1.7 Scoping of the EIS

The information to be contained in the EIS was scoped with Cork County Council's Planning Department during pre-planning meetings. The content and scope of the traffic and transportation, archaeology, hydrology and ecology chapters were also discussed with the relevant departments of Cork County Council and prescribed bodies. Details of the pre-planning discussions held with the relevant departments and prescribed bodies are outlined in detail in the relevant chapters.

In addition to the planning process and the preparation of the EIS, other processes and licences that will be required in accordance with legislation include the following:

- *Requirement for Review of IPPC Licence*
- *Review of impact on Seveso*

1.8 Public Consultation

A public information meeting was held on November 10th, 2011 in the Jameson Experience Midleton to inform interested parties about the proposed development. A public notice outlining details of the information meeting was published in the East Cork Journal for the 2 weeks preceding the event.

PUBLIC NOTICE

Irish Distillers
Pernod Ricard

Public Notice

Irish Distillers Limited
Proposed Expansion
of the Midleton Distillery

General information on the proposed project to expand the capacity of the Midleton Distillery will be available at the Jameson Experience Heritage Centre, Old Distillery Walk, Midleton from 5pm to 8pm on Thursday, November 10th, 2011.

Representatives from Irish Distillers and the project team will be available to discuss the project.

Representatives from IDL and members of the project design team attended the information meeting and discussed details of the project with interested parties. Although the meeting was well advertised there was a relatively low turnout. Three Council Representatives were in attendance to review to proposal and reflect the concerns of their constituents. There was support for the economic growth that the proposed development would bring to Midleton and no additional issues of concern were raised, over and above those being addressed within the EIS.

Direct contact was made with those most immediately impacted by the proposed development, including Midleton College and St John the Baptist National School.

In addition to this, pre-planning consultation was held with An Taisce and Inland Fisheries Ireland to discuss the nature and scale of the project.

2 Need for the Scheme

2.1 Introduction

As outlined in Chapter 1 the Midleton Distillery complex occupies a 45 hectare site on the outskirts of Midleton town. In 1975, following the creation of IDL all distillation was consolidated into one “new distillery” adjacent to the original Midleton Distillery. 111 people are employed at the “new distillery” and production operations run 24 hours per day, 7 days per week, for an average of 47 weeks per year. Annual spend on cereals, energy, capital projects and payroll exceeds €60m.

Today Jameson is the key brand distilled and matured in Midleton. Jameson is the world’s largest selling Irish Whiskey, ranked 29th in the Top 100 Global Spirits Brands and the fastest growing Premium Whiskey in the world. Jameson is ranked 4th on the International Wine & Spirit Research (IWSR) Elite Brands List as highlighted on Table 2.1.

Paddy, Powers Gold Label, Crested Ten and Midleton Very Rare are also distilled and matured in Midleton. Midleton Distilleries is also renowned for its Irish Pot Still Whiskey of which Redbreast and Green Spot are the most recognised expressions. In May 2011 this range was expanded and re-launched to world wide acclaim.

In 2011 Jameson and the Single Pot Still Whiskeys of Midleton received a significant number of awards & accolades at the world’s most prestigious spirit competitions. These awards include

SAN FRANSICO WORLD SPIRIT COMPETITION

- Double Gold: Jameson Rarest Vintage Reserve
- Gold: Jameson 12 Year Old Special Reserve

INTERNATIONAL SPIRITS CHALLENGE

- Trophy*:* Midleton Barry Crockett Legacy
- Gold: Jameson Gold Reserve
- Gold: Jameson 18 Year Old Limited Reserve
- Gold: Jameson Rarest Vintage Reserve
- Gold: Redbreast 12 Year Old
- Gold: Midleton Barry Crockett Legacy

IRISH WHISKEY MASTERS

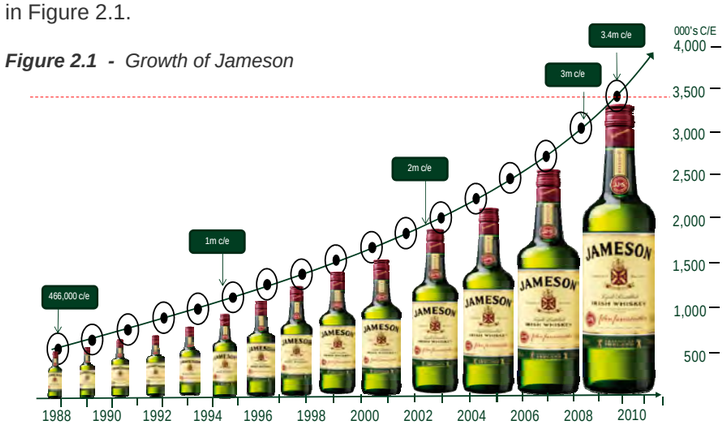
- Master: Jameson 12 Year Old Special Reserve
- Master: Midleton Barry Crockett Legacy
- Master: Powers John’s Lane

In addition to the Irish Distillers’ Brands, Midleton also supplies bulk whiskey for blending in many other well known Irish Whiskey brands and Irish Cream Liqueurs.

2.2 Irish Whiskey

Global sales of Jameson have benefited greatly from the global reach of the Pernod Ricard Group. In 1989 the total sales of Jameson were a little over 460,000 cases annually, split equally between Ireland and the rest of the world. By 2010 sales of Jameson had reached 3 million cases annually, split 5% in Ireland and 95% the rest of the world, as illustrated in Figure 2.1.

Figure 2.1 *- Growth of Jameson*



The Irish Whiskey category is the fastest growing spirits category worldwide as illustrated by Figure 2.2. This growth is driven by Jameson whose global share of the Irish Whiskey Category has grown from 47% in 2000 to 61% in 2008 (source: Impact Databank November 2009).

According to Impact Magazine (November 2009):

> *‘Irish Whiskey’s rapid growth over the past several years has been one of the spirits’ industries most remarkable stories’. Since 2005 the category has added more than 1 million cases and while Jameson added more than 70% of that,. Tullamore Dew and Bushmills have also enjoyed outstanding performance. While Irish Whiskeys’ top export markets all enjoyed growth in 2008 the category’s potential may be revealed by its geographical balance. The markets outside of the Top Six accounted for over 1.7 million cases (nearly 40% of total volume) and combined for 12.3% growth in 2008, making it clear that the seeds for future success have been planted.’.*

Global sales of Jameson reached 3 million cases in 2010 and are predicted to reach 6 million cases by 2018. Pernod Ricard Group considers the brand has the potential to be a top five global spirit brand selling 10 million cases per annum in the future.

In addition to Jameson, IDL produces the Paddy, Powers Gold Label, Crested Ten and Midleton Very Rare brands of Irish Whiskey at Midleton

The IWSR's Elite Brands List								
Rank 2009/2010/Brand	Category	Owner	Volume 2005	Volume 2009	Volume 2010	% CAGR '05-'10	% Vol in main market	Main market
- 1 Johnnie Walker	Scotch Whisky	Diageo	12,161.6	14,325.5	15,543.1	5.0	11.5	Duty free
2 2 Jägermeister	Bitters/Spirit Aperitifs	Mast-Jägermeister	5,066.2	6,378.3	6,548.6	5.3	39.7	USA
3 3 Havana Club	Rum	Pernod Ricard	2,404.4	3,299.9	3,710.5	9.1	29.7	Cuba
5 4 Jameson	Irish Whiskey	Pernod Ricard	1,871.7	2,708.1	3,112.0	10.7	33.3	USA
4 5 Finlandia	Vodka	Brown-Forman	2,049.9	3,041.6	2,998.1	7.9	29.1	Poland
6 6 Sobieski	Vodka	Belvédère	1,837.1	2,829.4	2,865.2	9.3	46.0	Poland
7 7 Russian Standard	Vodka	Roust	1,152.8	1,979.9	2,189.4	13.7	39.4	Russia
- 8 Eristoff	Vodka	Bacardi-Martini	1,270.1	1,492.0	1,756.6	6.7	21.9	France
8 9 Wm Lawsons	Scotch Whisky	Bacardi-Martini	1,131.7	1,577.4	1,657.9	7.9	45.1	France
10 10 Barceló	Rum	Barceló	513.3	1,330.6	1,516.3	24.2	50.5	Spain
9 11 Buchanan's	Scotch Whisky	Diageo	1,051.0	1,329.7	1,403.2	6.0	45.8	Mexico

Table 2.1 *- IWSR Elite Brands*

Distilleries. Paddy sells twice as much in export markets as it does in Ireland and in 2010 a major marketing drive began in the US. Table 2.2 illustrates the top 10 markets for Irish Whiskey form 2000 to 2010. Powers Gold Label was until recently the largest selling Irish Whiskey in Ireland and won a Gold Medal at the 2009 International Spirits' Challenge. Tullamore Dew also comes from the Midleton Distillery. In addition Midleton supplies significant volumes for other well known Irish Whiskey and Irish Cream Liqueur brands.

The growth of the distillery is intrinsically linked not only with the growth of IDL's key brand, Jameson, but with the growth of the Irish Whiskey Category globally. In a commercial market, if companies do not respond to growth in demand then there is a risk that they will lose market share, undermining existing demand. Growth of IDL output is therefore also necessary to protect and consolidate their existing market share and associated employment at Midleton Distillery.

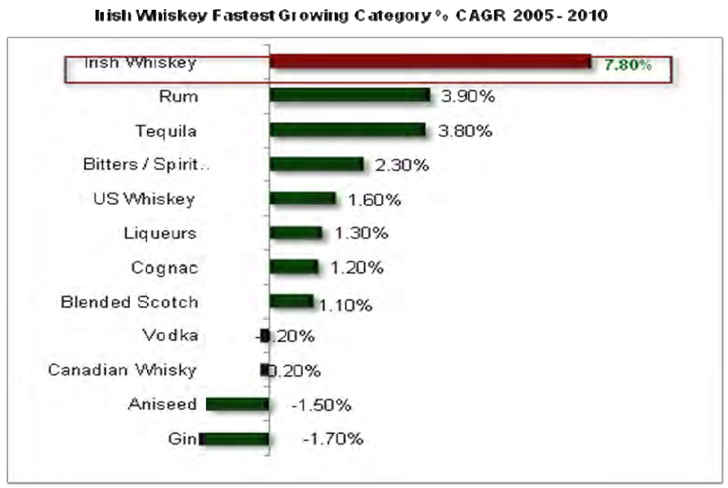


Figure 2.2 *- Global Spirits trend 2005-2010*

Table 2.2 *- Irish Whiskey – Top Ten Markets*

IRISH WHISKEY - TOP 10 MARKETS (Thousands of nine-litre cases)									
Rank	Country	2000	2005	2009	2010	% Share 2010	% Chg 09 to 10	CAGR 00-10	CAGR 05-10
1	United States	369.25	609.00	1,155.00	1,410.00	28.5%	22.1%	14.3%	18.3%
2	Ireland	657.50	557.25	463.50	469.25	9.5%	1.2%	-3.3%	-3.4%
3	Global Duty Free	260.48	306.91	368.11	429.60	8.7%	16.7%	5.1%	7.0%
4	France	364.00	396.75	371.50	397.25	8.0%	6.9%	0.9%	0.0%
5	United Kingdom	327.00	376.00	376.50	382.25	7.7%	1.5%	1.6%	0.3%
6	South Africa	31.00	89.50	205.50	216.50	4.4%	5.4%	21.5%	19.3%
7	Russia	7.50	40.50	132.75	182.75	3.7%	37.7%	37.6%	35.2%
8	Germany	105.50	133.00	159.75	174.50	3.5%	9.2%	5.2%	5.6%
9	Bulgaria	17.75	51.00	121.50	140.75	2.8%	15.8%	23.0%	22.5%
10	Czech Republic	24.65	62.00	137.50	121.75	2.5%	-11.5%	17.3%	14.4%
	Other Markets	534.42	761.90	948.12	1,027.97	20.7%	8.4%	6.8%	6.2%
	Total Irish Whiskey	2,699.05	3,383.81	4,439.73	4,952.57	100.0%	11.6%	6.3%	7.9%

IDL's commercial appraisal has identified the need to increase output of its whiskey to 60 MLA per annum by around 2023, with an ultimate capacity of 64 MLA per annum. The projected phasing for increased output by 2023 is illustrated in Figure 2.3.

2.3 Midleton Capacity

Whiskey has been distilled and matured in Midleton since 1825. In 1975 the new distillery complex was built on this site and consolidated the production of Jameson and Powers from Dublin with Paddy from Midleton into a state of the art facility.

The new Midleton Distillery complex was commissioned and began to produce whiskey in 1975 and, at the same time had a capacity to produce 21 million litres of alcohol per annum. Significant investment was made in the Distillery by Pernod Ricard in 1999 and as a result the capacity increased to 33.5 million litres of alcohol per annum. Midleton has been near full capacity for the last two years and sales projections indicate it will need additional capacity in 2013. This additional capacity will require the expansion of the following facilities:

- *Fermentation: there is a need for an additional 24 tanks for the fermentation process.*
- *Still House: there is a need for a new still house to provide the capacity for the Pot Line distillation process.*
- *Still House Tankfarm: there is a need for a new tankfarm associated with the still house.*
- *Distillation Columns: there is a need for 6 new distillation columns to distil the alcohol.*
- *Columns Tankfarm: there is a need for a new tankfarm associated with the distillation columns.*
- *Fire Water Retention Pond: there is a need to install a new retention pond on site to protect the environment in the case of an emergency.*
- *Process Water: there is a need to augment the supply of water by abstracting ground water from 8 boreholes.*

A detailed description of the proposed development is provided in Chapter 4. In addition to the on-site expansion requirements there is a need for an increase in maturation warehousing. Development proposals for a satellite maturation warehousing facility at Ballynona North, Dungourney, to provide for 40 warehouses, were approved by Cork County Council in May 2011 (planning reference: 10/8418).

2.4 Conclusion

Global growth in the demand for Irish Whiskey means that IDL is seeking to increase its output of Whiskey to 64 MLA per annum over the next 10 to 12 years. If the Jameson brand is to grow from its current position of selling 3 million cases to reach 6 million cases by 2018 and become a top five global spirit brand selling 10 million cases per annum in the future, output must be increased. This increased output will support projected growth, but also protect and consolidate IDL's market share and current employment at Midleton Distillery.

It is considered that the most effective way to achieve this increase is to add production capacity at the existing distillery in Midleton. This approach is cost effective in terms of the economies of scale of existing supply and production lines; and the skills and experience of existing distillery personnel. It is also considered that the environmental impact of developing the existing site would be less than developing a separate facility at a new location.

Midleton Distillery is currently operating at near capacity; with an output of 33.5 MLA per annum and it is not possible to increase output without development of the production facilities on site. A detailed description of the development necessary to facilitate the increased output is provided in Chapter 4.

In addition to the proposed development on-site, a planning application for the development of an additional 40 maturation warehouses has been approved at Ballynona North, Dungourney, Co. Cork. The combined investment in expanding the Distillery and the Maturation complexes is projected to exceed €200m in the coming years.

Pernod Ricard is keen to continue the near 200 year tradition of whiskey distilling in Midleton and is committed to continue to invest in its existing facility, rather than explore operational requirements and investments outside of Midleton or County Cork.

Figure 2.4 *- Artist Impression of Proposed Still House and Distillation Column Building*

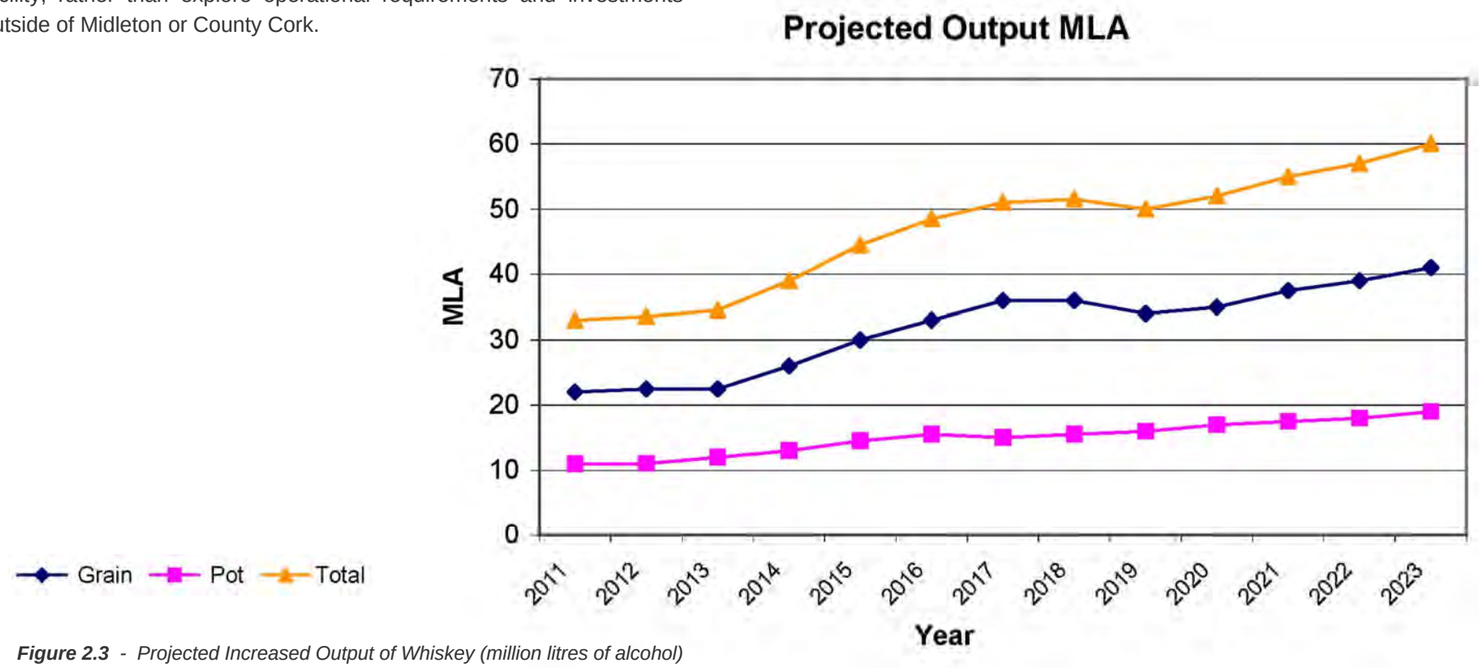


Figure 2.3 *- Projected Increased Output of Whiskey (million litres of alcohol)*

3 Planning Context

3.1 Introduction

This section outlines the planning and policy context of the proposal by IDL to increase production capacity in the Midleton Distillery from 33.5 MLA per annum to 64 MLA. The increase is required to meet market demand and continue to expand its business.

The proposed development is examined in the context of the policies and objectives of the documents below, which address policy guidance in relation to economic development, employment and development at national, regional and local levels.

At a local level the proposed development straddles the administrative boundary of Cork County Council and Midleton Town Council. In Cork County Council the relevant plans are the 2009 Cork County Development Plan and the 2011 Midleton Electoral Area Local Area Plan.

Within the Town Council area, at the time of drafting this EIS, there was a vacuum in the statutory policy context, as the 2003 Town Development Plan is no longer valid and a new plan has not been adopted. A draft development plan was issued for public consultation in 2009 but, as neither a Strategic Environmental Assessment (SEA), nor an Appropriate Assessment (AA) was prepared, the draft could not be adopted. Midleton Town Council intends to reissue the draft plan along with the required SEA and AA. In assessing the planning application regard will be had to the draft plan. Accordingly, in the context of Midleton Town Council area, this EIS refers to the draft Midleton Development Plan, as issued in 2009.

3.2 Relevant National Policies, Objectives and Guidance

National Spatial Strategy

The National Spatial Strategy (NSS) 2002-2020 was published in November 2002 as a 20-year coherent national planning framework for Ireland. The stated aims of the NSS were to achieve a better balance of social, economic and physical development across Ireland.

In order to drive development in the regions, the NSS envisages that areas of sufficient scale and critical mass will be built up through a network of gateways and hubs. While the National Development Plan 2000-2006 identified Dublin, Cork, Limerick/Shannon, Galway and Waterford as existing gateways, the NSS designated four new national level gateways - the towns of Dundalk and Sligo and the linked gateways of Letterkenny / Derry and the Midland towns of Athlone / Tullamore / Mullingar. In addition, the NSS identified nine, strategically located, medium-sized 'hubs' which will support and be supported by, the gateways and will link out to wider rural areas. Figure 3.1 provides a diagrammatic summary of the strategy for the South West Region.

The existing distillery at Midleton is located within the South West Region, as defined by Map 9 of the National Spatial Strategy. Midleton is defined as a town with a population greater than 5,000 with 'Urban Strengthening Opportunity'.

Section 4.7 of the NSS indicates that the implementation of the Cork Area Strategic Plan will be important in securing the objectives of the NSS.

It also highlights that county towns such as Midleton need to be promoted and developed as self-sustaining towns. The NSS indicates that these towns will benefit from their proximity to Cork and through the implementation of the Cork Area Strategic Plan, which will enhance their road, rail and bus links to Cork City. It is envisaged that the proximity to the city and transport improvements will allow them to build up their employment and services functions

Section 5.2.3 of the NSS recognises the importance of agriculture and food production, forestry, fishing, aquaculture and related industries and natural resource development to the Irish economy and the key role it has to play in providing for vibrant and diversified rural communities.

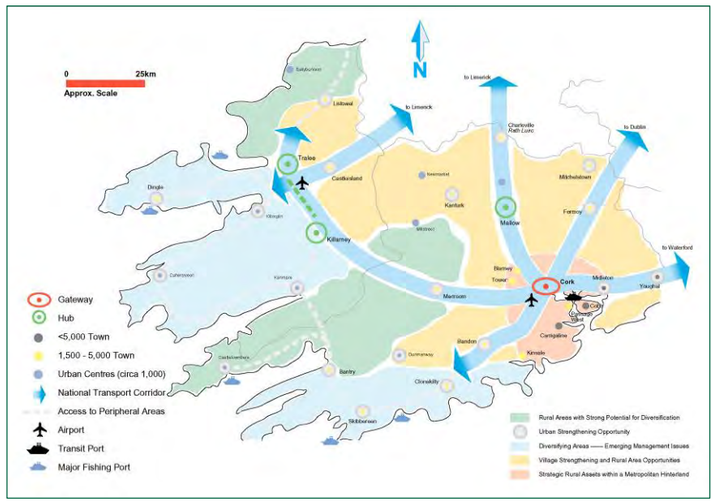


Figure 3.1 **-** *National Spatial Strategy – South West Region*

National Development Plan 2007-2013

The National Development Plan (NDP) sets out a programme of integrated investments that will underpin the country's ability to grow in a manner that is economically, socially and environmentally sustainable. It follows on from the previous National Development Plan 2000-2006.

The National Development Plan recognises that food and drink is one of Ireland's most important indigenous sectors, providing for 50,000 jobs directly and accounted for 8.6% of GDP in 2005. The NDP also highlights that food and drink exports of over €8 billion in 2006 represented a very significant source of foreign earnings.

The Food Industry Sub Programme of the NDP involves an investment of €289 million in capital infrastructure and marketing. The NDP indicates that this programme will include the promotion and market development of the agri-food sector in Continental EU and Asian Markets.

Building Ireland's Smart Economy: A Framework for Sustainable Economic Renewal

Building Ireland's Smart Economy: A Framework for Sustainable Economic Renewal was published in December 2008. The document sets out a framework aimed at addressing the current economic challenges and to build a 'Smart Economy' with a thriving enterprise sector, high-quality employment, secure energy supplies, an attractive environment, and first-class infrastructure'.

One of the key actions of the document is to develop a range of measures to build on the strengths in the Agriculture, Fisheries and Food Sectors and exploit the potential of an export-led, natural resources based Agri-food sector. Section 1.9 highlights that the

> '*indigenous, export orientated sector, agri-food currently accounts for over 30% of net flows into the economy from primary and manufacturing output and has tremendous potential to contribute to the reinvigoration of the economy*'.

The document outlines that the Government remains strongly committed to continued substantial support for the sector to meet the challenges

and avail of the opportunities arising from on-going changes in the international economic climate and that Bord Bia will continue to promote and market Irish foodstuffs.

Jobs & Growth 2010

Jobs and Growth 2010 was a statement launched by the Government in March 2010. It sets out the Government's policies and actions aimed at maintaining and growing employment. The statement identifies that these policies and actions are key to the success of the Government's Smart Economy objectives.

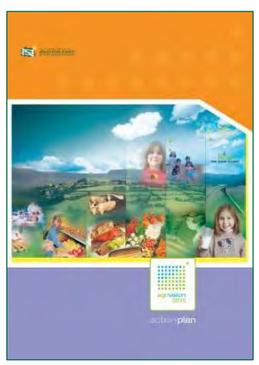
Jobs and Growth 2010 highlights that the '*agri-food sector accounts for a third of net export earnings from the primary and manufacturing sector and for one out of every twelve jobs. Two-thirds of manufacturing exports by Irish-owned firms consist of food and drink and the industry has a broader regional spread than any other* '.

The statement highlights that the Department of Agriculture, Fisheries and Food has launched a 2020 initiative to identify strategies aimed at ensuring that the food supply chain contributes to export led growth in the 'Smart Economy'. It is noted that an integrated approach to development can deliver sustainable food and drink exports of €10 billion.

Agri Vision 2015 Action Plan

The Agri Vision 2015 Action Plan was published by the Department of Agriculture, Fisheries and Food & Drinks sets out the action required to ensure that farming, the food, drinks and wood industries continue to play a vital role in the sustainable development of the country.

The Agri Vision 2015 Action Plan recognises that the food and drink industry is one of Ireland's largest indigenous manufacturing sectors employing approximately 50,000 in direct jobs. The overall agri-food sector accounts for 9% of GDP and total employment, 18% of industrial jobs and a fifth of the net flow of foreign earnings associated with export. The food and drinks sectors accounts for 62% of exports and 40% of employment in indigenous industry.



Among the policies and actions outlined in the Action Plan is the Department's commitment to work with Bord Bia to facilitate, support and promote a target of doubling the value of food and drink exports to the Far East over three years.

Department of Agriculture, Fisheries and Food, 2020 Strategy

In February 2010 the Minister for Agriculture, Fisheries and Food, Brendan Smith TD, launched an initiative to draw up a long-term strategy for the agri-food, forestry and fisheries sectors. In order to facilitate and target the consideration of key issues, a series of discussion and background papers were prepared and published by the Department including a discussion document entitled An Innovative and Sustainable Food and Drinks Industry.

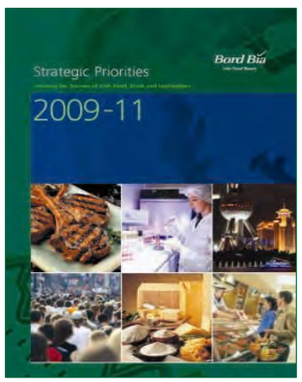
The 2010 discussion paper highlights that the 'alcoholic beverage sector, incorporating distilled spirits and spirit-based liqueurs, provides employment – directly or indirectly - for over 20,000 people and accounts for raw material purchases (cream, cereals etc) of over €170 million'. It also identifies that 'Ireland supplies over 90% of the world's cream liqueur market while total exports of alcoholic beverages are worth over €1.2 billion'.

The 2010 discussion paper recognises that Bord Bia has identified potential to increase export revenues within the alcoholic beverage industry. The paper also notes that the 'Irish whiskey sector is a key driver of growth within the industry and is likely to continue to gain market share in the medium term'.

The Department's Annual Review & Outlook for Agriculture Fisheries & Food 2010/2011 noted that there been a small rise in employment in the beverage industry over the last year, compared with a slight decrease in employment in the food industry.

Bord Bia Strategic Priorities 2009-2011

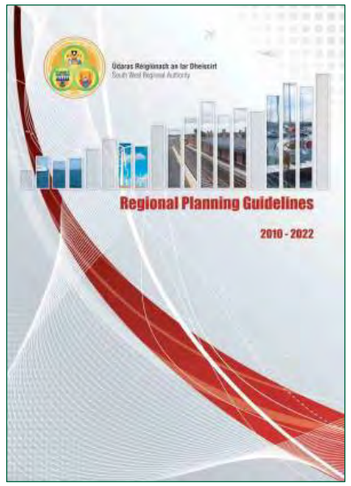
The Bord Bia report recognises that the Irish food, drink and horticulture sector has performed impressively over recent years, with the value of trade rising by almost 40 per cent since 2002 to exceed €8.7 billion in 2007. The report identifies that much of this growth has been driven by strong export performance in dairy, beverages, prepared foods and to a lesser extent, meat.



The Board Bia report highlights that despite the current challenges in the global market that the Irish food, drink and horticulture industry has the potential to boost export returns and approach €10 billion in annual export revenues by 2011. The strongest growth potential areas are identified as dairy, prepared foods, beef and alcoholic beverages. This increase will require growth of €1.3 billion and Bord Bia indicates that €0.35 billion or 27% of this growth will be in the alcoholic beverages sector.

3.3 Relevant Regional Policy Guidance

The South West Regional Planning Guidelines (SWRPG) 2010-2022



The South West Regional Planning Guidelines 2010-2022 were adopted in July 2010 with the objective of providing a long term strategic planning framework for the development of the South West Region. The Guidelines act as the bridge between national objectives and local plans.

Section 1.3.13 of the Guidelines recognises the importance of the food sector to the south west region and highlight that in 2007 more than 5,000 people were employed in the sector. Section 2.2.9 of the Guidelines highlight that the north east of Cork is an area with a strong agricultural base with a focus on food production.

Section 3.1.5 recognises the importance of the food based exports for the region and indicates that

'The region is unique in that it is the only region where the value of output from industry (manufacturing) exceeds that of services (both traded and non traded). It has a diverse industry base and well developed geographic clustering of export oriented companies in the Food, Pharmaceuticals and ICT sectors in particular, and to a lesser extent Medical Devices and Engineering'.

Objective RES 01 (Production & Knowledge) of the Guidelines looks to encourage growth and safeguard the presence of indigenous and multinational companies and indicates:

"It is an objective to promote sustainable growth of indigenous and multinational companies in the economic sectors where the region enjoys competitive advantage and in particular:

- *Knowledge based industry, research and development, with a strong focus on indigenous company growth, supported by the sustainable development of a Regional Science Park in the Gateway.*
- *Strategic sites at appropriate locations for large scale developments related to the pharma-chemical, bio-medical, IT and food sciences sectors.*
- *Internationally traded services located in high quality sustainable locations, strongly focused on the Gateway and Hub towns, in brown*

field locations where practicable and within easy access to public transport and support services."

In order to safeguard the expansion of existing productive industries in the region, it is necessary for local authorities to:

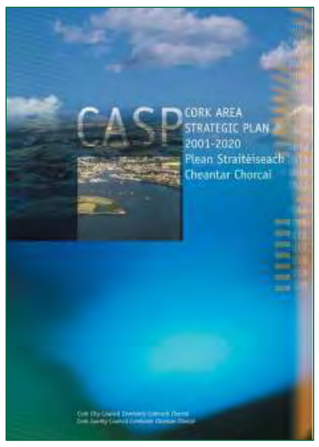
- *Ensure adequacy of suitable land for expansion.*
- *Identify optimum sustainable locations for large scale production.*
- *Where appropriate, facilitate the sustainable generation of renewable energy at source in strategic industrial areas.*
- *Encourage the relocation of existing Seveso sites in the Cork Docklands area to facilitate future development of the docklands, in a sustainable manner.*
- *Ensure that travel and transport needs are catered for in a sustainable manner.*

Section 3.2.17 of the Guidelines recognise the importance and quality of food products and especially their importance in terms of opportunities for expanding exports to international markets and states:

"While the relative importance of agriculture to the regional economy has changed in terms of employment and value, the region has many areas of high quality productive capacity which have the potential to contribute to growth in the development of new food products with international demand resulting in the creation of new employment opportunities within the region."

Cork Area Strategic Plan 2001-2020

The Cork Area Strategic Plan (CASP) was adopted by Cork City Council and Cork County Council on October 22nd, 2001. The purpose of this Plan was to move towards a more sustainable form of development for the Cork area and outline a shared vision for the development of Metropolitan Cork to 2020.



The CASP study area is determined by a journey time of approximately 45 minutes from Cork City and includes the city, the satellite towns of Midleton, Carrigtwohill, Carrigaline, Ballincollig and Blarney and the ring Towns and rural hinterlands of Bandon, Macroom, Mallow, Fermoy, Youghal and Kinsale. CASP provides a general strategy for the development of the Study Area, sets targets for population and employment and recommends where such growth should be accommodated. CASP advocates the rebalancing of future population growth within the County and to achieve this, a strategy of consolidation of development in the south and west with more rapid growth in the north and east along the rail corridor from Blarney to Cobh and Midleton is recommended.

Table 2.6 of the Plan indicates that 32,870 dwellings are to be provided in Metropolitan Cork up to 2020 and 5,740 (17.5%) will be provided in Midleton town with a further 5,090 (15.5%) to be provided in Carrigtwohill and the Midleton hinterland.

CASP estimates that 46,370 new jobs will be created during the 20 year lifetime of the Plan and that 16,000 of these will be created in the City, many of which would be located in the redeveloped Docklands. Table G.2 indicates that Metropolitan Cork will attract 26,170 new jobs in this period and that 5,320 (20%) of these will be created in Midleton town with a further 4,230 (16%) created in the Glounthaune/Little Island/Carrigtwohill/Midleton hinterland.

Cork Area Strategic Plan Update

The CASP Update was published in 2008, to take account of the new population and associated employment growth envisaged for the City Region under the NSS. The CASP Update delivers an updated strategy which provides for a significant enhancement in economic growth and accommodates a greater population than originally envisaged in line with the updated NSS targets.

Table 3.6 of the CASP Update predicts that Metropolitan Cork, not including Cork City Centre will have a population of 216,240 by 2020, an increase of 63,221 on the 2006 population. Of this 63,221 increase 13,114 (21%) will be accommodated in Midleton town with a further 10,618 (17%) in the Carrigtwohill and the Midleton hinterland. Section 3.2.2 of the CASP Update highlights that the updated population forecast for 2020 of 216,240 people will require a total of 82,053 jobs. Table 3.7 of CASP envisages that 6,202 of these jobs will be created in Midleton town with a further 14,934 created in the Glounthaune / Little Island; Carrigtwohill; Midleton hinterland.

Section 3.2.2 of the CASP Update highlights that Midleton's strategic assets include '*the presence of a commercial centre, the current mix of industry and services in the area, its strengths in food production and tourism, and also the access to education which Midleton offers'.*

3.4 Local Policy Guidance

2009 Cork County Development Plan

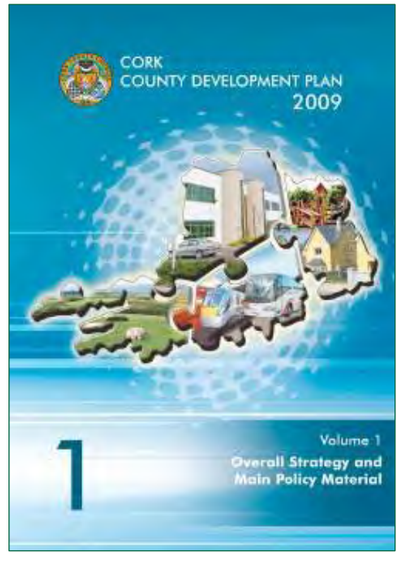
Midleton is identified in the 2009 Cork County Development Plan as an Integrated Employment Centre. Section 5.2.27 of the County Plan indicates that the aim for these settlements (Midleton, Blarney/Monard) is the '*balanced provision of land for housing and for employment development*'. Section 5.2.27 also highlights that '*the planned development of settlements in the rail corridor will provide access to a mix of employment uses including large scale industry and office based industry and enterprise'.*

Section 5.5.7 of the County Development Plan recognises the importance of the agri-food business to the County and highlights the following:

> *'Despite the changing pattern of employment in agriculture, the agri-food sector continues to be one of the most important and dynamic indigenous manufacturing elements in the Irish economy. It consists of 135,000 family farms and around 800 industrial units spread throughout the country. In 2005, the sector accounted for close to 9% of GDP. Due to its very strong export orientation and low import content, it is responsible for a significant proportion of the country's net foreign earnings'.*

Table 5.5 of the Plan highlights industries that are affected by the Seveso II Directive. Irish Distillers Limited feature on this list which indicates that a consultation distance of 300 metres applies to the site. Cork County Council's policies in relation to existing Seveso sites, proposed Seveso sites and proposals for development adjacent to them is defined by Specific Objectives ECON 3-8, ECON 3-9 and ECON 3-10 which are highlighted below:

ECON 3-1(a) of the 2009 County Development Plan indicates that it is an objective to promote and preserve industrial areas for appropriate industrial development.



Development Plan Objectives: **Seveso**	
ECON 3-8	**Prevention of Major Hazardous Accidents** It is an objective to reduce the risk and limit the consequences of major industrial accidents by, where appropriate, taking into account the advice of the Health and Safety Authority when proposals for new development are considered.
ECON 3-9	**Proposals for New Establishments** It is an objective, in assessing applications for new development or expansion of existing development involving hazardous substances, to have regard to: • The Major Accidents Directive (Seveso II) (96/082/EEC), • Potential adverse impacts on public health and safety and • The need to maintain appropriate safe distance between residential areas, areas of public use and areas of particular natural sensitivity.
ECON 3-10	**Proposed Development Adjacent to Existing Establishments** The Health and Safety Authority have established consultation distances surrounding establishments designated as containing hazardous substances. In addition to normal planning criteria it is an objective to ensure that development within these distances complies with the requirements of the Major Accidents Directive (Seveso II). The Council will consult with the Health and Safety Authority regarding any such proposals.

Midleton Electoral Area Local Area Plan 2011-2017

Midleton Distillery straddles the functional areas of Cork County Council and Midleton Town Council as highlighted on Figure 3.2. The majority of the proposed development is located within the functional area of Cork County Council being within 'Midleton Environs'' as defined by the 2011 Midleton Electoral Area Local Area Plan (2011 LAP). Local planning policy is contained in the 2011 LAP which establishes the vision for Midleton as:

> "*…to attain the target population for the town by 2020 in a sustainable manner, broadening and strengthening its employment base, and building on the success of its rail connections, as well as providing an excellent environment for its residents and visitors, thereby realising its potential as a significant metropolitan town within the CASP Metropolitan area."* (2011 LAP page..43)

The 2011 LAP notes that Midleton has a population of 10,048 people in 2006, with a target of 23,735 people in 2020, a growth of 13,687 people. It also identifies that in 2006 Midleton had 3,725 jobs and that the Cork Area Strategic Plan Update 2008 has indicated a 2020 jobs target of 6,202 for the town, a growth of 2,500 on the 2006 figure. This section also highlights that between 2003 and 2008 a total of 33 hectares of business land was taken up leaving Midleton with a business land supply of 101 hectares, which is equivalent to 15 years supply based on the current take up rate.

The 2011 LAP recognises Midleton Distillery as a significant employer in the town and the plan is supportive of expansion of distillation capacity on the site. The Plan notes that:

> *"3.3.10 Midleton Distillery, on the east side of the town centre, is designated under the Major Accidents (Seveso) Directive. The Distillery is a major local employer and has significantly expanded its operations in Midleton over the previous plan period.*
>
> *3.3.11 In order to meet growing demand for Irish Whiskey (in particular Jameson) Irish Distillers Limited have plans to double the capacity of the Distillery in the next 5 years.*
>
> *3.3.12 The potential for Irish Distillers Limited to expand on the current site is limited but the required increase in the distillation capacity can be accommodated."*

The 2011 LAP also notes the distillery's requirement for additional maturation capacity and states that this would be most appropriately provided in a rural location, noting that IDL have identified commercial forestry lands to the north of Dungourney to cater for future maturation needs. Planning permission for these maturation warehouses at Dungourney was granted by the County Council in May 2011.

Zoning Objectives

The existing distillery site is located within the development boundary of Midleton. The 2011 LAP identifies the Midleton Distillery site as an existing built-up area, as illustrated on the Midleton Environs zoning map (Figure 3.2). Accordingly, future development proposals will be assessed in relation to:

- *The objectives of the County Development Plan 2009;*
- *Any general objectives in the LAP that apply to the particular location;*
- *The character of the surrounding area; and*
- *Other planning and sustainable development considerations considered relevant to the proposal or its surroundings. (2011 LAP, page 6)*

The character of the surrounding area is defined by the existing distillery. The general policy objectives of the County Development Plan and 2011 LAP are to promote and preserve industrial land for industrial uses, support the employment growth in Midleton generally, and specifically to support the growth of distillation at the Distillery site. The development proposal is therefore consistent with the policies and objectives of Cork County Council.

Midleton Development Plan

A portion of the proposed development is within Midleton Town Council boundary. A review of the 2003 Town Development Plan was commenced in 2009 and a draft plan put on display for public consultation. This draft plan was not formally adopted due to the need to carry out SEA and AA of the plan. The 2003 Plan is now no longer valid under planning legislation. Technically this means that there is no statutory plan in place for Midleton Town Council area. Nonetheless, it is proposed to reissue the 2009 draft plan accompanied by an SEA and AA. It is anticipated that this draft will be on display at the time that the proposed development is being appraised and that the Council will therefore have regard to the draft plan.

The 2009 Midleton Draft Plan outlines a number of development policies, including the following relevant policies to the proposed development:

Town Function and Regional Role:

- *To continue to strengthen and develop the town's status as a commercial, service, employment and cultural centre for the region.*

Employment

- *To facilitate and encourage the growth in employment opportunities*
- *To achieve a situation where there is work available in the town or environs for all who wish to work there.*

Community and Recreational Facilities

- *It is an objective of the Council to ensure the provision of recreational and amenity facilities to serve the recreational and leisure needs of the community.*

Tourism

- *To take all possible steps, both directly, and in co-operation with other interested bodies to develop and improve facilities and marketing.*

Conservation and Environment

- *To preserve or protect structures of archaeological, architectural or historical interest in their settings.*

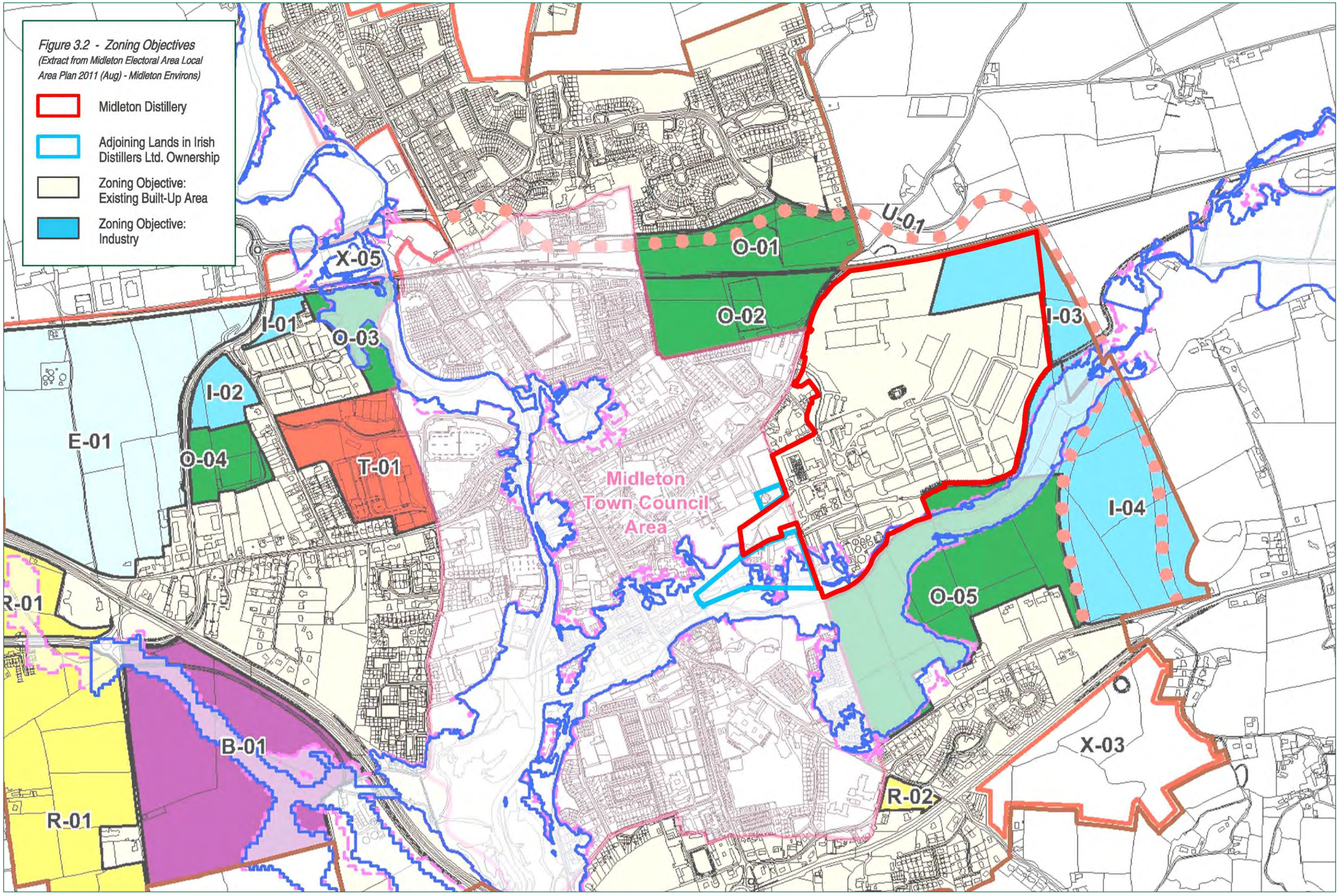
Figure 3.2 - Zoning Objectives
(Extract from Midleton Electoral Area Local Area Plan 2011 (Aug) - Midleton Environs)

Midleton Distillery

Adjoining Lands in Irish Distillers Ltd. Ownership

Zoning Objective: Existing Built-Up Area

Zoning Objective: Industry



Zoning Objectives

The subject lands within Midleton Town Council boundary were zoned Town Centre / Mixed Use in the un-adopted 2009 draft Midleton Town Development Plan. Section 4.10.7 of the draft plan details a zoning table which gives a general guide to the Council's policy towards development uses within land use zones. The zoning table text states that light industrial uses are open for consideration within the zone. The 2001 Planning & Development Regulations define light industrial buildings as:

> "…*an industrial building in which the processes carried on or the plant or machinery installed are such as could be carried on or installed in any residential area without detriment to the amenity of that area by reason of noise, vibration, smell, fumes, smoke, soot, ash, dust or dirt;*" (Planning Regulations 2001, Part 2)

The development proposed within the Town Council boundary falls within this definition of light industrial building, as there will be no noise or air emissions that would be detrimental to residential amenity.

We consider that the proposed development is consistent with the provisions of the 2009 draft Midleton Town Plan as:

- *The distillery development proposal is consistent with the policy objectives of the draft Midleton Town Development Plan to strengthen and encourage the growth of employment opportunities and to improve tourism facilities.*
- *The proposed development in the Town Council boundary falls within the category of 'light industrial building', and is open for consideration under the permissible development categories detailed in the zoning table.*
- *The proposed development will result in an increase in the global market share of whiskey from Midleton Distillery, which in turn will increase tourism to the Distillery and Midleton town. This is consistent with the draft plan objectives to develop and improve tourism facilities and marketing.*
- *Appropriate account has been taken of the need to preserve or protect structures of archaeological, architectural or historical interest in the vicinity of the development, as discussed in Chapter 16 (Material Assets).*

3.5 Seveso

The existing facility operated by Irish Distillers Limited is designated as a "Seveso" establishment. This designation arises from the quantity of whiskey (ethanol) stored on the site. As a result of this designation, the Health and Safety Authority (HSA) imposes a more onerous standard of safety compliance on IDL, as required by Irish legislation in S.I. 74 of 2006[1]. In this regard, IDL has discharged its duties to the complete satisfaction of the HSA.

The proposed development will not adversely affect the risk profile on site i.e. the level of risk posed to persons or property beyond the site boundary will not increase as a result of the proposed development. The consequences arising from a major accident in the new development have been evaluated in detail. It has been determined that the level of thermal radiation (heat) arising from a fire in the new facility would present no risk of harm to personnel nor damage to property beyond the site boundary. This evaluation has been carried out in close consultation with the HSA.

It is to be noted that the proposed development involves the provision of enhanced firewater retention capability. This would serve to reduce the potential offsite impact in the unlikely event of there being a major fire in a whiskey maturation warehouse.

3.6 IPPC Licence

The Irish Distillers Ltd. site at Midleton operates under an Integrated Pollution Prevention and Control (IPPC) Licence as issued by the Environmental Protection Agency, EPA licence Reg. No. P0442-01. The original licence, issued in 1999 in accordance with the Environmental Protection Agency Acts 1992 to 2007, has since been amended in November 2005 (Technical Amendment A), February 2008 (Technical Amendment B) and March 2008 (Technical Amendment C). The IPPC licence regulates the site in relation to emissions to atmosphere, emissions to sewer, emissions to water, waste management, non process water, and overall environmental management of the activity.

It is important to note that, under the proposed distillery expansion, only a minor amendment to the existing licence will be required and this is currently under discussion with the Environmental Protection Agency. The only proposed change to the existing licensed emissions from the site relates to emission point SE1 which is the emission from the on-site wastewater treatment plant where a volumetric increase will be sought from the EPA. The development will not require amendment or change to any other licensed emissions, including the final aqueous emission from the facility to Cork Harbour (emission point SE Final), all of which are sufficient to meet the long term needs of the distillery expansion.

It is also important to note that environmental protection of the site will be significantly enhanced following the installation of a new firewater retention facility as part of the proposed development. As outlined in Chapter 10, this tank will ensure that 100% of the site area will be served by retention capacity for run-off occurring during an emergency fire event.

1 S.I. 74 of 2006: European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, 2006.

3.7 Conclusion

A review of Government policy highlights the importance of the agri-food sector in the economy and that it accounted for €8.7 billion in exports in 2007. Despite the challenging conditions in the global economy the agri-food sector is identified as a sector which can continue to grow through the development of new markets and growth in market share. It is estimated that exports in the agri-food sector could rise to €10 billion by 2011.

In the agri-food sector alcoholic beverage exports are estimated to be worth €1.2 billion and it is one of the strongest growth potential areas. It is envisaged that alcoholic beverage exports will grow by a further €0.35 billion or 29% by 2011. Irish Whiskey is recognised as the key driver within this sector as it continues to gain market share and penetrate new markets. Given IDL's dominance of the Irish Whiskey market the continued growth and expansion of the alcoholic beverages sector may be closely linked to the future expansion of Midleton Distilleries.

The important role that Midleton has to play in the future development of the region and success of the suburban rail project is outlined in the regional plans and highlighted in the strategic policies and objectives of the County Development Plan. Given its designation as an integrated employment centre, suitable serviced land in Midleton will have to be developed in a sustainable manner in order to deliver the population and employment growth envisaged in the CASP Update.

The expansion of the distillation capacity in Midleton Distillery will deliver increased direct long-term meaningful employment in Midleton as well as supporting indirect employment growth (as outlined in Chapter 17 - Human Beings). The principle of the expansion of Midleton Distilleries is consistent with national and regional level policies supporting the strategic growth of the food and beverage industries.

At a local level, the proposed development is consistent with the objectives of the 2009 County Development Plan and the 2011 Midleton LAP.

While there is no statutory development plan in place for Midleton Town Council, the proposed development is consistent with the general policy objectives of the 2009 draft Plan to strengthen and encourage the growth of employment opportunities and to improve tourism facilities. The proposals are also 'open to consideration' under the previous draft zoning objective of 'Town Centre / Mixed Use'. Given the lack of impact in terms of noise or air emissions, we consider the proposals to be consistent with the objectives of the previous draft Town Plan's zoning provisions.

Seveso issues are dealt with by the Health Safety Authority, under regulations to control major accident hazards. The proposed development will not result in any increased risk off-site, indeed the provision of enhanced firewater retention capacity will result in a reduction of the off-site risk.

4 Project Description & Process Overview

This chapter presents a summary of the overall scope of work for the Midleton Distillery Expansion project proposed to be undertaken by Irish Distillers Ltd.

The chapter also addresses a number of key aspects of the project in particular, waste management and sustainability and outlines the important project milestone dates.

4.1 Overview

The existing distillery in Midleton has been in operation since 1975 and is expected to produce 33.5 million litres of pure alcohol in 2011. The objective of this project is to increase production capacity in the distillery to 64 million litres of pure alcohol. The increase in capacity will be achieved by the installation of new process plant to either supplement or replace the existing production plant.

The distillery produces two main types of Irish Whiskey; Pot Still Whiskey and Grain Whiskey. Pot Still Whiskey is distilled in batch process from a mash of barley and malted barley. Grain Whiskey is distilled in a continuous process from a mash of corn (maize) and malted barley. In its simplest form, the barley/malted and barley/maize is first brewed and fermented with yeast to make beer and the beer is then distilled to extract the alcohol. The component parts of the overall whiskey making process are outlined in Figure 4.1 along with the developments proposed to increase the distillation capacity of Midleton Distillery.

The project will consist of a number of new process buildings and expansions to existing buildings in the different production areas of the plant as highlighted on Figure 4.2. Figure 4.3 illustrates the proposed development in the context of existing and future aerial views.

Figure 4.1 illustrates the overall process with the additions and modification to the existing distillery operations that are required for the proposed expansion.

Figure 4.2 provides an overview of the proposed development in the context of the overall Midleton Distillery site. The nature and extent of proposed development works is shown in the context of the existing buildings and infrastructure.

Figure 4.1 outlines the phases in the production process and the key elements of the development are described under the following headings:

- *Grains Intake*
- *Brewing*
- *Fermentation*
- *Distillation*
- *Utilities and Services*
- *Other Site Operations*

4.2 Grains Intake

Currently the three raw materials, maize, malt and barley are delivered to site in trucks which are weighed in and out to determine the weight delivered. Each load is tipped from the truck into an intake hopper. There is a separate intake hopper for each of the three grain types. For each grain type, there is a storage silo located at high level in the building. Sufficient capacity exists within the grain intake area to cater for the Distillery's requirements in the medium term.

4.3 Brewing

Brew House

The existing brew house contains the milling and brewing equipment for both the barley and corn lines. A proposal to provide an extension to the north is the subject of a separate planning application. The proposed extension is required to upgrade and replace the existing equipment contained within the brew house and create a new barley line including mills, tanks, pumps and filters.

Barley Line

In the barley line process the barley and malt from the storage silos will be fed to the barley and malt cleaner located near the existing cleaner in the brew house. The barley and malt then feed two mills located in the current millstar room. The grist from the mills will be conveyed to the grist bins, into the mashing-in-tank and then to the mash tuns. The mash will then be transferred to the mash filters and the wort produced will finally be transferred to the fermenters. The spent grains from the filters will be transferred to the feeds recovery plant.

Corn Line

The modifications to the corn line will be installed in the existing brew house. A new maize slurry/ continuous cooker/ flash tank and mash conversion line will be installed. The existing process philosophy will be maintained with the option to use low temperature cooking (reduced energy consumption).

Yeasting

The existing yeast system has sufficient capacity for the expanded distillery.

4.4 Fermentation

There are currently 24 fermenters on site, 10 for the barley line and 14 for the corn line. There will be 12 new barley fermenters and 12 new corn fermenters installed on a phased basis during the project which will bring the total number of fermenters to 48. The new fermenters will be installed to the south of the existing fermenters and will be the same diameter and height as the existing ones. The existing and proposed fermenters will be linked by a high level pipebridge and walkway.

4.5 Distillation

Pot Stills

The still house is where the core process in the distillery takes place. The copper pot stills used to distil Pot Still Whiskey are unique and imagery of the existing and proposed pot stills will be used for marketing and promotion purposes to showcase the distillery.

A new still house is proposed to provide the required capacity for the Pot Line distillation process. The proposed still house will initially house three new pot stills, but is designed to accommodate a further three pot stills providing a total capacity of six pot stills. The proposed still house has a floor area of approximately 845 square meters and will be 21.5 metres high.

The proposed still house is designed in modern architectural form not only to house but to showcase the copper pot stills. The proposed building contains extensive glazing to allow for external views of the pot stills. The pot stills will be installed at a low level to provide maximum visibility from outside the building.

The building will be located in the 'Garden' to the west of the existing still house and will be separated from the existing still house to minimise fire risk. A piperack will be installed to link the proposed new still house with the existing still house and the new distillation columns.

Still House Tank Farm

The receivers associated with the pot stills will be located in a new bunded tank farm located to the west of the proposed still house. In total 27 no. receivers are proposed in the tank farm ranging in capacity from 60,000 litres to 100,000 litres.

Irish Distillers Ltd – Process Blockflow Diagram

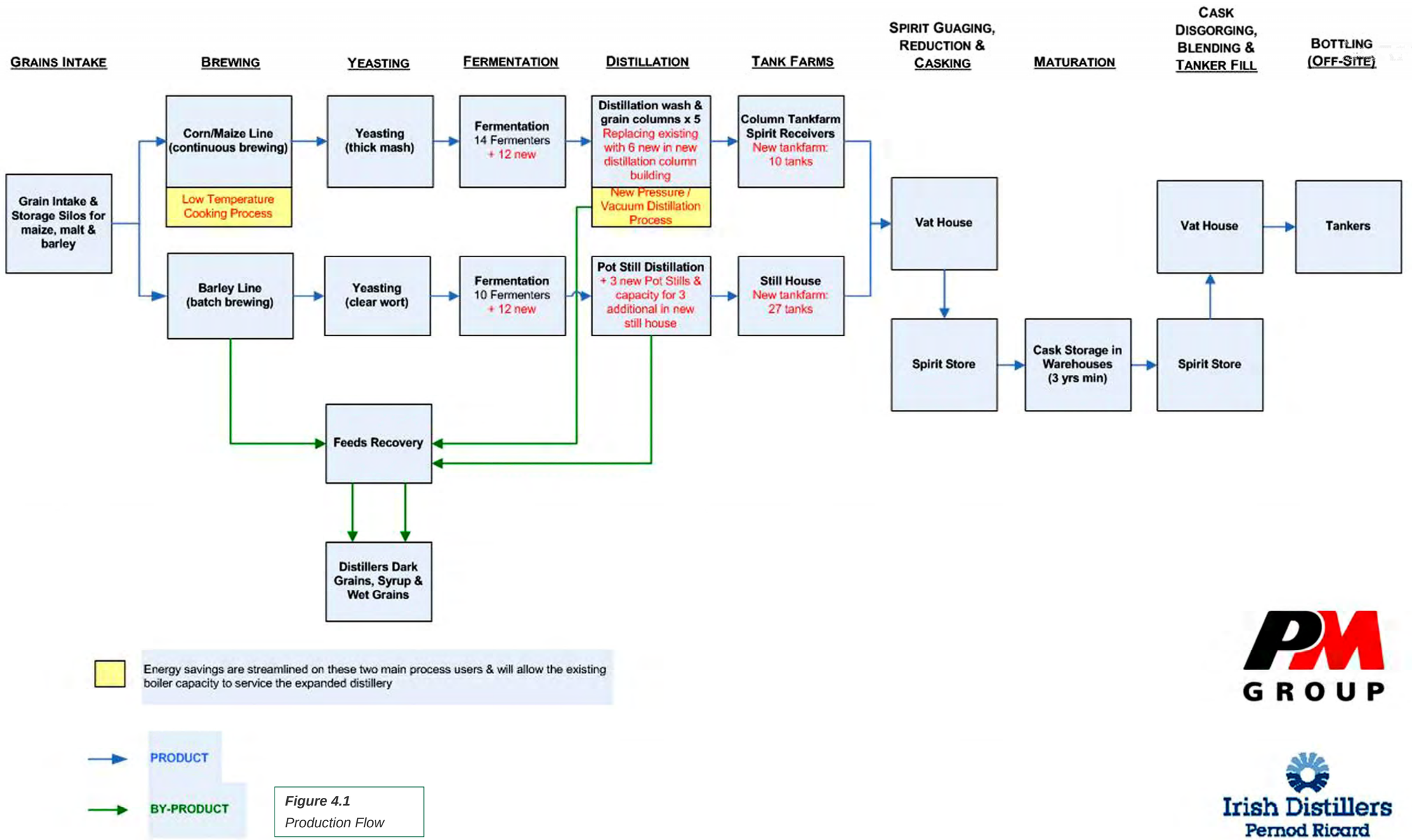


Figure 4.1
Production Flow

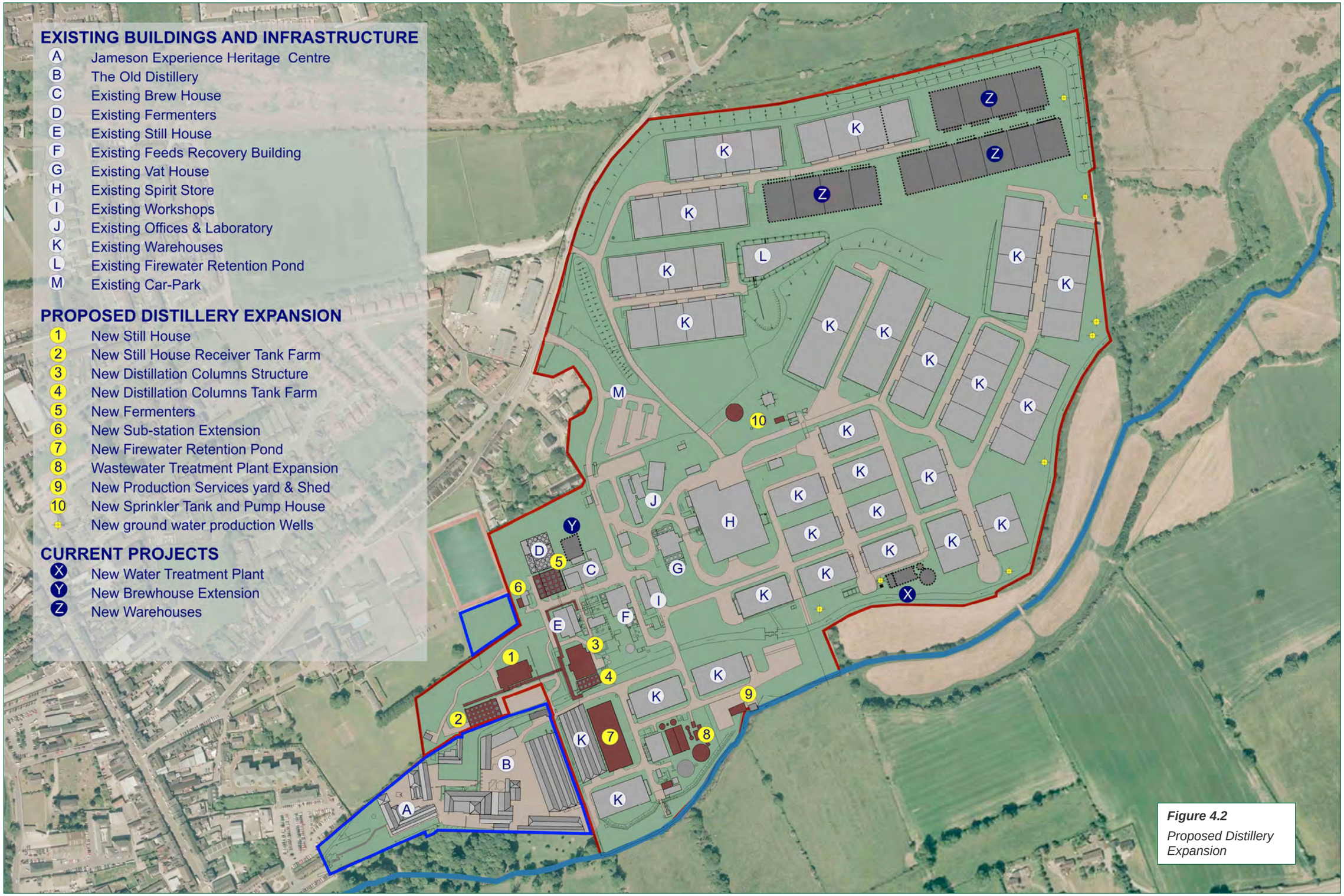


Figure 4.2
Proposed Distillery Expansion

Existing Site Aerial View

Computer Generated Image of the Site following Development

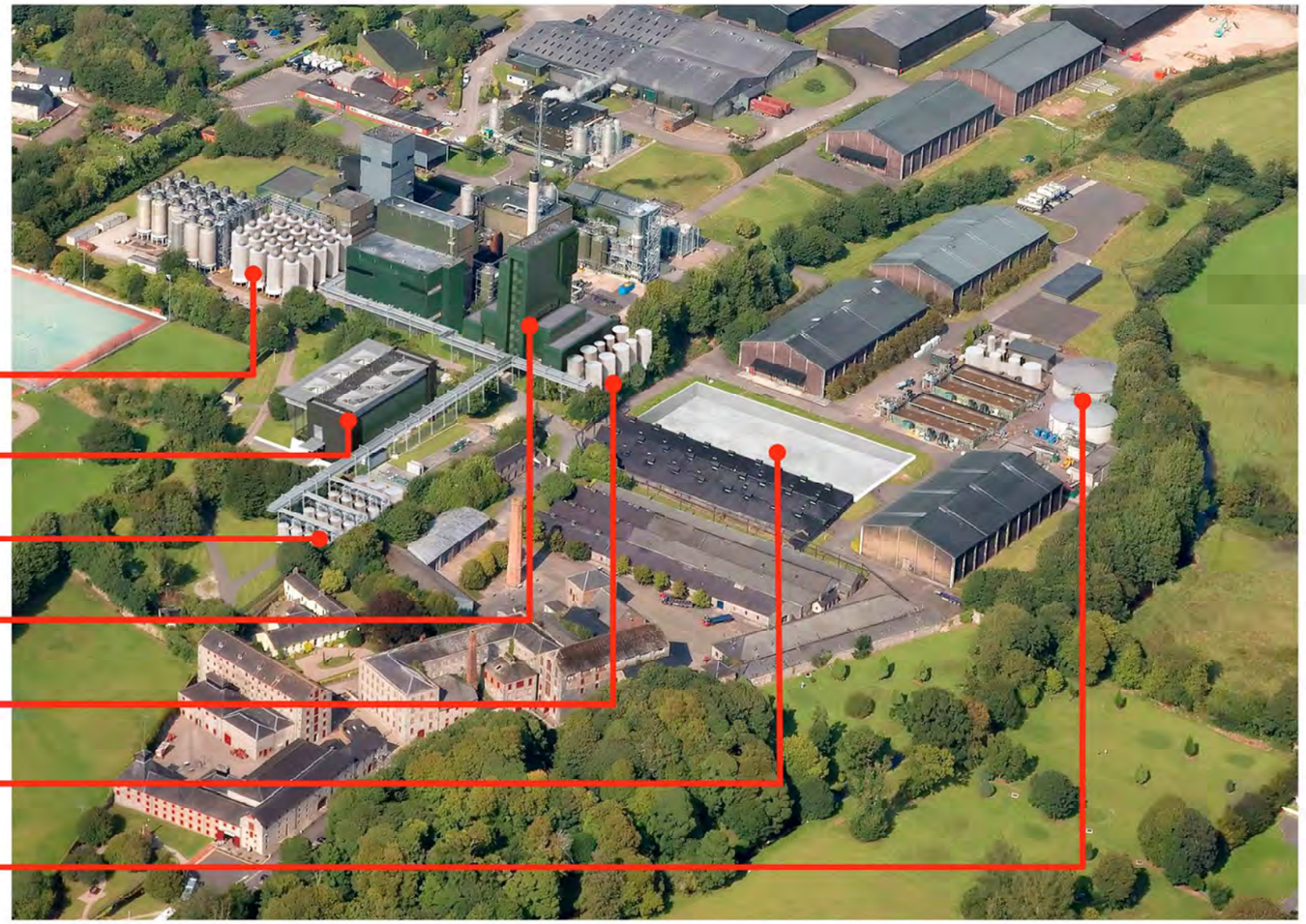


Figure 4.3

Existing Aerial View of Site &
Computer Generated Image of Site after Development

4.6 Column House

Distillation Columns

The existing Wash and Grain distillation columns are located in the existing still house. These will be replaced by 6 new distillation columns which will be installed in a new standalone distillation column structure, located to the south of the existing still house. It will be separated from the existing still house to minimise fire risk.

The distillation still house will house the 6 distillation columns and all the associated pumps, heat exchangers, condensers, tanks and vacuum pumps required for the distillation process. This building will have a floor area of 855 square meters and at 43.7m high will be one of the tallest structures on the site. The building will incorporate louvered and meshed sections for ventilation and to provide visual interest to the building facades.

Columns'-Tank Farm

The receivers associated with distillation columns will be located in a new bunded tank farm adjacent to the new distillation column structure. 10 no. receivers are proposed to be installed in the tank farm ranging in capacity from 100,000 to 190,000 litres.

4.7 Post Distillation Phases

Once the alcohol is distilled it is vatted and after approximately 4 days is ready to be filled into oak casks of approximately 200 litres in capacity. This project does not include any expansion to the Vat House as it has sufficient capacity to meet the medium term increase in production. In the longer term an upgrade may be required to provide extra capacity.

The immature spirit matures into Irish Whiskey over time in the oak casks (by law a minimum of three years). This typically takes five years but aged premium whiskeys can take 12 years, 18 years or even longer to mature. During the maturation period the casks of whiskey remain undisturbed in a maturation warehouse. There is adequate maturation capacity on site and in IDL's recently permitted satellite maturation facility in Dungourney, Co. Cork to accommodate the proposed expansion.

Once the whiskey has matured to the appropriate age it returns to the spirit store where the casks are emptied and the mature whiskey is vatted and transported by tanker to IDL's bottling facility in Dublin. The spirit store and tanker station have adequate capacity to facilitate the proposed increase in production.

4.8 Utilities

The utility requirements for the project are outlined below.

Steam and Condensate

There will be no expansion to the existing boilers in this project. The new process equipment is designed to provide maximum energy efficiency and minimise waste heat. It is expected that the Low Temperature Cooking and the new Pressure/Vacuum Distillation Process will reduce steam demand per litre of alcohol by approximately 30% compared to the existing processes. The savings in steam load on these two main process users will mean that the existing boilers have the capacity to service the new expanded distillery.

Cooling Tower Water

There will be no expansion to the cooling tower required as there will be a reduction in waste heat as outlined in the steam and condensate section above.

Process Water

The process water will be expanded in 2 distinct phases as follows:

Phase 1 is currently being installed (exempted development) and consists of the replacement and relocation of the existing process water treatment plant. The new water treatment plant is located to the south of warehouse 10 and underground lines and cabling will be installed to connect the new treatment plant to the river water pumps, the waste water treatment plant and the production buildings.

Phase 2 is the installation of 8 new groundwater production wells to provide an additional source of water and also modifications to the water treatment plant required to treat the spent cooling water. The well water will be first used to cool the fermenters and will then be treated in the water treatment plant to allow it be reused as process water. Further details are provided in Chapter 10 Water and Aqueous Emissions and Chapter 11 Hydrogeology.

Compressed Air

There will be no expansion of the compressed air system as there is currently sufficient plant and instrument air generation capacity to provide for the expansion.

Waste Water Treatment Plant (WWTP)

The present waste water treatment plant was installed in 2005 to treat distillery effluent to Urban Waste Water standards using the latest membrane technology.

The on-site WWTP provides continuous biological secondary and tertiary treatment to all process wastewaters arriving at the plant. The existing treatment plant has a capacity to treat a combined flow of 1,250 cubic meters per day. In 2010 the normal average load through the plant was in the order of 890 cubic meters per day, with a maximum throughput of 1,210 m^3 /day.

As the distillery gradually increases its annual production capacity from 33 million litres to 64 million litres the future hydraulic capacity of the plant will need to be expanded. Essentially the capacity of the treatment plant will be doubled from an existing load of 1,250 m^3 /day to 2,500 m^3 /day through the addition of the following;

- *New balancing tank (2 cells each 900 m^3 capacity) compete with blowers*
- *New aeration tank (1,700 m^3) complete with blowers*
- *New membrane filtration system*
- *New sludge thickening and dewatering system*
- *All associated chemical dosing and cleaning system*
- *Integration of the new plant onto the existing supervisory control and data acquisition (SCADA) system*
- *New control building of 80 m^2*

Sprinkler Protection

The existing site sprinkler system will be extended to provide protection to the new buildings. This will include a new sprinkler water storage tank and pumphouse of 60 m^2 to provide additional capacity. The proposed new sprinkler storage tank has a capacity of 2,000 m^3 and is located adjacent to the existing sprinkler water reservoir.

Fire Water Retention Pond

A new fire water retention pond will be constructed adjacent to the waste water treatment plant. This is a large pond with a capacity of 7,600 m^3 and will involve the demolition of warehouse A3 to provide a suitable footprint for the pond.

It is also important to note that environmental protection of the site will be significantly enhanced following the installation the new fire water retention facility as part of the proposed development. As outlined in Chapter 10, this tank will ensure that 100% of the site area will be served by retention capacity for run-off occurring during an emergency fire event.

Electrical Supply

The existing electrical substation will be extended to provide the electrical supplies to the new buildings. The existing 6-way main distribution board will be replaced with a new 10-way distribution board to cater for the new building electrical supplies. This will involve an extension of 66 m^2 to the existing electrical substation.

4.9 Other Site Operations

By-Product Recovery

This project does not include any expansion to the Feeds Recovery Plant as it has sufficient capacity to meet the medium term increase in production. In the longer term an upgrade may be required to provide extra capacity for wet grains storage.

Vat House

This project does not include any expansion to the Vat House as it has sufficient capacity to meet the medium term increase in production. In the longer term an upgrade may be required to provide extra capacity.

Relocation of Production Services Waste Area

The existing production services waste area located in the garden will be relocated to an area close to the WWTP. This relocation is required to accommodate the new still house. A new production services waste area of 260 m² will be provided and set within a service yard of 920 m².

4.10 Key Project Milestones

The key project milestones are as follows:

Lodge planning application	December 2011
Construction start	March 2012 (pending planning permission)
Construction complete	Autumn 2013

4.11 Waste Management

Overview

Production and associated activities at the facility unavoidably generate hazardous and non hazardous waste. As part of the Pernod Ricard group of companies, IDL operate and maintain a well developed waste management, minimisation and auditing strategy.

Both the construction and operational phases of the proposed expansion project will result in the generation of wastes. This section describes the anticipated types and quantities of wastes that will be generated and also outlines the site specific waste management policies, practices and programmes employed at IDL.

IDL Waste Management Policies and Practices

The IDL facility in Midleton is licensed by the EPA under the IPPC licensing system and as such is subject to the conditions of the IPPC Licence Waste Condition. Wastes generated on site are listed in the site's IPPC Licence P0 442-01 under the following schedules:

Schedule 4(i) Hazardous Waste for Disposal /Recovery and

Schedule 4(ii) Other Wastes for Disposal/Recovery

The IPPC licence sets out a series of requirements/conditions with respect to waste in terms of recording, reporting, and waste contractor requirements. IDL comply fully with their obligations in terms of waste management as set out in IPPC Licence P0 442-01.

No other wastes are disposed or /recovered either on-site or off-site without prior notice to, and prior written agreement of the EPA.

IDL's waste management practices are further enhanced by the site's accreditation to ISO 14001 Environmental Management System (EMS). The site's Environmental Management Programme (EMP) ensures that improvements in environmental performance are encouraged in the EMP by setting a series of objectives and targets commonly associated with reducing resource/material use (e.g. water, energy, paper) and waste production generally. IDL undertake the establishment of meaningful and aggressive targets for improvements in the areas of waste reduction throughout the lifetime of the operation of the facility.

Waste Generation & Management during Construction Phase

General

The construction phase will involve initial site development to include site establishment works, infrastructural and site services. This will be followed by the construction of the expansion areas themselves and installation of designated equipment. It is anticipated that the main contract works will extend over a period of about 18 months. After the main contract is complete additional fermenters and pot stills will be added in accordance with the planning permission as production and capacity demands.

Waste will be managed as part of the overall Construction Environmental Management Plan for the Construction Phase, which will be put in place by the Management Contractor for the entirety of the construction activities. A Waste Management Plan will include specific detail on waste segregation and disposal, as described below.

Excavated Material

Initial site development works will extend over a phased period during the construction phase and will include site clearance areas, earthworks, temporary construction carpark and compound. This will result in the generation of excavated material consisting of approximately 25,000 m³ of overburden and rock. The majority of this material will be reused on site to construct embankments and berms as outlined in Chapter 7.

If necessary, it is intended to transport any excess spoil off-site for beneficial re-use on other infrastructural or related projects in the locality. This will depend on the demand for suitable fill material at the time of tendering the site earthworks contract.

In the event that suitable beneficial re-use options are not available at the time of the earthworks contract, any excess spoil will be disposed of to a licensed landfill. It will be the responsibility of the Principal Contractor to ensure all disposal of spoil is undertaken in a responsible manner. Where material has to be transported off site for landfilling, operators transporting the waste must hold valid Waste Collection Permits and an appropriate waste licence must be held at the waste disposal facility.

Other Construction Wastes

It is expected that the overall construction phase will take place over a period of 18 months and will typically result in the generation of a range of waste materials including excavated material, rubble, steel, timber, plastics, cardboard packaging, office waste, canteen waste, and quantities of hazardous waste (e.g. Asbestos-cement tiles from Warehouse A3 roof will be disposed of in accordance of the IPPC license and in accordance with national and EU legislation).

Where possible this material will be re-used or recycled while the remaining wastes shall be disposed of by licensed waste contractors to an approved landfill site in accordance with the relevant national and EU waste legislation.

Complete segregation where possible of hazardous, non-hazardous waste is required to facilitate maximum recycling of waste streams

Construction Waste Segregation

A system of waste segregation will be implemented on site with separate skips for:

❑ Timber	❑ Canteen Waste
❑ Metal	❑ Paper/ Cardboard
❑ Plastic	❑ Paint / Chemical Containers
❑ Rubble	❑ Oils and Greases

Each skip will have colour coded signage indicating contents. Subcontractors will be advised of this requirement at tender stage and re-iterated at pre-appointment meetings. Subcontractors will be obliged to comply with the site construction Waste Management Plan and the Method Statement contained therein.

Earthworks subcontractors will be required to produce their Waste Collection Permit prior to appointment. Disposal will be monitored for the duration of the contract. A single waste segregation collection area will be in place for the duration of the construction and will be policed by the construction management team.

Waste Generation and Management during the Operational Phase

The principal wastes arising at IDL are as follows:

- *Packaging and general domestic waste (compacted on-site)*
- *Wastewater treatment plant sludge*
- *Timber pallets*
- *Fusel oil (wastes from spirit distillation) - used as a natural gas substitute in the on-site boilers*

The operation of the expansion facility will result in an increase in the quantities of existing wastes generated on site. These will include both hazardous and non-hazardous wastes. Wastes produced on site are segregated at source. The following is a summary of anticipated hazardous and non-hazardous wastes increases arising as a result of the expansion facility.

Non-Hazardous Wastes

A range of non-hazardous wastes are generated on site and it is expected that the quantity of some of these wastes will double as a result of the expansion for example:

- *WWTP & WTP sludge; increase from approximately 850 t to 1,600 t per annum*
- *Wastes from spirit distillation (reused on site as fusel oil in the boilers), increase from approximately 240t to 450t per annum*
- *Grain Screenings increase from approximately 300t to 600t*

IDL expect to maintain their current recycling rates of in excess of 95% for the current recurring waste stream factions.

Approximately 850 tonnes per annum of non hazardous sludge waste is generated at the on-site wastewater treatment plant. The sludge is dewatered at the plant to a dry solids content of between 13% and 15%. The sludge is then sent off site for composting for horticultural and non-horticultural uses.

It is estimated that the quantity of waste sludge generated in the WWTP and WTP as a result of the expansion project will double, resulting in approximately 1,600t of waste sludge being generated. This will be sent offsite for composting.

Hazardous Wastes

Relatively small quantities of hazardous waste are produced by IDL. In 2010, IDL generated approximately 150 tonnes of hazardous waste. Over 50% of this total is accounted for by nitric acid used in the Evaporator cleaning process and this figure is not expected to increase further as a result of the expansion.

Excluding that of the nitrous acid, it is estimated that approximately 5 tonnes/annum of additional hazardous waste such as laboratory waste chemicals and as with any industrial facility, standard hazardous wastes such as fluorescent tubes, batteries, oils, etc. will be produced as a result of the expansion. It is anticipated that approximately 2.5 tonnes will be suitable for recovery.

The management strategy for wastes generated at IDL is summarised in the site's Annual Environmental Report (AER) submitted to the Environmental Protection Agency on an annual basis. A copy of the site's 2010 AER waste summary table is include in Appendix 4 which profiles the typical wastes generated on site.

4.12 Sustainability

Sustainability will be considered in all aspects of the design. Key initiatives will include:

- *Proposal to seek Leadership in Energy and Environmental Design (LEED) or BRE Environmental Assessment Method (BREEAM) certification for the new still house.*
- *Proposal to recycle abstracted groundwater for process use following use as fermenter cooling resulting in 20% less water consumption per litre of alcohol distilled.*
- *Significant energy reductions associated with new distillation processes resulting in 33% less energy consumption per litre of alcohol distilled.*

5 Alternatives Considered

It is a requirement of the EIA process that viable alternatives to the key project decisions have been evaluated in the context of environmental impact. The development of the proposals contained in this planning application has involved the following key project decisions:

- *Why build this expansion?*
- *Consideration of options off site*
- *Selection of the required areas within the site*
- *Selection of the preferred process plant*
- *Selection of the preferred arrangement of the proposed buildings and structures*

This chapter describes the alternatives that were considered under each of these headings and the reasons for the selection of the preferred options.

5.1 Why build this expansion?

As outlined in Chapter 2, global sales of IDL's key brand, Jameson, reached 3 million cases in 2010 and are forecast to reach 6 million cases by 2018. Pernod Ricard Group considers the brand has the potential to be a top five global spirit brand selling up to 10 million cases per annum in the future.

As outlined in Chapters 1 and 2 in addition to Jameson, IDL produces a range of other Irish Whiskies and products and the growth of the distillery is intrinsically linked not only with the growth of Jameson, but with the growth of the Irish Whiskey Category globally.

In a commercial market, if companies do not respond to growth in demand then there is a risk that they will lose market share, undermining existing demand. Growth of IDL output is therefore also necessary to protect and consolidate their existing market share and associated employment at Midleton Distillery.

IDL's commercial appraisal has identified the need to increase output of its whiskey from 33.5 Million Litres of Alcohol (MLA) per annum to 64 MLA per annum by circa 2023.

5.2 Consideration of options off site

After making a commitment to increase the production capacity of IDL's key brands, IDL undertook a detailed process of evaluation to determine the most appropriate way to increase output.

IDL and its parent company Pernod Ricard are keen to continue the almost 200 year tradition of distilling in Midleton and to further establish Midleton as the home of Irish Whiskey.

There are two real alternatives to increase output, one is to develop the existing Midleton distillery site and the other is to develop a new separate site. The option of developing additional capacity at a second site was not seriously considered as, in terms of operation and efficiency, a single site would be preferable to a number of sites at various locations. Furthermore, as described in greater detail in Chapter 3 the proposed development involving the production of whiskey would be deemed to be a Seveso establishment. This has potentially significant impacts on the area of land required to facilitate the development and adjoining land uses. From a land use planning perspective it is considered that it would be more desirable to have a single additional Seveso establishment within the County, rather than a number of smaller Seveso sites. Furthermore the level of societal risk will be minimised by maintaining a single development, as opposed to a number of smaller developments.

The two options available, therefore, were to develop the existing site, or move the entire operation to a new location.

The initial site selection process considered whether it would be appropriate to move the entire distillery operation to a new site. The cost of moving the entire operation to a new site would be considerable and would result in the decommissioning of the existing distillery site at Midleton and displacement of existing employees. It was considered that there may be potential to maintain a heritage presence at the site of the old distillery but that the value of the heritage site would be diminished by the absence of a working distillery. Accordingly an off-site option would be required to meet the identified selection criteria fully to be considered viable for detailed appraisal.

Key selection criteria for an off-site option were identified as:

- *A substantial site (in excess 40 ha) of industrial zoned land, with supportive planning policy objectives.*
- *Lands that were fully serviceable in terms of road access and necessary infrastructure within the projected development period of 18 months.*
- *Relatively close proximity to the permitted satellite warehousing facility at Dungourney, to ensure sustainable and cost efficient transfer of raw spirit to maturation warehousing.*
- *Relatively close proximity to Midleton town, to ensure that the established strong commercial brand identity with Midleton could be maintained.*
- *A site that was not sensitive to the development of a new Seveso development, which would require a 300m consultation distance to be put in place.*
- *A site that had the capacity to develop an attractive visitor environment, which is essential to marketing requirements.*

Given the need to maintain relatively close proximity to Midleton Town and Dungourney the search for off-site site options was restricted to the Midleton Electoral Area.

There are only two industrial zoned lands within Midleton Electoral Area of a suitable size, namely site I-04 in Carrigtwohill and I-04 in Whitegate, which were appraised as detailed below:

Site	Zoning Objective	Summary Appraisal
Carrigtwohill I-04 (56 ha)	Reserved for strategic site for large stand-alone high quality industrial development - Requirement for considerable investment in road infrastructure and set-aside of land for railway station.	- Site is of a suitable size and it would be feasible to develop an attractive visitor environment. - Significant investment in road infrastructure a major constraint in terms of financial viability and timing of project. - Reserved for standalone industry to attract major new employment – Council may be reluctant to locate displacement industry with limited additional job creation.
Whitegate I-04 (52.8 ha)	Provision for extension of the adjoining established industrial area.	- Development would conflict with objective to provide for expansion of adjoining industrial area; - Poor road network and increased distance to satellite maturation facility. - Would be difficult to create an attractive visitor environment due to proximity to existing industrial development.

Following initial appraisal it was considered that neither alternative site available in the Midleton Electoral Area offered sufficient advantages to justify the decommissioning of the existing distillery site, if the existing site could accommodate the proposed expansion.

After carrying out an initial appraisal of off-site options the potential of the existing site was considered in more detail. It was established that the existing site has the capacity to accommodate the expansion and has a number of essential site requirements available in order to meet the expansion criteria, and ensure the success of the project. These are;

- *Sufficient developable site area to meet IDL's expansion objectives*
- *Sufficiently developed infrastructure that can meet the demands of the project without compromising the project schedule*
- *Access to experienced professionals and skilled workers on site*
- *Strong brand identity intrinsically linked to the existing location at Midleton*
- *Co-location with the heritage centre, which provides a symbiotic relationship between tourism and marketing of the distillery*

IDL then adopted a more detailed set of criteria under which the site was evaluated. The criteria were based on environmental considerations, development considerations and the availability of key utilities infrastructure.

Environmental Considerations

- *Capacity within the existing IPPC Licence emission limit values to incorporate the proposed expansion*
- *Good existing local water and groundwater quantity and quality*
- *Capacity to minimise visual impact of new buildings by integrating with existing ones*
- *Capacity to manage impact on local traffic*
- *Capacity to minimise impact on local heritage and flora & fauna*
- *Already a Top Tier Seveso site.*

Development Considerations

- *Availability of experienced IDL distillery personnel*
- *Proximity to existing process and warehouses*
- *Size and suitability of developable space within site*
- *Availability of the land*
- *Appropriate site zoning and development objectives*
- *Site access and internal road infrastructure*
- *Suitable ground conditions to accommodate new buildings and structures*
- *Free from restrictive development constraints such as site crossings or archaeological features*

Available Utilities Infrastructure

- *Electricity supply*
- *Natural gas supply*
- *Potable water supply*
- *River water supply*
- *Cavern water supply*
- *Treated effluent sewer and outfall capacity*
- *Clean surface water sewer and outfall capacity*

Site Evaluation

In assessing the suitability of the existing IDL site, the evaluation process confirmed:

- *The available utilities infrastructure onsite is capable (with upgrade) of meeting IDL's expansion needs.*
- *All of the specified development criteria are fulfilled at the IDL site.*
- *The evaluation process did identify some important environmental factors that would require careful treatment by IDL in the planning of the proposed facility. These were:*
  - The management of groundwater abstraction and discharge to the Dungourney River
  - Proximity to Natura Sites and any resultant impact of the proposed expansion on their conservation objectives
  - Potential presence of karstic features and the management of ground foundation stability during the design and construction phase.
  - The management of traffic to and from the site during the construction and operational phases of the project
  - The management of site excavation works as would be required to accommodate the new builds due to the geology of the site and any resultant construction noise, vibration or groundwater intrusion implications.

The early identification of these factors from the site evaluation process has supported the scoping exercise for the preparation of the project EIS (see Chapter 1).

5.3 Selection of the Preferred Process Plant

The increase in capacity will be achieved by the installation of new process plant to either supplement or replace the existing production plant.

The proposed expansion will be based on the existing specialised distillery process of milling, mashing/cooking, fermentation and distillation on site. Whilst there will be improvements in efficiencies and significant energy reductions associated with the new equipment selected the type of process plant selected is restricted by the unique nature of the distillery process itself. A description of the production process is provided in Chapter 4.

The new process equipment is being designed to maximise environmental sustainability. It is expected that the Low Temperature Cooking and the new Pressure/Vacuum Distillation Process will have a significantly reduced steam requirement compared to the existing processes. The savings in steam load on these two main process users will mean that the existing boilers have the capacity to service the new expanded distillery.

Other key efficiencies associated with the proposed expansion include a proposal to recycle abstracted groundwater for process use following its use as cooling water.

Figure 5.1
Selection of Development Area within the IDL site

5.4 Selection of Preferred Development Location within the Site

Site Analysis

The site is of sufficient size and configuration to satisfy IDL's requirement for plant expansion on site. As can been seen from Figure 5.1, there is a natural division between the site's distillery process operations on the southwest of the site and the warehouse maturation area to the northeast.

An overview of the site constraints was carried out to determine the preferred expansion locations within the site. It was determined at an early stage in the project that the south western area of the site i.e. the distillery process area was the most viable option for the expansion project. Of the 45 ha site, an area of approximately 10.4 ha will accommodate the majority of the capacity expansion project.

Expansion to the northeast of the site amidst the warehouse maturation area was not deemed a viable option primarily from an operability perspective i.e. operator logistics and utilities infrastructure.

Issues considered include:

- *Existing material flow on site and tie in with expansion project*
- *Operability constraints: operator current requirements and tie in with expansion, proximity to existing systems a prerequisite*
- *Existing structures and operations: proximity to existing functions such as grain intake area and feeds recovery*
- *Availability and proximity of existing utilities and infrastructure*
- *Site Access: proximity to the existing site access route and existing road infrastructure*
- *Ground conditions: suitability of the underlying geology*
- *Space: the layout of the distillery site allows for a rational distribution of expansion areas around the existing distillery plant and the intensification of the existing processes.*

Based on this assessment, the preferred locations for the buildings and plant are as previously shown in Figure 1.4 (Chapter 1).

5.5 Selection of the Preferred Arrangement of the Proposed Buildings

The design of the proposed expansion has also considered alternative building arrangements and configurations. All options were evaluated under the headings of:

- *Potential Visual Impact*
- *Process Segregation*
- *Effect on process pipework*
- *Movement of materials*
- *Communication and movement of staff*
- *Expandability*
- *Constructability & Cost*

The project will consist of a number of new process buildings and expansions to existing buildings in the different production areas of the plant.

Each function or "stage" in the distillery production process is considered as a separate built element with associated pipe rack and will be sited in proximity to the same existing process to maximise efficiency. The form of the building or plant proposed is primarily dictated by the function of the equipment within the existing process.

The preferred layout and building arrangements were chosen based on process operations, cost, and minimum separation distances defined by fire safety and insurance requirements.

Alternative configurations as outlined in the section below were investigated during the preliminary design stage for the following expansion areas:

New Still House: the new still house will be located in the "garden" to the west of the existing still house and will be separated from the existing still house in line with insurance requirements. The new still house will initially house 3 new pot stills but is designed to house 6 in total. The still house will be designed as a signature building for the site and the current proposal is to construct a 22m high building with a glass frontage to exhibit the pot stills. A pipe-rack will be installed to link the new still house to the new distillation columns.

New Still House receiver tank farm: 27 tank receivers associated with the pot stills will be located in a new bunded tankfarm to the west of the new still house.

New distillation columns building: the existing wash and grain distillation columns are located in the still house. These will be replaced by 6 new distillation columns which will be installed in a new standalone distillation column building 44m high located to the south of the existing still house.

New distillation columns tank farm: there will be 10 new tank receivers associated with the new distillation columns which will be located in a new bunded tankfarm adjacent to the new distillation column structure.

New fermenters: the 24 new fermenters will be installed to the south of the existing fermenters, on the site of the original distillery fermenters, and will be the same diameter (5.5 m) and height (18.5 m) as the existing ones. They will be linked by a pipebridge and walkway at high level.

New sub-station extension: this entails a straightforward extension of the existing electrical sub-station west of the proposed fermenters.

New firewater retention pond: several configurations for the firewater retention pond were considered and the best practical location was concluded to be in the area of the existing warehouse A3 which will be demolished to accommodate the pond. The pond will be fed by gravity drains from all areas of the plant, therefore it has to be located at the lowest possible location of the site. Geotechnical information gathered on the depth to bedrock beneath the warehouse A3 area restricts the depth to which the firewater retention pond can be excavated.

Wastewater treatment plan expansion: the location of the expansion of the WWTP is dictated by the availability of space to the east of the existing WWTP. The WWTP will be extended to the east to include new balance and aeration/digestor tanks, sludge dewatering and membrane filtration to ensure that the WWTP can cater for the proposed expansion.

Alternative configurations of the expansion

Options A to D, as illustrated in Figures 5.2 to 5.5 below highlight the various configurations of the still house and still house tank farm in particular that were considered during the design stage. Additionally the layout and orientation of the distillation columns and distillations columns tank farm were varied within the confines of the area south of the existing still house.

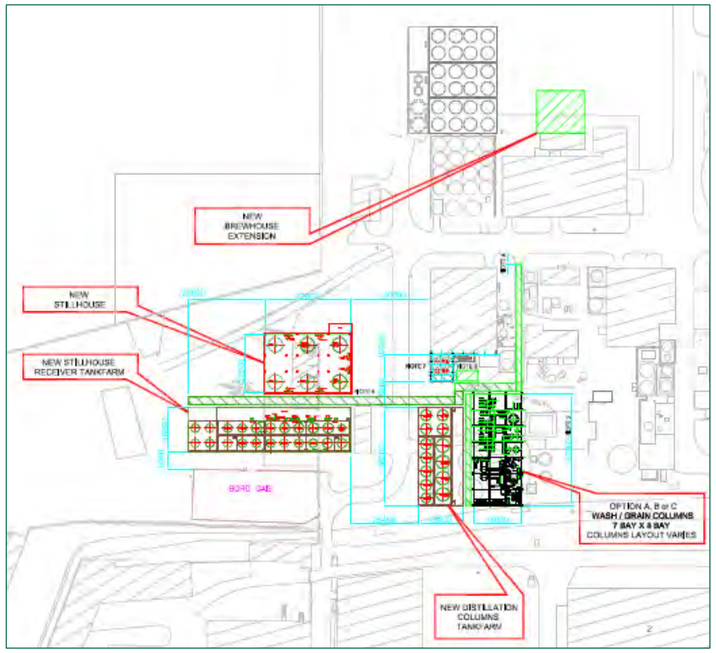


Figure 5.2 *- Expansion Configuration Option A*

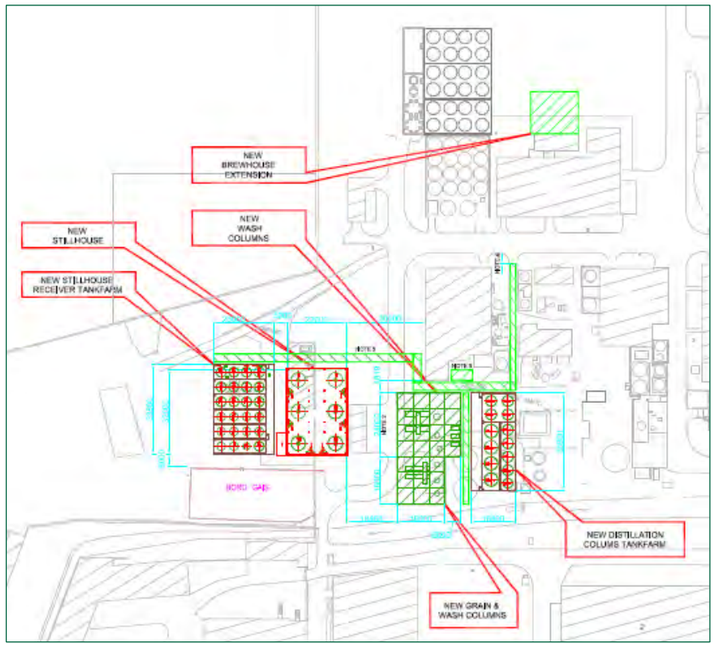


Figure 5.3 *- Expansion Configuration Option B*

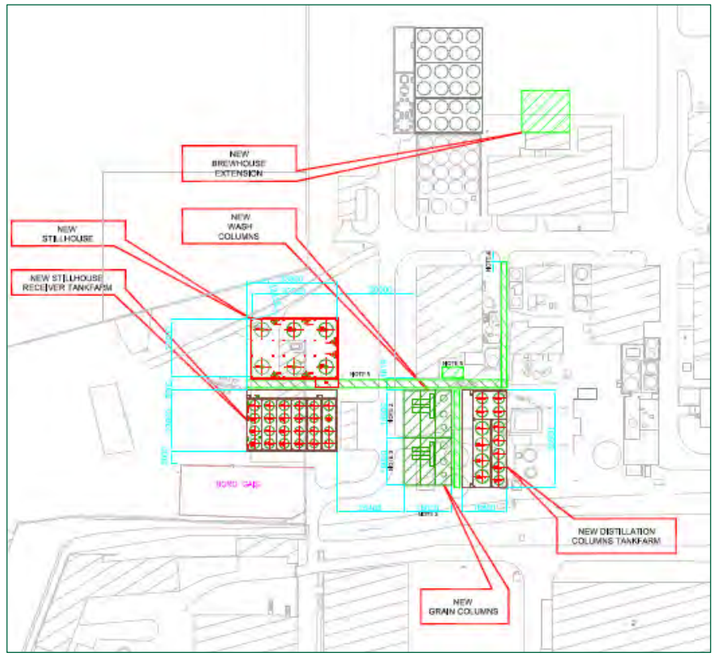


Figure 5.4 *- Expansion Configuration Option C*

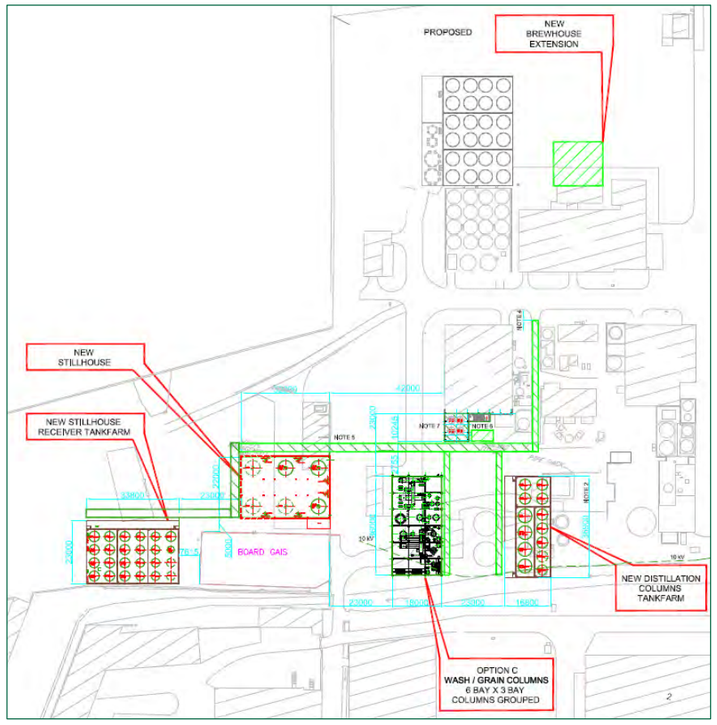


Figure 5.5 *- Expansion Configuration Option D*

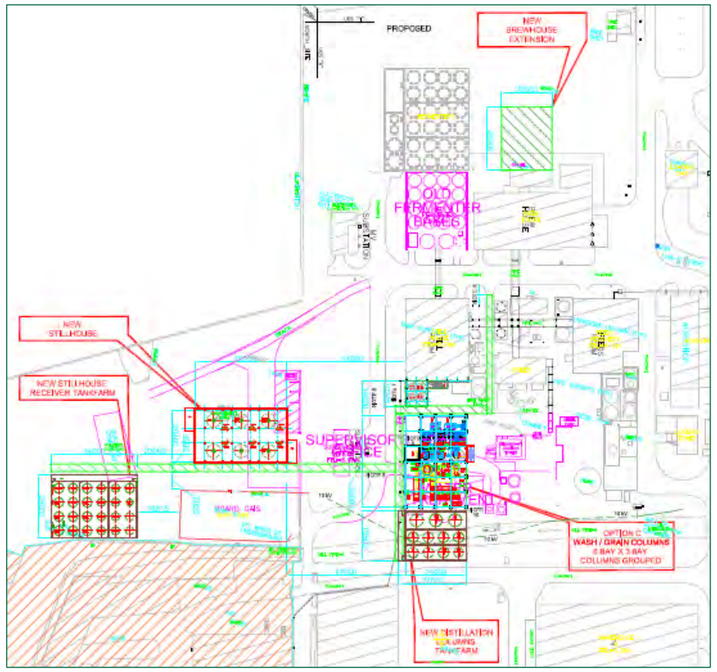


Figure 5.6 *- Expansion Configuration Option E – Final Layout*

The preferred arrangement of Option E was selected for design development on the basis of greater internal site efficiency, reduced site infrastructural impact and minimisation of environmental factors such as noise and visual impact. This scheme forms the basic template for the site expansion plan as represented in the current planning application and as outlined in Figure 1.4 of Chapter 1.

The development of the project design and the finalisation of the form of the buildings and plant were then determined through the use of photomontages as a design tool. Each critical step in the design process such as the selection of the building height, the form of the roof profile, the colour of the cladding was checked against the photomontage and visual impact. Final photomontages of the proposed expansion are presented in Chapter 7 Landscape and Visual Impact.

The site strategy takes cognisance of the existing conditions such as road infrastructure, proximity to existing distillery functions and geological rock formations. The proposed design aims to minimise ground-work and potential off-site impacts during the construction stages and maximise efficiencies and functionality during the production life of the distillery.

6 Construction Activity

6.1 Introduction

This chapter outlines the proposed approach to construction planning and execution of the construction works associated with the expansion at the IDL facility.

The construction scope of work can be summarised as follows:

- *Site Establishment Works*
- *Infrastructural and Site Services / Utilities Works*
- *Construction of a new Still House, and associated Tank Farm*
- *Construction of a new Distillation Columns Building and associated Tank Farm*
- *Construction of a Firewater Retention Pond*
- *Installation of new Barley & Grain Fermenters*
- *Expansion of the existing Waste Water Treatment Plant*
- *Extension of existing sub-station*
- *Installation of groundwater production wells*
- *Installation of Sprinkler, Tank and Pump House*
- *Production Services, Waste Segregation Area*

The construction duration of the main contract is currently estimated to begin in Spring 2012 (subject to planning) to Autumn 2013. After the main contract is complete additional fermenters and pot stills will be added in accordance with the permission as production and capacity demands. The works will be carried out at different locations within the existing IDL Plant.

Any timescales given in this chapter are indicative and are best estimates given to illustrate the nature and scope of the activities involved. More detailed work programmes will be developed before work commences.

6.2 Construction Impacts and Planning

All construction related potential environmental impacts are considered under the respective chapter headings within the EIS, for example, potential noise impacts associated with construction activities are discussed in detail in Chapter 14 Noise and Vibration.

The management of all construction related activities and associated residual environmental impacts will be controlled via the following documented plans, which will be developed prior to commencement of construction works:

- *Construction Management Plan (CMP)*
- *Construction Environmental Management Plan (CEMP)*

6.3 Construction Management Plan (CMP)

The CMP will include the following key construction management elements:

- *Project Organisation, Roles and Responsibilities*
- *Construction Safety Arrangements*
- *Construction Logistics, including a Traffic Management Plan.*
- *Engineering Coordination*
- *Contracts Administration & Cost control*
- *Quality Assurance/Quality Control*
- *Planning /Scheduling / Progress reporting*
- *Document Control*
- *Materials Control*
- *Coordination of the Works*
- *Construction Completions and handover*

Construction Safety Arrangements

As required by the Safety Health and Welfare at Work (Construction) Regulations 2001-2006, PM Group have been appointed as Project Supervisor Design Process (PSDP) to co-ordinate the design effort and to address and minimise construction risks during the design period. Notification of this appointment has been sent to the HSA by means of their Approved Form 1 (AF1).

As design advances and before tender stage, a Preliminary Health and Safety Plan will be drawn up by the PSDP and reviewed by the project team. This will then be issued with the tender package(s) and ultimately will be passed on to the appointed Project Supervisor Construction Stage (PSCS) to be developed into a Construction Health and Safety Plan. Notification of this appointment and the commencement date of construction will be sent to the HSA by means of their Approved Form 2 (AF2).

The construction areas will be delineated and will be under the control of the PSCS who will co-ordinate and supervise all safety aspects of the project. A Safety File will be compiled and maintained on site for the duration of the project and this and the implementation of the Plan will be subject to regular audits.

Construction Logistics including Traffic Management Plan

Traffic issues associated with the project will be addressed under a Traffic Management Plan as part of the CMP. These will mainly concern the delivery of construction materials and the transportation of construction workers and supervisory staff to the site.

There will be a continuous flow of construction traffic within the site boundary associated with heavy civil works, equipment installation works, mechanical piping works, electrical instrumentation control (EIC) works and other vendor works.

The main headings of the Plan will include:

Road Signage and Cleaning: Appropriate warning signs will be erected to advise motorists and others of construction works. Measures will also be put in place to ensure that public roadways are kept free of mud, dust and debris at all times.

Delivery Co-ordination: Deliveries of bulk materials such as hardcore, concrete, steel, precast units, tanks etc. will be managed and co-ordinated to minimise disruption to local traffic and community activities. There will be up to 20 vendor equipment packages associated with the project and at peak it is expected to have up to 50 truck deliveries a day. These deliveries will be scheduled to avoid school opening and closing times and any other activity which would attract significant traffic in the town of Midleton.

Any oversized deliveries i.e. large tanks, vessels will be transported in accordance with the permitting procedures of An Garda Síochána and Cork County Council. There will be approximately 50 no. oversized deliveries to the site and these will be carefully scheduled to minimise traffic disruption in the town.

It is envisaged that all excavated material – circa 25,000m³ will be re-distributed on existing IDL land for landscaping and berms and hence mitigate the need to travel on the local road network.

Construction Personnel: Standard working hours for construction will be 8.00am to 6.00pm Monday to Friday and 8.00am to 4.30pm on Saturday (if required). Construction traffic passing through local villages will be instructed to do so outside the morning and evening peak traffic times, where possible. The expected construction personnel loading is outlined in Figure 6.1 as follows:

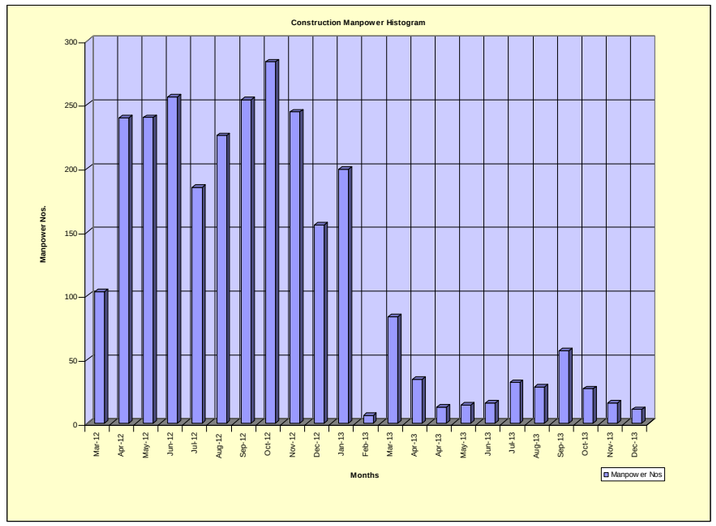


Figure 6.1 **-** *Construction Manpower Histogram*

A temporary car park will be constructed to cater for construction personnel with a provision for 200 spaces. Car park rules will be clearly displayed. Reserved parking will be enforced and authorised parking stickers will be allocated to contractors via the construction site security. Security will monitor the new construction car parks daily to ensure compliance.

Car pooling will be encouraged to minimise traffic numbers and start and finish times will be arranged to minimise disruption to the existing IDL operation as well as to minimise interference with local community activities. Construction workforce traffic will access the IDL site via the current traffic routes as outlined in Figure 6.2.

Pedestrian routes will be segregated from vehicular traffic at all times on the site as part of the general logistics and Traffic Management Plan and will be monitored on an ongoing basis. Safety Barriers and signage will be utilised to create the segregation and proper lighting levels will be maintained. Construction traffic flows and delivery routes as outlined in Figure 6.2 aim to minimise disruption to the existing IDL operations.

A permanent security presence will be maintained at the main site entrance to IDL during working hours, tracking all incoming personnel and vehicles and to ensure no unauthorised access.

6.4 Construction Environmental Management Plan (CEMP)

A separate plan to identify and control potential environmental impacts associated with the construction phase will be developed and implemented. This will address key environmental mitigation measures as identified in each specific chapter of the EIS and will also incorporate any environmental related Planning Conditions stipulated in the Planning Permission. Typical headings of the CEMP include:

- *Noise and Vibration Management – proximity of neighbouring noise sensitive sources and construction phase noise monitoring*
- *Nuisance caused by dust emissions*
- *Impact of traffic - deliveries and removal of material, road safety and cleanliness*
- *Hazardous Materials – storage*
- *Containment – spillage from oil tanks, potentially turbid surface water, concrete truck washings etc.*
- *Disposal of foul water from compound*
- *Construction and Demolition Waste Management Plan (hazardous and non hazardous waste)*

The CEMP will take into account the fact that the nature of these aspects will change as the construction project progresses. For instance, during the earthworks phase the principal concerns would be noise, dust and turbid surface water runoff, whereas in later phases issues such as traffic control and waste management would be seen as critical.

Additionally continued compliance with the client's IPPC licence will be a priority.

Construction & Demolition (C&D) Waste Management Plan (WMP)

A C&D Waste Management Plan (WMP) will be developed as part of the CEMP with the objective of minimising waste arising from construction activities. This WMP will itemise the specific types of waste associated with the proposed construction works and designate specific receptacles and containers for all hazardous and non hazardous recyclable and non recyclable materials.

A dedicated waste management compound will be set up and maintained which will contain dedicated skips for all waste categories and a designated area for the management of hazardous waste. The contents of these skips and containers will be collected for recovery where possible and/or disposal by a suitably licensed and approved waste management contractor.

The Construction Manager will be responsible for ensuring that all movements and treatment of C&D wastes generated on site are tracked and recorded. Each consignment of C&D waste taken from the site will be subject to waste management documentation, which will ensure full traceability of the material to its final permitted or licensed destination.

Details of the inputs of materials and outputs of wastes from the project will be investigated and recorded in a Waste Audit as part of the CEMP. The audit will examine the management of waste generated against the objectives of the WMP.

Within each of the above plans i.e. the CMP and the CEMP, the roles and responsibilities of all relevant personnel will be identified, including that of the Construction Manager.

Measures to Minimise the Risk of Surface Water Contamination (Millstream[1] and Dungourney River)

As noted above, this development will be subject to a code of strict construction site management as per the CMP and CEMP which will focus on the minimisation of construction impacts on the surrounding environs and in particular the local water bodies.

To mitigate against accidental leaks and spillages and contamination of surface water bodies during the construction phase, construction operations will include the following measures:

- Fuels, lubricants and hydraulic fluids for equipment used on the construction site, as well as any solvents, oils, and paints will be carefully handled to avoid spillage, properly secured against unauthorised access or vandalism, and provided with spill containment/bunding according to codes of practice.
- Designated fuel filling points will be put in place with appropriate oil and petrol interceptors to provide protection from accidental spills.
- Wheel washers and dust suppression will be in place on site roads.
- Good housekeeping (daily site clean-ups, use of disposal bins, etc.) and regular construction plant maintenance.
- Proper use of storage and disposal facilities for lubricants fuels, oils and other construction materials (e.g. cement).
- Wash down water from exposed aggregate surfaces, cast-in-place concrete and from concrete trucks will be trapped on-site to allow sediment to settle out and reach neutral pH before clarified water is released to the site surface water drainage system.
- The discharge of surface water arising from the various construction areas of the site will be subject to the same monitoring and control as is currently applicable to the operating site as defined by the IPPC licence for the site (EPA Reg. No.P0442-01).

Particular attention will be paid to the protection of the Dungourney River during the construction period. Part of the proposed works namely; the construction of the new firewater retention tank and the expansion of the

1 This channel, which was drained several years ago, receives some occasional storm runoff from the site, but is mostly dry and does not convey water unless in times of extensive rainfall.

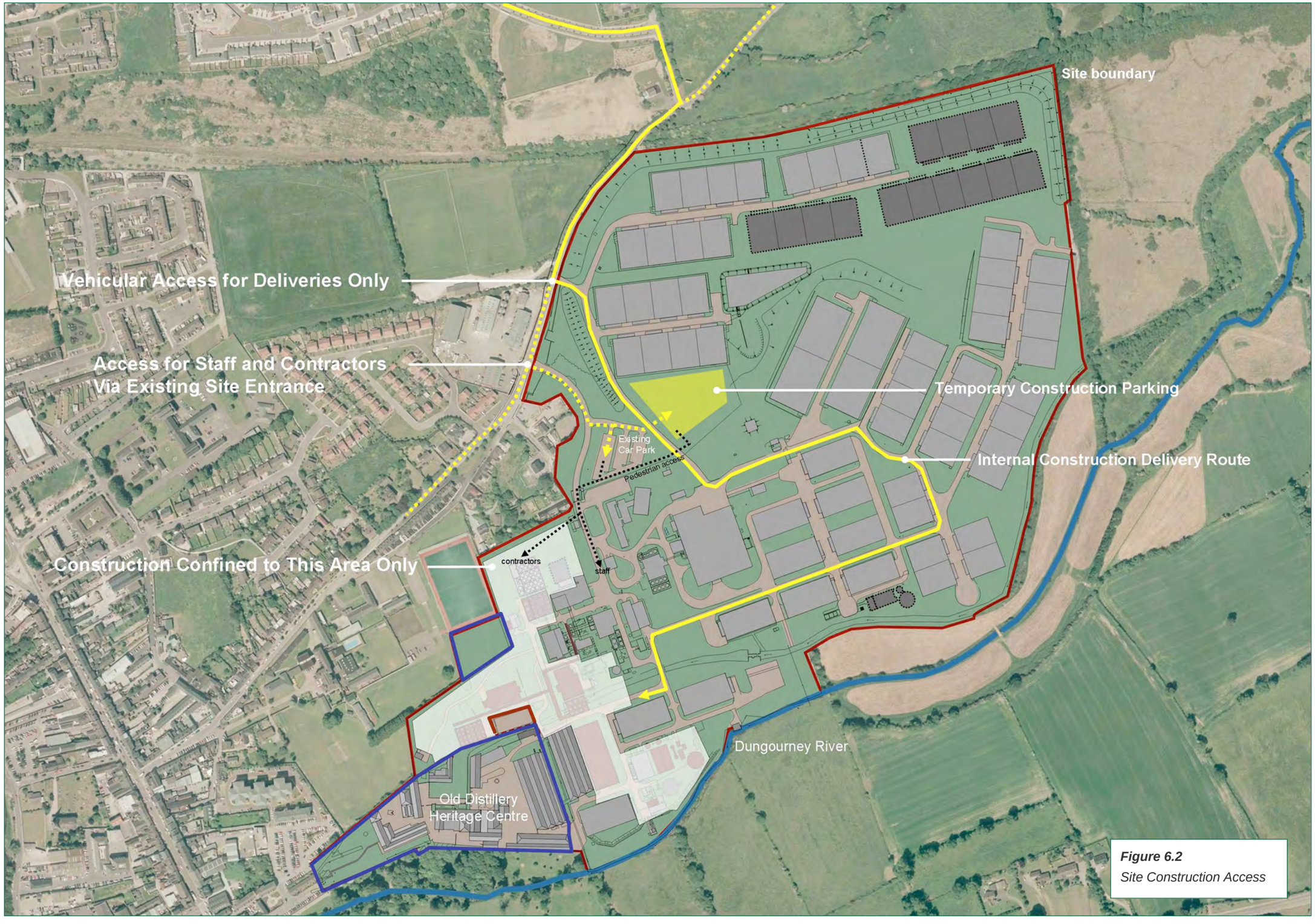


Figure 6.2
Site Construction Access

existing wastewater treatment plant, are to be constructed within 40m of the northern bank of the river. The northern bank of the river is currently protected by an earthern embankment which was constructed as part of the original distillery development for the primary purpose of flood protection of the site. The embankment provides a natural barrier to the any potentially harmful runoff from this portion of the construction area reaching the river.

Notwithstanding this natural protection, the construction methods employed for the installation of the firewater retention tank and the wastewater treatment plant expansion will be designed to ensure that all runoff from construction preparation areas are kerbed, controlled and channelled so that sediments can be settled out before discharging to the surface water sewer. In the unlikely event of contamination being detected in the construction run-off, it will be contained for transfer by mobile pump for treatment in the adjacent WWTP which will be in operation throughout the construction period.

Subject to implementation of the above measures, which will be mandatory for all contractors on site, the proposed development will not give rise to any significant long-term, adverse impact. Negative impacts on the environment during the construction phase will be short-term in duration only.

6.5 Construction Execution

Perimeter Fencing

The construction work is proposed within an existing plant which has perimeter fencing all around it. Local fencing/ barriers will need to be put in place at each construction area.

Tree Felling

Felling of a small number of trees may take place around warehouses A3 and A2 to make way for the new Fire Water Retention Pond, in the garden area to facilitate the construction of the new still house and still house tank farm, and in the Millstream area to accommodate the expansion of the Distillation Column Tank Farm. Prior to commencing work within the site, a Felling Licence will be obtained to allow the felling of all trees on the footprint to be developed. Tree felling will be carried out in accordance with the recommendations made in Chapter 13 Ecology. Mitigation measures outlined in Chapter 13 and Chapter 7 Landscape and Visual Impact will be implemented.

Site Investigation

Some site investigation has been carried out to date and will be ongoing during the construction works as the entire IDL site is located on karst limestone at varying depths.

Access Roads

The access road to the main site is already in place. Some minor road works may be required for the following:

- *Temporary construction carpark facilities*
- *Temporary construction compound/laydown areas,*
- *Permanent access to new plant areas,*

The earthworks involved will be relatively minor.

Stripping and Earthworks

Initial site development will include surveying and the establishment of local benchmark levels, the protection of agreed vegetation, the removal / re-routing of designated existing services and set up of construction fencing. This will start with clearance of the critical areas and the site establishment areas such as the construction contractors' compound. A combination of excavators, dump truck and rollers will be used for top soil clearance and any 'cut and fill' operations.

Site Establishment

The following facilities will be put in place prior to the main construction works commencing.

- *Site offices, canteen and toilet / changing facilities*
- *Water supply and sewage connections will be tapped in locally to the plant system.*
- *Secure compound and containers for storage of materials and plant.*
- *Temporary vehicle parking areas.*
- *Contained area for machinery refuelling and construction chemical storage.*
- *Contained area for washing out of concrete and mortar trucks.*
- *Wheel-washing facilities for vehicles leaving the site.*
- *Security cabin*

Building Construction Works

As stated previously the construction scope of work regarding the structures outlined in Section 6.1, will commence in Spring 2012 (subject to planning) and will be substantially complete in Autumn 2013. A detailed description of the proposed expansion development is provided in Chapter 4 Project Description and Process Overview.