes, pedestrian routes, park and ride facilities etc.	County wide, greenways		✓	✓	Increased risk / opportunity	Medium		TII, Road Safety Authority
	Increase in frequency of high temperature and low precipitation in the summers months, leading to damage to buildings and infrastructure from subsidence, heave and heat damage.	County wide		✓	✓	Increased risk	Medium		
	Increase in the frequency of dry days in the summer leading to better conditions for construction, resulting in improved programmes/costs.	County wide - all construction projects		✓	✓	Increased opportunity	Medium		
	Increase in frequency of high temperature resulting in overheating in some of the housing/building stock, resulting in increased cooling costs, heat damage and warping of materials	County wide - Housing Stock and LA Buildings/Offices		✓	✓	Increased risk	Medium	Building Regulations Tenant handbook	SPC, Residents Associations., LA
	Increase in frequency of high temperature and low precipitation resulting in increased risk of fire to buildings adjacent to bogs/forests/gorse lands, resulting in an increased demand of Fire Service resources, and temporary accommodation	County Wide		✓	✓	Increased risk	Medium		
	Increase in frequency of high temperature leading to an increase in the growing season, resulting in an increase in green waste.	County Wide			✓	Increased risk	Long		
	Increase in frequency of high temperature, leading to an increase in odour related issues and complaints at waste and wastewater treatment facilities.	County Wide		✓	✓	Increased risk	Medium		
	Increase in frequency of high temperatures and low precipitation resulting in an increase in visitors to cultural, heritage and amenity locations (beaches, parks, greenways), leading to an increase in littering resulting in an increase in clean-up resources and costs	County wide		✓	✓	Increased risk/opportunity	Medium		
Natural & Cultural Capital	Increased frequency of low precipitation resulting in drier ground conditions for agricultural slurry spreading, resulting in reduced impacts on water quality.	County wide	✓	✓	✓	Increased risk	High	Good Agriculture Practice Regs 2017	- Teagasc - Dept of Agriculture, Food and the Marine
	Increased frequency of high temperatures and low precipitation leading an increase in animal heat stress, resulting in unnatural deaths of animals from dehydration/poisoning	County Wide		✓	✓	Increased risk	Medium		
	Increased risk of high temperatures and low precipitation leading to damage to tree roots, resulting to increased risk of tree falls during high wind events	County Wide	✓	✓	✓	Increased risk	High		
	Increased risk of high temperatures and low precipitation leading to stress and damage to trees, vegetation and grass in parks and open spaces, leading to loss of habitat	County Wide		✓	✓	Increased risk	Medium		
	Increased frequency of higher temperatures over longer periods of the year leading to an increase in the growing season, resulting in opportunities for the agricultural sector but also risks in relation to alien species.	County Wide		✓	✓	Increased risk	Medium		
	Increase in frequency of high temperature and low precipitation resulting in increased visitor numbers and damage to heritage and cultural sites and green protective infrastructure such as sand dunes.	County Wide	✓	✓	✓	Increased risk/opportunity	High		Dept of Agriculture, Food and the Marine

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Operational Area	Risk & Opportunities Statement	Exposure & Sensitivity	Timing of Risk & Opportunity			Projected Change in Consequences / Level of Risk	Priority	Relevant Policies/Legislation	Relevant Actors (External)
			< 5 Years	5-10 Years	> 10 Years				
	Increase in frequency of high temperature and low precipitation resulting in increased visitor numbers to Galway, leading to opportunities for tourism and economic development	County wide	✓	✓	✓	Increased risk/opportunity	High	Good Agriculture Practice Regs 2020	
	Increase in water temperatures leading to an introduction/increase in invasive species, leading to the demise of native plants/animals	County wide / Coastal		✓	✓	Increased risk	Medium		
Water Resource & Flood Risk Management	Increase in frequency of high temperatures and low precipitation resulting in a reduction of water supply sources, particular groundwater, leading to water treatment facilities struggling to maintain water quality and quantity on both public and Group Water Schemes supplies	Countywide	✓	✓	✓	Increased risk	High	- Drinking Water Regulations - Water Framework Directive	
	Increase in frequency of high temperatures and low precipitation resulting in an increase in water demand, leading to supply restrictions on both the public and private water networks, and subsequent impacts on communities, businesses, services, amenities etc.	Water supplies countywide	✓	✓	✓	Increased risk	High	- Drinking Water Regulations - Water Framework Directive	
	Increased frequency of low precipitation, resulting in minimal flushing of sewer networks, leading to a build up of grease and blockages in some combined foul sewers	Public sewers in the centre of the main towns	✓	✓	✓	Increased risk	High		
	Increase in the frequency of high temperatures and low precipitation, leading to reduced flows in water bodies, resulting in reduced the assimilative capacity of rivers and their ability to absorb the discharges from some WWTPs	Generally WWTPs less than 2,000pe discharging to smaller waterbodies	✓	✓	✓	Increased risk	High	- Water Framework Directive - Wastewater Directive	
	Increase in frequency of high temperatures resulting in increased water temperatures in water bodies, resulting in increased growth and reduction of water quality	County wide	✓	✓	✓	Increased risk	High	- Water Framework Directive - Wastewater Directive	
	Increased frequency of high temperatures and low precipitation leading to low flows and low recharge of rivers and ground water, resulting in a reduction in water quality and some incidents of fish kills	County wide	✓	✓	✓	Increased risk	High	- Water Framework Directive - Wastewater Directive	
	Increased frequency of high temperatures and low precipitation in the summer months resulting in reduced risk of flooding, and opportunities for construction of flood protection measures.	County wide	✓	✓	✓	Increased risk	High		
Services / Health & Wellbeing	Increase in frequency of high temperature and low precipitation resulting in increased risk of property/bog/gorse/forest fires, leading to an increased demand for Fire Service resources	County wide	✓	✓	✓	Increased risk	High	Emergency Response Plan	
	Increased frequent in high temperatures, leading to greater output from new solar panels installed at Libraries and offices, resulting in greater Cost/Benefits and opportunities for similar projects	Westside, Ballybane, Oranmore Library County Hall, Loughrea Area Office.	✓	✓	✓	Increased opportunity	High		
	Increase in high temperatures and low precipitation, resulting in an increase in business activity in hospitality sector, leading to a greater demand on services (roads, parking water etc.) in the summer months	Coastal towns particularly busy	✓	✓	✓	Increased risk/opportunity	High		
	The increase in frequency of higher temperatures and the longer tourist season, leading to an increase in visitor numbers to Blue Flag Beaches, resulting in a bigger demand for Lifeguards.	County wide	✓	✓	✓	Increased risk	High		
	Increase frequency of high temperatures and low precipitation, leading to community and sporting events being exposed to heat stress, sun exposure etc, resulting in heat related injuries/illness.	County wide		✓	✓	Increased risk	Medium		
	Increase frequency of high temperatures and low precipitation, resulting in increased opportunities for outdoor events and activities, leading to an increase in demand for suitable facilities and supports	County wide		✓	✓	Increased opportunity	Medium		

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			< 5 Years	5-10 Years	> 10 Years				
	Increased frequency of high temperature and low precipitation leading to a more positive feeling for staff and communities, resulting in an improvement in well-being and productivity	County wide		✓	✓	Increased opportunity	Medium		
	Increased frequency of high temperature and low precipitation leading to a greater demand for staff leave, resulting in scheduling difficulties and reduction in service delivery	County wide		✓	✓	Increased risk	Medium		
	Increased frequency of high temperatures leading to hot and uncomfortable office working environments, resulting in heat related illnesses, reduce work output and an increase in energy usage through fans and air conditioning (where available).	Blue flag beaches, remote beaches, outdoor public pools	✓	✓	✓	Increased risk	High		
	Increased frequency of high temperatures leading to new H&S exposures for outdoor staff, leading to a need for awareness training and issuing of UV barriers, increased water supplies and monitoring of high temperature exposure	County wide	✓	✓	✓	Increased risk	High		
	Increased frequency of high temperature leading to pressure on the cooling systems in our Data Centres, resulting in an increase in energy costs	Data Centre	✓	✓	✓	Increased risk	High		

Climate Hazard: Low Temperature									
Observed & Projected Information:									
The coldest 5% of winter night time temperatures are projected to increase by 1.1-3.1°C. The number of frost days is expected to decrease by between 50% and 62% depending on the emission scenario used.									
Operational Area	Risk & Opportunities Statement	Exposure & Sensitivity	Timing of Risk			Projected Change in Consequences / Level of Risk	Priority	Relevant Policies/Legislation	Relevant Actors (External)
			< 5 Years	5-10 Years	> 10 Years				
Building & Critical Infrastructure	Low temperature events, leading to ice and snow with subsequent transport disruption impacting economic function of the road network, resulting in increased cost for winter maintenance programme	County wide		✓	✓	Decrease	Medium	Annual Winter Service plan	
	Low temperature events, leading to ice and snow resulting in an increase in minor road accidents but because of lower travel speed, a reduction in fatal accidents.	County wide		✓	✓	Decrease	Medium		TII
	Low temperature events leading to cracks occurred in pavements, resulting in additional maintenance and repair cost and additional road strengthen works.	County wide			✓	✓	Decrease	Medium	
	Low temperature events leading to increased heating energy requirements, resulting in increased costs and additional carbon emissions. Proactive work around insulation has co-benefit of energy saving.	Local Authority buildings/offices	✓	✓	✓	Decrease	High		
	Low temperature events leading to damaged to Local Authority housing stock as a result of burst pipes and ice damage, resulting in additional resources to deal with immediate repair works. Proactive work around insulation has co-benefit of energy saving.	County wide	✓	✓	✓	Decrease	High		
	Low temperature events leading to delay in some construction activity (bitumen, concrete etc.) resulting in impacts on programme and costs	County wide		✓	✓	Decrease	Medium		
	Low temperature events, leading to dangerous conditions on footpaths, walkways and risk of injury, resulting in additional resources to clear.	Urban areas	✓	✓	✓	Decrease	High		
Natural & Cultural Capital	Low temperature events, leading to stress on animals overwintered and stress on farmers to maintain fodder stocks	County wide - Agricultural sector		✓	✓	Decrease	Medium		
	Low temperature events, leading to increased deterioration of important cultural assets from extreme cold stress.	County wide		✓	✓	Decrease	Medium		
	Low temperature events, leading to increased degradation of particularly sensitive ecosystems and loss of habitats	County wide		✓	✓	Decrease	Medium		
	Low temperature events, leading to damage to older and historic buildings, and cultural assets, resulting in complete loss or repair costs.	County wide	✓	✓	✓	Decrease	High		
Water Resource & Flood Risk Management	Low temperature events, leading to frozen/burst pipes, resulting in increase in pipe repair works and road works.	County wide	✓	✓	✓	Decrease	High		
	Low temperature events, leading to impacts on both the chemical and biological characteristics of surface water, affecting the dissolved oxygen level in the water, photosynthesis of aquatic plants, metabolic rates of aquatic organisms, and the sensitivity of these organisms to pollution, parasites and disease	County wide		✓	✓	Decrease	Medium		
	Low temperature events, leading to changes in water and wastewater treatment capability, resulting in reduced capacity	County wide	✓	✓	✓	Decrease	High		
Services / Health & Wellbeing	Low temperature events, leading to ice and snow with subsequent transport disruption, resulting office closures and impact on performance of duties.	County wide	✓	✓	✓	Decrease	High		
	Low temperature events, leading to ice and snow with subsequent transport disruption resulting in cancellation of community/sporting/courses/meetings, services due to travel restrictions	County wide		✓	✓	Decrease	Medium		
	Low temperature events, leading to additional call on emergency services and maintenance and repair works, resulting in additional costs and/or redeployment of staff from other activities. Stretch in resources of Fire Service responding to incidences relating to public safety.	County wide	✓	✓	✓	Decrease	Medium		