

3.0.0 STRATEGIC CONTEXT

3.1.0 Strategic Location

3.1.1 Regional Context

- 3.1.2 Dunboyne is located adjacent to the southeast boundary of County Meath with Fingal County Council. It is located some 19km from Dublin City. It lies 2km west of the N3 National Primary Route connected to the N3 by the R156 and R157 which meet in the centre of the village. Its location in the Dublin and Regional Context is shown in Figure 3.1.2.1 below.

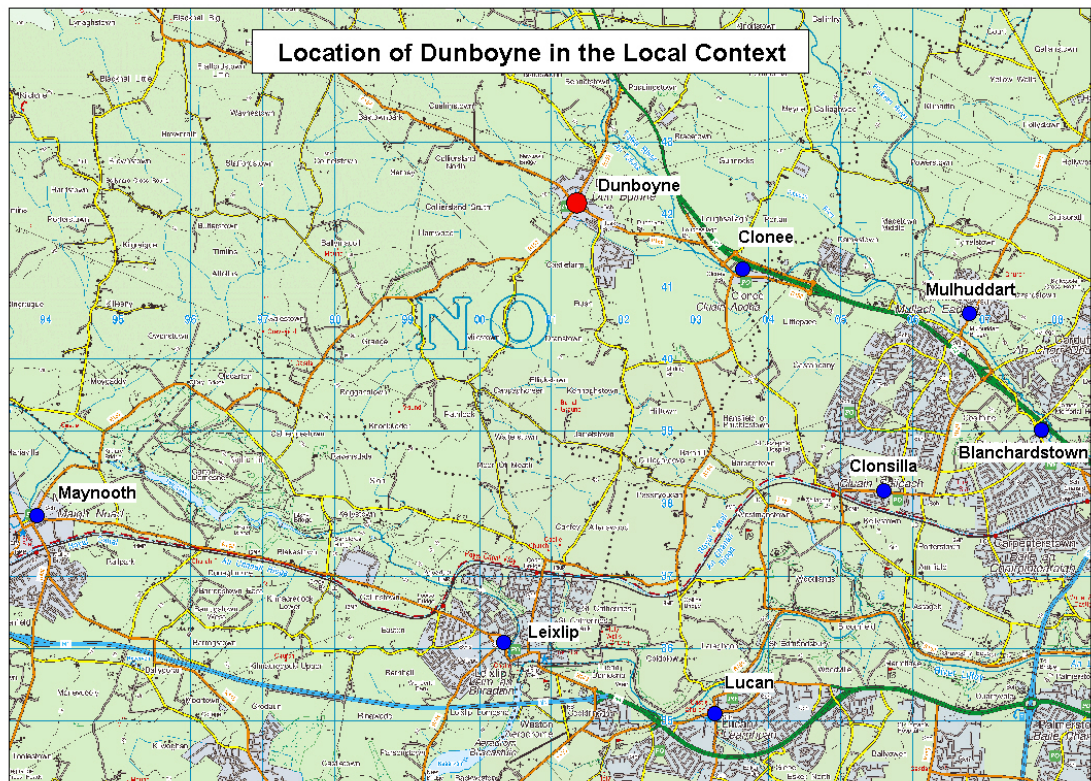
Figure 3.1.2.1 Regional Context



3.1.3 Local Context

- 3.1.4 The town of Dunboyne serves a broadly rural hinterland comprising the small settlement clusters of Black Bull and Ballynare. The town is also a relatively short distance away from Kilcock and Maynooth which are both in County Kildare. The local context is shown in Figure 3.1.4.1 below.

Figure 3.1.4.1 Location of Dunboyne in the Local Context



3.2.0 The Role of Dunboyne

3.2.1 Functionally Dunboyne is a dormitory town and service centre for a primarily commuter based residential population within the Dublin Metropolitan Area. Whilst its function is primarily residential it provides a number of lower order services to meet this population. Its role or function has been determined by its proximity and especially convenient road access to Dublin.

3.3.0 Existing Character of Dunboyne

3.3.1 Dunboyne is a town with an intimate village centre surrounded by modern residential neighbourhoods. In this regard it can be considered to possess the characteristics of both a town and a village.

Historic Character

3.3.2 Dunboyne is one of a number of estate villages in County Meath. Dunboyne has an attractive and historic village square (Main Street) located at the junction of the Summerhill, Maynooth, Dunshaughlin and Clonee Roads. The central area and its immediate environs are characterised by the influence of the adjacent Castle Grounds and parkland landscape, historic Church of Ireland and graveyard. The

very attractive village green structures intimate terraces around it. Features of the historic village are the large and mature parkland trees.



- 3.3.3 Approaches to the village area are lined with earlier ribbon development, comprising mainly bungalows, many of which are now surrounded by a reasonable level of vegetation and as a consequence are physically well integrated into the landscape.



More Recent Development

- 3.3.4 Further out from the village core to the periphery of the town there are further examples of modern low-density housing estates and ribbon style development along arterial routes.



3.3.5 Substantial recent development around the periphery of the town presents a completely different grain/pattern to the historic character of the centre of the village. In this regard Dunboyne is a heritage village surrounded and increasingly defined by creeping suburban development. Much of the “suburban” environment in the form of detached and semi-detached housing is constructed in a range of non-vernacular materials often used inconsistently across different developments. The lay-out of these new developments is often different to the more local village patterns and grain. There are red brick, yellow brick, half brick, wide streets, grassy margins and left over spaces reminiscent of the suburbs of altogether larger settlements such as Dublin. The result is that the character of this historic town in Meath is under threat. It is the grain, materials and language of this new development that is threatening the local character, and not solely the scale, as villages can and do grow into towns and retain much of their sense of place. Much of the recent suburban development represents a low mix of uses, lack of permeability and sensitivity to local design patterns and materials thus creating a negative impact on the character of the village.

3.4.0 Strengths, Weaknesses, Opportunities and Threats

3.4.1 From the consultation undertaken an assessment of the strengths, weaknesses, opportunities and threats has indicated the following:

Strengths

- Village character
- Proximity to Dublin
- Large range of community facilities
- Commuter based public transport.

Weaknesses

- Proximity to Dublin
- Dormitory town

- Limited opportunities for expansion of the town
- Limited opportunities for expansion of village core
- Limited local bus services.

Opportunities

- Re-opening of the Clonsilla-Pace rail line
- Northern bypass will alleviate extraneous traffic through the village.
- New status within the Dublin Metropolitan Area

Threats

- Proximity to Dublin
- Rate of growth
- Demand on existing services/facilities and amenities.

3.4.2 It is clear from the above that many of the town's strengths are also weaknesses such as its proximity to Dublin. Several weaknesses and opportunities such as improvements to the local bus service and lack of opportunities for further development of the town can be addressed in the development of the IAAP area.

3.5.0 The Need to Zone Land For Development

3.5.1 An assessment has been made to ascertain whether there is a need to zone additional land for development in Dunboyne.

Existing Population

3.5.2 The population recorded in the 2002 census is 5,363 which represents an increase of 2,238 from the population of 3,080 recorded in 1996. This represents a population increase of some 74%. The population target in the County Development Plan for 2001 is 5,299 and the 2002 population therefore is broadly in line with the target. The population target in the County Development Plan for 2006 is 8,000 and for 2011 is 10,000 as set out below. However, it is important to note that the current Development Plan population projection is based upon the former status of the town as being located with the Dublin hinterland rather than the Metropolitan Area. The impact of the re-opening of the rail line has also not been formally considered in the existing population projections. It can, therefore, be assumed that the population projection can be revised to a figure above 10,000 for 2011.

Year	Actual population	Projected population
2001	-	5,299
2002	5,363	-
2006	-	8,000
2011	-	10,000

Source: Meath County Development Plan

Developed Lands

- 3.5.3 The 2002 population is accommodated on some 90ha of residentially developed land. Applying a household size of 3.0 to the end of the lifetime of the IAAP (2010) this results in a density of 19.5 dwellings per hectare for existing development. This prevailing density is unsustainable in terms of landtake, the provision of services and amenities and public transport.

Existing Zoned Land

- 3.5.4 There is a total of 44.44ha of land already zoned for residential development in the County Development Plan some of which including the Castle grounds are committed for development. Applying a gross to net development ratio of 70% to allow for roads, parking, open space etc there is net a developable area of 31 ha. Applying a density of 30 dwellings per hectare (the density of development on the Castle grounds which comprises 60% of all developable lands currently zoned) and a household size of 3.0 persons per household equates to a developable yield of some 2,790 persons from already committed land.

Population from existing development and zoned land

- 3.5.5 The “additional” population yield of 2,790 from committed residentially zoned land added to the existing population of 5,363 gives a potential population from existing and already zoned land development of 8,153. Subtracting this figure from the existing population target of 10,000 for 2011 gives a basic land requirement to accommodate some 1,847 people up to 2011 from land that is neither zoned nor committed for development.
- 3.5.6 There is therefore a requirement to zone additional land to bring the current population up to the target population for 2011 and to reflect Dunboyne’s new found status within the Regional Planning Guidelines. This population shortfall can be accommodated within the IAAP area as it represents one of the last major areas of zoned but uncommitted land within the development boundary.

Zoning Need to Reach the Population Target

- 3.5.7 The population target for Dunboyne is likely to be revised upwards following its change in status to a Primary Dynamic Cluster and its location within the Metropolitan Area of the Greater Dublin Area. It is likely, therefore, that there is justification for zoning land above the County Development Plan target for 2011. By that time also, it is likely that the rail line will have been re-opened. With this change in

circumstances, there is also the possibility for higher residential densities.

4.0.0 INFRASTRUCTURE

4.1.0 Roads

- 4.1.1 The road network serving the town is dominated by the N3. The upgrade of this to the M3 has been approved by An Bord Pleanála. Part of that scheme includes the construction of a northern bypass road around Dunboyne. It is anticipated that the first section of this road would be open in approximately four years time.
- 4.1.2 Further down the road hierarchy, the R156 (Clonee/Summerhill Rd.) and R157(Dunshaughlin Rd.) regional roads converge in the village centre. The R157 to/from Maynooth is heavily used by HGV's as an alternative route to Dublin from the north Kildare towns. The R157 also acts more recently as a strategic rat run between the N7 and the M/N4, N3 and N2.
- 4.1.3 The Loughsallagh Roundabout, to the east of the IAAP lands connects the R156 with the Dublin Road and a slip road to the N3. The Dublin and Dunboyne (R156) arms of this roundabout are currently experiencing high levels of traffic.
- 4.1.4 The village centre often suffers from traffic congestion, which manifests itself at two points in particular: namely the R157 (Dunshaughlin Road) – R156 (Clonee/Summerhill) junction in the centre of the village; and the Loughsallagh Roundabout. A Traffic Impact Assessment of the development of the IAAP lands with particular emphasis upon these two junctions has therefore been carried out. The results of this Traffic Impact Assessment is outlined in the following section.

Public Transport

- 4.1.5 Dublin Bus is the main to provider in the area. The Nos. 70 and 70X run from Dunboyne to Dublin City Centre and the N270 runs a local service between Dunboyne and Blanchardstown. The N70 serves Dunboyne every 20 minutes in peak periods and every 50 minutes off peak. At congested times this journey can take over an hour.
- 4.1.6 The No. 70 provides 13 services daily from Dunboyne and 12 return services from Lower Abbey Street from Monday to Friday. The journey on the No. 270 into Blanchardstown takes approximately 20 minutes. The No. 270 provides 11 services hourly and the same return services to the Blanchardstown Centre where the No. 39 can be picked up into the city centre.

- 4.1.7 Bus Eireann only has six services per day to Dunboyne in either direction. It is located on Bus Eireann's Maynooth route. Demand on this route continues to increase.
- 4.1.8 The existing bus station is considered too small and Dublin Bus believes a new bus station is needed in the village. An ideal location for a new bus station would be within the IAAP area. Such a facility could not be provided in the village core and the potential for a link between the Northern bypass, the N3, the Clonee Road and future train station would indicate a preferred location either within or in close proximity to the IAAP area.
- 4.1.9 The consultation undertaken during the course of this IAAP preparation reveals that there is an excellent commuter based public transport system. There is a comparatively underdeveloped local bus system which would be greatly improved by the growth of the town to a level able to sustain an improved bus service. The routing of such a service would be greatly assisted by the provision of an eastern distributor road between the bypass and Clonee Road. Route links could be provided to existing housing developments.

4.2.0 Rail

- 4.2.1 A Feasibility Study has recently been carried out by Iarnrod Eireann into the re-opening of the Clonsilla – M3 Interchange railway line, which includes Dunboyne. This Study concluded that the re-opening of this line is economically feasible.
- 4.2.2 The Feasibility Study outlined the need for funding from a number of sources. Meath County Council can require Section 49 Development Contributions to help finance the re-opening of the line, the construction of the train station, etc. It was envisaged that a Supplementary Development Contributions Scheme be drawn up in respect of development within the IAAP area for the purposes of partially funding the re-opening of the rail line. Though this may still be necessary, the Minister for Transport announced an investment of €34.4 billion in order to implement Transport 21, the major share of which will come from the exchequer.
- 4.2.3 In November, 2005, the Minister for Transport announced the launch of Transport 21. Transport 21 is an investment framework plan which aims to expand and improve the country's transport network. The plan sets out a hierarchy of investment priorities and delivery targets. Among these targets is the development of a new rail line from Clonsilla to Dunboyne/M3 Park 'n Ride by 2009.
- 4.2.4 The re-opening of the rail line and the development of a train station at Dunboyne implies a requirement for increased densities within the IAAP area. This would be essential to ensure the viability of a

commuter rail service and would be in line with the Residential Density Guidelines and Iarnrod Éireann's requirements.

- 4.2.5 The re-opening of the rail line and the opportunity for higher residential densities it facilitates, would allow Dunboyne to fulfil its role as a town within the Dublin Metropolitan Area and a Primary Dynamic Cluster.

4.3.1 Water Supply

- 4.3.2 Meath County Council currently "imports" potable water from Fingal to serve the Dunboyne/ area. At present approximately 2,800 cubic metres per day is imported. In 2002 it was calculated that the requirement for the currently zoned lands (domestic and non-domestic needs) was 5,872 cubic metres per day. Although there is no formal agreement in place between the two authorities Fingal County Council have undertaken to provide Meath County Council with water up to this requirement on the basis that Meath becomes self sufficient in the medium to long term. The medium term in this case has been defined as within the next 10 years.

- 4.3.3 Meath County Council is working to provide a water scheme to supply Dunboyne within five years. The County Council plan to provide enough water to meet the projected needs of the area until the year 2023 and hence, when operational, it is likely to have sufficient capacity to serve lands additional to those currently zoned including the IAAP area.

4.4.1 Foul Sewerage

- 4.4.2 Wastewater from Dunboyne and Clonee is exported to Fingal and is conveyed through their network to Dublin City Council for treatment at Ringsend Water Treatment Works. An existing drainage agreement in 1991 with Fingal County Council allows Meath County Council to export up to 6,000 population equivalent from the Dunboyne/ Clonee area. The local sewer network and link to Fingal can generally accommodate approximately three times this amount.

- 4.4.3 Meath County Council are completing a study to determine the extent of infiltration in Dunboyne/ Clonee and there would appear to be some scope for freeing up further capacity by addressing infiltration. Remedial works are currently underway

- 4.4.4 Following the completion of the ongoing Greater Dublin Area Strategic Drainage Study, Fingal will consider what increase in allocated capacity they can provide to County Meath and this study is expected to confirm sufficient formally agreed capacity to accommodate the development of the IAAP area. The Greater Dublin Area Strategic Drainage Study will be approved shortly.

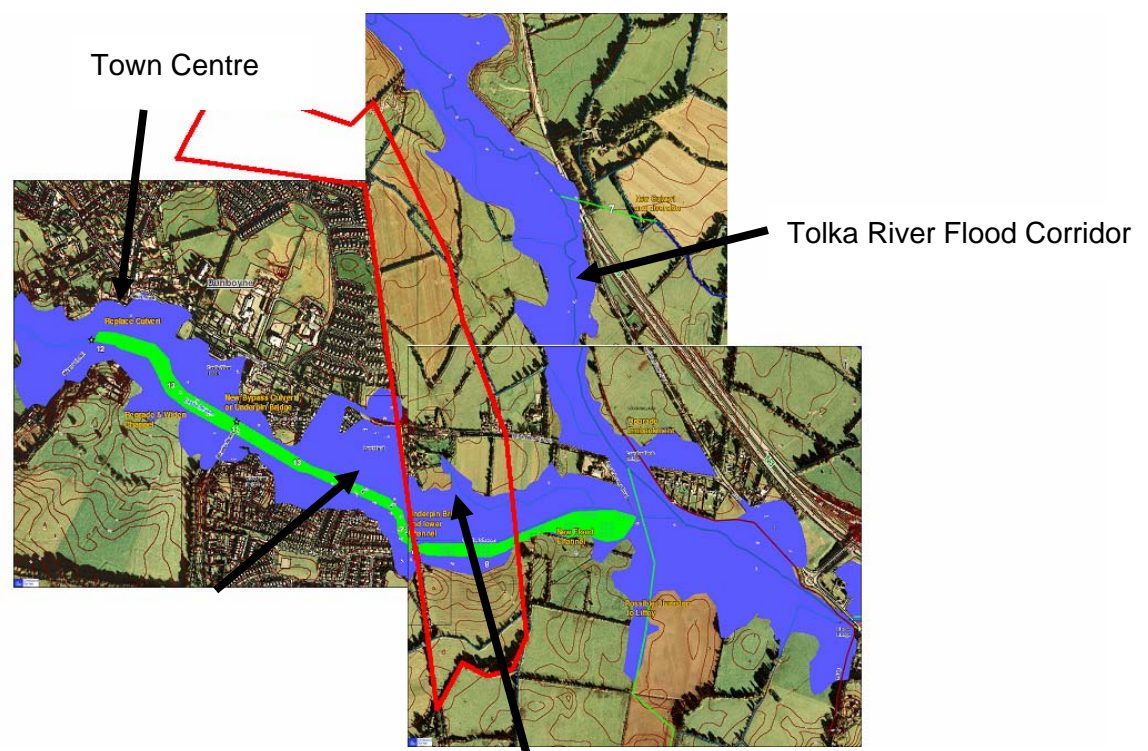
4.5.0 Surface Water Drainage

- 4.5.1 The existing fields within the IAAP area drain to the River Tolka as the IAAP area lands slope gently to that river. Existing north / south drains run to the river via the road drainage network.
- 4.5.2 Completely new surface water outfalls to the west of the railway line at Millfarm and Larchfield have recently been provided.
- 4.5.3 It is anticipated that any new development can be accommodated through attention provided by the Sustainable Urban Drainage System (SUDS). Surface water run off can be collected under SUDS collected in open grassed channels (swales), attenuated in detention ponds, treated and discharged into the local environment at predevelopment levels.

4.6.0 Flooding

- 4.6.1 It is acknowledged that there is a flooding issue in Dunboyne. The River Tolka has a history of flooding following heavy rainfall. The most recent serious flood event occurred on 14th / 15th November 2002 following a major 2 day rainfall.
- 4.6.2 A Report on the November 2002 Flood Assessment and Interim Alleviation measures was produced this year by MC O Sullivan on behalf of Dublin Drainage Consultancy Consortium who are consultants for the overall Greater Dublin Strategic Drainage Study. The extent of the flooding recorded in Dunboyne is shown in figure 4.6.2.1 below.

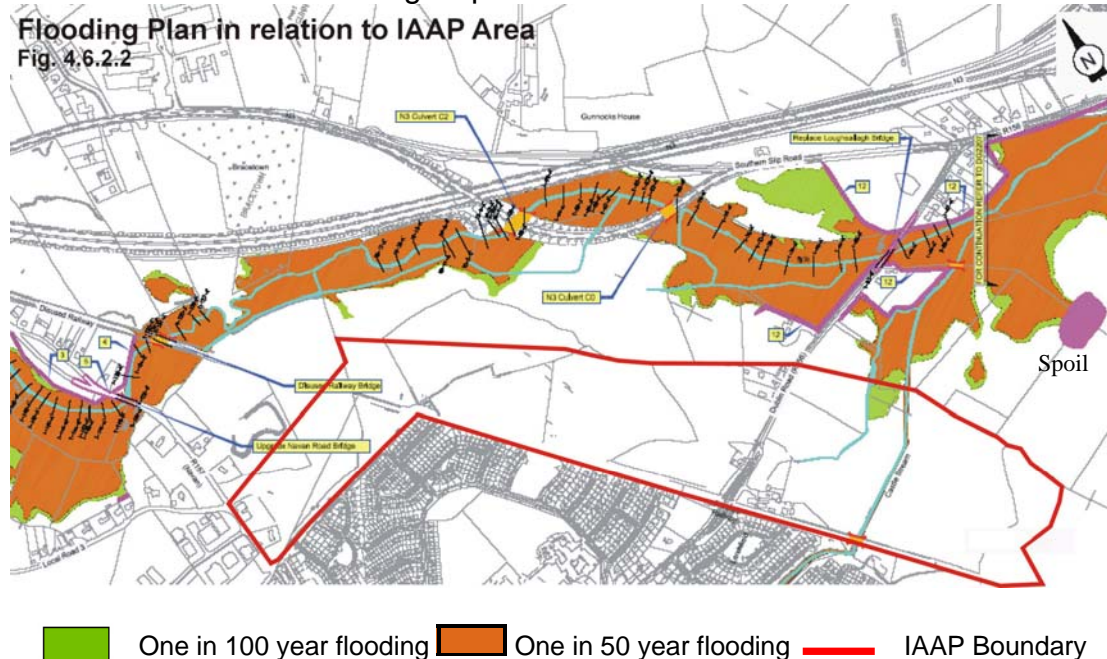
Figure 4.6.2.1 *Extent of Flooding November 2002*
(Taken from MC O'Sullivan Report on River Tolka Flood Assessment)



Castle Stream Flood Corridor

IAAP area

Figure 4.6.2.2 Extent of flooding post works recommended in the Final Flooding Report



- 4.6.3 The main source of flooding is identified in the report as the flood flow of Castle Stream exceeding the capacity of the relatively limited river channel through Dunboyne, including culverts / bridges at Maynooth Road, Rooske Road and at the disused Railway Bridge.
- 4.6.4 The River Tolka Flooding Study November 2003 identifies a requirement to undertake extensive earthworks in the Dunboyne to Clonee area, significant upgrading of the channel capacity of the Castle Stream and renewal of the principal bridge structures in Dunboyne. If these components are implemented the flooding of the IAAP area will be limited to a relatively minor intrusion of a one in a hundred year occurrence as shown in figure 4.6.2.2 above.
- 4.6.5 The Castle River has been deepened and widened and the Maynooth Bridge has been replaced as part of the agreed remediation works. Other works that have been completed include the bypass culvert or Rooske Road Bridge; underpinning the Railway Bridge to increase the flow carrying capacity; new embankments at and near the Loughsallagh Bridge; provision of a wall the south river bank upstream

of the N3; and finally the construction of embankments to the western side of Clonee.

- 4.6.6 With the completion of the remaining works in 2004 flooding will no longer be an issue either in or in close proximity to the IAAP area. The allocation of the extremely small area prone to flooding in one of every 100 years to open space as shown on the masterplan will ensure that flooding will not be an issue within the IAAP area nor will this potential problem be deferred somewhere else.