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Planning Applications and Flood Risk

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The following paper is in response to a request from the Committee for Infrastructure seeking information on the number of residential dwellings given planning permission in areas of flood risk in Northern Ireland.

This information is provided to Members of the Legislative Assembly (MLAs) in support of their duties, and is not intended to address the specific circumstances of any particular individual. It should not be relied upon as professional legal advice, or as a substitute for it.

1 Introduction

The following paper is in response to a request from the Committee for Infrastructure seeking information on the number of residential dwellings given planning permission in areas of flood risk in Northern Ireland.

The paper sets out the methodology, provides a series of maps using published data from the Department for Infrastructure (DfI) Planning statistics 2023/24, and current (as of November 2024) NI Flood Maps data.

The paper is in no way an assessment of whether the right decisions were made. It is purely to assist the Infrastructure Committee in their consideration of the issue of flood risk for new home owners/builds. It is indicative and not intended to be conclusive as there are a number of limitations to the use of the data, which is explained in detail throughout the paper (especially in section 3.1). However, it does hopefully provide information to help the Committee in their discussion of this area.

It should also be noted that for the purposes of this paper, the term ‘area of flood risk’ is used throughout the paper to mean an area of medium probability fluvial and/or tidal flood extents within the predicted 1 in 100 (or 200 for tidal) year (using Q100 river/fluvial and T200 tidal Flood Maps NI data). For more of an explanation on Flood Maps NI and data see DfI [Contents of the Flood Maps NI](#).

2 Methodology

Through discussions with DfI Rivers, and assistance from the Research and Information Service (RaISe) Geographic Information System (GIS) specialist, the following methodology was agreed upon and used:

1. Using NI Flood Map strategic data, current (as of November 2024) Q100 (river/fluviial) and T200 (tidal) flooding was merged into one layer so as to represent areas of medium flood risk.¹
2. Using [DfI annual planning statistics for 2023/2024](#) (latest annual dataset published August 2024). The [DfI csv.files dataset](#) was filtered for residential and approved applications only.
3. The filtered planning data was intersected with the merged flood map data, and a map was produced showing all approved residential applications against areas of flood risk. This is shown in Figure 1.
4. A sample was taken of the applications appearing to intersect with a flood risk area (for timeframe purposes, one was selected randomly from each council) so as to explore the planning decision and reason for approval. See s.4 for more detail.

3 Planning Applications in areas of flood risk

The following section presents approved residential planning applications against flood risk areas in NI (Figure 1). For illustrative purposes, and due to the granular nature of the flood data which can be hard to see at the NI level, Appendix 1 provides maps at the individual council level.

Using the latest annual DfI planning data from 2023/24, Figure 1 shows approved residential applications from 2023/24 (orange dots) and approved applications which are located within areas of flood risk using current (as of November 2024) Q100 and T200 merged data (red dots). It also shows council boundaries.

It should be noted that each dot (both orange and red) represents an approved residential application. These may have entered the system from around 2017 (and in some cases 2007/9) to 2023, but the date of approval was in 2023 or 2024. Each dot may be for one dwelling, or a number of dwellings. For

¹ Planning decisions appear to be made using strategic floodplain data. However, DfI Rivers may use detailed data to form their response to a consultation. On this basis, it was decided that strategic data would be used so as to keep consistency with the type of data used by planning authorities. This is explained in more detail in s.3.1 of this paper.

example, a new or replacement single build, a number of houses, or expansion (that does qualify as permitted development) etc.

Figure 1: Approved residential applications and flood risk areas in NI

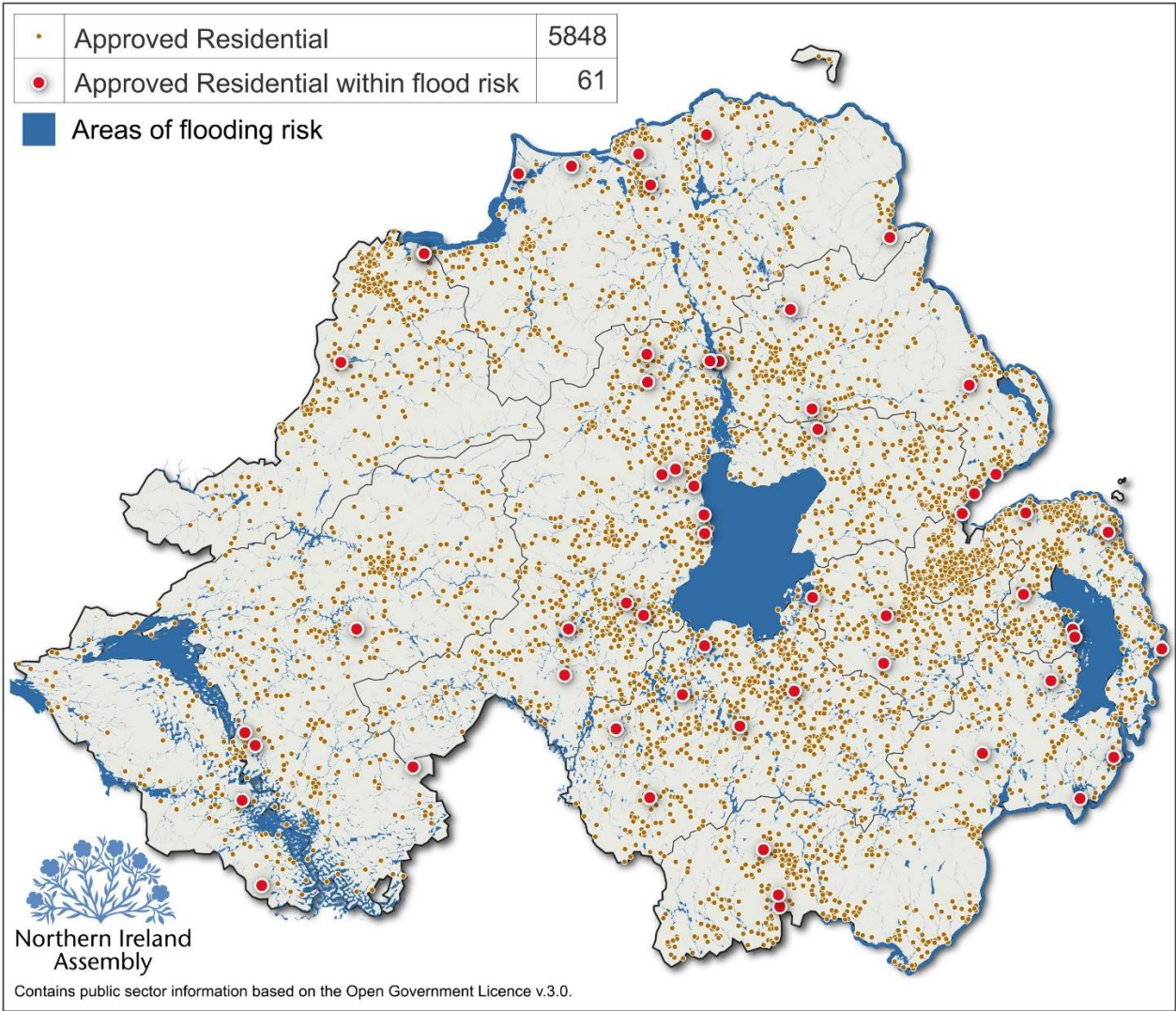


Figure 1 shows that out of the 5848 approved residential applications across NI in 2023/24, 61 are located within an area of flood risk. This represents 1% of approved residential applications in 2023/24.

Due to the granular nature of the flood risk data, it may be quite difficult to fully interpret the scale at the overall NI level. Therefore, Appendix 1 provides the data represented at the council level, purely for illustrative purposes.

Figure 1 shows that all council areas, bar Belfast, have approved residential applications within an area of flood risk. Therefore Appendix 1 provides maps for the 10 councils with such approved applications.

Perhaps of note, of the red dots (applications approved within a flood risk area), the date range that the applications were received was between 2020 to 2023. These are a mix of full, outline and reserved matters. Approval decisions were made in 2023/24. Between which time consultation with statutory consultees i.e. DfI Rivers, would have been made.

3.1 Caveats

There are a number of points that should be taken into consideration when reading the data presented in this paper, some of which make it difficult to draw firm conclusions due to the limitations of the data used. These may include, and are not limited to:

- DfI flooding data categories (Q100 & T200) come in two varieties: Detailed and Strategic. Strategic uses coarser modelling techniques and therefore is less specific². Nonetheless, planning policy SPPS and PPS15, upon which applications and flood risk are assessed, makes no distinction between the use of detailed or strategic data. Thus, it was decided for the purposes of this paper to keep consistent with the data used by planning authorities.
- Northern Ireland planning applications locations have been recorded by DfI/local planning authorities using co-ordinates within the boundary of the proposed site. It is important to note that the recorded coordinates may not contain the proposed building footprint. As a result, this analysis may flag an application as a flood risk issue, where the planning application co-ordinates are in a flood risk area, but the proposed building footprint is not. DfI Rivers use the outline/footprint of the building in their consultation to overcome these constraints.

² From ongoing correspondence with DfI Rivers and [What is Flood Maps \(NI\)?](#)

- Challenges to the Department's Flood Mapping may be made by an applicant using hydraulic modelling based on topographical information. If the challenge is accepted by DfI Rivers, the Department will inform the local planning authorities. However, at present the Department does not update flood mapping in piecemeal fashion, and as such the entire flood model will need to be updated at a future date before the flood mapping will be updated. As a result, a number of planning applications may appear on fluvial and tidal (Q100 & T200) flood extents which have not yet been updated but where flood map challenges have been accepted.³
- According to DfI Rivers,⁴ applications may have been consulted on and decisions made using archived flood data. Therefore, there is a potential that some of the planning applications identified in Figure 1 may have not been considered in a floodplain at the time they were consulted on.

3.2 Considerations

The following section provides some points for further consideration in relation to the data used and overall process:

- The paper is purely a snapshot using most recent data from 2023/24. It does not provide for a trend over time and it may be of use to ask the Department and planning authorities whether, in their experience, this reflects a trend. Or is this an outlier in terms of being over or under represented?
- In Figure 1, 1% of applications were flagged as an issue using strategic flood plain data from November 2024. However, due to the caveats explained above such as: the use of detailed modelling, building specific co-ordinates, and potential changes in flood map data over time, some of these applications may not be (or have been) considered a flood risk issue.

³ Through email correspondence with DfI Rivers Directorate

⁴ Through ongoing discussions

- As such, this exercise was difficult to perform due to differences in the use of data. For example:
 - differences in the co-ordinates used - DfI Rivers use co-ordinates of the outline/footprint of the building in their consultation.
Planning application locations have been recorded by DfI/local planning authorities using co-ordinates within the boundary of the proposed site, rather than the building footprint. This can flag an application as being a flood risk issue, when in fact the building outline/footprint is not.
 - differences in flood data – DfI Rivers or FRAs use detailed flood modelling, whereas planning authorities appear to use coarser modelling under strategic flood maps which are less site specific and accurate. Again, this can flag an application as an issue, when it is not upon further detailed inspection by DfI Rivers or a FRA.
- Should there be a more consistent approach with the use and update of data to help streamline the process and help with analysis? Would this require more resources?
- Also, what do insurers and mortgage lenders use to base their assessments on?
- Can this cause problems for owners if a planning decision was finally granted using detailed mapping, but insurers use strategic mapping and consider it a flood risk?
- As an example, [Flood Re](#) is a re-insurance Scheme that every UK home insurance provider pays into. This Levy raises £135m every year that is used to cover the flood risks in home insurance policies across the UK. If a valid claim for flooding is made, the insurer will pay the claim, and Flood Re will reimburse that insurer from the Flood Re fund⁵. Flood Re makes reference to DfI Flood Maps NI⁶. Does it use strategic or detailed mapping to assess flood risk of properties?

⁵ [How Flood Re works - Flood Re](#)

⁶ [Flood resources - Flood Re](#)

- Current planning policy makes no distinction between strategic or detailed mapping. Should this be considered more in the development of LDPs, particularly the more detailed and site-specific Local Policies Plan?

4 Reasons for approval

The following section explores examples of some of the reasons for approvals given to residential applications within a flood risk area.

As context, decisions on residential planning applications and flooding risk are assessed under the [Strategic Planning Policy Statement](#) (SPPS) and the updated [Planning Policy Statement 15 Planning and Flood Risk](#) (until such times as local development plans are produced by councils and the suit of PPSs will no longer apply).

According to the SPPS, built development must not be permitted within the flood plains of rivers or the sea unless it is considered an exception. Exceptions include and are not limited to:

- previously developed land protected by flood defences, provided that the proposed development does not fall into any of the following categories (close to flood defences, is essential infrastructure, or for vulnerable groups etc.)
- replacement of an existing building, agricultural use, transport infrastructure, use of land for outdoor sport/recreation/open space etc.

In accordance with PPS15, if planning applications with a site boundary intersecting a medium probability fluvial and/or tidal flood extents are deemed to be 'exceptions' to policy, then they should be accompanied by a Flood Risk Assessment (FRA).

For further detail, also see PPS 15 (updated) Policy FLD 1-5 which set out the policy for development: in river and coastal floodplains, areas of surface water flood risk, in proximity to reservoirs etc.

Guidance documents may include:

[Technical Flood Risk Guidance in relation to Allowances for Climate Change in Northern Ireland](#). This provides guidance for DFI Rivers, Roads and NI Water, and is considered useful for future development management and flood risk in line with up to date 2080s Climate Change flood maps for NI.

4.1 Examples

The following section explores a sample of approved applications within a flood risk area (one selected randomly from each council) and the reason given for approval by the planning authority. This was performed using the published Planning Reports and Decision Notices connected to each planning application selected, accessed through the [NI Planning Portal](#) (and the [Mid Ulster Planning Portal](#)).

Each application is individual in nature and may differ in circumstances, therefore this section is not intended as a comprehensive explanation of reasons for why all residential applications are given approval in flood risk areas. Also, the sample only represents 10 of the 61 applications and should be read with that in mind. However, it will hopefully provide an insight into some of the reasons and the complexity around the subject.

A summary of the reasons given for the sampled applications include, and are not limited to:

- An application may be considered by the planning authority as an 'exception' (as explained above) under SPPS and PPS15 e.g. the replacement of an existing building.
- In these cases, DfI Rivers' advice may have been taken as a material consideration in their overall decision-making process with appropriate mitigation provided.
- In some cases, where an application was considered contrary to policy, this was balanced against other material considerations and factors e.g. restoration of a historic listed building, with protections by s.80 of the Planning Act 2011.
- Part of the site may lie within a flood risk area, but the dwelling itself does not. In some cases, conditions and informatives were added to the

approval in relation to the part of the site within the floodplain e.g. gardens or access lanes etc.

- In some cases, the strategic flood map NI indicated the site was within a flood risk area. However, more detailed and accurate modelling carried out under the Flood Risk Assessment (FRA), and/or by DfI Rivers, showed that the site did not in fact lie within the 1 in 100 year flood plain.
- An application may have been granted approval at outline planning stage. If a request for a FRA or drainage assessment is not made at this stage, later requests to revisit this at reserved matters could not be granted. According to planning authorities, the principle of the house could not be revisited at reserved matters⁷. As such, an application considered as being in a strategic flood risk area may be approved.

4.2 Considerations

The following section provides some potential points for further consideration on which Members may wish to seek more information.

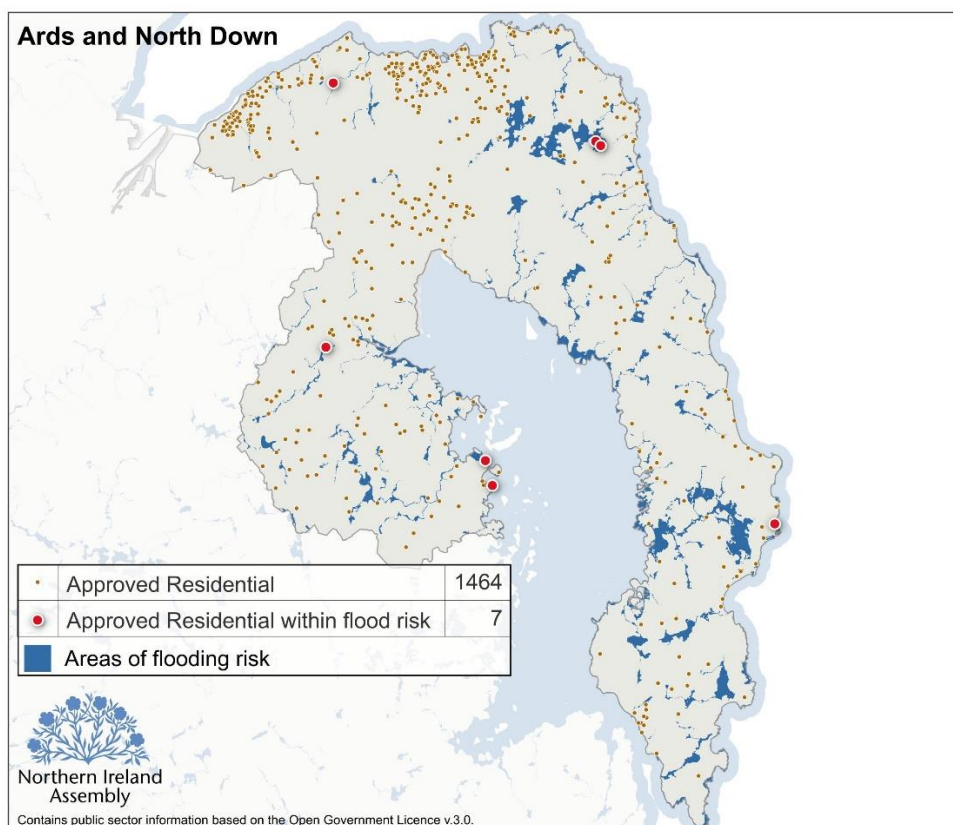
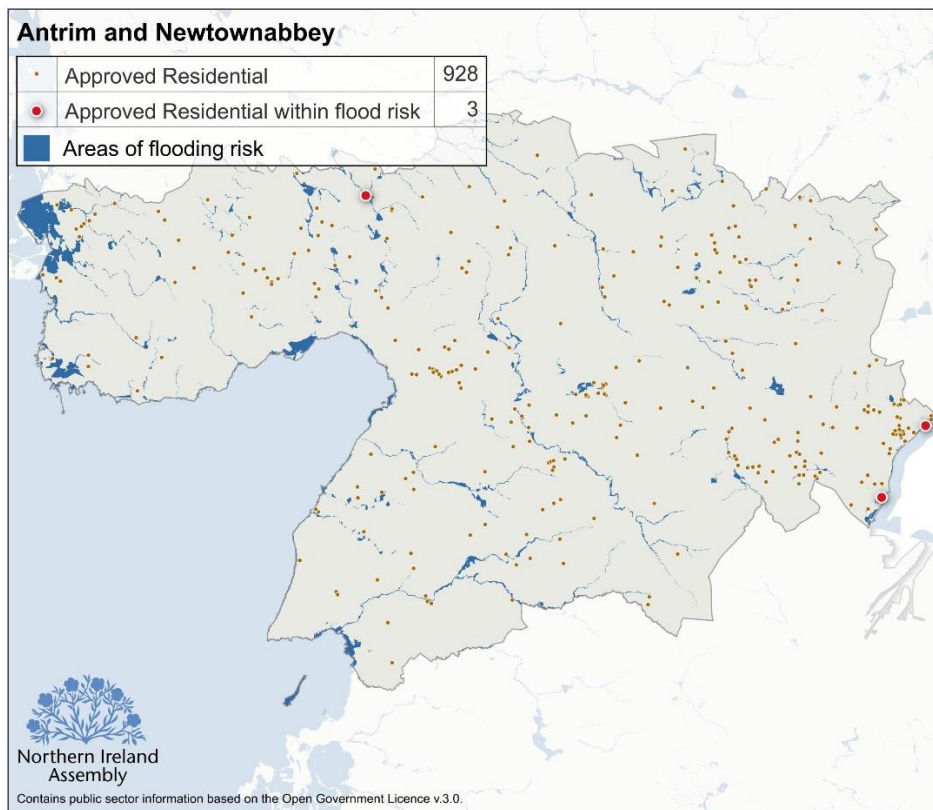
- Given the sample size used in this paper, it may be of interest to ask the Department and planning authorities whether the reasons identified in the examples are representative of their overall experience, and whether there are other reasons that may be of interest.
- Is it normal practice that if DfI Rivers' recommends certain mitigation conditions or informatives to accompany an approval, that these are always attached to the final decision?
- As mentioned in some examples, it appears that implementation of the FRA and mitigation measures are the responsibility of the developer. If specific measures from the FRA are not written into conditions attached to an approval, who ensures these are carried out and to a satisfactory standard?
- In some cases, approval was given on the basis a FRA was to be carried out as part of the conditions to the approval. Does this only ensure the

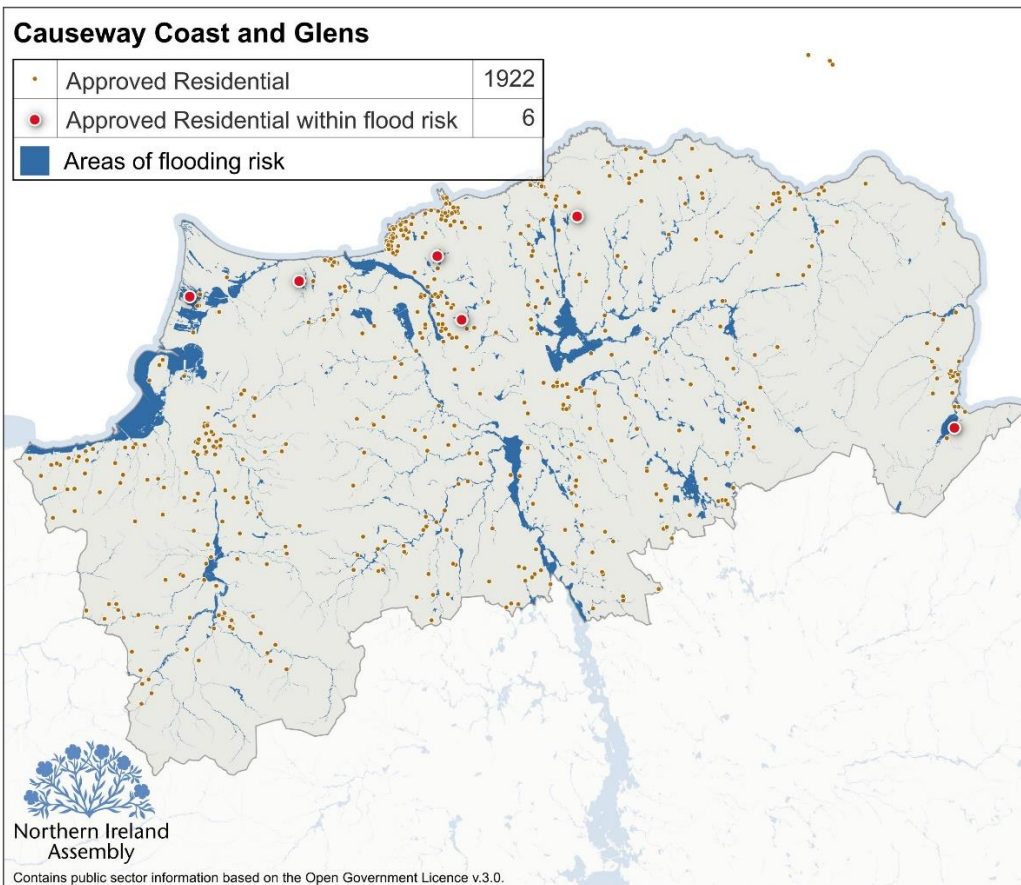
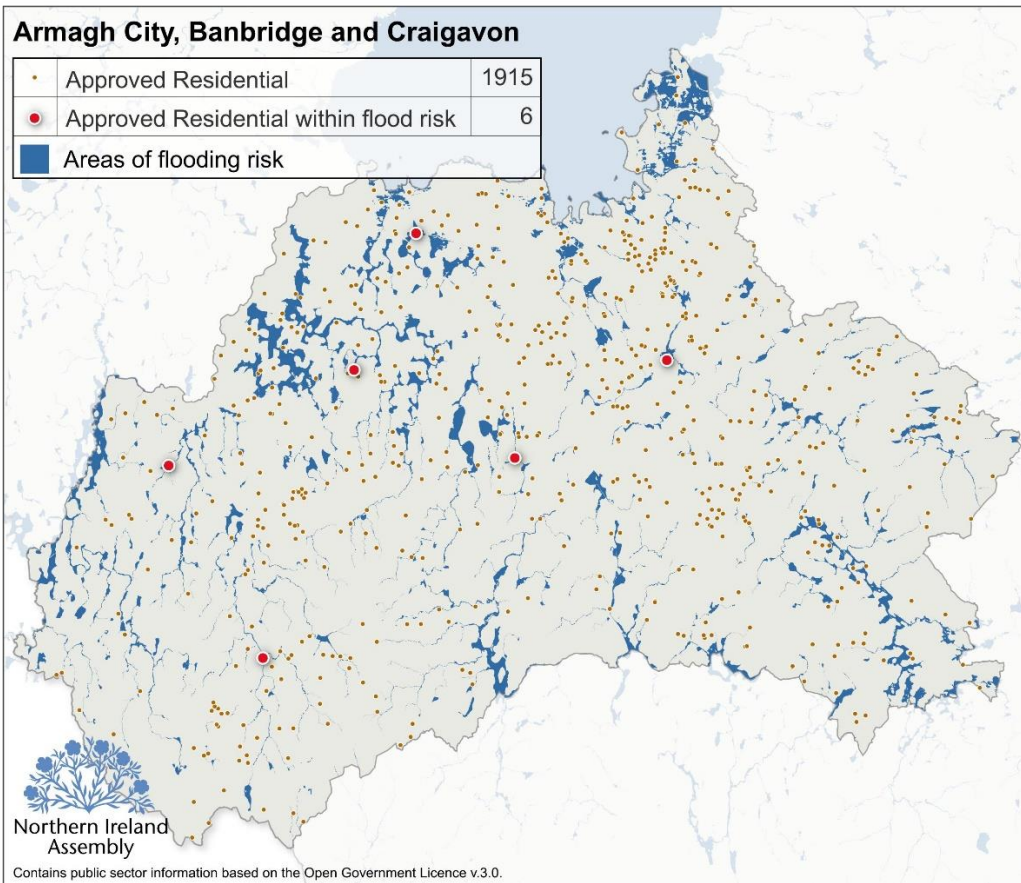
⁷ Outline Planning and Reserved Matters are provided under [s.62 of the Planning Act 2011](#)

completion of a FRA? Or does this ensure the implementation of the mitigation measures under a FRA to be assessed, similar to the carrying out of statutory planning conditions?

- The planning authority has the final say, and DfI Rivers provides advice as a statutory consultee. But what happens in cases where DfI Rivers may not be fully satisfied with an application or the information given, yet approval may still be granted?
- If an application is considered contrary to planning policy (e.g. SPPS and PPS15), what is the decision process? Where, and by who, is the final decision made?
- Do the requirements of the Reservoirs Act (Northern Ireland) 2015 have an impact on applications? For example, in some cases DfI Rivers were not satisfied with the information provided in relation to reservoir safety, yet permission was granted.
- If an FRA or drainage assessment hasn't been requested at outline planning stage, can this not be revisited at reserved matters stage? If so why? Could this present problems down the line where it has been missed at outline planning stage, and is there a need to consider this further?
- Current Planning Policy does not
- Members may wish for more detail on the process to approve these types of applications and whether DfI Rivers and planning authorities find the process and policy efficient and effective.

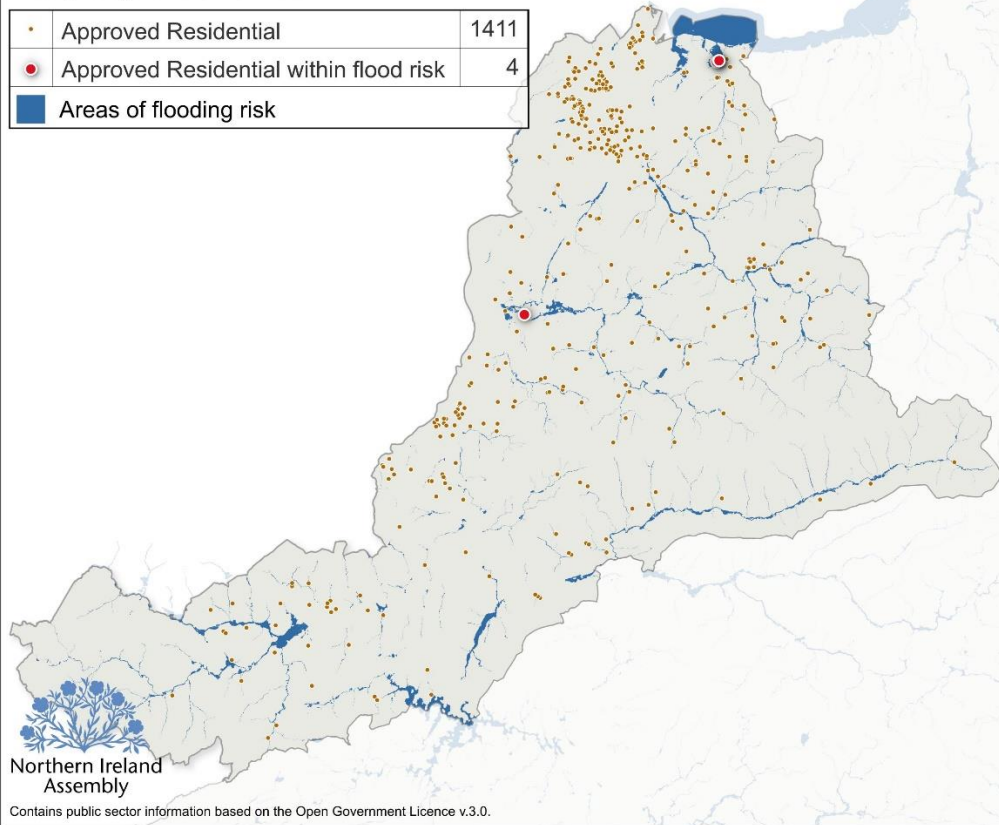
Appendix 1: Approved residential applications and flood risk areas at council level





Derry City and Strabane

•	Approved Residential	1411
•	Approved Residential within flood risk	4
■	Areas of flooding risk	

**Fermanagh and Omagh**

•	Approved Residential	1184
•	Approved Residential within flood risk	6
■	Areas of flooding risk	

