

Wicklow County Development Plan
Appendix 9

2021-2027

Strategic Infrastructural Assessment



Comhairle Contae Chill Mhantáin

Appendix 9

Infrastructural Assessment - tiered approach to land zoning

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1.0 Introduction

The National Planning Framework (NPF) sets out that

- Planning authorities will be required to apply a standardised, tiered approach to differentiate between i) zoned land that is serviced and ii) zoned land that is serviceable within the life of the plan (NPO72a).
- When considering zoning lands for development purposes that require investment in service infrastructure, planning authorities will make a reasonable estimate of the full cost of delivery of the specified services and prepare a report, detailing the estimated cost at draft and final plan stages (NPO72b).
- When considering zoning land for development purposes that cannot be serviced within the life of the relevant plan, such lands should not be zoned for development (NPO72b).

Appendix 3 of the NPF sets out a methodology for a two-tier approach to land zoning as follows:

Tier 1 Serviced Zoned land	<ul style="list-style-type: none"> ▪ <i>This zoning comprises lands that are able to connect to existing development services, i.e. road and footpath access including public lighting, foul sewer drainage, surface water drainage and water supply, for which there is service capacity available, and can therefore accommodate new development.</i> ▪ <i>These lands will generally be positioned within the existing built-up footprint of a settlement or contiguous to existing developed lands. The location and geographical extent of such lands shall be determined by the planning authority at a settlement scale as an integral part of the plan-making process and shall include assessment of available development services.</i> ▪ <i>Inclusion in Tier 1 will generally require the lands to be within the footprint of or spatially sequential within the identified settlement.</i>
Tier 2 Serviceable Zoned Land	<ul style="list-style-type: none"> ▪ <i>This zoning comprises lands that are not currently sufficiently serviced to support new development but have potential to become fully serviced within the life of the plan i.e. the lands are currently constrained due to the need to deliver some or all development services required to support new development, i.e. road or footpath access including lighting, foul sewer drainage, surface water drainage, water supply and/or additional service capacity.</i> ▪ <i>These lands may be positioned within the existing built-up footprint of a settlement, or contiguous to existing developed lands or to tier 1 zoned lands, where required to fulfil the spatially sequential approach to the location of the new development within the identified settlement.</i> ▪ <i>The potential for delivery of the required services and/or capacity to support new development must be identified and specific details provided by the planning authority at the time of publication of both the draft and final development or area plan.</i> ▪ <i>This infrastructural assessment must be aligned with the approved infrastructural investment programme(s) of the relevant delivery agency(ies), for example, Irish Water, or be based on a written commitment by the relevant delivery agency to provide the identified infrastructure within a specified timescale (i.e. within the lifetime of the plan). The planning authority may also commit to the delivery of the required and identified infrastructure in its own infrastructural investment programme (i.e. Budgeted Capital Programme) in order to support certain lands for zoning.</i>

The NPF sets out that current development or area plans may include zoned lands which cannot be serviced during the lifetime of a development or area plan by reference to the infrastructural assessment of the Planning Authority. This means that they cannot be categorised as either Tier 1 lands or Tier 2 lands, as per the above, and are not developable within the plan period. Such lands should not be zoned for development or included within a development plan core strategy for calculation purposes.

In these regards, this County Development Plan (CDP) does not make provision for the zoning of land that it can be stated with absolute certainty will not be or cannot be serviced during the lifetime of the plan.

The NPF requires the CDP to carry out an assessment of the required infrastructure to support any Tier 2 lands identified for development. The assessment must be aligned with the delivery program of relevant infrastructure providers. The following sections set out an assessment of enabling infrastructure requirements for Tier 2 lands across the County. The assessment focuses on the provision of infrastructure that is considered to be more strategic in nature e.g. with respect to wastewater, it will focus on the capacity of the relevant wastewater treatment plant, rather than the sewer network in any town. The delivery of minor and/or local level infrastructure (e.g. the construction of a new sewer or pumping station) may be delivered through operational works of a service provider or developer-led and co-ordinated through the development management process.

The purpose of the assessment is to demonstrate how lands zoned in the CDP with potential for residential development, are in terms of strategic infrastructure either sufficiently serviced (Tier 1) or have potential to become fully serviced within the timeframe of the Plan (Tier 2) (in compliance with Appendix 3 of the NPF). The assessment is point-in-time and it is acknowledged that infrastructure requirements may change. The full extent of requisite enabling infrastructure will continue to be assessed through the development management process whereupon detailed assessment will be undertaken. This assessment does not comprise an exhaustive list of all requisite infrastructure across the County and while it is intended to inform, it is not to be relied upon for development management purposes.

1.1 Infrastructure Assessment - Challenges

A mis-alignment exists between the timeframe of the CDP and some of the capital investment plans that are required to inform same. The delivery of strategic infrastructure projects is ultimately dependent upon the availability of capital, which is itself influenced by economic performance and policy decision-making.

For instance, the current capital investment plan of Irish Water covers the period from 2020 to 2024 and is somewhat shorter than the timeframe of the CDP, which covers the period up to 2028. While a reasonable level of certainty can be anticipated regarding the delivery of infrastructure over the period 2020-2024, no such certainty can be provided regarding the delivery of water and wastewater infrastructure projects that do not form part of Irish Water's current investment plan, and subsequently whether such projects may be completed within the timeframe of the CDP. In the absence of such certainty, due consideration is given to the NPF provision which states that Tier 2 lands must *"...have potential to become fully serviced within the life of the plan"*.

The capital programme for Wicklow is a rolling two-year programme (currently 2020-2022). The basis for the selection of capital projects links back to the objectives of the CDP which is adopted by the Members, and in turn by a number of associated Development Contribution Schemes adopted in accordance with sections 48 and 49 of the Planning and Development Act 2000 (as amended). Each Development Contribution Scheme incorporates a list of capital projects to be progressed which will be funded/part funded from development contributions payable under the terms of the schemes.

Finally, the NPF requires the CDP to include a reasonable estimate for the full cost of delivery of the infrastructure identified. This requirement presents a challenge and not all costs are available or known. Notwithstanding, every effort has been made to include costings where a verifiable source for same has been identified. In most cases, the Council does not bear any responsibility for the preparation of these cost estimates.

2.1 Strategic Infrastructure – Regional and County Projects

Certain strategic infrastructure projects are of significance to the future growth of the County, and to the wider Region. The overall water supply and wastewater situation for the Greater Dublin Area (GDA) is critical to the north and east of the County and it's almost certain to become more so in the absence of significant infrastructure investment. The speed of change and pace of development experienced in recent decades, both within Wicklow and the wider Eastern & Midlands Region, has placed stresses and pressures on existing water supply and wastewater infrastructure.

There are also a number of transport projects of strategic importance which will improve public transport provision across the County and support ongoing sustainable growth over the course of the CDP and beyond. The following tables set out an overview of such strategic infrastructure projects that relate to overarching growth at both the County and Regional level.

2.1.1 Strategic Water Infrastructure

Wicklow is served by a significant number of water supplies, the majority serving a single settlement and its environs, but a small number also serving a wider cross- and sub-County regions such as the Vartry Scheme. North and east Wicklow fall within the wider water supply zone for the GDA (of which the Vartry Scheme forms part) and supply in the Region is currently under pressure. Irish Water is currently progressing a number of projects in order to increase supply and improve water quality standards.

Strategic Water Infrastructure	Project delivery
<p>The Vartry Water Supply Scheme</p> <p>IW is making a significant investment in the Vartry Water Supply Scheme to ensure a safe and sustainable water supply for the north Wicklow and south Dublin area. The project includes <i>inter alia</i> the construction of a new water treatment plant at Vartry, the construction of a new 4km pipeline from Vartry and Callowhill and the upgrade / replacement of other infrastructure. The scheme will ensure that water complies with water quality standards set out in the EU Drinking Water Directive and the national Drinking Water Regulations. The project will also ensure that this critical water supply network can operate safely through any intense rainfall events.</p>	<ul style="list-style-type: none"> ▪ Currently under construction and due for completion in 2021. ▪ Identified in the National Development Plan 2018-2027 (NDP). ▪ Estimated cost of €150m (source: NDP).
<p>Eastern Midlands Water Supply Scheme</p> <p>The long-term development of the Region will be dependent on the Eastern and Midlands Water Supply Project. The NPF provides that a new long-term water supply source for the Eastern and Midland Region, which includes the Dublin Water Supply Area, is needed by the mid-2020's, to provide for projected growth up to 2050 and contribute to resilience and security of supply.</p> <p>The project involves a 170km pipeline with supporting infrastructure (water treatment plant, pumping stations and terminal point reservoir) to ensure that the long-term water supply needs of the Region are met in a sustainable manner. IW has concluded a four-phase public consultation process and identified the preferred scheme: Abstraction of water from the Lower Shannon at Parteen Basin; water treatment at Birdhill; and treated water piped to a termination point reservoir at Peamount in south County Dublin, with supplies of treated water available to midland communities along the route.</p>	<ul style="list-style-type: none"> ▪ IW is progressing the preparation of a planning application for the scheme. ▪ Identified in the NDP within category <i>Strategic Investment Priorities 2018-2027</i>. ▪ Estimated cost of €1.2 to €1.3 billion (source: NDP)

2.1.2 Strategic Wastewater Infrastructure

Wicklow is served by a number of wastewater treatment plants, the majority serving a single settlement and its environs, but a small number also serving a wider cross- and sub- County regions such as the Shanganagh WWTP in the functional area of Dun Laoghaire – Rathdown County Council (serving Bray and Kilmacanogue in Wicklow as well as areas in DLR), the Greystones WWTP (serving Greystones, Delgany, Kilcoole and Newtownmountkennedy) and the Wicklow WWTP (serving Wicklow Town, Rathnew and Ashford).

Shanganagh WWTP	Currently operating below design capacity and is key to serving the Metropolitan Area Key Town of Bray, including the strategic development sites identified in the RSES of Fassaroe and Bray Golf Club.
Greystones WWTP	Currently operating below design capacity and will meet the development needs of the Metropolitan Area settlement of Greystones – Delgany and the strategic employment site identified in the RSES at Mill Road Greystones, as well as any growth in the towns of Kilcoole and Newtownmountkennedy.
Wicklow WWTP	Currently operating below design capacity and will meet the development needs of the Core Region Key Town of Wicklow-Rathnew, as well as any growth in the town of Ashford.

In terms of the other identified Growth Towns in the County (as set out in the CDP ‘Core Strategy’) namely Arklow and Blessington, significant investment is already committed:

Strategic Wastewater Infrastructure	Project delivery
<p>Arklow Waste Water Treatment Plant</p> <p>New Wastewater Treatment Plant of 36,000 population equivalent approved in 2019 Sewer pipelines (along the North and South Quays) to bring the untreated wastewater to the WWTP Marine outfall pipe to safely discharge the treated wastewater to the Irish Sea</p>	<ul style="list-style-type: none"> ▪ Commencement in 2021 ▪ Completion in 2024 ▪ Estimated cost of €100-€250m (source: IW).
<p>Blessington Waste Water Treatment Plant</p> <p>Upgrade of the Blessington WWTP approved 2019 will increase the capacity from 6,000pe to 9,000pe</p>	<ul style="list-style-type: none"> ▪ Commencement in 2021 ▪ Completion in 2023 ▪ Estimated cost of €4m (source: IW)

2.1.3 Strategic Transport Infrastructure

There are a number of transport projects of strategic importance, which will improve regional road and rail networks, as well public transport provision across the County, and support ongoing sustainable growth focussed on the integration of land use and transportation.

Strategic Transport Infrastructure	Project delivery
<p>N11 Improvement Scheme</p> <p>The N11/M11 route is comprised partly of motorway, dual carriageway and single carriageway sections over a distance of approximately 126km, connecting Dublin in the east of the county to Wexford in the south east, where the route terminates.</p> <p>The N11/M11 Junction 4 to Junction 14 Improvement Scheme is a transportation project aimed at alleviating congestion, improving safety and optimising the efficiency and function of the N11/M11 as a transport corridor. The scheme has been identified in Project Ireland 2040 as one of the 20 priority National Roads to be progressed in order to enable the continued economic development of the state. The scheme has also been identified in relevant regional and local planning policy.</p>	<ul style="list-style-type: none"> ▪ Identified in the National Development Plan 2018 – 2027 ▪ Scheme at 'Stage 2' (Option Selection) ▪ Cost range – pending project development (source: TII)
<p>N81 Improvement Scheme</p> <p>The N81 as a national secondary route, characterised by the TII National Road Design Office as having poor horizontal and vertical alignment. The route consists of a single lane carriageway without a hard strip or hard shoulder along sections of the road way. The road has limited over-taking capability. In addition, the N81 passes through the centre of a number of towns in Wicklow, most notably Blessington, creating a blockage to free flow of regional traffic as well serious damage to the quality of Blessington town centre.</p> <p>In 2008 the National Roads Design Office began the process of assessing the possibility of upgrading this road network between Tallaght and Hollywood Cross incorporating a bypass of the town of Blessington. Stage 2 of this process has now been completed with a preferred route option being identified. The delivery of this project has not been identified as a strategic priority in the NPF or RSES and funding has not been allocated to same by the TII. However, this is considered a vital project for West Wicklow and its delivery will remain a key objective of this plan.</p>	<ul style="list-style-type: none"> ▪ Not identified in the National Development Plan 2018 – 2027 ▪ Scheme at 'Stage 2' (Option Selection) ▪ Cost range – pending project development

<p>Rail</p> <p>Investment in trains, infrastructure, stations and customer service planned during the lifetime of the Wicklow County Development Plan including:</p> <ul style="list-style-type: none"> ▪ Up to 640 new train carriages to cater for growing demand, with up to 600 electric or battery electric carriages included; ▪ Investment in track, signalling and level crossings to increase frequency and improve journey times; ▪ New stations, and upgraded existing stations, including improved accessibility and car park facilities. <p>DART +</p> <p>DART+ is a programme of projects that aims to modernise and improve existing rail services in the Greater Dublin Area (GDA). It will provide a sustainable, electrified, reliable and more frequent rail service, improving capacity on rail corridors serving Dublin.</p> <p>The overall scope of the DART+ Coastal South will include:</p> <ul style="list-style-type: none"> ▪ Elimination of level crossings to reduce rail/road conflict that limits train capacity ▪ Provide new grade-separated pedestrian, cycle crossing and vehicle crossings as required ▪ Subject to modelling and assessment, station modifications at Dun Laoghaire, Bray and Greystones to enhance train service capacity ▪ Upgrading of Tara Station to facilitate enhanced interchange with MetroLink ▪ All civil and bridge works as necessary to accommodate an increased service frequency between Bray and Greystones ▪ Upgrades to signalling and communications infrastructure to improve safety, and support increased frequency and reliability 	<ul style="list-style-type: none"> ▪ Identified in the National Development Plan 2018 – 2027, Transport Strategy for the GDA 2016 - 2035; and The Climate Action Plan 2019 ▪ Estimated cost of €2b (source: NDP) ▪ New fleet: Delivery due 2024 <p>Southern Coastal line:</p> <ul style="list-style-type: none"> ▪ 2020: Design Team Appointed ▪ 2022: Railway Order
<p>Luas Green Line Extension to Bray</p> <p>The extension of the Luas Green Line from Cherrywood to Bray Town Centre will provide a high frequency, high capacity link between Bray and the key employment areas of Dundrum, Sandyford, Carrickmines and Cherrywood, in addition to connecting to the City Centre. While a decision on the final alignment has yet to be made, it is likely to run to Bray DART station via Shankill and the former Bray Golf Club lands.</p>	<ul style="list-style-type: none"> ▪ Identified in the National Development Plan 2018 – 2027, Transport Strategy for the GDA 2016 - 2035; the NDP commits to the appraisal, planning and design of the extension during the period to 2027 ▪ Cost range – pending project development
<p>Bus</p> <p>BusConnects</p> <p>BusConnects Dublin aims to overhaul the current bus system in Dublin through a 10-year programme of integrated actions to deliver a more efficient, reliable and better bus system. BusConnects includes:</p> <ul style="list-style-type: none"> ▪ Redesign of the bus network with high frequency spines, orbital routes and increased bus services. ▪ New cycle network. ▪ New ticketing and cashless payment system. ▪ New bus stops and shelters with better signage and information. ▪ Bus-based park and rides in strategic locations. ▪ New bus livery and transitioning to a new bus fleet with low emission vehicle technologies <p>N/M11 Bus Priority Scheme</p> <p>This is an interim priority scheme to address bus priority in advance of delivery of the main N/M11 Junction 4 to Junction 14 improvement scheme.</p>	<ul style="list-style-type: none"> ▪ The NDP commits to the delivery of the full BusConnects programme during the period to 2027 ▪ Estimated cost of €2.4b (source: NDP) <ul style="list-style-type: none"> ▪ Scheme at 'Stage 1' Feasibility Assessment (TII) ▪ Cost range – pending project development

In addition, the NTA is intending to carry out / has committed to funding the carrying out of a transport studies to identify areas of improvement of transport infrastructure throughout the County as follows:

- Arklow Area Based Transport Assessment (commencement 2021)
- Greystones-Delgany Area Based Transport Assessment (commencement 2021)
- The Bray Transport Study (completed 2019, review due 2021) – as part of the review of the GDA Transport Strategy
- South of Bray to Arklow – as part of the review of the GDA Transport Strategy
- West Wicklow – as part of the review of the GDA Transport Strategy

3. Metropolitan Area Strategic Plan (MASP)

The settlement strategy for the CDP is based upon the key principles of the NPF and RSES and corresponds with the strategic development corridor approach of the MASP. There is broad alignment between the strategic growth areas identified in the MASP and the growth areas identified in the CDP. A key aim of the MASP is to unlock the development capacity of strategic development areas within the wider metropolitan area, by identifying the sequencing of enabling infrastructure. A phased sequence of infrastructure investment is identified to enable the accelerated delivery of strategic development corridors; within the short term to 2026; the medium term to 2031; and in the long term to 2040.

The MASP is aligned with the NDP to ensure that it can inform national-level sectoral investment plans and co-ordinate investment within the metropolitan area. The MASP thus provides the planning policy framework, which is interlinked with the requisite capital investment programmes, to ensure the co-ordination of strategic growth areas through the delivery of supporting infrastructure.

Area	Phasing / Enabling Infrastructure
<p>South County Dublin – North Wicklow</p> <p>Development of new residential communities at Woodbrook- Shanganagh and Bray Golf course and Harbour lands</p>	<p>Short term</p> <p>Access road, new station at Woodbrook - Shanganagh. Access to Bray station and PT bridge.</p>
<p>Bray Fassaroe</p> <p>Westward extension of Bray at Old Connaught- Fassaroe (Dún Laoghaire) and Bray-Fassaroe (Wicklow) lands</p>	<p>Short to medium term</p> <p>High capacity bus between Bray and Fassaroe, distributor road, N/ M11 upgrades, new bridge to Old Conna. Waste water upgrades.</p> <p>Local and wider area water network and storage upgrades</p> <p>Long term</p> <p>LUAS extension to Bray</p>
<p>Greystones Strategic Employment Site</p>	<p>n/a</p>

4. Settlement Specific Infrastructure Assessments

The following section details known infrastructure constraints as they relate to specific settlements within the County. The section follows an area-based approach and identifies infrastructure projects that are considered to be of strategic importance for the delivery of residential zoned lands in each settlement, and in particular any strategic areas for growth identified in the RSES or Core Strategy.

The tables are intended to inform but are not intended to be relied upon for development management purposes. The tables demonstrate that lands identified in the Core Strategy for residential development are either serviced (Tier 1) or have the potential to be serviced within the lifetime of the plan (Tier 2). The full extent of requisite enabling infrastructure with regard to specific sites will continue to be assessed through the development management process.

Town / Village	Plan Name	Infrastructure			Zoning Tier
		Waste water	Water	Transport (Roads, lighting, footpaths etc)	
Bray	Bray Municipal District LAP	Serviced by the Bray/Shanganagh Waste Water Treatment Plant, currently operating below design capacity.	Supplied with potable water from the Varray water supply and is well within operational capacity. Upgrade to increase capacity is due for completion in 2021	<p>As set out in the Bray and Environs Transport Study (April 2019) transportation interventions are needed to support the development of two strategic sites in Bray:</p> <p>Fassaroe</p> <ul style="list-style-type: none"> ▪ Fassaroe development roads; ▪ N11 Cycle and Pedestrian Bridge; ▪ N11/M11 Junction 4 to 14 Improvement Scheme; ▪ Delivery of Wicklow County Council Part 8 N11 capacity and safety upgrades, as approved; ▪ Busway from Fassaroe to Old Connaught over County Brook at Ballyman Glen; ▪ Traffic Management Measures at Fassaroe Interchange to protect strategic function of the N/M11; ▪ Delivery of the Upper Dargle Road public transport priority measures schemes and the River Dargle Cycle Scheme; and ▪ Commitment to the phased introduction of bus and enhanced rail services in line with increased demand. <p>Bray Golf Club & Harbour</p> <ul style="list-style-type: none"> ▪ Golf Club and harbour lands development roads; ▪ Pedestrian and cycle links from the Golf Club and harbour to Bray Town Centre; ▪ Dublin Road bus priority (part of Bray Core Bus Corridor); ▪ Public transport, pedestrian and cycle bridge from the Golf Club Lands to Bray DART station for future use by Luas; ▪ Development of interchange at Bray DART Station; ▪ Commitment to the phased introduction of bus and enhanced rail services in line with increased demand. 	<p>Tier 1: Zoned land in Bray other than strategic sites</p> <p>Tier 2: Strategic sites (Fassaroe and Golf Club) pending delivery of Transportation Infrastructure to support new development.</p>

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Town / Village	Plan Name	Infrastructure			Zoning Tier
		Waste water	Water	Transport (Roads, lighting footpaths etc)	
Wicklow – Rathnew	Wicklow & Rathnew Town Development Plan (to be replaced post CDP adopted with LKAP)	Serviced by the Wicklow Wastewater Treatment Plant currently operating below design capacity (34,000pe, operating at c. 19,000pe)	Supplied with potable water from the Varray water supply and is well within operational capacity. Upgrade to increase capacity is due for completion in 2021	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier 1
Arklow	Arklow LAP	The necessary planning, land and licences have been secured for the provision of a new Waste Water Treatment Plant. Subject to Ministerial consent Irish Water expects construction work to begin in the second half of 2021.	The Arklow public supply is currently working within operational capacity and is predicted to facilitate the future development needs.	Arklow Area Based Transport Assessment being carried 2021, which will identify transport investment required to support delivery of Core Strategy development objectives. Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier 2 pending delivery of Wastewater and Road Infrastructure upgrades.
Greystones - Delgany	Greystones – Delgany – Kilcoole LAP	Serviced by the Greystones Wastewater Treatment Plant currently operating below design capacity (40,000pe, operating at c. 25,000pe)	Supplied with potable water from the Varray water supply and is well within operational capacity. Upgrade to increase capacity is due for completion in 2021	Greystones – Delgany Area Based Transport Assessment being carried 2021, which will identify transport investment required to support delivery of Core Strategy development objectives. Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier 1
Blessington	Blessington LAP	Serviced by the Blessington Waste Water Treatment Plant which is operating above design capacity. Upgrade due to be completed 2022.	The Blessington public supply is currently working within operational capacity and is predicted to facilitate the future development needs.	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier 2 pending delivery of Wastewater Infrastructure upgrades.

Town / Village	Plan Name	Infrastructure			Zoning Tier
		Waste water	Water	Transport (Roads, lighting footpaths etc)	
Newtown-mountkennedy	Level 4 Town Plan	<p>Serviced by the Greystones Wastewater Treatment Plant currently operating below design capacity (40,000pe, operating at c. 25,000pe)</p> <p>The pumping station in Newtownmountkennedy may require upgrades to facilitate growth within the catchment. The requirement and extents of upgrades will need to be determined through localised surveys completed in line with the Irish Water's new connection policy.</p>	<p>Supplied with potable water from the Vartry water supply and is well within operational capacity. Upgrade to increase capacity is due for completion in 2021.</p>	<p>Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.</p>	Tier 1
Rathdrum	Level 4 Town Plan	<p>Serviced by the Rathdrum Waste Water Treatment Plant; currently operating below design capacity (3,500pe, operating at c. 2,000pe)</p>	<p>Served by a spring water supply to the west of Rathdrum. Water is stored in a reservoir at Ballinderry initially and thereafter at a reservoir in Ballygannon closer to Rathdrum. This water source is under pressure and Wicklow County Council is currently working with Irish Water to augment same to cater for the planned population increase.</p>	<p>Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.</p>	Tier 2 pending delivery of Water Infrastructure upgrades.

Town / Village	Plan Name	Infrastructure			Zoning Tier
		Waste water	Water	Transport (Roads, lighting footpaths etc)	
Baltinglass	Level 4 Town Plan	Serviced by Baltinglass WWTP; currently operating below design capacity (3,600pe, operating at c. 3,000pe)	Served by 2 wells (at Tinornan and Parkmore) and springs (at Bawnogues) which are only used seasonably to supplement supply if required. It is intended that these springs will be decommissioned and replaced with a borehole in the event of development at Bawnogues. The capacity of the current supply (including the springs) will meet the water supply needs of the town in the medium term and will be likely sufficient accommodate development targeted in this plan	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier 1

Town / Village	Plan Name	Infrastructure			Zoning Tier
		Waste water	Water	Transport (Roads, lighting footpaths etc)	
Ashford	Level 5 Small Town Plan	Serviced by the Wicklow Wastewater Treatment Plant currently operating below design capacity (34,000pe, operating at c. 19,000pe)	Served by the Wicklow Water Supply Scheme from Cronroe Reservoir. The water at Cronroe is a combination of water from the Dublin Regional Scheme at the Vartry Reservoir and groundwater abstracted and treated at the Cronroe Water Treatment plant. Supply will be sufficient to meet the needs of projected population growth.	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier 1
Aughrim	Level 5 Small Town Plan	Serviced by the Aughrim Waste Water Treatment Plant which is currently operating above design capacity. Improvements to this plant are required, and funding has been sought for same under Irish Water's Small Town and Villages Growth programme, part of IW's investment programme 2020-2024.	Water supply is abstracted from the Tinakilly River at Threewells to the north-east of the town. It is intended during 2021-2022 to replace this supply by connecting Aughrim to the Arklow water supply scheme with a connection to the water treatment plant at Ballyduff, and this new supply will have adequate capacity to accommodate the growth levels targets for Aughrim in this plan.	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier 2 pending delivery of Wastewater and Water Infrastructure upgrades.

Town / Village	Plan Name	Infrastructure			Zoning Tier
		Waste water	Water	Transport (Roads, lighting footpaths etc)	
Carnew	Level 5 Small Town Plan	Serviced by the Carnew Waste Water Treatment plant currently operating below design capacity (2,300pe, operating at c. 1,600pe)	Supplied by the Tinahely regional water supply scheme with water sourced from the Derry River north of Tinahely. This supply has significant spare capacity and no shortage problems have arisen in the scheme.	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier1
Dunlavin	Level 5 Small Town Plan	Serviced by Dunlavin Waste Water Treatment Plant currently operating below design capacity (2,400pe, operating at c. 1,400pe)	Serviced by a well to the south of the town centre operating at capacity, with limited headroom to accommodate future development. Issues also arise with regard to access to the source and water storage. Improvements to this supply are required, and funding has been sought for same under Irish Water's Small Town and Villages Growth programme, part of IW's investment programme 2020-2024.	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier 2 pending delivery of Water Infrastructure upgrades.
Enniskerry	Bray Municipal District LAP	Serviced by the Enniskerry Waste Water Treatment Plant currently operating below design capacity (6,000pe, operating at c. 2,500pe)	Supplied with potable water from the Vartry water supply and is well within operational capacity. Upgrade to increase capacity is due for completion in 2021	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier1

Town / Village	Plan Name	Infrastructure			Zoning Tier
		Waste water	Water	Transport (Roads, lighting footpaths etc)	
Kilcoole	Greystones - Delgany – Kilcoole LAP	Serviced by both the Kilcoole and Greystones Waste Water Treatment Plants, both currently operating below design capacity (Kilcoole 4,000pe, operating at c. 2,000pe)	Supplied with potable water from the Vartry water supply and is well within operational capacity. Upgrade to increase capacity is due for completion in 2021	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier1
Tinahely	Level 5 Small Town Plan	Is served by the Tinahely WWTP. The plant has limited spare capacity for further development. Improvements to this plant are required, and funding has been sought for same under Irish Water's Small Town and Villages Growth programme, part of IW's investment programme 2020-2024	Served by the Tinahely Regional Water Supply Scheme, which extracts water from the Derry River north of the bridge at Tinahely. There are currently no deficiencies in this supply or network, which would impact on future development.	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier 2 pending delivery of Wastewater Infrastructure upgrades.

Town / Village	Plan Name	Infrastructure			Zoning Tier
		Waste water	Water	Transport (Roads, lighting footpaths etc)	
Avoca	Level 6 Small Town Plan	<p>Serviced by Avoca Wastewater Treatment Plant at Ballanagh currently operating above design capacity.</p> <p>The plant upgrade / replacement is committed as part of the Irish Water capital investment programme for completion in 2024.</p>	<p>Water sourced from a treated surface water supply at Ballard, Ballinaclash. Water is fed by gravity to Ballymurtagh where it is then pumped to reservoir. The reservoir has sufficient storage capacity to provide for current target levels of future growth</p>	<p>Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.</p>	Tier 2 pending delivery of Wastewater Infrastructure upgrades.
Donard	Level 6 Small Town Plan	<p>Serviced by the Donard Waste Water Treatment Plant currently operating below design capacity (600pe, operating at c. 240pe)</p>	<p>Supply is from Donard/Hollywood scheme. This supply has adequate capacity to accommodate the growth target for Donard.</p>	<p>Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.</p>	Tier1
Kilmacanogue	Bray Municipal District LAP	<p>Serviced by the Bray/Shanganagh Waste Water Treatment Plant, currently operating below design capacity.</p>	<p>Supplied with potable water from the Vartry water supply and is well within operational capacity. Upgrade to increase capacity is due for completion in 2021</p>	<p>Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.</p>	Tier1
Newcastle	Level 6 Small Town Plan	<p>Serviced by Newcastle Waste Water Treatment plant currently operating close to design capacity (1,000pe, operating at c. 900pe)</p>	<p>Supplied with potable water from the Vartry water supply and is well within operational capacity. Upgrade to increase capacity is due for completion in 2021</p>	<p>Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.</p>	Tier1

Town / Village	Plan Name	Infrastructure			Zoning Tier
		Waste water	Water	Transport (Roads, lighting footpaths etc)	
Roundwood	Level 6 Small Town Plan	Served by the Roundwood Waste Water Treatment Plant currently operating below design capacity (1,600pe, operating at c. 1,200pe)	Served by a single bored well which has capacity constraints. Improvements to this supply are required, and funding has been sought for same under Irish Water's Small Town and Villages Growth programme, part of IW's investment programme 2020-2024	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier 2 pending delivery of Water Infrastructure upgrades.
Shillelagh	Level 6 Small Town Plan	Served by the Shillelagh Waste Water Treatment Plant currently operating below design capacity (500pe, operating at c. 415pe)	Served by the Tinahely Regional Water Supply Scheme, which extracts water from the Derry River north of the bridge at Tinahely. There are currently no deficiencies in this supply or network, which would impact on future development.	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier 1
Laragh	Level 7 Village	Served by the Laragh Wastewater Treatment Plant, currently operating below design capacity (1,000pe, operating at c. 715pe)	Water supply from a surface water source at Glenmacnass which is fed to the Laragh Reservoir by gravity from the Glenmacnass Treatment Works. At present, water supply is able to meet demand but in times of dry weather and high demand, such as the tourist season, supply can be limited	Local level supporting infrastructure to be provided in accordance with the implementation of relevant local planning permissions and the Council's capital investment programme.	Tier1