Inspector's Report
ABP-313962-22

Development	Remove an existing building and construct a new two storey petrol filing station and licenced forecourt convenience store and all associated site works including new boundary treatments and landscaping.
Location	Leinster Express Business Park, Dublin Road, Portlaoise
Planning Authority	Laois County Council
Planning Authority Reg. Ref.	2271
Applicants	Portlaoise Service Station
Type of Application	Permission
Planning Authority Decision	Grant Permission
Type of Appeal	Third Party
Appellants	Petrogas Group Limited
Inspector	Dolores McCague

Contents

1.0 Background to Addendum Report

1.1.1. This addendum report is required, in response of the Board Direction of 7th November 2023, to issue a section 137 notice to the parties and invite comments.

1.1.2. The notification stated that the Board proposes to take into account the following:

The Board noted the planning authority's report indicating that the site is within the source protection and partially within the AFA 1000 year flood outline – flood zone B.

The Board noted that The Planning System and Flood Risk Management Guidelines for Planning Authorities (Nov 09)' classify 'potential significant sources of pollution' as highly vulnerable development that would generally be considered inappropriate in this zone, unless the requirements of the Justification Test can be met. The Board noted that no Site-Specific Flood Risk Assessment or Justification Test was submitted with the application.

2.0 Applicant Response

2.1. Site Specific Flood Risk Assessment

2.1.1. The applicant in response to the notice submitted a Site Specific Flood Risk Assessment prepared by IE Consulting, dated November 2023. That document includes:

2.1.2. It notes the Office of Public works (OPW) Preliminary Flood Risk Assessment (PFRA) mapping for Ireland produced in 2011. Maps 2019/MAP/183/A and 2019/MAP/200/A illustrate indicative flood zones in this area of Portlaoise; which they show in Figure 3. A fluvial flood zone is mapped adjacent to the eastern site boundary. The PFRA maps are not intended to be used on a site-specific basis.

2.1.3. No past flood events, on the site or in the vicinity, are recorded on the OPW website.

2.1.4. The South Eastern Catchment Flood Risk & Management Study (CFRAMS) was undertaken by the OPW and final version flood maps were issued in July 2016.

2.1.5. Predictive flood map number O14P0E_EXFCD_F0_17 illustrates predictive current scenario fluvial flood extent zones associated with the Ratheven Stream in the vicinity of the site of the proposed development, for present day scenario extreme 10% AEP (annual exceedance probability) (1 in 10 year), 1% AEP (1 in 100 year), and 0.1% AEP (1 in 1000 year), fluvial flood events in the vicinity of the site. The site partially falls in a 1 in 1000 year fluvial flood zone. This is shown in Figure 9.

2.1.6. The 0.1% AEP, 1 in 1000 year, fluvial flood zone mapped within the boundary of the site is indicative of overland flow conveyance due to surcharge of the Ratheven Stream culvert located approximately 30m upstream of the site.

2.1.7. The South Eastern CFRAMS flood maps also provide information on predictive water levels & flows for 10% AEP (1 in 10 year), 1% AEP (1 in 100 year), and 0.1% AEP (1 in 1000 year), fluvial flood events at various nodes (hydrological estimation points) along the Ratheven Stream.

2.1.8. The node point closest to the site is referenced as node point 14BLMF00378I located approximately 30m upstream. Table 2 provides information in relation to that node.

Node Label	Flow (m^3/s) 10% AEP	Water Level (m OD) 10% AEP	Flow (m^3/s) 1% AEP	Water Level (m OD) 1% AEP	Flow (m^3/s) 0.1% AEP	Water Level (mOD) 0.1% AEP
14BLMF00378I	N/A	103.06	N/A	103.33	N/A	105.59

2.1.9. Figure 11 shows CFRAMS 0.1% AEP Fluvial Flood Depth Map taken from South Eastern CFRAMS flood map O14P0E_DPFCD001_F0_17, which indicates flood depths in the range 0.25-0.50m within the footprint area of the existing building structure and in the range 0.0-0.25m in external areas of the site and immediately upstream and downstream. They attribute the levels in the building to an anomaly in the digital surface model (DSM). They are taking the range 0.0-0.25m for the 0.1% AEP fluvial flood depth for the purposes of the Site Specific Flood Risk Assessment.

2.1.10. The OPW WMS (web map services?) resource was utilised to assess the potential mid-range future climate change scenario fluvial flood events in the general location.

2.1.11. Figure 13 shows the 0.1% AEP + CC mid-range future climate change flood events mapped.

2.1.12. Assessment of Fluvial Flood Event Water Levels – extreme flood levels have been derived as part of the OPW South Eastern CFRAM mapping at node point 14BLMF00378I approximately 30m upstream of the site. The predictive 105.59m 0.1% AEP flood level is not representative of the actual level at the specific location of the site, as predictive flood zones within the boundary of the site are as a result of overland flow conveyance as opposed to direct inundation from an adjacent watercourse. The predictive 0.1% AEP flood level within the boundary are more appropriate to utilise for the assessment of potential fluvial flood risk to the development as proposed. predictive 0.1% AEP flood level in the range 0.0-0.25m are considered to be applicable for assessment of potential flood risk to the development as proposed. Figures 15 and 16 show the predicted flood extent with the proposed building superimposed.

2.1.13. In order to ensure a sustainable development and to ensure that potential flood risk to the development can be managed to an acceptable level, it is recommended that the development incorporates appropriate flood risk management and mitigation measures.

2.1.14. Potential flood risk from the development as proposed - The building footprint is less than the existing and the proposed development does not therefore result in potential flood water volume displacement or alteration of the existing overland flow regime or increase flood risk elsewhere.

2.1.15. Flood risk management and mitigation measures - The Planning System and Flood Risk Management Guidelines recommend that the development as proposed incorporates flood resistance, flood resilience and flood risk management measures in order to mitigate any potential flood risk to an acceptable level. Flood resistance measures are defined as ‘the installation of resistance measures to prevent floodwater from reaching or entering a property’. Flood resilience measures are defined as ‘the implementation of permanent methods or techniques that can be

carried out at property level i.e. inside a property, to minimise damage caused by floodwaters that have entered a property'.

2.1.16. It is recommended that the development as proposed incorporates appropriate flood resistance and flood resilience measures as outlined in the Dublin City Council 'Property Flood Protection Guide' and relevant CIRIA and DEFRA guidance documents in relation to flood mitigation and flood resilience measures.

2.1.17. Flood resistance measures

- Slotted movable or demountable flood gates should be provided to all existing or proposed ground floor exterior doors. When not in use, flood gates should be stored in an easily accessible location (or sandbags in lieu); constructable to a height of at least 0.6m above finished ground floor level – 104.4mOD + 0.6mOD = 105.00mOD (Malin). Cill levels to be at least 0.35m above finished ground floor level – 104.4mOD + 0.35mOD = 104.75mOD. Where this can not be achieved ground floor windows should be non-opening and of flood proof construction.

- External walls below a level of 104.75m OD should be sealed with a suitable waterproof sealant or membrane.

- Any existing or proposed air bricks in external walls should be sealed using 'SMART' air bricks.

- Any pipes or cables that protrude through external walls at a level below 104.75m oD should be adequately sealed and waterproofed.

- Sealed manhole covers should be fitted to all foul water and storm water drainage manholes and any manholes associated with underground fuel storage tanks.

2.1.18. Flood resilience measures – recommended

- Ground floor electrical appliances should be placed on shelves or plinths in order to raise the appliance at least 0.35m above the finished ground floor level.

- Any new ground floor service metres (electric, gas, telecoms etc) should be enclosed in plastic housings and should be fitted at least 0.35m above the finished floor level.

- Any new ground floor fuses boxes, electrical sockets and wiring should be constructed at least 0.35m above the finished ground floor level.

2.1.19. Development in the context of the guidelines – zone B moderate probability of flooding.

2.1.20. Highly vulnerable development, such as hospitals, residential care homes, Garda, fire and ambulance stations, dwelling houses and primary strategic transport and utilities infrastructure, would generally be considered inappropriate in this zone, unless the requirements of the Justification Test can be met. Less vulnerable development, such as retail, commercial and industrial uses, and recreational facilities might be considered appropriate in this zone. In general however, less vulnerable development should only be considered in this zone if adequate lands or sites are not available in Zone C and subject to a flood risk assessment to the appropriate level of detail to demonstrate that flood risk to the development can be adequately managed and that development in this zone will not adversely affect adjacent lands and properties.

2.1.21. The assessment undertaken as part of this Site Specific Flood Risk Assessment indicates that the site is in zone B and may be subject to the requirements of a justification test.

2.1.22. Justification test for development management –

2.1.23. They refer to the Board correspondence and the opinion of the Board that the development may be classed as highly vulnerable development due to the development being deemed a potential significant sources of pollution.

2.1.24. They refer to The Planning System and Flood Risk Management Guidelines and table 3.1 which lists highly vulnerable development, Sites deemed as potential significant sources of pollution specifically refer to sites, facilities and industrial and commercial enterprises which are SEVESO sites, or EPA IPPC or IED licenced sites. The development as proposed is not considered as highly vulnerable development.

2.1.25. They refer to the matrix provided as table 3.2 of the guidelines which lists different vulnerability classes of development. The type and form of development proposed is

considered to be ‘less vulnerable’ and the site partially falls within a predictive fluvial flood zone ‘B’ therefore the development as proposed is considered to be ‘appropriate’ and not subject to the requirements of ‘the justification test’.

2.1.26. In addition the development is considered to comply with clause 5.28 if the guidelines:

> Assessment of minor proposals in areas of flood risk Applications for minor development, such as small extensions to houses, and most changes of use of existing buildings and or extensions and additions to existing commercial and industrial enterprises, are unlikely to raise significant flooding issues, unless they obstruct important flow paths, introduce a significant additional number of people into flood risk areas or entail the storage of hazardous substances. Since such applications concern existing buildings, the sequential approach cannot be used to locate them in lower-risk areas and the Justification Test will not apply. However, a commensurate assessment of the risks of flooding should accompany such applications to demonstrate that they would not have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities…

2.1.27. It is not therefore subject to The Justification Test.

2.2. The response was not circulated.

3.0 Further Assessment of Flood Risk

3.1.1. The response refers to the CFRAMS 0.1% AEP Fluvial flood depth and shows this on map in Figure 11. The map legend gives ranges which correspond with the map colours. The pixelated colours for the area displayed give three ranges: an area 0.5 – 1m depth to the south-east at the stream; an area 0.25 – 0.5m depth in the middle of the site and also to the south-east and north; and an area 0 – 0.25m depth along the eastern portion of the site. The author considers that the difference within the site is likely due to an anomaly in the digital surface model (DSM) and takes the range 0.0-0.25m for the 0.1% AEP fluvial flood depth for the purposes of their Site Specific Flood Risk Assessment.

3.1.2. The site is at a low point on the road and also low relative to the land to the south, except immediately adjoining the site, the flood depth predicted along the stream to the south-east and north is deeper. A conservative assumption would utilise the deeper fluvial flood depth given within the site, 0.25 – 0.5m depth, rather than the lesser depth 0 – 0.25m.

3.1.3. As the site is within zone B the Site Specific Flood Risk Assessment indicates that and it may be subject to the requirements of a justification test and looks to The Planning System and Flood Risk Management, Guidelines for guidance.

3.1.4. Quoting Table 3.1 Classification of vulnerability of different types of development, it states that the proposed development is not a potential significant sources of pollution, as the guidelines specifically refer to sites, facilities and industrial and commercial enterprises which are SEVESO sites, or EPA IPPC or IED licenced sites.

3.1.5. Table 3.1 of the guidelines have a column ‘vulnerability classes’ and a column ‘Land uses and types of development which include*’, the footnote states that *uses not listed here should be considered on their own merits. The category ‘Highly vulnerable development (including essential infrastructure)’ includes ‘and potential significant sources of pollution (SEVESO sites, IPPC sites, etc.) in the event of flooding’.

3.1.6. In my opinion the subject development is a potentially significant source of pollution in the event of flooding.

3.1.7. Per Table 3.2: Matrix of vulnerability versus flood zone to illustrate appropriate development and that required to meet the Justification Test’, the proposed development would require a justification test.

3.1.8. The response refers to paragraph 5.28 of the Guidelines stating that the proposed development is a minor proposal, and does not therefore require a justification test.

3.1.9. I accept that the proposed development involves an extension to an existing building where the footprint is less than that existing, is not likely to displace flooding or cause flooding elsewhere, is not likely to obstruct important flow paths, or impede access to a watercourse, floodplain, flood protection or management facilities or introduce a

significant additional number of people into a flood risk area. It does however entail the storage of hazardous substances.

3.1.10. I do not accept therefore that the proposed development represents a minor proposal in an area of flood risk.

3.1.11. The flood resilience measures and flood resistance measures recommended in the response, refer only to the building, and do not therefore address the Board's concern that the proposed development represents potential significant sources of pollution.

4.0 Recommendation

4.1.1. In accordance with the foregoing I recommend that the proposed development be refused, for the following reasons and considerations.

5.0 Reasons and Considerations

The site is in an area which is at risk of flooding. The proposed development which is a potentially significant source of pollution in the event of flooding, would, in the absence of detailed mitigation measures and detailed justification for the risk, be contrary to the proper planning and sustainable development of the area.

Planning Inspector

2nd February 2024

Appendices:

Appendix 1 The Planning System and Flood Risk Management, Guidelines, extracts.