

Cork City Capacity Study

Summary Report

February 2022

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1.0 Background and Context

This report provides a summary of work carried out as part of the Cork City Capacity Study, including the outputs used in preparation of the Cork City Development Plan 2022-2028. The study also provides a first step towards plan implementation and proactive land management designed to support the strategic growth targets proposed during the lifetime of the plan and beyond (see Fig.1 below).

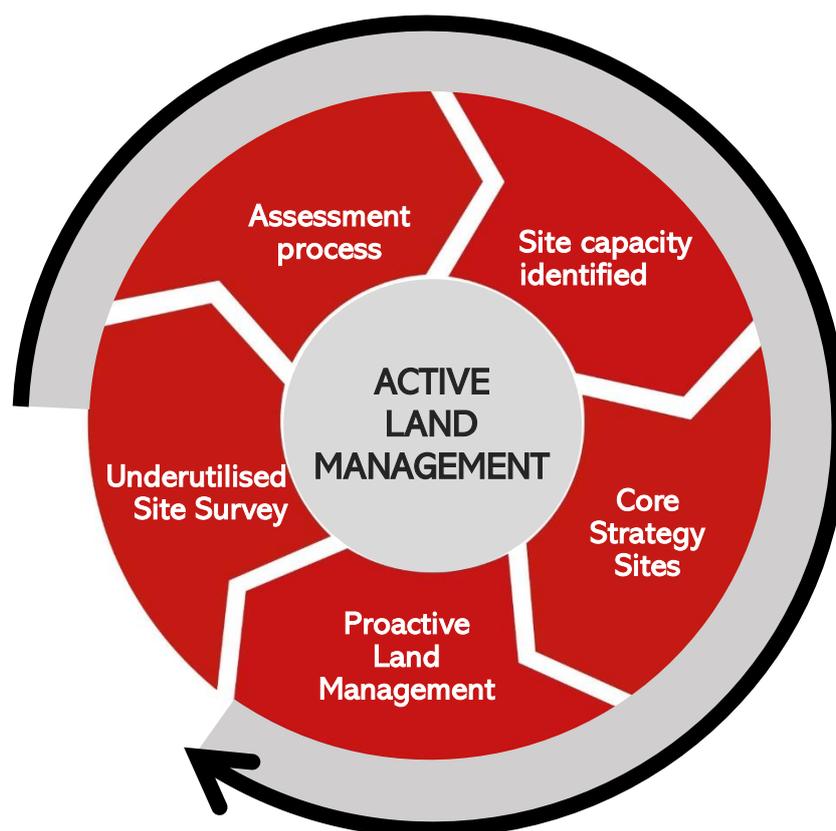


Figure 1: the Proactive Land Management system emerging from the Cork City Capacity Study

The report is designed to be accessible to the wide range of stakeholders who engaged in the preparation and delivery of the City Plan. While the strategies, policies and studies that underpin this report are generally technical and detailed in nature, graphics and focused explanations are used to provide better understanding of the robust and evidence-based processes used.

*The **Cork City Capacity Study** is a two-year collaborative research project delivering a **robust local evidence-base** to enable a more informed City Plan and a move toward a new system of **Proactive Land Management**.*

1.1 Strategic and Statutory Context

Section 10 (1A) of the Planning and Development Act 2000 (as amended) requires a development plan to include a core strategy that is “...consistent, *as far as practicable*, with national and regional development objectives set out in the National Planning Framework and the regional spatial and economic strategy and with specific planning policy requirements specified in guidelines under subsection (1) of section 28”.

The National Planning Framework 2040 (NPF) is a long-term planning and investment framework designed to enable people to live closer to where they work, maximise return on public investment and direct a shift away from current unsustainable spatial growth patterns. Cork City is allocated significant economic and population growth targets designed to increase its role as a primary driver in the region and a more viable complementary location to Dublin.

The NPF 2040 requires all core strategies to have clearer linkages between land zonings and infrastructure availability and investment. To help achieve this, a new requirement for a two-tier approach to land use zoning is mandatory for all development plans.¹ This tiered approach differentiates between *Tier 1 lands* (already serviced) and *Tier 2 lands* (serviceable within the life of the Plan). Infrastructure and services identified include foul sewer drainage, surface water drainage, water supply, access, and public lighting. The overriding objective is to avoid zoning lands that are deemed undeliverable for development during a plan period, due to deficiencies in infrastructure. Appendix 3 of the NPF sets out further definitions to assist this new approach.²

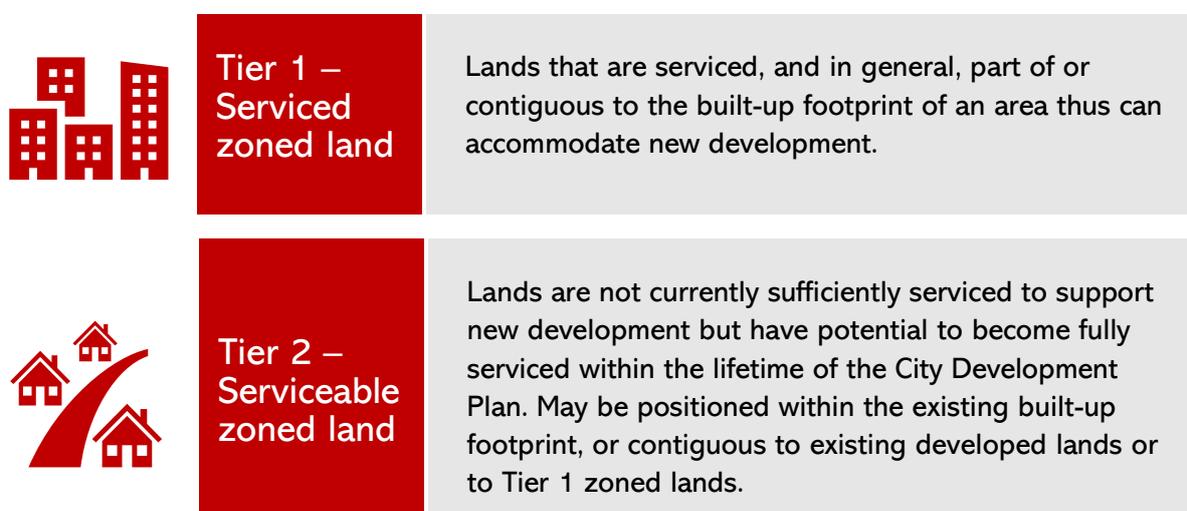


Figure 2: The NPF 2040 Definition of Tier 1 and 2 lands (Appendix 3, NPF 2040)

The recently published Draft Development Plan Guidelines for Planning Authorities (Draft DPGPA's) provide greater detail to guide this new approach to land use zoning. Notwithstanding the timing

¹ National Policy Objective 72a of the NPF 2040

² Appendix 3 of the NPF 2040

issues related to the emergence of this process, this report details how the Cork City Capacity Study incorporates the overall spirit, methodologies and objectives set out in this guidance. The Draft DPGPA's set out a series of processes designed to ensure core strategies adopt a rational and evidence-based approach grounded in practical and logical assessments.

While the Draft DPGPA's are subject to further amendments, the following is considered as noteworthy within the context of this report:

- Section 1.6 (Planning from an Evidence Base and Monitoring the Outcomes): *"...The process of preparing a county or city development plan must be informed by local experience of planning over time. This means that the current plan-making exercise needs to be realistically informed by the delivery and outcome of previous plans and planning objectives for the area."*
- Section 4.4.1 (Land/Sites Already Zoned): *"...It is not the purpose of the planning system and the development plan process to facilitate the hoarding and speculation of serviced development land. However, it is recognised that there is a need for some degree of competition and choice in the residential development land market.....planning authorities must ensure that the development plan core strategy makes adequate provision for zoned and serviced sites that will come forward during the six-year life of the development plan..."*
- Section 4.4.3 (Ensuring Sufficient Provision of Housing Lands/Sites): *"In providing housing sites for development within settlements, it may be necessary to zone more serviced land and sites for residential (or a mixture of residential and other uses), than would equate to meeting precisely the projected housing demand for that settlement. This approach recognises that a degree of choice in development sites to be provided locally is desirable to avoid restricting the supply of new housing development through inactivity on a particular landholding or site.....This means that a planning authority, after identifying the site/land requirements to meet the housing supply target for that settlement, may also identify additional sites/lands to ensure sufficient choice for development potential is safeguarded."*
- Section 4.4.3 (Ensuring Sufficient Provision of Housing Lands/Sites): *"Where the planning authority considers it necessary to employ this mechanism for 'Additional Provision' of residential lands in a particular settlement, it must be clearly set out in the core strategy."*
- Section 4.4.3 (Ensuring Sufficient Provision of Housing Lands/Sites): *"Accordingly, on a settlement basis, the precise extent to which zoned lands and sites in excess of that required to match the agreed housing supply target are provided, is to be determined by the planning authority. Such proposals will be assessed and evaluated by the Office of the Planning Regulator in accordance with these Guidelines"*
- Section 4.4.4 (Long-Term Strategic and Sustainable Development Sites): *"....While the portion of lands likely to be developed must be included in the plan core strategy, the portion that are 'not likely' to be developed within the plan period should be identified by a 'Long-Term Strategic and Sustainable Development Site' designation, reflecting that they will deliver housing within the subsequent development plan period (ie. more than 6 years)."*

1.2 Local Context

Following the extension of the city's administrative boundary in 2019, the plan now encompasses a larger population and geographic area, including the towns of Ballincollig, Blarney, Tower and Glanmire, and the wider city hinterland areas. The Cork City Development Plan (CCiDP) 2022-2028 therefore represents an important step in the evolution of strategic land use planning for Cork City.

The CCiDP 2022-2028 provides the land use framework for how we work, learn, travel, rest, play and experience all that the city has to offer. Its implementation will influence how the city's existing and emerging network of neighbourhoods, communities and towns interconnect and grow.

A central function of the CCiDP 2022-2028 is ensuring an acceptable equilibrium in the supply of zoned, serviced land to manage the projected population growth over the plan period. The Core Strategy (Chapter 2) sets out targeted growth including population targets and locations for future growth up to 2028 and beyond. These targets and growth locations are in line with overarching objectives and targets set for the city in the NPF 2040 and the Southern Regional Spatial and Economic Strategy (RSES) 2031.

Setting out land use requirements for delivering targeted population growth is a complex process, particularly in an urban context. To help guide and frame this, the Cork Joint Housing Strategy and Housing Need Demand Assessment (HNDA) set out housing targets, including residential unit and tenure mix requirements. The City Capacity Study is an additional process carried out to determine the quantum of zoned land needed to link targeted population growth targets to housing need estimates within a mixed-use urban setting. Central to this is the study's robust assessment of underutilised zoned lands and their overall capacity to accommodate future development.

As this report sets out, the City Capacity Study is an evidence-based methodological approach adopted to ensure the land use zonings set out in the CCiDP 2022-2028 meet the housing needs of the city and its residents while remaining consistent with local, regional and national guidelines over the plan period. As part of the study, and to help more accurately enable the delivery of targeted population growth, the following key issues required further understanding:

- Underutilised sites currently zoned for residential-type land uses.
- An assessment of current "live" planning permission within existing zoned lands.
- An assessment of new local level density and building height targets.
- A local understanding of mixed-use land requirements (e.g. land take to provide for schools, community, transport, infrastructure projects, locally sensitive areas, etc.).
- Stakeholder engagement to translate national infrastructure investment plans to a local and site level (e.g. CMATS 2040, Irish Waters Capital Investment Plan 2020-2024, etc.).
- Infrastructural investment, planning and constraints at a local level (site level issues).
- A trend analysis of local rates of housing delivery versus the targeted rates.
- A local level understanding of trends in planning activity and project delivery.

This report sets out the stages involved to help underpin an evidenced based Core Strategy that enables the delivery of targeted population growth for the city up to 2028 in line with local, regional and national requirements.

1.3 Population Targets, Trends and Challenges

The NPF 2040 foresees that the population of Ireland will grow by 1 million people over the next 20 years. Cork City is designated as a national driver of population growth and economic activity, with ambitious population growth targets of + 125,000 people between 2016 and 2040. Achieving this 60% population growth target means delivering housing for an additional 6,250 people every year for the next 20 years.

	2016 (Census)	2026 (Target)	2031 (Target)	2040 (Target)
	211,000	262,000	286,000	336,000

Figure 3: Designated Population Targets for Cork City (NPF 2040)

Population trends and forecasting are critical inputs for planning future growth locations and managing housing typology and tenure required by the city. An understanding of a range of trends from national to local level is therefore needed to best inform the Core Strategy.

1.3.1 Demographics and Structural Housing Demand

The Department of Housing, Local Government and Heritage (DoHLGH) appointed the Economic and Social Research Institute (ESRI) to carry out research that builds on NPF 2040 and NPF Roadmaps population forecasting. The research has been adopted by the DoHLG to support an evidence-based policymaking approach to population growth and housing demand at local level.

The research examined different population growth scenarios by using assumptions drawn heavily from recent trends, alongside key determinants of population change (e.g. migration, age-specific headship rates, expected housing obsolescence rates, etc.). It includes the “50:50 City Scenario”, where population growth is less centered on Dublin and more evenly distributed in line with the NPF 2040. Fig. 4 below illustrates the spatial pattern that emerges, with more internal migration, and a different distribution of international migration, leading to higher increases in housing demand particularly in the four metropolitan areas outside the greater Dublin area.

The research provides greater understanding of key determinants informing Cork City’s targeted population growth and housing delivery targets. It also provides a clear picture of the need for an evidence-based Core Strategy that sets out a land use framework to support more evenly distributed national growth in line with the NPF 2040.

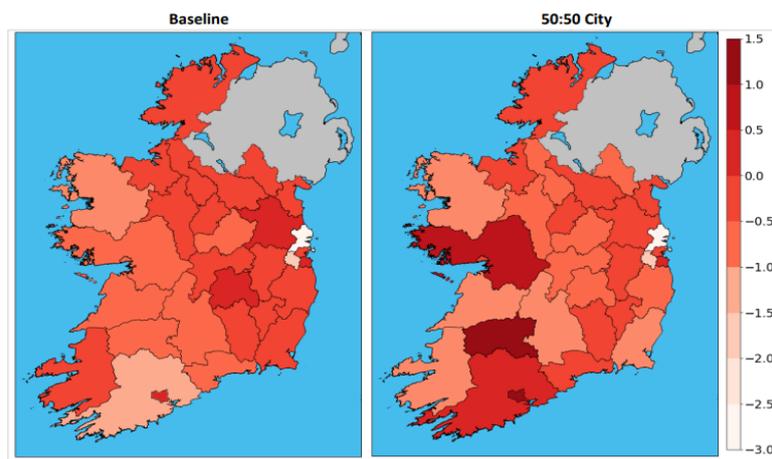


Figure 4: “Do Nothing” Baseline scenario versus the 50:50 City Scenario for 2030 (ESRI Report No. 111, 2019)

1.3.2 Population Growth Rates at City Level

As part of the preparation of the city development plan, Cork City Council engaged the All-Ireland Research Institute (AIRO) in NUI Maynooth to carry out a [Socio-Economic Profile](#) and a [Neighbourhood Profile](#). Both profiles are based on assessments of the recently extended Cork City Council administrative area, including a full review of population growth rates.

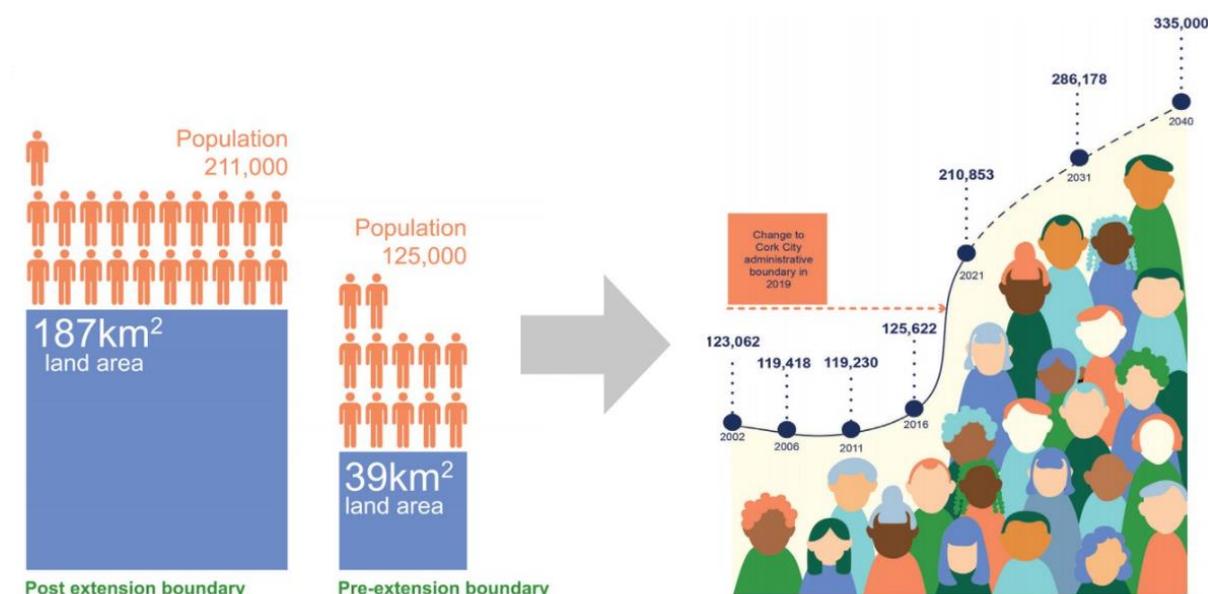


Figure 5: Population Growth Rates and Targets for Cork City 2002-2040

The population of Cork City has grown at a relatively low rate over the last 20 years (see Fig.4 above). Under the population growth targets set out by the NPF 2040, the city now needs to jump from a 2% - 5% population growth rate to a 10% - 17% rate over the next four census periods. Significant national, regional and local planning and investment will be required over a sustained period to achieve these ambitious targets by 2040.

1.3.3 NPF 2040 Growth Targets at City Level

As part of the preparation of the city development plan, Cork City Council has assessed the population target allocations allowable under the NPF 2040, NPF Roadmap (July, 2018), Southern RSES 2031, the ESRI report on Regional Demographics and Structural Housing Demand at a County Level (December 2020) and subsequent DHLGH Ministerial Guidance.

Due to the timing of the boundary change, which significantly extended the administrative area of Cork City Council (as of 31st May 2019), most of these strategic planning documents do not set out targets specific to this new administrative area. They do however provide relatable population targets and guidance on how to calculate these at local level for the periods 2026, 2031 and 2040.

The NPF and RSES population targets therefore required adjustment to the current administrative area of Cork City Council. The “+25% transitional allowance” set out in Section 3(a) of the NPF Roadmap also needed to be applied. Cork City’s low residential built out numbers for the period 2017 – 2021 have also resulted in the need to build in for significant “catch up” in order to achieve targeted figures from the baseline of 2016. The table and bar chart below show a breakdown of targets for 2022, 2028, 2031 and 2040.

	1991	1996	2002	2006	2011	2016	2022	2028	2031	2040
Cork City*	178,716	184,502	191,277	195,478	200,373	210,853	235,643	260,433	286,178	335,853
%Change	–	3.2%	3.7%	2.2%	2.5%	5.2%	11.8%	10.5%	9.9%	17.4%

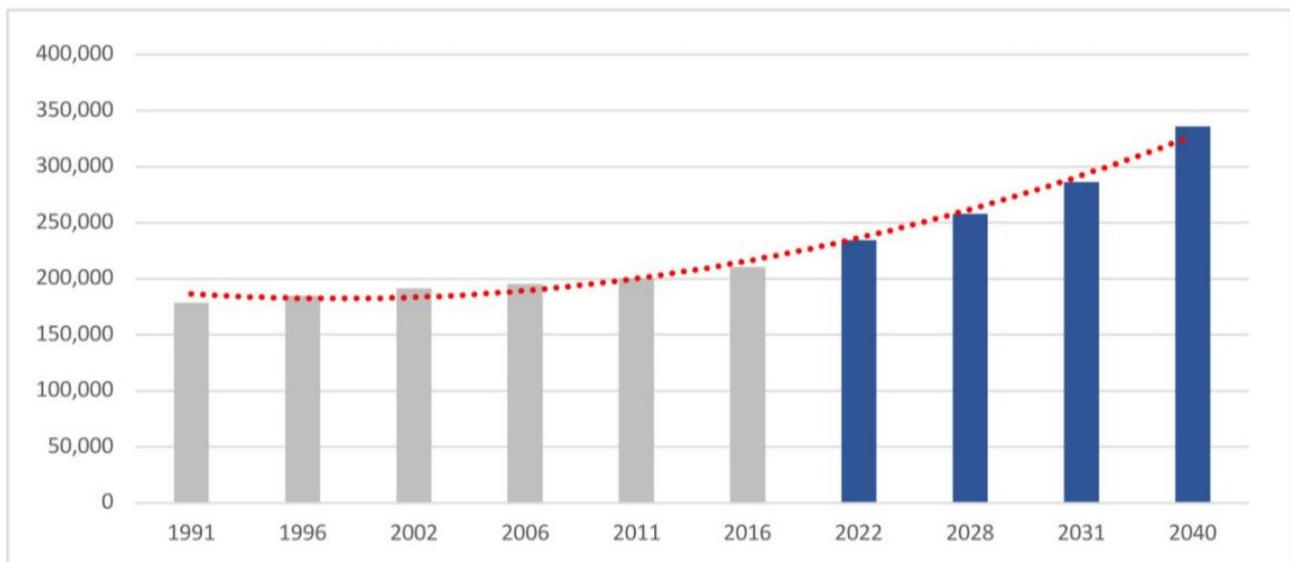


Figure 6: Population Growth Rates and Targets for Cork City 2002-2040

2.0 City Capacity Study

In early 2019, in advance of the review of the Development plan, Cork City Council commenced the City Capacity Study process. The study involved a 6-stage evidence-based approach applying national and regional planning and population growth requirements at a local level, in a best practice manner.

1. Identification of Underutilised sites

Extensive survey of underutilised sites within the whole city area, to identify lands with development potential or intensification of use. The survey assessed all existing land use zonings under the current city plan. All sites were categorized for further assessment and review

2. General Viability Assessment

From the list of underutilised sites, site assessments were carried out to verify site-level issues and consider viable sites to remain/be removed for planning reasons. Additional site-specific information was gathered from desktop-based work and internal meetings to verify the relevance of the sites.

3. Capacity Constraints Assessment

Detailed review of sites to determine current planning status and identify capacity constraints. A high-level infrastructure constraints analysis was carried out at the sub-city level through information gathered from internal and external partners (NTA, Irish Water, CCC operational team, etc.) to form the basis for the Tier 1 and Tier 2 site allocation, in line with NPF statutory guidance.

4. Application of Strategic Planning Issues

Different spatial growth modelling scenarios were applied using strategic planning objectives (infrastructure-led development, compact growth scenarios).

5. Identification of City Capacity

Site-level assessment to determine the housing potential of the identified land inventory. Calculations are based on site-specific issues, including site size and location, land-use zoning, current planning status, density and height allowances, level of transport infrastructure, etc.

6. Recommendations for the Core Strategy

Population growth targets are calculated to show proportionate levels of growth allocated to different areas of the city. Inputs include a growth strategy, designation of Tier 1 and 2 sites, and growth projections at the site, sub-city, and city levels.

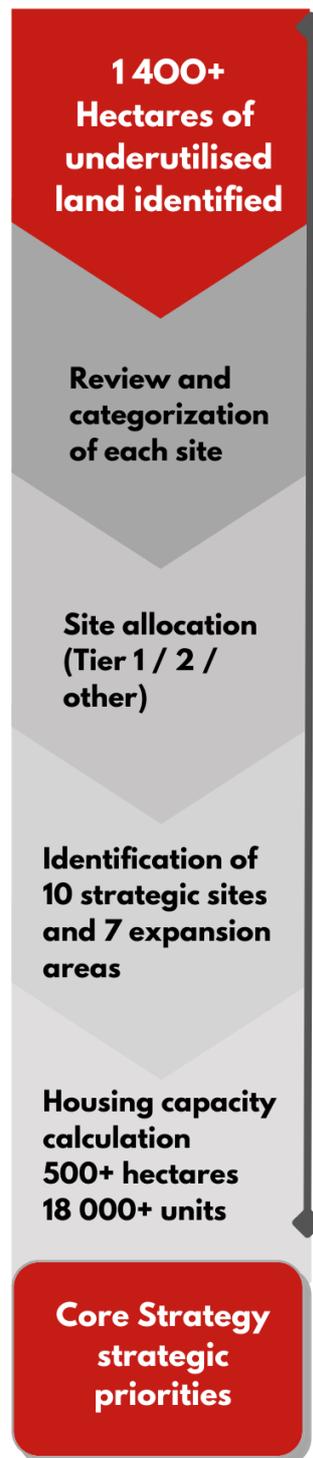


Figure 7: Cork City Capacity Study Process Overview

2.1 Phase 1: Underutilised Site Survey

As a first step in the City Capacity study, the Planning Policy section undertook the detailed task of identifying all underutilised lands in Cork City. Sites designated under all existing land use zonings were assessed. This process was critical in identifying localised issues underpinning potential future urban regeneration and more compact liveable growth, from site level to city level.

Through a detailed assessment process, an initial land bank of over 1,400 Ha of underutilised sites was identified across the city centre, suburbs, urban towns and wider settlements. These sites included sites zoned for a variety of land uses including, existing residential, new residential, mixed use, industrial and employment. A three-step process was applied: (1) Site Survey; (2) Site Categorisation; (3) High-level assessment. The process was not static but continuously refined throughout the two-year study period, including adjusting for planning and infrastructure updates.

2.1.1 Site Survey

The initial site survey used several filters to help identify underutilised sites with realistic redevelopment potential. This included both desktop and on-site assessments, including:

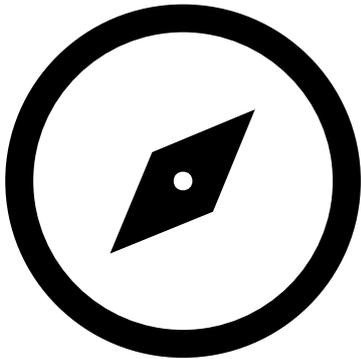
Cork City Underutilised Site Survey	
Manual Desktop Scan: identify +0.25ha sites using GIS, satellite imagery and planning enquiry system.	
Assessing Planning Status: including current and lapsed planning permissions, SHD process sites and sites with pre-planning interest.	
Assessing Employment Lands: Using the “Cork City Employment and Land Use Survey 2016” to identify vacant/low employment sites.	
Site Surveys: An initial area-based site survey to identify on site planning and regeneration potential.	
Transport Orientated Regeneration: A review of underutilised sites within 400m of existing or planned public transport infrastructure.	

Figure 8: Cork City Underutilised Site Survey Overview

To ensure a robust bottom-up based evidence approach, a wide variety of local level open datasets were used, including the City Councils Vacant and Derelict Sites Registers, the housing supply study, the Cork City Employment and Land Use Survey 2016, aerial mapping and the Geo-directory.

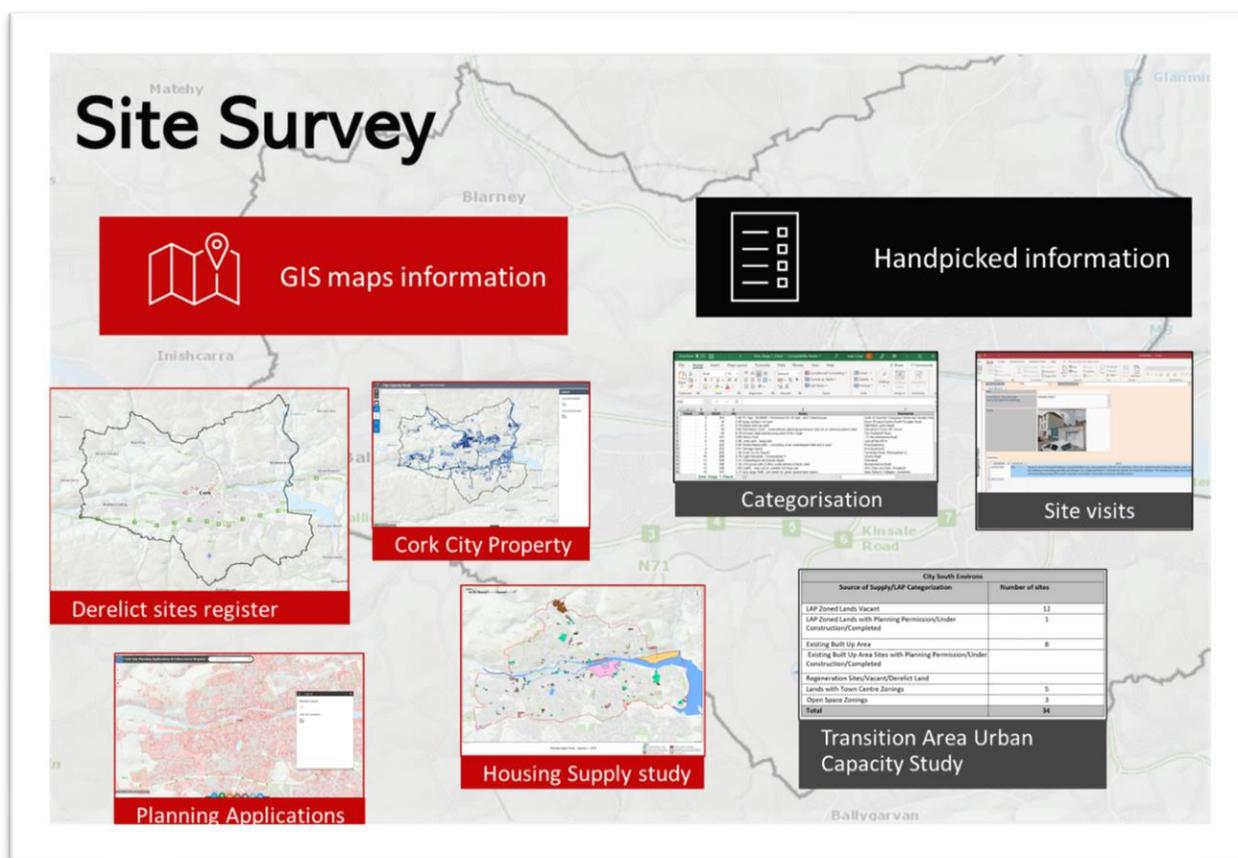


Figure 9: Examples of Local Datasets applied to the Cork City Underutilised Site Survey

2.1.2 Site Categorisation

A total of 563 sites were identified in the Phase 1 site survey. There was a wide variation in terms of size, location, current land use zoning and planning history. To help in the next phase of the study, each site was then categorised under the following headings:

1	2	3	4	5	6
Unused site in built up area	Underutilised	Derelict historic building in built up area	Surface car park	Greenfield	Green curtilage with infill potential

Figure 10: Categorising Sites in the Cork City Underutilised Site Survey

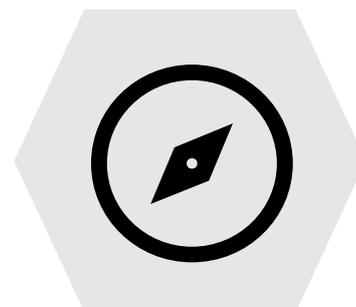
2.1.3 High-Level Assessment

A high-level assessment was carried out for all the sites within each of the 6 categories. Every site was assessed against a pre-defined set of criteria to inform the type of site and potential for redevelopment. This involved both desk-based surveys and on-site visits.

Cork City Capacity Study - Site Level Assessment	
Site Criteria	Site Considerations
Zoning Considerations	Zoning objective Views and prospects Other
Planning History	Extant permissions Site history
Physical Constraints	Flood zones Slope
Hazards	SEVESO Aircraft public safety zone
Archaeology	Zones of archaeological importance Record of monuments and places
Built Heritage	Architectural Conservation Areas Protected structures NIAH buildings
Landscape and Natural Heritage	Special Protection Areas Special Areas of Conservation Natural Heritage Areas Proposed Natural Heritage Areas Landscape Preservation Zones Area of High Landscape Value Tree Preservation Order
Access and Transport	Access to existing public transport
Cork City Employment and Land Use Survey Data (2016)	Site level Employer assessment Site level Employee assessment Site level vacancy assessment

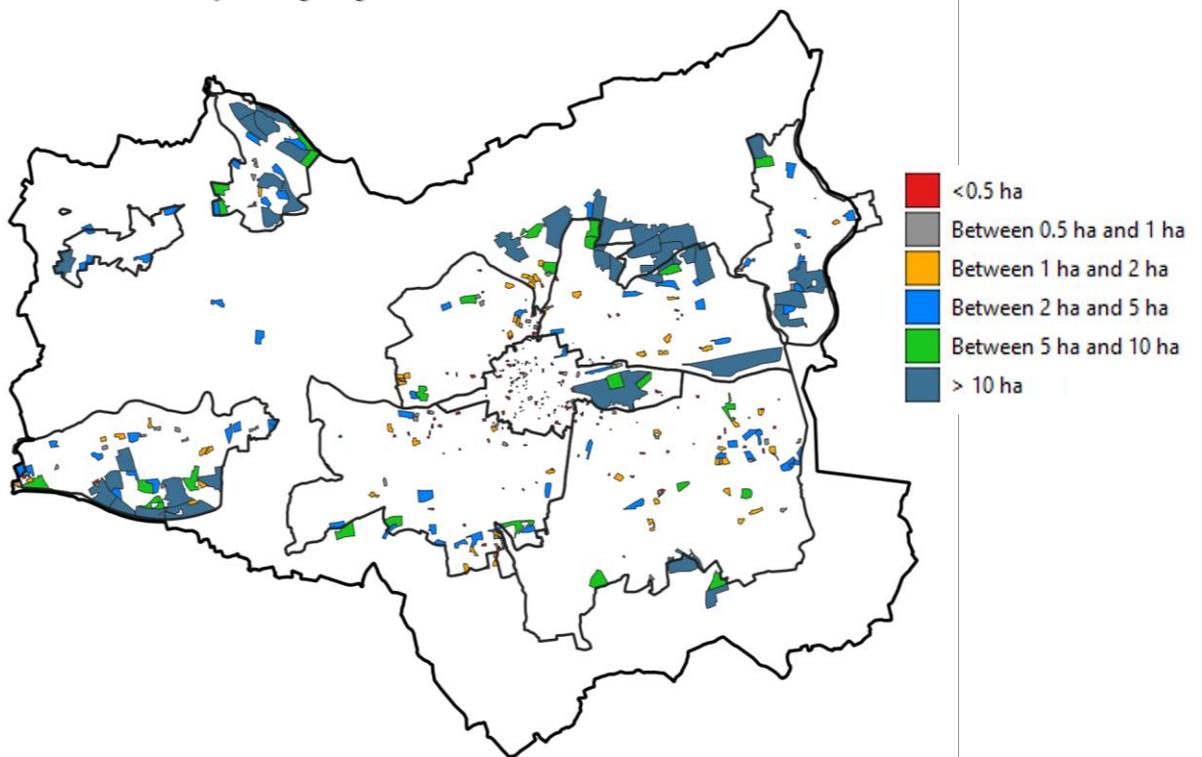
Figure 11: Template for Site Level Assessment (Phase 1 of the Cork City Capacity Study)

Through the further site level surveying and high-level assessment, a refined Phase 2 list of underutilised sites was produced. The site level information created during this phase included enough planning detail to advance different layers of assessments to feed into the city capacity study and translated into useful information for the Core Strategy and overall city development plan making processes.



Results were identified according to the sizes and location of the sites. Maps and tables were produced to help inform spatial planning considerations such as community, transportation and infrastructure planning and other emerging Core Strategy and City Planning issues being raised and considered as part of the other supporting studies in the plan-making process (please refer to section 2.3.2 below for more detail).

Sites with Capacity by size



Location of Underutilised Sites

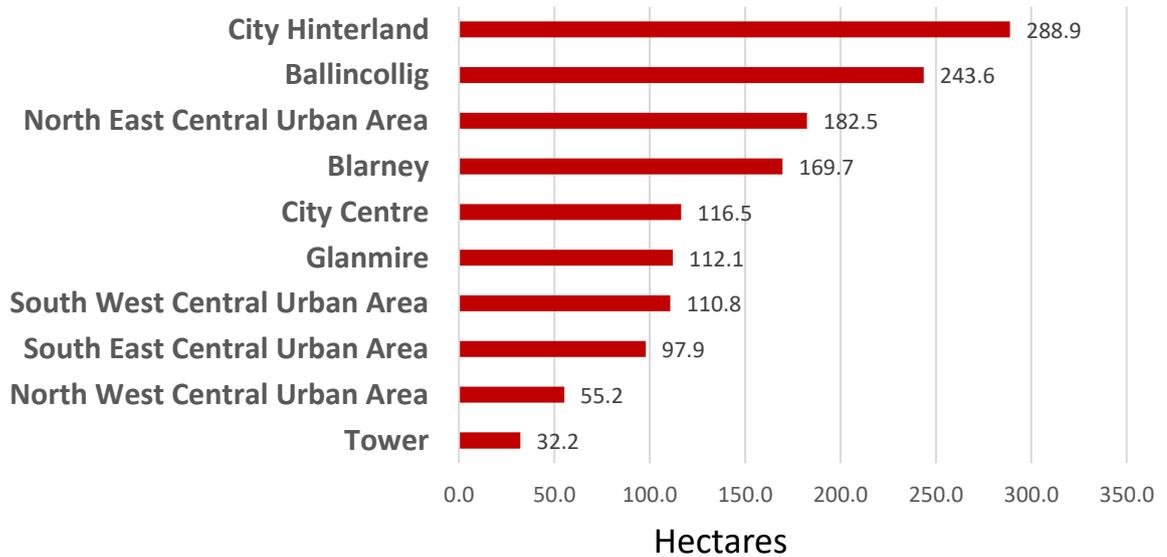


Figure 12: Spatial Analysis of Outputs (Phase 1 of the Cork City Capacity Study)

2.2 Phase 2: Viability Assessment



Phase 2 of the Cork City Capacity Study involved site level assessments to verify the nature of existing development on the site and its realistic capacity for regeneration during the plan period 2022-2028. Issues such as the nature and mix of existing use, land ownership issues and the potential of relocation and restoration where considered. As part of this process, windfall sites were identified as suitable for regeneration but unlikely to come forward in the medium to longer term. These were typically industrial, employment, institutional, transportation sites or other utilities. Such sites require long-term planning, active management and often a new landowner to unlock future regeneration.

Category	Definition
Capacity: 1287.6 ha	<ul style="list-style-type: none"> • Currently underutilised • Has capacity for redevelopment/intensification of use/change of use
Industry: 75 ha	<ul style="list-style-type: none"> • Lands zoned for industrial use which are considered underutilised
Windfall: 49.5 ha	<ul style="list-style-type: none"> • Sites which are unlikely to come forward for redevelopment due to location, size of site, existing use, etc.
Landscape Preservation Zone: 20.5 ha	<ul style="list-style-type: none"> • Lands which were identified as part of Stage 1 of the study, but are zoned/partly zoned LPZ
Exclude: 54.5 ha	<ul style="list-style-type: none"> • Sites to be excluded from study as they may have been a duplicate, construction may have commenced on site, dereliction has been removed, no longer vacant, etc.

Figure 13: Summary of Site Viability Assessment (Phase 2 of the Cork City Capacity Study)

2.3 Phase 3: Capacity Constraints Assessment

The NPF 2040 acknowledges that infrastructure availability is not the only criteria in determining the suitability of a site for development. Other factors include location, the scale of development envisaged, proximity to and availability of services and amenities, accessibility to transport, and site level and area level environmental issues.

In as far as practical, Phase 3 was prepared to align current and emerging city/site level infrastructure requirements and planning to the strategic planning evaluation carried in phase 1 and 2. An assessment of physical infrastructure at site level was carried out in line with NPF 2040 requirements, including water and wastewater services, site level access and linkages. Environmental and heritage constraints were also identified at site level.



Planning Policy Constraints

Zoning, SPAs, Archaeology,
Built environment



Environmental Constraints

Flood risk zones, Airport flight
zone, SOVESO sites, Ecology



Infrastructure Constraints

Water, wastewater, active
transport, footpaths, public
lighting, public transport

Figure 14: Capacity Constraints Assessment (Phase 3 of the Cork City Capacity Study)

In addition, Phase 3 included an assessment of other critical infrastructure, including:

- Proximity to city/town/neighborhood centre;
- Proximity to and frequency of current and planned public transport;
- Proximity to local level services; community shops/childcare/schools/parks;
- Opportunities for wider regeneration of brownfield/backland sites in the area;
- Contribution to the delivery of consolidated, compact livable growth.

2.3.1 Stakeholder Engagement

A series of engagement with different internal and external stakeholders took place to ascertain the infrastructure possibilities and challenges of the areas and sites. This review included two main steps:

- **Stakeholder Engagement:** Ensuring relevant authorities were consulted regarding infrastructural and environmental constraints. Infrastructure constraints and future investment plans were checked with both internal departments of Cork City Council and external agencies.
- **Mapping Infrastructural and Environmental Constraints:** all relevant information were gathered through GIS layers in one feedback portal, ensuring all data were related to the sites and easily available.

EXTERNAL PARTNERS

INTERNAL PARTNERS



Figure 15: Example of Stakeholder Engagement in Assessing Capacity Constraints (Phase 3 of the Cork City Capacity Study)

2.3.2 Supporting City Plan Studies

The City Capacity Study was carried out in parallel to several other key studies undertaken to inform the Cork City Development Plan making process. This has resulted in a robust evidence-base planning approach to preparing the Core Strategy and overall plan:

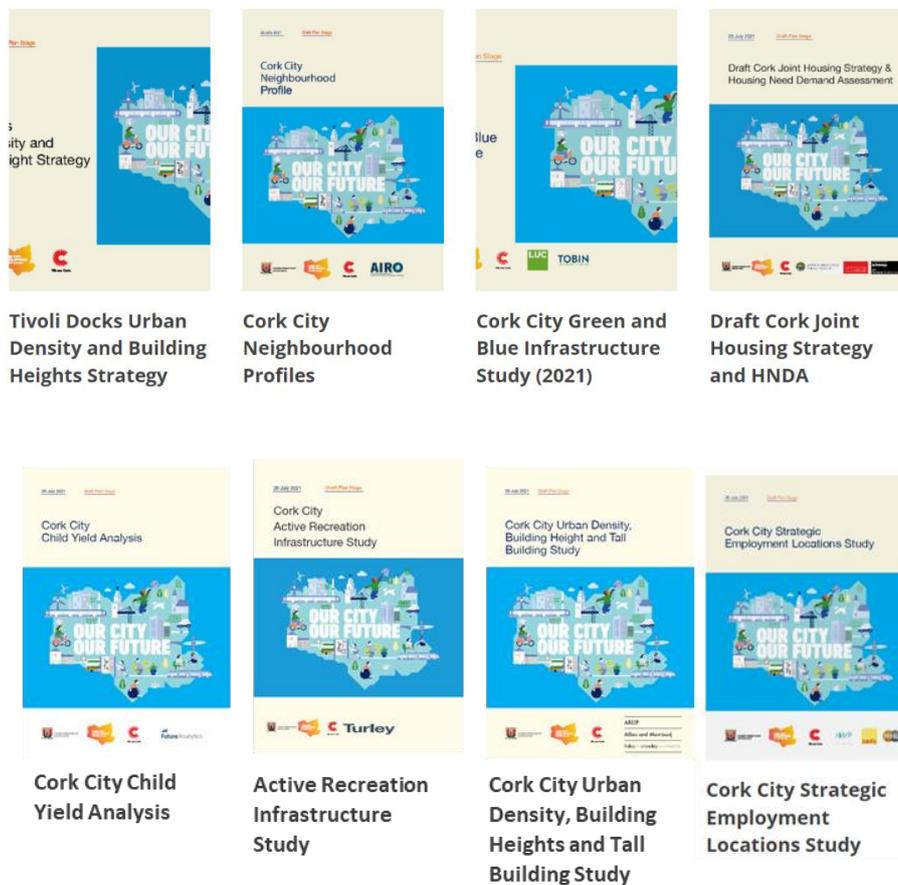


Figure 16: Other supporting documents

2.3.3 Outputs

Given the nature of current and ongoing city level infrastructure investment plans [e.g. Busconnects, LRT route selection, Irish Water Drainage Area Plans (DAPS)], the constraints assessments were largely done at sub city level. This involved assessing existing and planned infrastructure and networks against emerging site/area/sub city and city level growth targets. This process involved information sharing and assessment with key stakeholder including Irish Water (IW), the National Transport Agency (NTA), the Dept of Education and Skills (DoES). The information gathered depended on what geographic level and project stage each stakeholder operated under. For example, Irish Water engaged at the sub-city level reflective of catchment areas set out in their ongoing Drainage Area Plans (DAPS). The DoES engaged at both a site level (schools) and sub-city level (wider school catchment areas). The NTA engaged at a city level, reflecting different projects being progressed under CMATS 2040, such as BusConnects Cork and the LRT route selection process.

		TRANSPORT			WATER SERVICES		
		Public transport	Roads	Footpath & lighting	Water supply	Waste water	
CENTRE	City Centre	Green	Green	Green	Green	Yellow	
DOCKLANDS	City Docks	Yellow	Yellow	Yellow	Yellow		
	Tivoli Docks	Yellow	Yellow	Yellow	Green		
SUBURBAN AREAS	Northeast Suburb	Yellow	Yellow	Yellow	Yellow		
	Northwest Suburb	Yellow	Yellow	Yellow	Green		
	Southeast Central Urban Area	Yellow	Yellow	Yellow	Green		
	Southwest Central Urban Area	Green	Yellow	Yellow	Yellow		
URBAN TOWNS	Ballincollig	Green	Yellow	Yellow	Yellow		
	Blarney	Yellow	Yellow	Yellow	Green		Red
	Glanmire	Yellow	Yellow	Yellow	Green		Yellow
	Tower	Red	Yellow	Yellow	Green	Yellow	

Figure 17: Summary Assessment of Capacity Constraints (Phase 3 of the Cork City Capacity Study)

While the engagement process was fruitful, the resulting information can often not be translated fully down to site level. As a result, the most practical approach was to set out the infrastructural constraints at sub-city level. This approach was directly relatable to the Core Strategy, working effectively as a cornerstone for creating, revising, and delivering the final version.

To supplement this approach, an “*Investment Assessment Table*” was created to give a snapshot of infrastructure works, investment and funding linked to future development of these areas. It should be noted that this work is not exhaustive, with ongoing analysis and engagement going on with key stakeholders around critical projects and plans (e.g. CMATS, DAPS, etc). This work will continue to inform the plans implementation phase and all relevant planning applications.

Infrastructure Investment Assessment	
City Centre	<ul style="list-style-type: none"> • Existing public transport network hub: Bus routes – Train station – Bus station. • Future light rail planned route to be confirmed. • BusConnects increased frequency. • No issue with water supply, upgrades may be needed for certain development sites. • Need update on Cork city DAP.
City Docks	<ul style="list-style-type: none"> • BusConnects new route planned. • Future light rail planned route. • Road/ footpath infrastructure depending on future development. • Analysis and modelling of water network required to find solution for large further development. • Need update on Cork city DAP.
Tivoli Docks	<ul style="list-style-type: none"> • Existing BusConnects routes. • Rail depending on creation of train stop. • Road/ footpath infrastructure depending on future development. • Need update on Cork city DAP.
Northeast Suburb	<ul style="list-style-type: none"> • BusConnects updates – limited bus routes. • Connection to train station in the lower part of the area. • Water supply upgrades may be needed for certain development sites – capacity will depend on connection to South Docks. • Need update on Cork city DAP.
Northwest Suburb	<ul style="list-style-type: none"> • BusConnects updates. • Additional water supply network capability being delivered. • Need update on Cork city DAP.
Southeast Central Urban Area	<ul style="list-style-type: none"> • Existing bus network. • BusConnects updates – light rail would go through Blackrock/Mahon. • No water supply issue with the area north of N40. • Need update on Cork city DAP.

Southwest Central Urban Area	<ul style="list-style-type: none"> • BusConnects updates route extensions. • Lightrail planned to go through the most western part of the area. • Douglas/ Togher might require some network upgrades – larger update needed south of N40. • Need update on Cork city DAP.
Ballincollig	<ul style="list-style-type: none"> • Existing bus connection. • BusConnect lines – future light rail planned line. • Water supply reservoir for Ballincollig on hold – local upgrades required in some areas too. • Ballincollig DAP is finalised. Some limited capacity in the network likely to be used up quickly. Large and local upgrades may be required to allow future development.
Blarney	<ul style="list-style-type: none"> • Very limited public transport. • Planned rail route. • No issue with water supply, upgrades may be needed for certain development sites. • Water and Wastewater network infrastructure upgrade needed for Stoneview site.
Glanmire	<ul style="list-style-type: none"> • Limited bus routes with some future updates from BusConnects. • No water supply issue, upgrades may be needed for certain future sites. • Wastewater local upgrades may be needed.
Tower	<ul style="list-style-type: none"> • Very limited public transport with one bus route. • No water supply issue - upgrades may be needed for certain development sites. • Wastewater local upgrades may be needed.

Figure 18: Summary of Investment Assessment Table (Phase 3 of the Cork City Capacity Study)

2.4 Phase 4: Strategic Planning Assessment

The overall infrastructure constraints assessment carried out in Phase 3 resulted in refining the land bank available for the city development plan period. Phase 4 of the study involved modelling and assessing the suitability of this land bank for compact liveable growth. Compact liveable growth involves enabling future development in close proximity to public transport, education, employment, community facilities, open space and other amenities. These factors are given high priority in the NPF 2040, heavily informing the plan’s 10 National Strategic Objectives (NSO’s). The Strategic Objectives (SO’s) of the Draft Cork City Development Plan 2022-2028 are directly linked to NSO’s, providing the framework to carry out the stage 4 assessment.

2.4.1 Strategic Objectives

The Cork City Development Plan 2022-2028 sets out nine Strategic Objectives to guide the future development of Cork City. Each have an individual chapter setting out specific development objectives and actions. Given the nature of city development, the delivery of these Strategic

Objectives will be a joint effort of Cork City Council, residents, stakeholders, developers, Government Departments and State and local development agencies.



Figure 19: Cork City Development Plan 2022-2028 - Strategic Objectives

2.4.2 Cork City 2040

The City Development Plan also sets out a vision for Cork City 2040, based on the NPF 2040, the Southern RSES 2031 and the Metropolitan Area Strategic plan (MASP) 2031. Cork City 2040 is informed by a number of strategic priorities for the spatial growth of the city over the next 20-year period, including:

- **Compact Liveable Growth:** Delivering compact growth in the right areas and at the right scale
- **Strategic Regeneration:** Focusing on the City Centre, Docklands, Tivoli and the urban towns
- **Transport Orientated Development:** Matching population growth with key public transport infrastructure such as BusConnect, the LRT, Suburban rail and the Greenway network.
- **Consolidation:** Regenerating existing neighborhoods within the urban cores of the City centre, the urban town centres, neighbourhood and community centres.

- **Strategic Expansion:** Focusing strategic population growth in identified lands at Blackpool/Kilbarry, Maglin, Douglas, Ballinglanna, Ballyvolane and Castletreasure.
- **Proportionate Growth:** Setting out population growth targets suitable for the differing scales of neighbourhoods, towns and communities that collectively form Cork City.

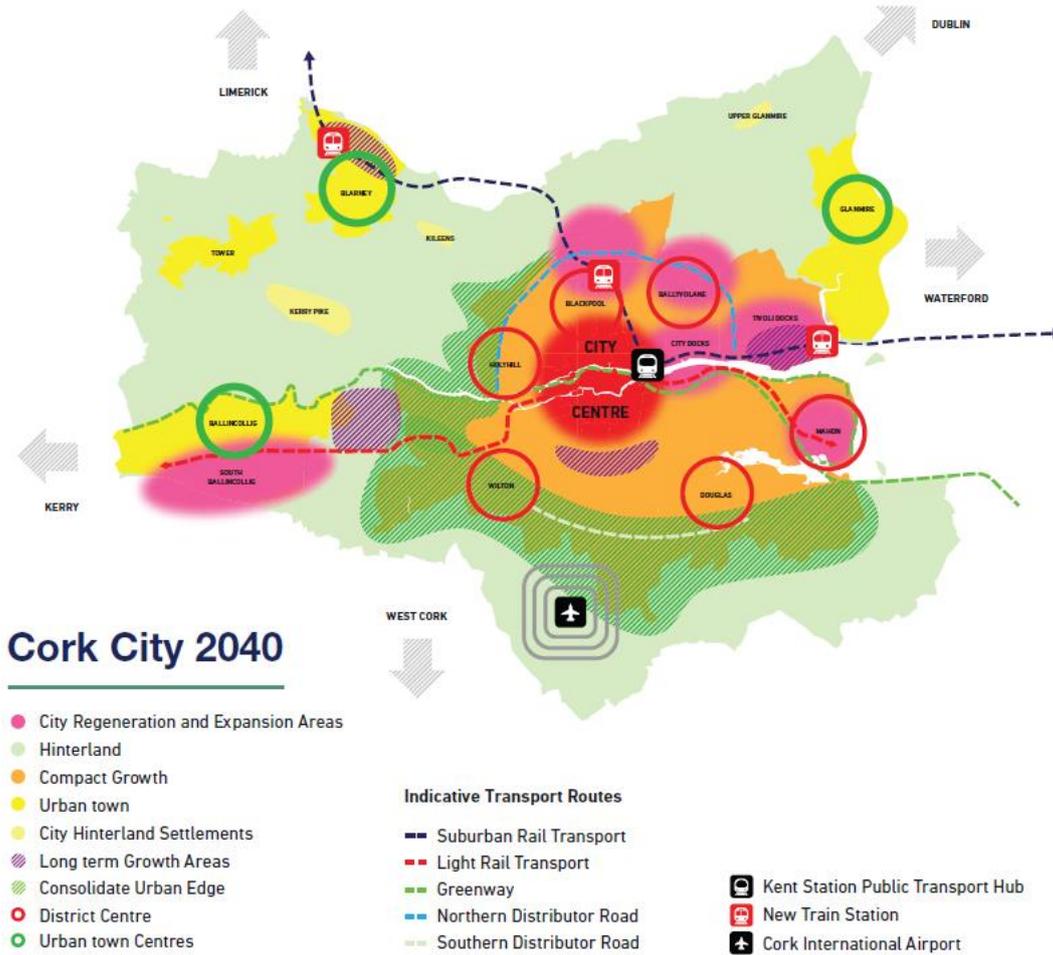


Figure 20: Cork City Development Plan 2022-2028 – Cork City 2040

2.4.3 Assessing City Land Use Scenarios

The modelling and assessment of the City Development Plans strategic objectives was carried out using three different city land-use scenarios. The principles underpinning each scenario were classified and then applied to the remaining bank of lands refined in Stage 3 of the study.

1 City Wide Growth

Scenario based on the current state of affairs, extant Planning permissions and Average Density / High Density.

2 Transport Orientated Development

Scenario based on development along Key Cork Metropolitan Area Transportation Strategy (CMATS) routes.

3 Compact Liveable Growth

Scenario based on strategic compact-oriented growth looking at regeneration areas, transport corridors and settlement hierarchy consolidating city and town centres.



1. City Wide Growth	2. Transport Orientated Development	3. Compact Liveable Growth
Urban expansion	Urban intensification	Strategic sites
Low density	High density	Range of densities
Does not justify CMATS projects	Requires implementation of CMATS projects	Requires implementation of CMATS projects
Negative impact of urban sprawl (climate change, flood risk)	Mitigation of sprawl	Mitigation of sprawl
Increased physical/social infrastructure	Requires front loading of public transport	Increased use of existing physical/social infrastructure
Diluted, compromised delivery of compact city of neighbourhoods	Less consolidation of wider network of neighbourhoods/towns	Enhances existing network of neighbourhoods and towns
No change	Requires an immediate market shift	Requires market shift in line with strategic objectives

Figure 21: Defining the Land Use Planning Scenarios

As part of the development plan’s Strategic Environmental Assessment (SEA) process, each scenario was also assessed for environmental suitability against a detailed set of land use based environmental sensitivities.

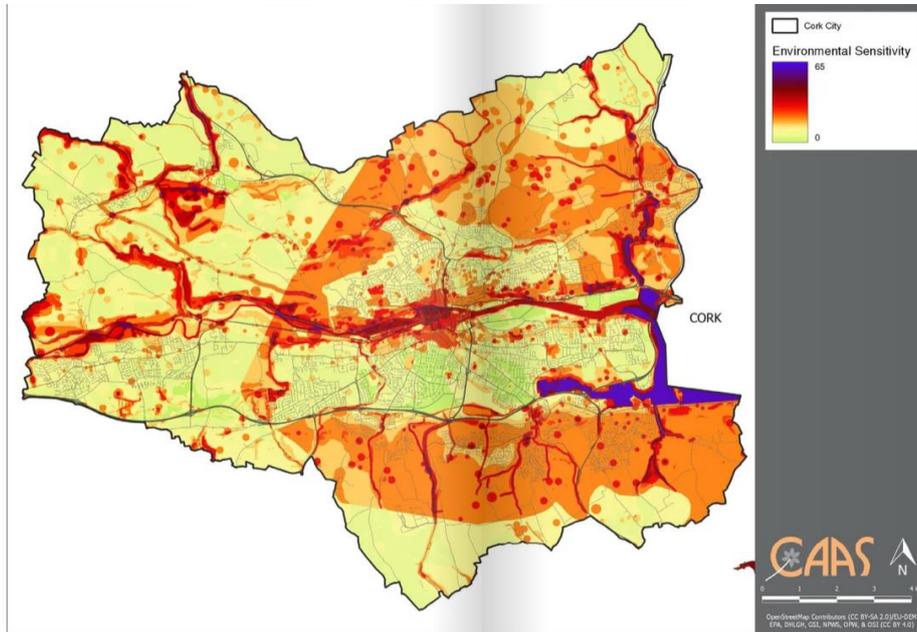


Figure 22: Cork City’s Environmental Sensitivity Map -Cork City Development Plan 2022-2028, SEA

2.4.3.1 Citywide Growth Scenario

The Citywide Growth Scenario applied the densities allowable under the existing land uses zonings in the Cork City Development Plan 2015-2022 and Cork County Municipal District Local Area Plans (2017). As such this scenario combines Cork City Councils and Cork County Councils current land use planning approach to the recently extended City Council area, giving a full understanding of the current land use planning approach for the current Cork City administrative area, as extended in May 2019. The yields from all extant planning permissions were accounted for. Where no extant planning permission exists an average density, assumptions were applied based on the relevant land use zoning objective.

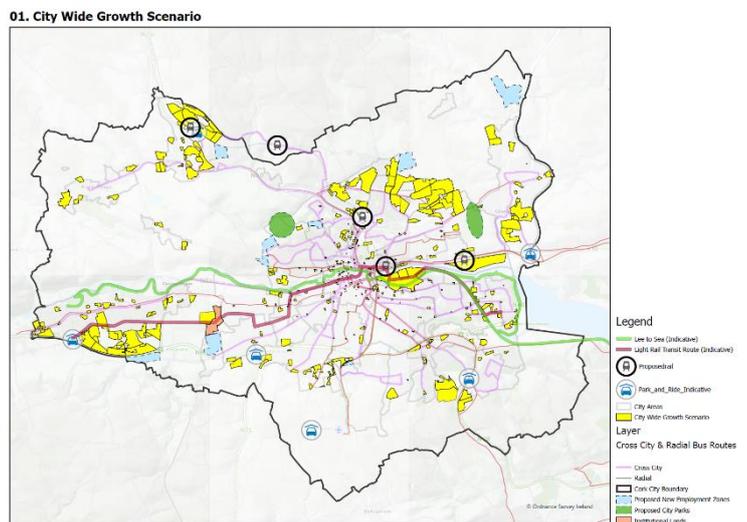


Figure 23: The Citywide Growth Scenario

The location, level and mix of growth modelled under this scenario was found to be unsuitable and not in accordance with the Strategic objectives of the NPF 2040 or the Cork City Development Plan 2022-2028.

2.4.3.2 Transport-Oriented-Development Scenario

The Transport Orientated Development (TOD) scenario focused on the key transport routes and land use areas identified in the Cork Metropolitan Area Transportation Strategy. This approach to growth was applied to future land use planning, by maximising the provision of housing, employment, public services and leisure space within close proximity to existing and future transport nodes (e.g. rail and/or bus) that are serviced by frequent, high quality services. This alternative applies different densities at different locations, as appropriate; with higher densities where sustainable transport mode opportunities are planned for (e.g. light rail transport route). The yields from all extant planning permissions were accounted for.

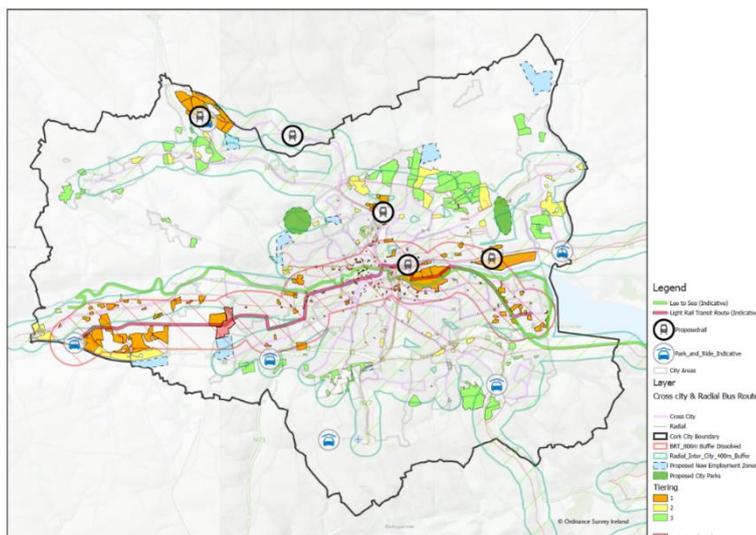


Figure 24: Transport-oriented Development Scenario

The location and density of growth modelled under this scenario was found to be only partially suitable in terms of land use, environmental planning and delivering the Strategic objectives set out in the Cork City Development Plan 2022-2028.

2.4.3.3 Compact Liveable Growth Scenario

The Compact Liveable Growth Scenario seeks to develop Cork City as a compact, sustainable city of scale and the regional driver of growth by creating sustainable, liveable, integrated communities and neighbourhoods while ensuring that at least half (50%) of all new homes are delivered in the existing built up footprint. A tiered approach to land use zoning is applied ensuring that new homes are provided at appropriate densities in brownfield and infill locations and in greenfield locations within the existing city footprint or contiguous to it.

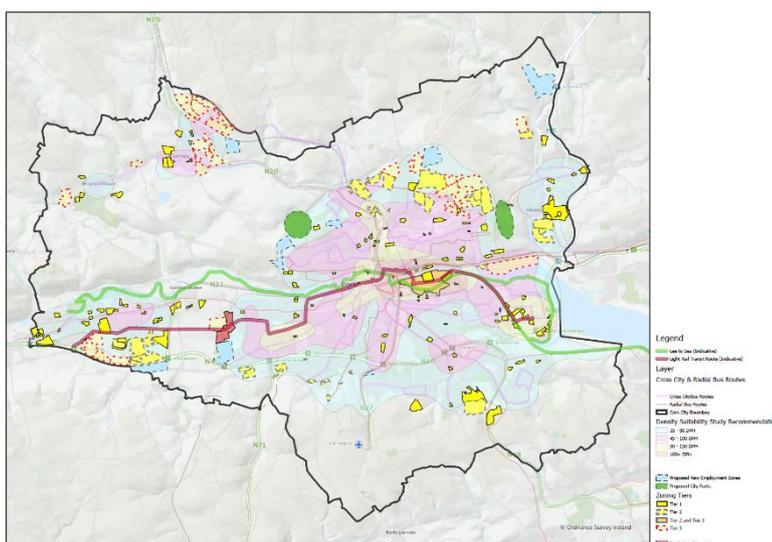


Figure 25: The Transport-Orientated-Development Scenario

The location and density of growth modelled under this scenario was found the most suitable option in terms of land use, environmental planning and delivering the Strategic Objectives set out in the Cork City Development Plan 2022-2028.

2.5 Phase 5 – Meeting Population Growth Targets

As detailed in Section 1.3 of this report, in preparing the city development plan Cork City Council assessed the population target allocations allowable under the NPF 2040, NPF Roadmap (July, 2018), the Southern RSES 2031 and subsequent DHLGH Ministerial Guidance. Further work was required by Cork City Council to determine the city level breakdown of these targets for key planning timeframes - 2022, 2028, 2031 and 2040.

As per section 2.52 of the Cork City Development Plan 2022-2028, a number of assumptions were needed to translate these targets into land uses. These assumptions are applied through calculations related to a site size, location and planning permission status, as follows:

- An average household size of 2.49 persons per dwelling (as used in the Housing Strategy).
- Sites with valid planning permissions assume their permitted yield.
- A 75% net site area is applied for all sites without planning permission (roads, open space, etc).
- Given the difficulties of overcoming brownfield constraints, a 50% overall delivery rate is assumed for sites within the City Centre and City Suburbs.
- Given timeframes associated with infrastructural delivery plans, an 80% delivery rate is assumed for all remaining Tier 2 sites.
- Given the ambition of the new density bands set out in Ch.12 of the plan, the lower end density assumptions are applied for all sites without planning permission.
- As strategically planned areas, specific population targets are applied for City Docklands & Tivoli Docks, as per Ch.10 of the plan.
- Evidence-based assumptions on intensification within the city centre and urban town centres are applied.
- Given their scale and infrastructural constraints, limited growth targets are applied for the settlements identified in the City Hinterland and remaining growth in the wider area.

Using the above assumptions, the potential yield of each underutilised site was calculated. The outputs were then compiled into consolidated data for each area of the city. A series of refinements were then carried out, using the site selection assessments process, to achieve a balance with the NPF 2040 growth targets allocated for the plan period.

Housing Land Use Target for Cork City 2022-2028



+18,741 dwellings

632 hectares

2.6: Phase 6 - Core Strategy

Based on the results of phase 4 and 5 of the City Capacity study, a strategy to deliver Compact Liveable growth was created that integrates the optimal development scenario and housing output calculations. Going beyond the plan requirements, a third layer of developable land was also identified, as Tier 3, to integrate the long-term strategic planning scale.

2.6.1 Compact Liveable Growth Strategy

Based on the City Capacity study and scenario modelling, a **Compact Liveable growth Core** strategy was developed with:

- Tier 1 sites: zoned and currently serviced by physical infrastructure.
- Tier 2 sites: zoned and considered serviceable within the life of the plan.
- Long Term Strategic Growth sites: to integrate the longer-term perspective, unzoned lands suitable for future growth beyond the lifetime of the Cork City Development Plan 2022-2028 were identified, needing long-term planning and service delivery.
- 10 Key Development Sites: Neighbourhood Development Sites were identified as strategic underutilised sites within existing neighbourhoods and towns that are locally important. These sites have significant capacity for neighbourhood regeneration to enhance the delivery of walkable neighbourhoods and the 15-minute city.

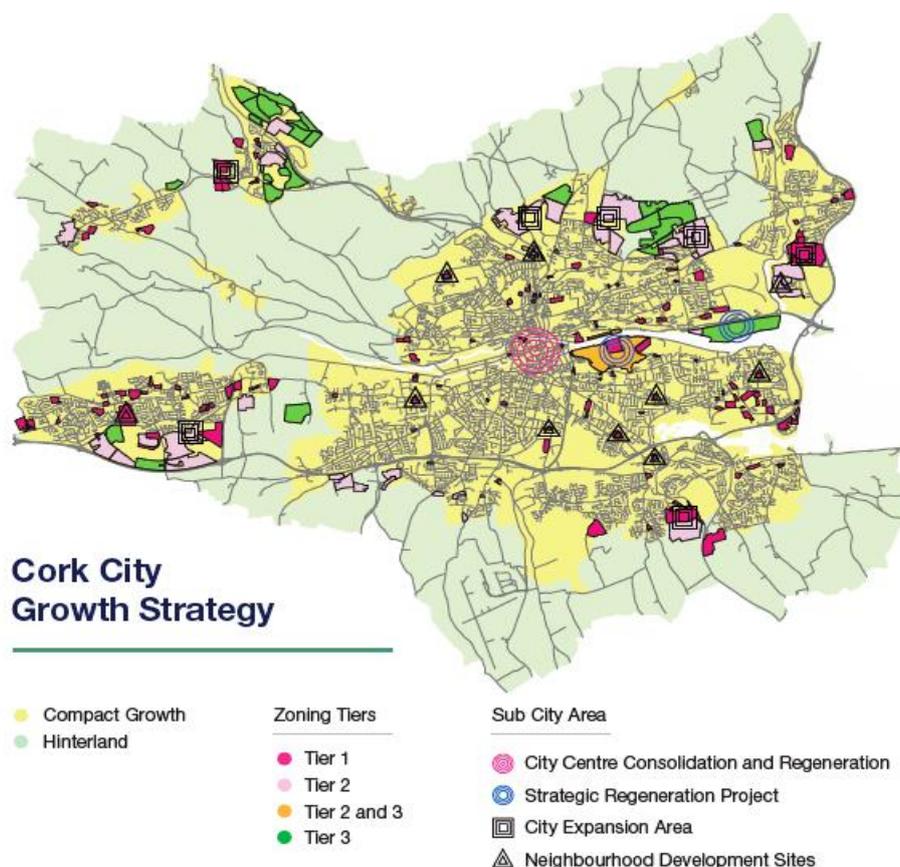


Figure 26: Cork City Growth Strategy Map 2022-2028

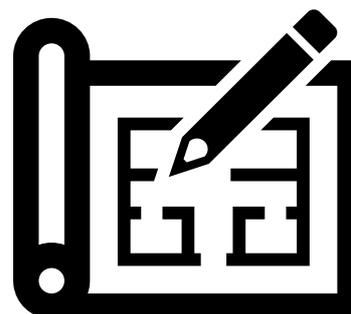
The City capacity study was also applied to establish the potential yield of all identified sites refined through the process. The tiering follows the approach set out by the NPF 2040 to promote compact growth.

Growth Strategy 2028 (Tier 1 & 2) ³				
Location	Underutilised Sites (Net Hectare's)	Potential Tier 1 & 2 Yield (Units)	Tier 1 Potential Yield (Units)	Tier 2 Potential Yield (Units)
City Centre	2.0	487	487	0
Docklands	16.8	2,438	988	1,450
City Docks	14.4	2,238	988	1,250
Tivoli Docks	2.4	200	0	200
City Suburbs	304.9	7,477	3,627	3,850
North East Suburb	169.1	3,568	603	2,965
North West Suburb	10.7	242	242	0
South East Central Urban Area	92.7	2,741	2,417	324
South West Central Urban Area	32.4	926	365	561
Urban Towns	315.5	8,339	4,075	4,264
Ballincollig	157.4	4,355	2,156	2,199
Blarney	47.3	1,338	641	697
Glanmire	89.7	2,179	1,089	1,090
Tower	21.1	467	189	278
Total	632.2	18,741	9,177	9,564

Table 2.3: Cork City Growth Strategy Table 2022 - 2028.

Figure 27: Cork City Growth Strategy Table 2022-2028 (Draft CCiDP)

The tiered-approach defined by the City Capacity Study and set out in the Core Strategy of the plan is translated into the plan’s land use zonings. Critically, the City capacity study has also realised the potential of having +60% growth within the existing built-up footprint of the city and urban towns, which is above the 50% objective identified by the NPF 2040.



3.0 Proactive Land Management

The NPF 2040 requires active land management to achieve compact liveable growth, including housing and affordable homes supply (Objective 35 and 36) but also the circular and bio economy (Objective 53). At the regional level, the Southern RSES 2031 also includes objectives around active land management including the identification of strategic growth areas (objective 10) and the provision of housing land requirements (Objective 37).

Active land management will be key in delivering planned future growth for the city in a strategic way. The housing crisis has exacerbated the need for increased provision of housing, infrastructure, and amenities. The 'Housing for All' plan addresses this acute issue and talks of the need for land management, in ensuring good provision of new housing but also in addressing vacancy and reuse of existing housing stock. Housing Policy Objective 12 looks at ways to “Deliver a new approach to active land management” which includes new Urban Development Zones, seen as a “A plan-led process that includes a key decision-making role for the local planning authority”.

On foot of the outputs from the two-year City Capacity Study process, Cork City is now seeking to move towards creating a new active land management system. This will integrate the findings of the City Capacity study to ensure practical use of up-to-date land data during the plan's six year implementation period. As set out in objectives 2.27 – 2.35 of the Draft Cork City Development Plan, the city capacity study will evolve as a live active management tool to assist in the implementation and monitoring phases of the final plan.

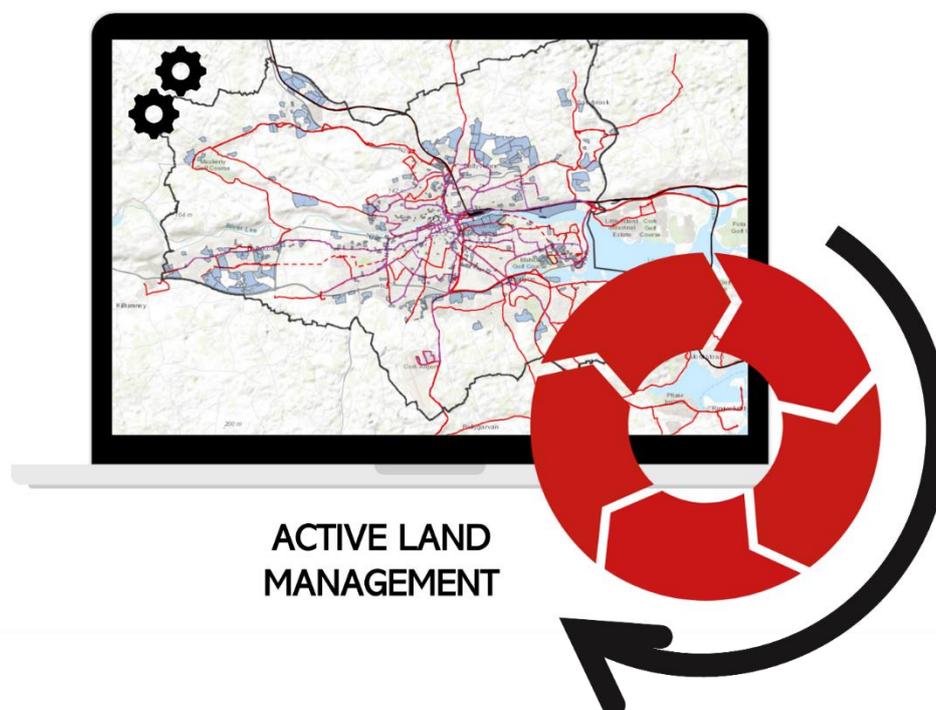


Figure 28: Developing a Pro-Active Land Management System for Cork City Council

In developing a Proactive Land management system, the planning policy team seeks an innovative way to integrate different types of evidenced based information into Cork City Council's decision-making role in activating and delivering land for housing and regeneration. This evidenced based planning tool would also help guide the planning and delivery of critical infrastructure by other key Stakeholders (IW, NTA, LDA, DoES, etc) needed to unlock strategic development areas.

Delivering a Proactive Land management system offers the opportunity to provide a user-friendly system to monitor and manage land use in Cork City. It will create a finer layer of analysis, by having different site-specific information combined in one easily accessible place. It will show what the current situation is, in terms of land use and infrastructure, and what is already planned. This innovative project will be realised in partnership with the City Council's ICT department and other partners, finding the optimal way to gather the data and create a flexible and resilient tool, in which additional data can be easily added and assessed.