

Uimhir Thagarta Uathúil: FIN-C453-104

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Stádas: Submitted

Aighneacht: Strategic Flood Risk Assessment (SFRA) - Revision

Comhairliúchán:

Draft Fingal County Development Plan 2023-2029

Tráchtanna:

Updates to SFRA

Caibidil: Section 3: Environmental Reports » Strategic Flood Risk Assessment

Dear Dev Plan Team,

This submission is in relation to the SFRA prepared for the Draft Fingal County Development Plan 2023-2029 and concerns particular observations in relation to the Delvin River.

In reviewing the SFRA for the draft CDP, I believe it is necessary to revise the SFRA Report which accompanies the draft plan in order to accurately represent the hydromorphic nature of the Delvin River which forms a c.32km section of the county boundary at the north of the county between Dublin (Fingal) and Meath.

I have some observations in relation to the tributaries of the Delvin River, both in Dublin and Meath, which I feel are important to note as their contribution to river flow are both minor and major in Nature and need to be considered in combination. In addition to this, there is a large impoundment on the Delvin River within the Naul RV boundary (north eastern extremity of Naul RV Zone) which has not been mapped or acknowledged in the SFRA - **Figure 4.3: Map of Reservoirs / Impounded Lakes in Fingal** or **Table 4.6: List of Impounded Lakes / Reservoirs in Fingal**. I highlight this as impoundments may cause a localised flood risk, noting the extensive floodplains on the Delvin River west of Naul and downstream of Naul/Stamullen and at Gormanston Demesne.

Delvin River Tributaries

Page 5 of the SFRA (PDF Page 10) Outlines the watercourses in Fingal in **Table 2.1: List of Named EPA / Fingal CC Watercourses in Fingal**.

Delvin the following tributaries and streams are noted:

- Gormanstown
- Hodgestown (?)
- Curragh West
- Heathtown (?)

This list should be revised to accurately reflect the contributing Tributaries and Streams below (in order of source to coast):

- Bartramstown River (*Meath - Left Bank*)
- Garristown Stream (*Fingal - Right Bank - Garistown WWTP discharges to this*)
- Grallagh Stream (*Fingal - Right Bank*)
- Curragh West Stream (*Fingal - Right Bank*)
- Westown Stream (*Fingal - Right Bank*)
- Fourknocks Stream (*Meath - Left Bank - Labelled as Hodgestown*)
- Hynestown River (*Fingal - Right Bank*)
- Coolfores Stream (*Fingal - Right Bank*)
- Gibblockstown Stream (*Meath - Left Bank*)
- Stablestown Stream (*Meath - Left Bank*)
- Silver Stream (*Meath - Left Bank*)
- Balscadden Stream (*Fingal - Right Bank*)
- Gormanston Stream (*Meath - Left Bank*)

Impoundment

Page 29 of the SFRA (PDF page 34) highlights impoundments in Fingal under *section 4.3.7*. In sub-section *4.3.7.2 Reservoirs and Dams*, *Figure 4.3: Map of Reservoirs / Impounded Lakes in Fingal* a map highlights impounded lakes in the county, however the impounded lake within Naul RV Zone on the Delvin River is omitted from *Figure 4.3* and *Table 4.6: List of Impounded Lakes / Reservoirs in Fingal*.

While Hynestown Reservoir (ID No.2) is listed (Labelled as: *Naul / Lecklinstown Reservoir and Dam*), this is only one of the two significant impoundments in Naul noted in the SFRA, the other being the impoundment at the north eastern extent of the Naul RV Zone, on the Delvin River (Location: <https://goo.gl/maps/ejxEZL4eiDAgEh5m9>).

The data source of the impoundments in Fingal is outlined on page 30 of the *SFRA (PDF Page 35)*:

4.3.7.2 Reservoirs and Dams

'Potential impounding (storage) reservoirs and service reservoirs either in Fingal or that drain into Fingal were identified using Ordnance Survey Ireland (OSI) mapping and the EPA's Water Framework Directive dataset of lake segment polygons. Figure 4.3 shows a map of those reservoirs assessed as being potential sources of flood risk in the event of an uncontrolled release of water due to infrastructure failure. Table 4.6 lists these reservoirs in Fingal.'

The impoundment in Naul Village is not visible on the OSI Map, however is visible on the 'Aerial Premium' Geohive Map, where a lake is clearly visible. The impounded lake/river is also, unfortunately, not shown on the EPA WFD dataset polygons. This highlights that there is a error in the mapping data available, which omits a crucially

important hydromorphic feature on the Delvin River.

While information on the impoundment is not available on the two above datasets, it is available on the EPA's *Hydronet* webpage for the Naul Hydrometric Station:

Hydronet 08002 – Naul (Delvin)

'The station is upstream of the Naul WWTP. There is a 5m natural waterfall 130m downstream of the station and another manmade waterfall a further 500m downstream. The river was artificially re-routed and impounded to form a pond between the waterfalls to provide sufficient head loss to run a turbine/small scale hydroelectric power plant.' (Link to EPA Hydronet Page, under 'Information' on left panel: <https://epawebapp.epa.ie/hydronet/#08002>).

The presence of an impounded lake is important in terms of localised flood risk, as the OPW Flood Maps highlight there is a large flood plain to the west of Naul (*Garristown and Delvin River Drainage District, 1863*: <https://books.google.ie/books?id=slw1AQAAMAAJ&pg=RA2-PP5&lpq=RA2-PP5&dq=garristown+drainage+board&source=bl&ots=yRyqWUbBgB&sig=ACfU3U0FaVu4eAisNQObRtDcOBdBi8zpyg&hl=en&sa=X&ved=2ahUKEwiAyyvKKltr2AhUGYcAKHR3uDAgQ6AF6BAgdEAM#v=onepage&q=garristown%20drainage%20board&f=false>, Transferred to Dublin and Meath County Councils in 1927: <https://www.oireachtas.ie/ga/debates/debate/dail/1953-07-28/25/?highlight%5B0%5D=drainage&highlight%5B1%5D=drainage&highlight%5B2%5D=maintenance&highlight%5B3%5D=1924>), and a series of floodplains downstream at Coolfores/Doolagh, Stamullen and Gormanston Demesne. Should a breach of the impoundment occur it is likely to affect properties downstream. Also of relevance is the fact the Delvin was resectioned downstream of Naul (meanders removed/river straightened c.1993), meaning there is a greater flow and quicker displacement of water from Naul downstream.

Need to Review Zoning in Naul RV

The presence of the impounded lake on the Delvin River is particularly relevant to land use zoning in Naul, as there is a large area within Naul RV zoned 'RV', where in fact this is a waterbody, so the quantum of zoning and available land/development yield of Naul Village is in fact reduced in reality. The area of the waterbody should be mapped as such, with a zoning class of Open Space 'OS', which would perhaps more appropriate, to reflect the true conditions on the ground (area outlined on interactive map).

In section 5.2 *Justification Tests*, 5.2.1 *Existing Land Zonings* it is noted:

'The zoning objectives within key settlement areas have been reviewed as part of the Stage 2 assessment. The review, outlined in the following sections, will apply a Plan-Making Justification Test (as outlined in Section 3.10.3) for lands shown to be at risk of flooding as well as comment on the source / nature of flood risk where necessary.'

It appears that this impoundment was not noted in the SFRA for the current Fingal County Development Plan 2017-2023, and, as noted above, was missing from the EPA GIS mapping datasets (*unknown if registered*). As a result, it may appear the impoundment was overlooked in the SFRA Stage 2 Assessment.

Recommendations

Noting the comments on page 30 of the SFRA (PDF Page 35):

'Further work is ongoing at the time of preparation of this draft to determine further details relating to the reservoirs and define likely risks associated. An approach to management of risk through land zoning application and development control is to be determined in consultation with Fingal CC'.

I recommend that the SFRA is updated to reflect the true hydromorphic nature of the Delvin River, prior to the final publication of the SFRA for the Fingal County Development Plan 2023-2029. Furthermore, there is a need to revise the RV Zoning in Naul Village RV for the area affected (Impounded lake at the north of the village - See polygon highlighted on Map) to a more appropriate class such as Open Space (OS).

At present, the potential development yield area of Naul's RV zoned land does not reflect the true conditions on the ground, as the incorrect zoning of the waterbody skews the true yield figure which may in fact mean there is much less development yield/Potential units available in the Naul RV. This should be revised so that the RV Zoning is accurately represented and the land use zoning in Naul is compliant with the Floods Directive (2007/60/EC).

I hope this is taken into consideration when reviewing the Draft Fingal CDP 2023-2029.

Kind regards, Ian

Teorainneacha Gafa ar an léarscáil:

Documents Attached: Níl