TOBIN

Leitrim County Council
Dromahair Flood Relief Scheme
Planning Report

Comhairle Chontae Liatroma
Leitrim County Council

BUILT ON KNOWLEDGE

Document Control Sheet	
Document Reference	11271 Dromahair Construction & Demolition Waste Management Plan
Client:	Leitrim County Council
Project Reference	11271

Rev	Description	Author	Date	Reviewer	Date	Approval	Date
A	First Issue	FOC/KD	19/08/2024	KD	22/08/2024	PC	18/09/2024
B	Planning Issue	FOC	31/10/2024	KD	15/11/2024	PC	15/11/2024

Table of Contents

List of Tables

List of Figures

1. INTRODUCTION

1.1 BACKGROUND

TOBIN were appointed in September 2021 by Leitrim County Council to carry out a Feasibility Study of the flood risk to the Dromahair area. The study included the review of the CFRAM Hydraulic Modelling and all other relevant water level data in the town of Dromahair and the surrounding catchment, to quantify the risk of flooding to existing properties identified within the study area. The feasibility study was completed by TOBIN in September 2022.

The following properties have been identified as at risk of flooding from the River Bonet:

- Residential Property No. 1
- The 'Mill' Apartments, sewage pumping station (serving St. Phelim's nursing home) and
- the Mill Master House Accommodation
- The Clubhouse Bar & Riverbank Restaurant
- Residential Property No. 2

Figure 1-1 shows the location of the properties and the River Bonet.

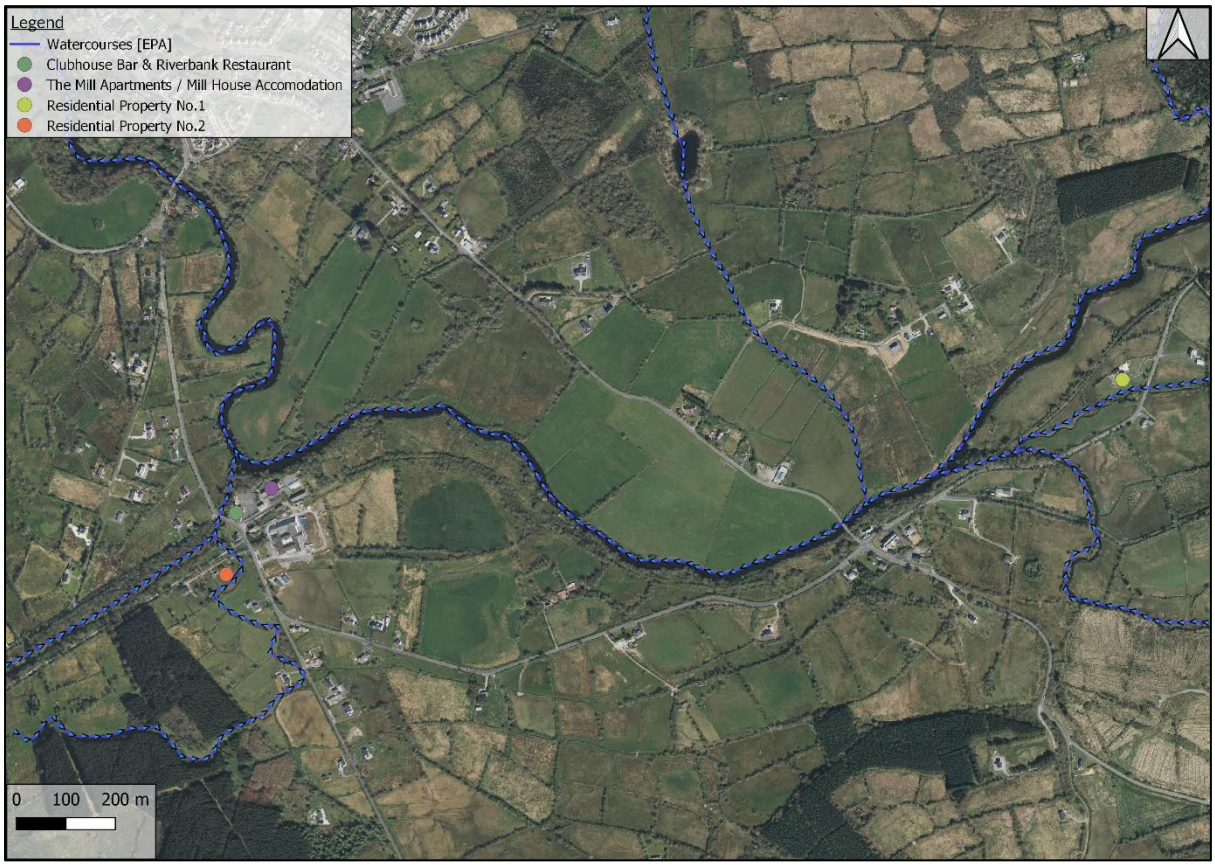

Figure 1-1: Location of Properties at Risk of Flooding

The Feasibility report then investigated a number of proposed mitigation measures that would be suitable to protect the effected properties.

The report concluded that the most feasible flood protection option was to construct flood defence structures at three locations in Dromahair Co. Leitrim. The design basis for the proposed flood defences at each property is to construct a flood protection structure with a top-

level set 300mm above the predicted 100-year MRFS maximum water level at the property boundary. The type of flood defence structure was chosen based on existing site conditions and aimed to minimise any impact on the existing sites functions.

The following flood defences are proposed at each property:

- Residential Property No. 1 – earthen embankment
- The 'Mill' Apartments – concrete flood defence wall
- The Mill Master House Accommodation – concrete flood defence wall
- The Clubhouse Bar & Riverbank Restaurant – concrete flood defence wall
- Residential Property No. 2 – earthen embankment

1.2 Purpose of Report

This Planning Report has been prepared in support of the application for consent to An Bord Pleanála, on behalf of Leitrim County Council, by TOBIN who are acting as the planning agent for the proposed development. An application for consent refers to the proposed flood relief scheme in Dromahair Co. Leitrim.

This Planning Report has been prepared to provide an overview of the proposed works and to demonstrate the compatibility of those works with the relevant policies at national, regional local level, as applicable.

This report should be read in combination with the other reports prepared by TOBIN in support of the application for consent to An Bord Pleanála. These reports are listed below and consider the proposed works in the context of other relevant engineering and environmental media. These reports include:

- Dromahair– Appropriate Assessment Screening Report.
- Dromahair– Natura Impact Statement.
- Dromahair– Ecological Impact Assessment Report
- Dromahair- Archaeological Screening Report
- Dromahair- Architectural Heritage Impact Assessment
- Dromahair- Invasive Species Management Plan
- Dromahair– Outline Construction & Environmental Management Plan.
- Dromahair– Outline Construction & Demolition Waste Management Plan.

2. PROJECT DESCRIPTION

2.1 SITE LOCATION

The sites which have been identified as at risk of flooding from the River Bonet are all located in, or close to the town of Dromahair, as previously shown in Figure 1-1.

2.2 NEED FOR THE DEVELOPMENT

The Feasibility Study for Flood Mitigation Measures in Dromahair, Co. Leitrim conducted by TOBIN highlighted the urgent need for flood protection measures to safeguard properties and infrastructure from recurring flood events. The study identifies several properties at significant risk of flooding from the River Bonet, including residential properties, the Mill Apartments and the Riverbank Restaurant.

2.2.1 Historical Flood Events

The area surrounding Dromahair has experienced significant flood events, notably in June 2020 and December 2015, which underscore the recurring nature of flood risks in the region.

June 2020 Flooding

On June 29, 2020, the Dromahair area was hit by a severe flood event. The rainfall recorded at the Manorhamilton gauge was 60.61 mm, the second highest since 1981, while the Dromahair gauge recorded 47.5 mm, the eighth highest since 1960. This intense rainfall led to a peak flow rate of 166.91 m^3/s at the OPW Hydrometric Station 35011 on the R228 bridge in Dromahair. The floodwaters inundated properties and businesses, causing extensive damage and highlighting the area's vulnerability to such events. The recurrence interval for this peak flow was estimated to be approximately 1 in 19 years, indicating a significant flood event.

December 2015 Flooding

Another major flood event occurred on December 6, 2015, when the River Bonet experienced a peak flow rate of 178.18 m^3/s, as recorded at the same hydrometric station. This event was triggered by substantial rainfall, with the Manorhamilton gauge recording 47.70 mm and 41.80 mm on consecutive days, and the Dromahair gauge recording 40.60 mm and 41.20 mm. The recurrence intervals for these rainfall events were approximately 1 in 6 years and 1 in 3-4 years, respectively. The floodwaters caused significant damage to properties and infrastructure, emphasizing the need for effective flood mitigation measures. The return period for the peak flow in December 2015 was estimated to be 1 in 30 years, marking it as an even more severe event than the June 2020 flood.

These historical flood events demonstrate the urgent need for comprehensive flood mitigation strategies in Dromahair to protect lives, properties, and the local economy from future flood risks.

2.2.2 Hydrological Analysis

The Bonet River catchment is characterized by high runoff rates, primarily due to its soil and subsoil composition. The predominant soil types in the catchment include Ballinamore (fine loamy drift with limestone) and peat, which are known for their poor drainage capabilities (Figure 2-1). The subsoil is composed of blanket peat and bedrock close to the surface, further contributing to the high runoff rates (Figure 2-2). This combination of soil and subsoil types

results in limited infiltration and rapid surface runoff during rainfall events, exacerbating flood risks.

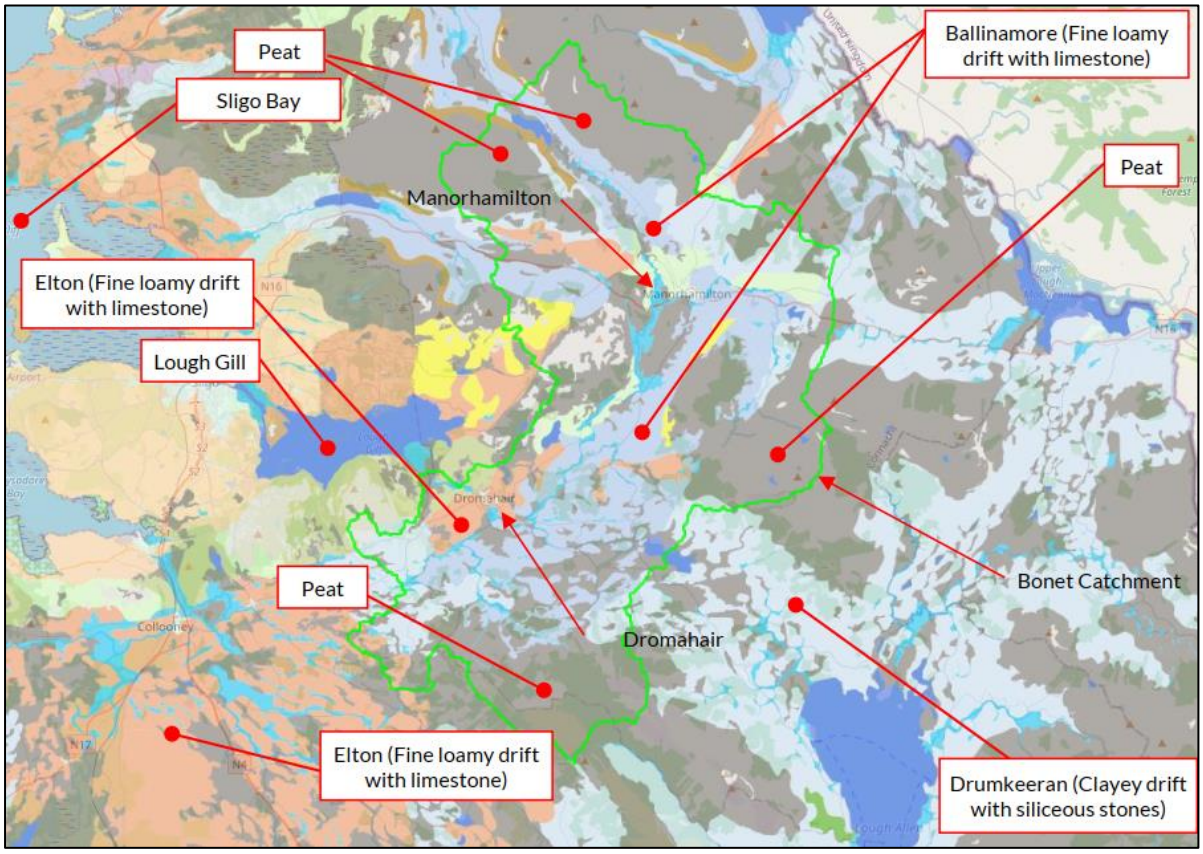

Figure 2-1: Soils Map at the Bonet Catchment (Extract from Irish Soil Information System National Soils Map)

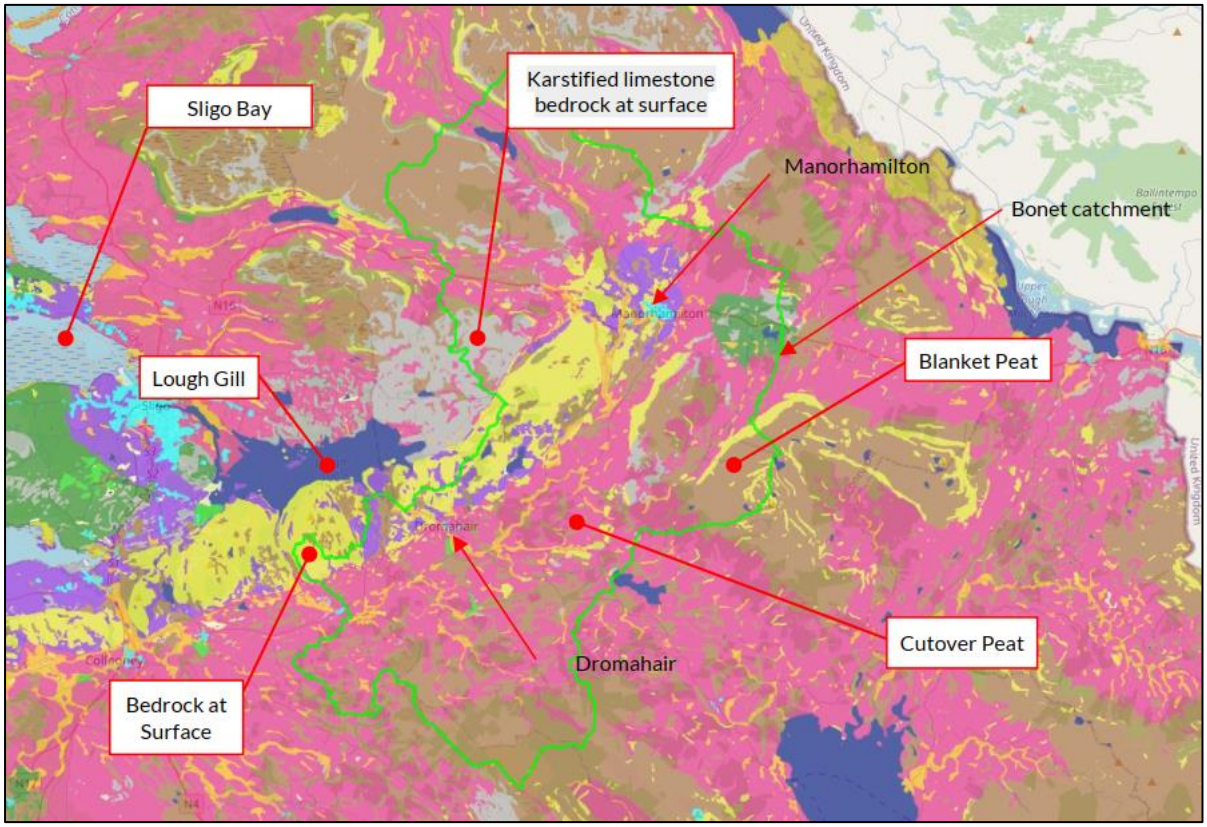

Figure 2-2: Subsoils Map within the Bonet Catchment (Extract from EPA Subsoils Map)

Additionally, the catchment area features a significant number of karst formations, particularly in the upper Bonet catchment (Figure 2-3). These karst features, which include limestone bedrock at the surface, caves, and swallow holes, play a crucial role in groundwater connectivity and flood dynamics. Karst systems can rapidly transmit water through underground channels, leading to unpredictable and often rapid changes in river flow and water levels. This can complicate flood management efforts, as the interaction between surface water and groundwater in karst areas can lead to sudden and severe flooding.

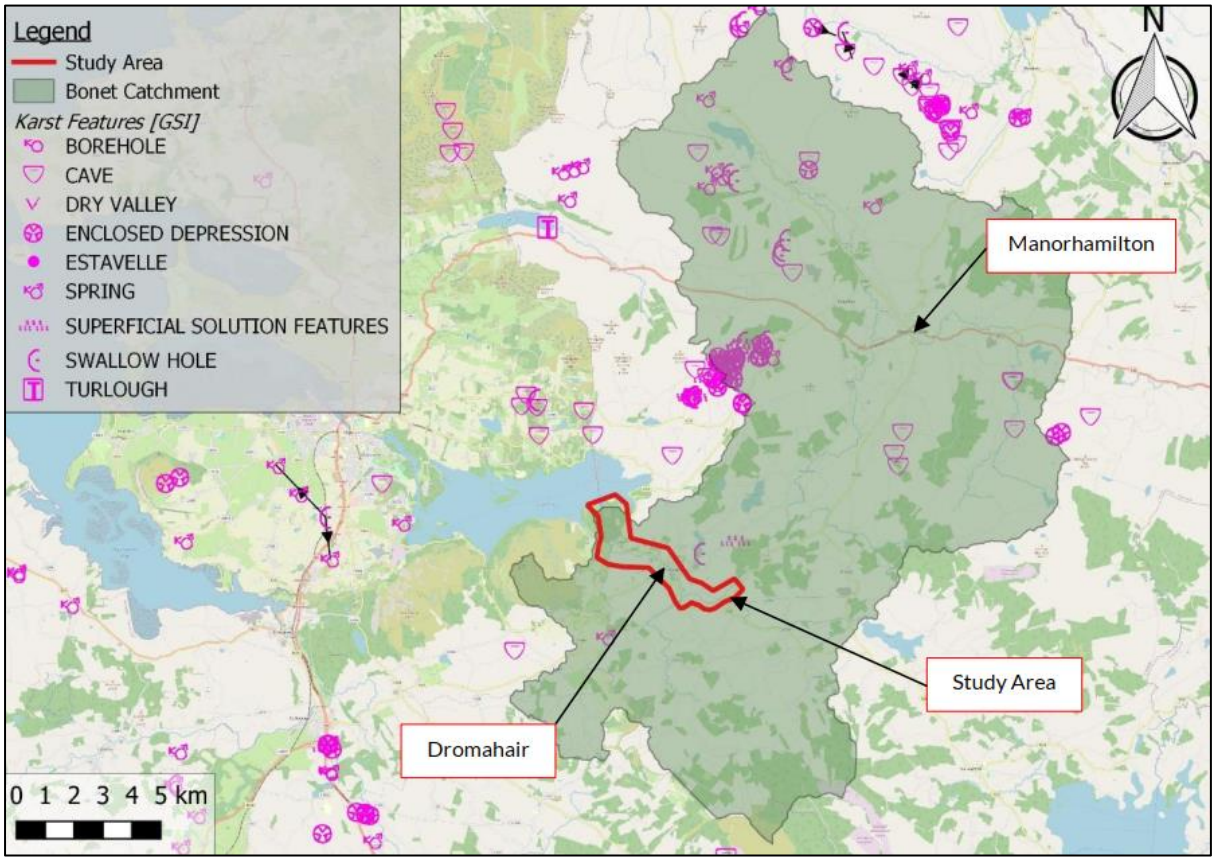

Figure 2-3: Groundwater Connectivity (Source: GSI)

The hydrological complexity of the Bonet River catchment, with its high runoff rates and significant karst features, underscores the need for detailed and adaptive flood risk management strategies. Effective flood mitigation in this area must account for both surface water dynamics and the unique challenges posed by the karst geology.

2.2.3 Flood Risk Assessment

Detailed hydraulic modelling and flood risk assessments have pinpointed critical areas and properties within the Dromahair area that are at significant risk of flooding, necessitating immediate intervention. The study identified several key properties that are particularly vulnerable, including Residential Property No. 1, the Mill Apartments, the Riverbank Restaurant, and Residential Property No. 2. These properties are situated in areas where the River Bonet and its tributaries are prone to overflow during significant rainfall events, leading to severe flooding. The hydraulic models used in the assessment incorporated various scenarios, including the 100-year Mid-Range Future Scenario (MRFS), which accounts for a 20% increase in peak flood flows due to climate change. The results indicated that without intervention, these properties would continue to face substantial flood risks. The assessments highlighted the need for targeted flood mitigation measures, such as embankments, flood walls, and improved

drainage systems, to protect these vulnerable areas and reduce the overall flood risk in the community. The CFRAM study identifies all of the properties as being liable to fluvial flooding, see, Figure 2-4.

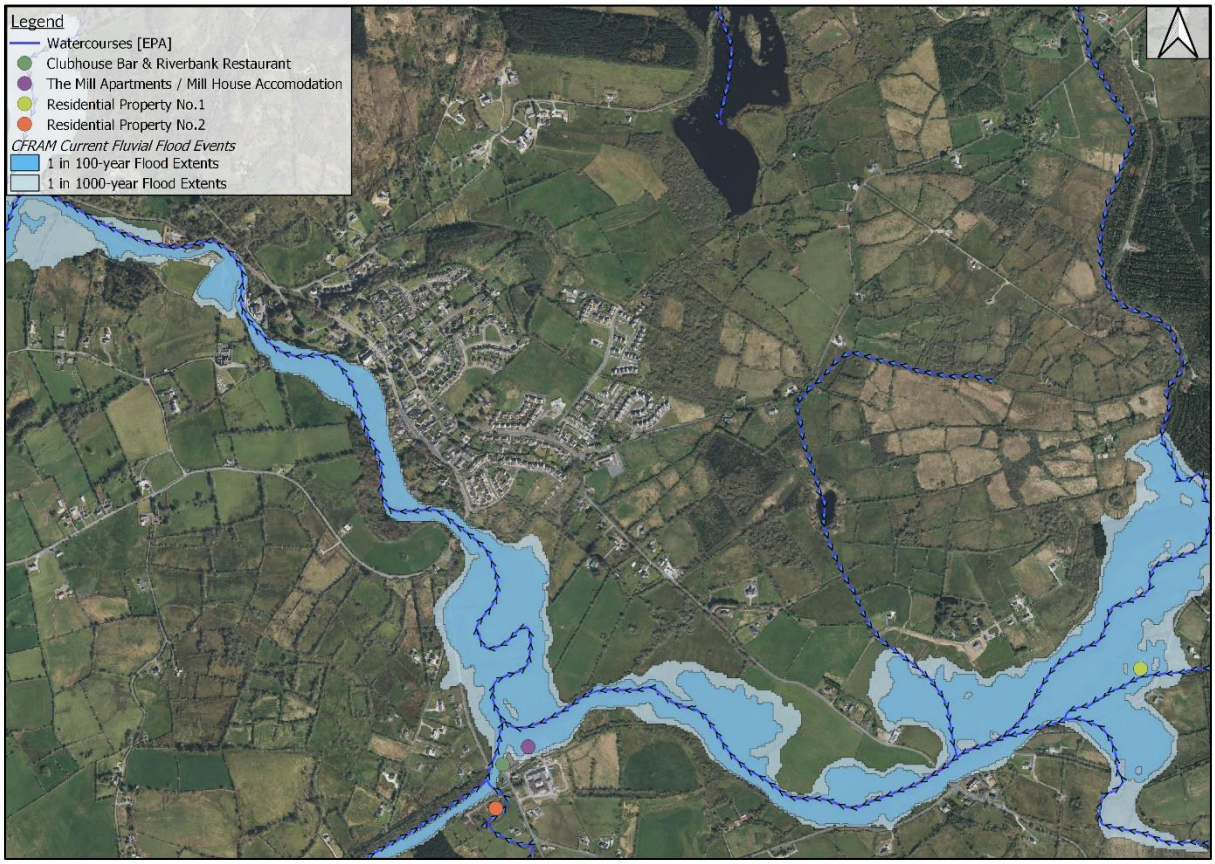

Figure 2-4: CFRAM mapping of Dromahair

2.2.4 Proposed Flood Mitigation Options

In evaluating the flood mitigation strategies for Dromahair, several options were considered to address the recurring flood risks. These options range from channel maintenance and bridge modifications to the creation of flood storage areas and the construction of flood protection embankments. Each option was assessed for its effectiveness, environmental impact, and cost, providing a comprehensive overview of potential solutions to mitigate flooding in the area.

1. **Channel Maintenance**:

   The first proposed option to reduce the flood risk to Dromahair was channel maintenance. The proposed channel maintenance options included bankside vegetation maintenance, trimming back of vegetation, and complete vegetation clearance. Channel maintenance was proposed at two locations, but it was concluded that vegetation maintenance and trimming was insufficient in significantly reducing flood levels and complete vegetation clearance had the same result and was also environmentally impactful.

2. **Bridge Modifications**:

   The second proposed option was the modification of the existing bridge at Dromahair. The modifications included the raising of the soffit level and removal of the parapet

walls. It was concluded that this option provided minimal flood level reduction and was deemed inadequate.

3. **Flood Storage Areas**:

The third option assessed was the introduction of flood storage areas, with the aim of providing enough flood storage in less vulnerable areas to remove or lessen the flood risk in highly vulnerable areas. Two areas of flood storage were assessed; one area upstream which involved significant ground elevation modifications over 2.7 hectares and another further area covering 7.5 hectares. Both options proved inadequate in reducing flood levels significantly.

4. **Flood Protection Structures**:

   - **Residential Property No.1**: The flood protection structures proposed at residential property no. 1 includes the construction of a flood embankment which will surround the entirety of the site. An access ramp will be constructed at the existing entrance to ensure there is no egress path for flood waters. This option showed full protection and removal of flood risk to the residential property with only a marginal increase in water levels nearby. The top level of the embankment is proposed to be 24.87mOD.

Figure 2-5: Residential Property No.1 Predicted flood extents (1 in 100-year MRFS)

   - **Mill Apartments and Riverbank Restaurant:** The proposed flood defence structures at the Mill Apartments and Riverbank Restaurant includes the construction of a retaining wall, which will replace the existing wall along the property, and the installation of a precast floodwall to the west of the site, where

there is little space between the existing storage building and the watercourse, and therefore little room for operating machinery. This option removed flood risk to the site and only showed a marginal increase in local water levels. The proposed flood protection wall heights will match the existing wall levels. This will limit the visual impact of the proposed measures while also provided a robust flood defence mechanism that is considerably higher than the estimated flood levels in this area.

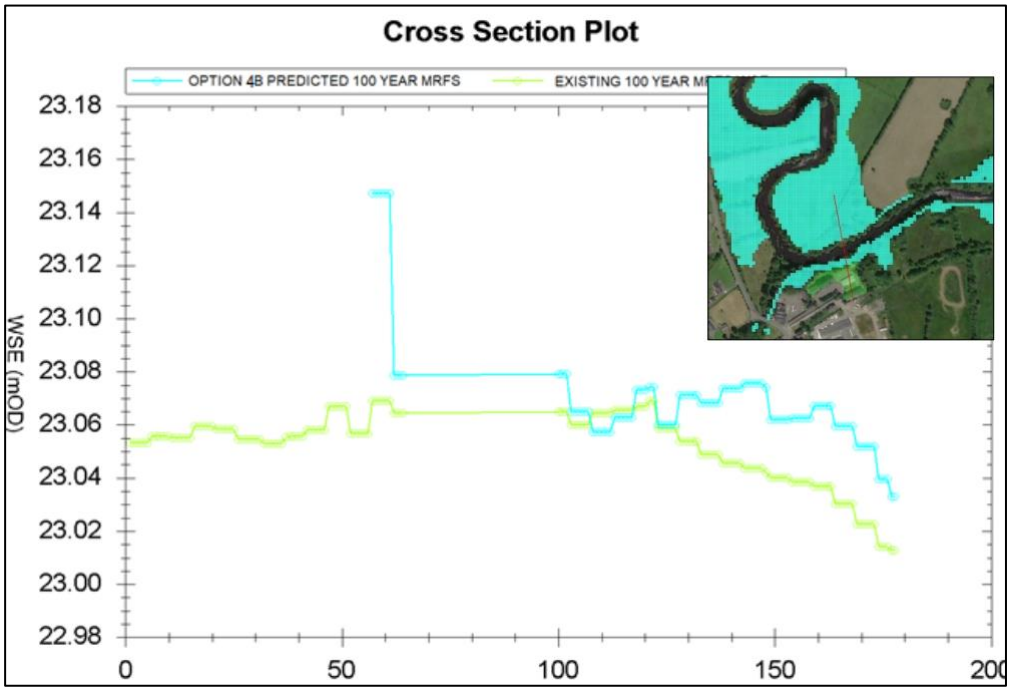

Figure 2-6: Mill Apartments and Riverbank Restaurant Predicted Water Levels of the Bonet River Floodplain at Highlighted Cross Section (1 in 100-year MRFS)

- **Residential Property No. 2**: The flood protection structures proposed at residential property no. 2 includes the construction of a flood embankment which protects the south and east of the site, which is adjacent to a watercourse. An access road ramp will be constructed on the existing access road to ensure no egress of flood waters. The proposed embankment was shown to remove the flood risk to the subject site and had minimal impact on local water levels. The proposed top level of the embankment is 23.87mOD.

Figure 2-7: Residential Property No.2 Predicted water levels of the Ardakip More floodplain at the highlighted cross section (1 in 100-year MRFS)

2.2.5 Environmental Considerations

The proposed flood mitigation works are located within the Lough Gill Special Area of Conservation (SAC), a site of significant ecological importance. This designation under the European Communities (Natural Habitats) Regulations, 1997, and the EU Habitats Directive, mandates that any development within the SAC must ensure the protection of its habitats and species. The River Bonet, which flows through the study area, is part of this SAC, emphasizing the need for careful planning and mitigation to avoid adverse environmental impacts.

To comply with environmental regulations, an **Appropriate Assessment (AA)** is required to determine if the proposed works could have significant effects on the SAC. This preliminary assessment will identify potential impacts on the site's conservation objectives. If significant effects are likely, uncertain, or unknown, a **Natura Impact Statement (NIS)** will be necessary. The NIS will provide a detailed analysis of the potential impacts and outline mitigation measures to ensure the protection of the SAC.

Additionally, the area is designated as a proposed Natural Heritage Area (pNHA), which further underscores its ecological value. This designation necessitates an **Environmental Impact Assessment (EIA) Screening Report** to determine whether a full EIA is required. The EIA process involves a comprehensive evaluation of the potential environmental impacts of the proposed development.

These assessments are crucial for maintaining the ecological balance and protecting the unique biodiversity of Lough Gill. The implementation of mitigation measures will be essential to minimize any potential adverse effects on the environment and ensure compliance with national and EU environmental regulations.

2.2.6 Conclusion

The Dromahair flood feasibility study concluded that there was a fluvial flood risk to the town and multiple properties within the town. Hydraulic modelling allowed the assessment of various flood mitigation options, and each were assessed against their viability for flood risk and their cost. The final solutions for Dromahair were the introduction of Flood Defence structures, including embankments and retaining walls which removed the flood risk to the properties and did not have a residual effect on flooding in the surrounding areas

2.3 PROPOSED WORKS

It is proposed to construct flood defence structures at three locations in Dromahair Co. Leitrim. The design basis for the proposed flood defences at each property is to construct a flood protection structure with a top-level set 300mm above the predicted 100-year MRFS maximum water level at the property boundary. The type of flood defence structure was chosen based on existing site conditions and aimed to minimise any impact on the existing sites functions.

The following flood defences are proposed at each property:

- Residential Property No. 1 – earthen embankment
- The 'Mill' Apartments – concrete flood defence wall
- The Mill Master House Accommodation – concrete flood defence wall
- The Clubhouse Bar & Riverbank Restaurant – concrete flood defence wall
- Residential Property No. 2 – earthen embankment

2.3.1 Construction Activities

The following is the sequence of activities that will be undertaken during the Construction Phase of the of the proposed development:

2.3.1.1 Construction Schedule

It is anticipated that the proposed construction works will take approximately 16 weeks to complete. Normal works hours during the construction phase are expected to be Monday to Friday 08:00 to 17:00 hours. The total number of construction staff on-site will vary during the construction phase but is expected to range from three to five staff. No construction lighting will be used during construction.

2.3.1.2 Traffic

All sites are located adjacent to the R287 regional road. This road will provide the main access route to the sites. Construction material will be transported onto site using the existing access roads. The main construction machinery on site will be an excavator, compaction rollers, crane, transport lorries, cement lorries and tractor and trailers.

Artic lorries will be used to delivery pre-cast retaining walls and rebar reinforcement for the cast in-situ wall and will be lifted into place via a crane. Concrete for the walls will be delivered using concrete lorries. Dump trucks/tipper lorries will be used to deliver embankment fill.

2.3.1.3 Site Clearance

The proposed construction works requires the removal and disturbance of earth, riverbanks and trees within the site in order to accommodate the access tracks, the instalment of walls and embankments, and facilitate the works.

Approximately five mature trees, located to the west of the Riverbank restaurant at the Mill will be removed by a competent contractor once the initial site clearance has been completed.

The existing stone wall located at the Mill along the alignment of the proposed flood defence wall, will be demolished. The stone from this wall will used as part of the construction of the flood defence wall for cladding, as per the Conservation Architects recommendations in the

Architectural Heritage Impact Assessment report that was prepared as part of this planning consent application. This demolition will be carried out by a digger.

It is not envisaged that works will generate significant construction waste, such as hardcore stone, and gravel. Although every effort will be made to recycle and re-use of materials on site, some waste will require to be disposed off-site. Cement wash will occur outside the proposed sites. Any disturbed areas will be fully reinstated following the completion of the works. Excavated soil will be stored at temporary storage areas within the proposed development site.

2.3.1.4 Earthworks

Excavation works will be carried out at all sites for the construction of embankments and retaining walls. A total of 2,789m^3 will be excavated from all the sites. Topsoil will be stripped and stockpiled at designated locations within each site.

Soil will be excavated to the required formation levels. Excavated soil will be stored at temporary soil storage areas within each site of the proposed development.

All excavated topsoil material will be reused within the site, where possible, for embankments. All remaining topsoil and all other excavation material will be disposed of offsite, in accordance with Waste Legislation (Waste Management Act 1996 – 2001).

Soil and other fill material arriving to site will be delivered near existing access roads and used imminently. The delivery locations will not be located near watercourses.

Embankment fill material will be added to the site excavations and compacted until a firm foundation is achieved. Embankment fill material will consist of fine-grained cohesive soil (with between 20% and 40% clay particles, and 13% to 21% moisture content for compaction) is specified for the proposed embankment. No rocks greater than 75mm in size shall be permitted in the soil.

This material will also be used as fill material to form the formation levels of the defences. The material delivered to site will be used once it arrives on site and will not require stockpiling. The excavation and fill works will be carried out with an excavator.

Invasive plant species will be removed from site and disposed of offsite in accordance with Waste Legislation (Waste Management Act 1996 – 2001). and the Invasive Species Management Plan carried out for the proposed development.

2.3.1.5 Fencing

A total of 361m of fencing will be removed from the sites. There will be pre-cast post and wire fencing installed at all four sites. The fencing will be installed at the base of the embankments located along site boundaries. The fence is proposed to be constructed to a height of 1.2m, using concrete posts with high tensile horizontal wire to BS EN 10244. The horizontal lines will also comprise of 2.5mm wire at approximately 150mm centres. A gap measuring a minimum of 150mm will be placed at the bottom of the fence to allow for the continued movement of mammals through the site.

2.3.1.6 Flood Defence Construction

2.3.1.6.1 Embankments

Topsoil will be removed at each site and the soil will be excavated to the proposed formation levels using an excavator. The excavation site will then be filled with embankment material to

the foundation and the embankment will be constructed on top of it. This will be compacted in layers using an excavator and roller until the design height is achieved. Once the level is reached, the earthen embankments will be topped off with topsoil in order to allow them to be planted with grass seed.

2.3.1.6.2 Pre-cast Retaining Walls

Pre-cast retaining walls will be delivered to site and lifted into position by a crane. The base of the retaining walls will be backfilled with suitable material to insure stability.

2.3.1.6.3 RC Retaining Walls

Formwork will be constructed at the formation levels to allow for the concrete to be poured. Once the formwork is in place, steel reinforcement will be added. The RC wall will then be poured in position using concrete lorries. The base of the retaining walls will be backfilled to the original ground levels with suitable material to insure stability.

2.3.1.6.4 Surface Water Drainage

The existing surface water and foul water drainage systems on all the sites will remain operational during the construction phase of the project. It is proposed to construct new stormwater outfalls at all the sites to prevent ponding inside the flood defences. These outfall pipes will be constructed on the existing stormwater network lines. The outlet of the pipes will have a headwall constructed around them and they will be fitted with a non-return valve. In addition, at Residential Property No. 2 there are two drainage pipes proposed to supplement the capacity of the existing drainage infrastructure. The proposed works involves installing headwalls for the stormwater outfalls on the banks of the river at each site at various locations. These will connect into the existing surface water networks. The headwalls will be precast concrete slab (1.5m X 1.6m). A 300mm flap valve drain is incorporated into the concrete slab.

2.3.2 Operation Activities

The operation phase of the proposed development is expected to be characterised by the movement of the river below the embankments and reduced flooding. Any local maintenance activities on the flood defences are not expected to differ from the baseline/present conditions. The maintenance of the proposed flood alleviation scheme will be the responsibility of the Local Authority, although in terms of emergency repairs, the Local Authority would revert to the OPW. The following general measures will be required as part of the routine monitoring and maintenance. They include:

- Flood walls – Annual inspection and sealant replacement (every 5 years);
- Flap Valves – Inspection once every 5 years and replacement (every 25 years);
- Bank protection – Inspection once every 5 years and maintenance (as required);
- Tree Management – Annual inspection and maintenance (as required); and
- Debris Traps – Bi-annual inspections and maintenance (as required)

3. RELEVANT PLANNING HISTORY

A review of planning applications within the subject sites has been undertaken using Leitrim County Council Planning Permissions viewer online.

There are no relevant planning applications in the proximity of Residential Property No. 1.

Applications in the immediate proximity of the Mill Apartments are the following:

Planning ref. no. 1730. Permission was granted (conditionally) on the 10/11/2017 for the change of use of the existing house (a protected structure) for use as guest accommodation. This site is at the location of the proposed flood defence measures.

Planning ref. no. 12207. Permission was refused on the 29/04/2013 for the change of use of hotel accommodation on the site to private residences. This site is at the location of the proposed flood defence measures.

Planning ref. no. 041876. Permission was granted (conditionally) on the 22/12/2004 for the refurbishment of an existing railway building and signal box to convert them into dwellings, and connect them to mains sewer via an existing pumping station. This site is at the location of the proposed flood defence measures.

Planning ref. no. 12206. Permission was granted (conditionally) on the 05/05/2013 for the change of use of Block 'B' at the Old Railway Station (a protected structure). This consists of the changing of 4 no. units from hotel accommodation to private residence. The site is at the location of the proposed flood defence measures.

Planning ref. no. 07868. Permission was granted (conditionally) on the 10/09/2007 for the extension of the first floor and ground floor of the building, and the alteration of elevations and all associated site works. The site is at the location of the proposed flood defence measures.

Planning ref. no. 18149. Permission was granted (conditionally) on the 28/05/2019 for the repositioning of a proposed extension, the revision of the layout of the building, additional car parking and all associated site development works. The site is at the location of the proposed flood defence measures.

Planning ref. no. 18117. Permission was granted (conditionally) on the 24/07/2018 for the retention and completion an enlarged laundry building, with an additional store, Velux windows, and the relocation of a rooflight. The site is at the location of the proposed flood defence measures.

Planning ref. no. 09471. Permission was granted (conditionally) on the 01/07/2010 for the construction of an extension and sunroom to be linked to the existing nursing home. Additionally, an extension to the South and two to the West, and all associated site works including additional carparking. The site is at the location of the proposed flood defence measures.

Planning ref. no. 2460107. Permission was granted (conditionally) on the 29/08/2024 – To convert an existing outbuilding (which is not a listed building) into 2 no. 1 bedroom short term tourism accommodation units. The building is contained within the curtilage of the listed building ref 30914002 (Dromahair Railway Station – Station Master's House)

4. LEGISLATIVE & PLANNING POLICY CONTEXT

4.1 EUROPEAN CONTEXT

4.1.1 EU Flood Directive

The EU Floods Directive aims to assess and manage flood risk in the European Union. It requires Member States to assess areas at risk from flooding, map flood extents and assets, and take coordinated measures to reduce flood risk. The directive focuses on minimizing negative consequences for human health, economic activities, the environment, and cultural heritage. In line with this directive Leitrim County Council took the appropriate steps to assess areas at risk of flooding within the county. The proposed flood relief scheme aligns with the strategies aim to mitigate the negative impacts of flooding, and will protect listed national monuments, commercial developments and residential properties.

4.1.2 Environmental Impact Assessment Directive

The EIA Directive 2014/52/EU (the 'EIA Directive'), amending Directive 2011/92/EC on the assessment of the effects of certain public and private projects on the environment, came into force on the 15th of May 2014. The EIA Directive is implemented in Ireland by the Planning and Development Act, 2000 (as amended), the Planning and Development Regulations 2001 to 2019 and the European Communities (Environmental Impact Assessment) Regulations 1989 to 2006.

An EIA screening report has been undertaken to inform the competent authority, in this case Leitrim County Council, as to whether the proposed development, is likely to have significant effects on the environment such that an Environmental Impact Assessment Report (EIAR) should be prepared, and an Environmental Impact Assessment (EIA) be conducted.

The EIA Screening Report shall contain the necessary information to enable the Local Authority to undertake an EIA Screening Assessment and determine whether an EIAR is required for the proposed development. The EIA Screening report shall be presented in accordance with the information required as per the following: Schedule 7A of the Planning and Development Regulations 2001-2018.

The EIA Screening for the proposed development has been undertaken with consideration of the following legislation and guidance:

- Planning and Development Act, 2000 (as amended).
- Planning and Development Regulations, 2001 to 2019.
- Guidance on EIA Screening, European Commission, 2017.
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental
- Impact Assessment.

A high-level analysis of the requirement for EIA screening is provided below:

The Planning and Development Act (Section 172(1)) states that EIA must be carried out by the planning authority and / or An Bord Pleanála as appropriate in the case of either of the following scenarios:

a) "the proposed development would be a class of development specified in -
   i. Part 1 of Schedule 5 of the Planning and Development Regulations 2001, and either:

(I) Such development would be equal or exceed, as the case may be, any relevant quantity, area or other limit specified in that Part, or
(II) No quantity, area or other limit is specified in that Part in respect of the development concerned,

or

ii. Part 2 of Schedule 5 of the Planning Regulations 2001 and either:
(I) Such development would equal or exceed, as the case may be, any relevant quantity, area or other limit specified in that Part, or
(II) No quantity, area or other limit specified in that Part in respect of the development concerned,

or

i. the proposed development would be of a class specified in Part 2 of Schedule 2 of Part 2 of Schedule 5 of the Planning and Development Regulations 2001 but does not exceed, as the case may be, the relevant quantity, area or other limit specified in that Part, and: Planning and Development Regulations 2001 to 2019. Schedule 5 of the Regulations outlines the classes of development to which Part 10 Applies.
ii. the planning authority or Board, as the case may be, determines that the proposed development would likely to have significant impacts on the environment."

An EIA report was prepared by TOBIN and concluded that proposed development is not a Schedule 5 Part 1 or Part 2 Development and therefore, an EIA is not mandatory. Considering 'the type of development' as per Article 92 of the 2001 regulations, it is respectfully submitted that the proposed development is not a sub-threshold development. Recognising that the planning authorities may reach a different conclusion on classification of sub-threshold development, an EIA screening has been carried out. This EIA screening has considered the nature of the proposed development, its size and location whilst having due regard to the criteria listed in Schedule 7 and the relevant information listed in Schedule 7A of the 2001 Regulations, as amended.

This screening review concluded that the proposed development is unlikely to result in significant effects, and that the consideration of appropriate mitigation measures reduces the potential for significant effects further.

4.1.3 EU Birds Directive & EU Habitats Directive

The **EU Birds Directive** (Directive 2009/147/EC), originally adopted in 1979 and amended in 2009, is one of the oldest pieces of EU environmental legislation. It aims to protect all wild bird species naturally occurring in the European Union by setting out rules for their conservation, management, and control. The directive requires Member States to designate Special Protection Areas (SPAs) for the most vulnerable species and habitats, forming part of the Natura 2000 network. This directive is implemented in Ireland through various national regulations and aims to halt the decline of bird populations and ensure their long-term survival.

The **EU Habitats Directive** (Council Directive 92/43/EEC), adopted in 1992, complements the Birds Directive by focusing on the conservation of natural habitats and wild fauna and flora. It aims to ensure the maintenance or restoration of natural habitats and species of community interest to a favourable conservation status. The directive requires the establishment of Special Areas of Conservation (SACs), which, together with SPAs, form the Natura 2000 network. This

directive is implemented in Ireland through national legislation and plays a crucial role in preserving Europe's biodiversity by protecting over a thousand species and 230 habitat types.

An Appropriate Assessment (AA) Screening Report has been carried out by TOBIN for the proposed development in accordance with Section 177U (4) of Part XAB of the Planning and Development Act 2010 (as amended). The AA Screening Assessment concluded that in view of the best scientific knowledge and in view of the conservation objectives of the European sites reviewed in the screening exercise, likely significant effects upon the conservation objectives of the River Bonet SAC could not be definitively ruled out at the screening stage. Therefore, a Stage 2 Natura Impact Statement was required.

The stage 2 NIS was completed by TOBIN and was used to determine whether the proposed development would adversely affect the integrity of these European sites. This involves the identification of potential likely significant effects to habitats and or species which form the qualifying interests of these European sites. This report assesses the significance of potential likely significant effects on their conservation status. Negative impacts on the integrity of these habitats or species will require the implementation of avoidance or mitigation measures to avoid progression to stages 3 and 4 of the AA process as defined by the Planning and Development Acts 2000 (as amended).

5. NATIONAL POLICY

5.1 INTRODUCTION

This section of the report provides the context for national policy as it relates to flood risk in Ireland. The key Government policies are identified and described in sufficient detail to enable an understanding of the national context in which the Dromahair Flood Relief Scheme are required.

5.2 PROJECT IRELAND 2024: NATIONAL PLANNING FRAMEWORK

Ireland 2040 - National Planning Framework, hereafter referred to as the NPF, published by the Government in February 2018, is a 20-year planning framework designed to guide public and private investment, to create and promote opportunities for Irish citizens, and to protect and enhance Ireland's built and natural environment. The NPF sets out five strategic actions required to achieve this vision:

- Developing a new region-focused strategy for managing growth;
- Linking this to a new 10-year investment plan, the Project Ireland 2040 National Development Plan 2018-2027;
- Using state lands for certain strategic purposes;
- Supporting this with strengthened, more environmentally focused planning at local level; and
- Backing the framework up in law with an Independent Office of the Planning Regulator.

The NPF identifies National Strategic Outcomes (NSOs) including the following which is considered particularly relevant in the context of the proposed works:

- Sustainable Management of Water, Waste and other Environmental Resources.

Some of the specific objectives for achieving the above NSO are:

- Coordinate EU Flood Directive and Water Framework Directive implementation and statutory plans across the planning hierarchy, including national guidance on the relationship between the planning system and river basin management. Local authorities, DHPLG, OPW and other relevant Departments and agencies working together to implement the recommendations of the CFRAM programme will ensure that flood risk management policies and infrastructure are progressively implemented;
- Improve storm water infrastructure to improve sustainable drainage and reduce the risk of flooding in the urban environment;

In addition, some of the key National Policy Objectives identified in the NPF which the proposed works can assist in making a substantial contribution towards, include:

- National Policy Objective 52: The planning system will be responsive to our national environmental challenges and ensure that development occurs within environmental limits, having regard to the requirements of all relevant environmental legislation and the sustainable management of our natural capital;
- National Policy Objective 57: Enhance water quality and resource management by:
    - Ensuring flood risk management informs place-making by avoiding inappropriate development in areas at risk of flooding in accordance with The Planning System and Flood Risk Management Guidelines for Planning Authorities
    - Ensuring that River Basin Management Plan objectives are fully considered throughout the physical planning process

- Integrating sustainable water management solutions, such as Sustainable Urban Drainage (SUDS), non-porous surfacing and green roofs, to create safe places
- National Policy Objective 54: Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emission reduction.

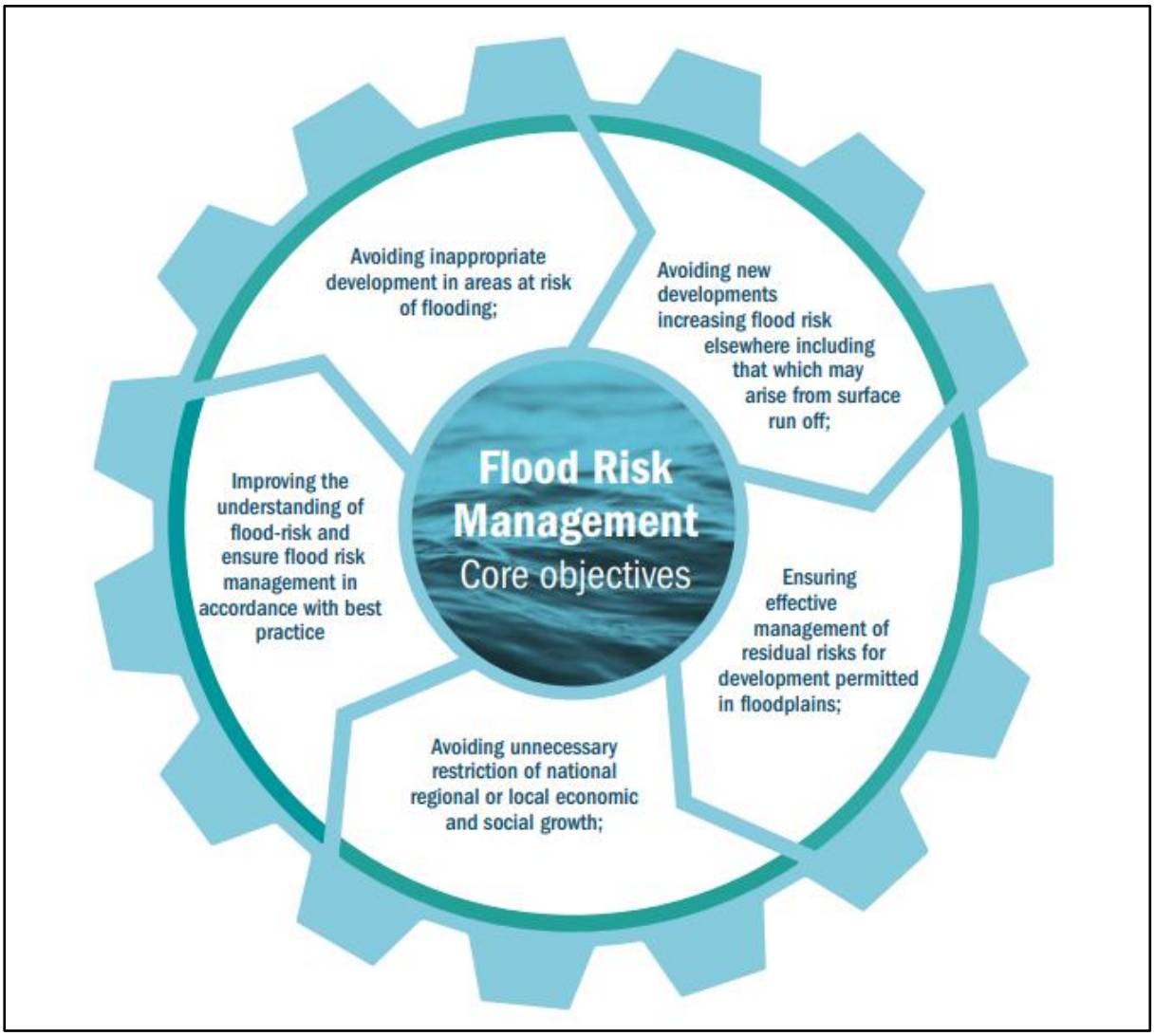

Figure 5-1: Flood Risk Management Core Objectives

5.3 National Development Plan 2021 - 2030

The National Development Plan 2021-2030, hereafter referred to as the NDP, sets out the investment priorities at national, regional and local planning levels that will facilitate the implementation of the NPF.

The NDP states the following under NSO 8: Transition to a Climate-Neutral and Climate Resilient Society and under the subheading "Sectoral Strategies – Flood Risk Management:

"The Catchment Flood Risk Assessment and Management (CFRAM) Programme studied the flood risk from the main sources of flooding in Ireland, our rivers and sea, and identified solutions that can protect 95 per cent of that risk."

Since 1995, an investment of €440 million has resulted in the completion of 48 major flood relief schemes nationwide. These projects have safeguarded over 10,000 properties and provided the State with an estimated economic benefit of €1.8 billion in avoided damages and losses.

Since the start of 2018, an investment of €186 million has significantly boosted flood relief efforts, aligning with the National Development Plan's (NDP) commitment of €1 billion by 2027. This funding has nearly tripled the number of flood relief schemes from 33 to 92. As part of the Flood Risk Management Project under Ireland 2040 and the NDP 2021-2030, around 150 schemes are planned to protect approximately 23,000 properties in communities at risk from river and coastal flooding.

The proposed Dromahair Flood Relief Scheme is in line with the NDP

5.4 Planning System and Flood Risk Management Guidelines for Planning Authorities, 2009

The Planning System and Flood Risk Management (PSFRM) Guidelines for Planning Authorities and Technical Appendices, 2009, were issued under Section 28 of the Planning and Development Act 2000 as amended and require Planning Authorities to introduce flood risk assessment as an integral and leading element of their Development Planning functions. It sets out that Development Plans and local area plans, must establish the flood risk assessment requirements for their functional area. The policies and objectives for flood risk management in areas at risk of flooding must have been developed with regard to The Planning System and Flood Risk Management Guidelines for Planning Authorities and Technical Appendices both dated November 2009.

The Guidelines require the planning system at national, regional and local levels to:

- Avoid developments in areas at (significant) risk of flooding, particularly floodplains, unless there are proven wider sustainability grounds that justify appropriate development and where the flood risk can be reduced or managed to an acceptable level without increasing flood risk elsewhere.
- Adopt a sequential approach to flood risk management when assessing the location for new development based on avoidance, reduction and mitigation of flood risk.
- Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.

In addition to the Planning Guidelines, Circular PL 2/2014 provides further advice and detail to Planning Authorities on older developed areas of towns and cities located in Flood Zone A and B, and also guidance on the development of Flood Zones and use of indicative flood risk data.

5.4.1 Flood Zone and Vulnerability Classes

The PSFRM Guidelines discuss flood risk in terms of three flood zones (A, B, and C), which correspond to areas of high, medium, or low probability of flooding, respectively. The extents of each flood zone are based on the Annual Exceedance Probability (AEP) of various flood events.

Table 5-1 shows a decision matrix that indicates which types of development are appropriate in each flood zone and when the Justification Test (see Section 2.1.2) must be satisfied. The annual exceedance probabilities used to define each flood zone are also provided.

Table 5-1: Decision Matrix for Determining the Appropriateness of a Development

Flood Zone: (Probability)	Annual Exceedance Probability (AEP)	Highly Vulnerable	Less Vulnerable	Water Compatible
A (High)	Coastal Flooding: More frequent than 0.5% AEP Fluvial & Pluvial Flooding: More frequent than 1% AEP	Justification Test Required	Justification Test Required	Appropriate
B (Medium)	Coastal Flooding: 0.1% to 0.5% AEP Fluvial & Pluvial Flooding: 0.1% to 1% AEP	Justification Test Required	Appropriate	Appropriate
C (Low)	Fluvial, Pluvial & Coastal Flooding: Less frequent than 0.1% AEP	Appropriate	Appropriate	Appropriate

5.4.2 Justification Test

Any proposed development being considered in an inappropriate flood zone (as determined by Table 5-1) must satisfy the criteria of the Justification Test outlined in Figure 5-2(taken from the PSFRM Guidelines).

Box 5.1 Justification Test for development management (to be submitted by the applicant)

When considering proposals for development, which may be vulnerable to flooding, and that would generally be inappropriate as set out in Table 3.2, the following criteria must be satisfied:

1. The subject lands have been zoned or otherwise designated for the particular use or form of development in an operative development plan, which has been adopted or varied taking account of these Guidelines.
2. The proposal has been subject to an appropriate flood risk assessment that demonstrates:
   - (i) The development proposed will not increase flood risk elsewhere and, if practicable, will reduce overall flood risk;
   - (ii) The development proposal includes measures to minimise flood risk to people, property, the economy and the environment as far as reasonably possible;
   - (iii) The development proposed includes measures to ensure that residual risks to the area and/or development can be managed to an acceptable level as regards the adequacy of existing flood protection measures or the design, implementation and funding of any future flood risk management measures and provisions for emergency services access; and
   - (iv) The development proposed addresses the above in a manner that is also compatible with the achievement of wider planning objectives in relation to development of good urban design and vibrant and active streetscapes.

The acceptability or otherwise of levels of residual risk should be made with consideration of the type and foreseen use of the development and the local development context.

Note: See section 5.27 in relation to major development on zoned lands where sequential approach has not been applied in the operative development plan.

Refer to section 5.28 in relation to minor and infill developments.

Figure 5-2: Criteria of the Justification Test

6. REGIONAL CONTEXT

6.1 INTRODUCTION

This section of the report provides the context for regional policy as it relates to flood relief in the Northern and Western Region. The key policies and initiatives contained in the Regional Spatial and Economic Strategy (RSES) are identified and described in sufficient detail to enable an understanding of the regional context in which the Dromahair Flood Relief Scheme works are required.

6.2 REGIONAL SPATIAL AND ECONOMIC STRATEGY FOR THE NORTHERN AND WESTERN REGION

The Northern and Western Regional Assembly Regional Spatial and Economic Strategy (RSES) provides regional expression to the National Strategic Outcomes and National Policy Objectives of the NPF and identifies climate change as a key issue for the RSES. One of the identified issues which the RSES aims to provide policy support to is flood mitigation and adaptation. The RSES lists a number of Regional Policy Objectives (RPO)s with regard to flood risk:

- Under RPO 3.10: Ensure flood risk management informs development by avoiding inappropriate development in areas at risk of flooding and integrate sustainable water management solutions (such as SUDS, non-porous surfacing and green roofs) to create safe places. Development plans should assess flood risk by implementing the recommendations of the Planning System and Flood Risk Assessment Guidelines for Planning Authorities (2009) and Circular PL02/2014 (August 2014).
- Under RPO 3.11: Local Authorities, DHPLG, OPW, and other relevant Departments and agencies to work together to implement the recommendation of the CFRAM programme to ensure that flood risk management policies and infrastructure are progressively implemented.
- Under RPO 8.13: Support the delivery of flood defence works planned by OPW to be implemented in the short-term.

The proposed flood relief scheme will address the flood issues in Dromahair and is in line with objectives RPO 3.10, RPO 3.11, and RPO 8.13.

7. LOCAL POLICY CONTEXT

7.1 INTRODUCTION

This section of the report provides the context for local planning policy as it relates to flood relief in County Leitrim. The key policies and objectives contained in the following statutory documents are identified and described in sufficient detail to enable an understanding of the local context in which the Dromahair Flood Relief Scheme upgrade works are required.

- Leitrim County Development Plan 2023-2029

7.2 LEITRIM COUNTY DEVELOPMENT PLAN 2023-2029

The current Leitrim County Development Plan (LCDP) came in to effect on Tuesday, 21st of March 2023 and replaced the Leitrim County Development Plan 2015-2023. It provides a Strategic framework for planning and sustainable development in Leitrim County. The development of Flood Relief infrastructure is one of the Core Strategy Objectives outlined in section 2.11 of the LCDP.

CS OBJ 19: *To ensure* that development is promoted, supported or facilitated through the County Development Plan that provides for climate action including that related to the increased risk of flooding and the promotion of sustainable transport options and renewable energy where possible to achieve a successful transition to a low carbon economy.

Section 9.8 of the Leitrim Development Plan relates directly to Flood Risk Management. The Plan contains robust policies and objectives in relation to Flood Risk Management, which are designed to ensure that proposed developments in areas at risk of flooding shall conform to the Department of Environment, Community, and Local Government Guidelines or any subsequent amendments, during the lifetime of the County Development Plan.

The policies and objectives towards flood risk management set out in the CDP are as follows:

FRM POL 1

To adopt a comprehensive risk-based planning approach to flood management to prevent or minimise future flood risk. In accordance with the Planning System and Flood Risk Management – Guidelines for Planning Authorities, the avoidance of development in areas where flood risk has been identified shall be the primary response.

FRM POL 2

To ensure that a flood risk assessment is carried out for any development proposal, in accordance with the Planning System and Flood Risk Management (DoEHLG/OPW 2009) and Circular PL2/2014. This assessment shall be appropriate to the scale and nature of risk to the potential development.

FRM POL 3

To consult with the OPW in relation to proposed developments in the vicinity of drainage channels and rivers for which the OPW are responsible, and to retain a strip on either side of such channels where required, to facilitate maintenance access thereto. In addition, to promote the sustainable management and uses of water bodies and avoid culverting or realignment of these features.

FRM POL 4

To protect and enhance the county's floodplains and wetlands as 'Green Infrastructure' which provides space for storage and conveyance of floodwater, enabling flood risk to be more effectively managed and reducing the need to provide flood defences in the future, subject to normal planning and environmental criteria.

FRM POL 5

To protect the integrity of any formal flood risk management infrastructure, thereby ensuring that any new development does not negatively impact any existing defence infrastructure or compromise any proposed new defence infrastructure.

FRM POL 6

To ensure that where flood risk management works take place that the natural, cultural and built heritage, rivers, streams and watercourses are protected and enhanced to the maximum extent possible.

FRM POL 7

To ensure each flood risk management activity is examined to determine actions required to embed and provide for effective climate change adaptation as set out in the OPW Climate Change Sectoral Adaptation Plan Flood Risk Management applicable at the time.

FRM POL 8

To consult, where necessary, with Inland Fisheries Ireland, the National Parks and Wildlife Service and other relevant agencies in the provision of flood alleviation measures in the county

FRM POL 9

To ensure that in assessing applications for developments, that consideration is had to the impact on the quality of surface waters having regard to targets and measures set out in the River Basin Management Plan for Ireland 2018-2021 and any subsequent local or regional plans.

FRM POL 10

Development proposals will need to be accompanied by a Development Management Justification Test when required by the Guidelines. Where only a small proportion of a site is at risk of flooding, the sequential approach shall be applied in site planning, in order to seek to ensure that no encroachment onto or loss of the flood plain occurs and/or that only water compatible development such as 'Open Space' would be permitted for the lands which are identified as being at risk of flooding within that site.

FRM POL 11

To require proposals for development to comply with requirements of the Planning System and Flood Risk Assessment Guidelines including providing detailed design specifications as may be required to assess the impact of development.

a) Extensions of existing uses or minor development within flood risk areas shall not: obstruct important flow paths; introduce a number of people into flood risk areas; entail the storage of hazardous substances; have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities; or increase the risk of flooding elsewhere.

b) Applications for development within Flood Zones A or B, and on lands subject to the mid-range future scenario floods extents, as published by the Office of Public Works, shall be subject to site specific flood risk assessment. Such assessments shall consider climate change impacts and adaptation measures and shall provide details of structural and non-structural flood risk management measures, to include, but not be limited to specifications of the following

Floor Levels

In areas of limited flood depth, the specification of the threshold and floor levels of new structures shall be raised above expected flood levels to reduce the risk of flood losses to a building, by raising floor heights within the building structure using a suspended floor arrangement or raised internal concrete platforms.

When designing an extension or modification to an existing building, an appropriate flood risk reduction measure shall be specified to ensure the threshold levels into the building are above the design flood level. However, care must also be taken to ensure access for all is provided in compliance with Part M of the Building Regulations.

Where threshold levels cannot be raised to the street for streetscape, conservation or other reasons, the design shall specify a mixing of uses vertically in buildings – with less vulnerable uses located at ground floor level, along with other measures for dealing with residual flood risk.

Internal Layout

Internal layout of internal space shall be designed and specified to reduce the impact of flooding [for example, living accommodation, essential services, storage space for provisions and equipment shall be designed to be located above the predicted flood level]. In addition, designs and specifications shall ensure that, wherever reasonably practicable, the siting of living accommodation (particularly sleeping areas) shall be above flood level.

With the exception of single storey extensions to existing properties, new single storey accommodation shall not be deemed appropriate where predicted flood levels are above design floor levels. In all cases, specifications for safe access, refuge and evacuation shall be incorporated into the design of the development.

Flood-Resistant Construction

Developments in flood vulnerable zones shall specify the use of flood-resistant construction aimed at preventing water from entering buildings – to mitigate the damage floodwater caused to buildings.

Developments shall specify the use of flood resistant construction prepared using specialist technical input to the design and specification of the external building envelope – with measures to resist hydrostatic pressure (commonly referred to as "tanking") specified for the outside of the building fabric.

The design of the flood resistant construction shall specify the need to protect the main entry points for floodwater into buildings – including doors and windows (including gaps in sealant around frames), vents, air-bricks and gaps around conduits or pipes passing through external building fabric.

The design of the flood resistant construction shall also specify the need to protect against flood water entry through sanitary appliances as a result of backflow through the drainage system.

Flood-Resilient Construction

Developments in flood vulnerable zones that are at risk of occasional inundation shall incorporate design and specification for flood resilient construction which accepts that floodwater will enter buildings and provides for this in the design and specification of internal building services and finishes. These measures limit damage caused by floodwater and allow relatively quick recovery. This can be achieved by specifying wall and floor materials such as ceramic tiling that can be cleaned and dried relatively easily, provided that the substrate materials (e.g. blockwork) are also resilient. Electrics, appliances and kitchen fittings shall also be specified to be raised above floor level, and one-way valves shall be incorporated into drainage pipes.

Emergency Response Planning

In addition to considering physical design issues for developments in flood vulnerable zones, the developer shall specify that the planning of new development also takes account of the need for effective emergency response planning for flood events in areas of new development.

Applications for developments in flood vulnerable zones shall provide details that the following measures will be put in place and maintained:

- provision of flood warnings, evacuation plans and ensuring public awareness of flood risks to people where they live and work
- coordination of responses and discussion with relevant emergency services i.e. Local Authorities, Fire and Rescue, Civil Defence and An Garda Siochána through the SFRA; and
- awareness of risks and evacuation procedures and the need for family flood plans.

Access and Egress During Flood Events

Applications for developments in flood vulnerable zones shall include details of arrangements for access and egress during flood events. Such details shall specify that:

- flood escape routes have been kept to publicly accessible land;
- such routes will have signage and other flood awareness measures in place, to inform local communities what to do in case of flooding;
- this information will be provided in a welcome pack to new occupants.

c) In Flood Zone C, where the probability of flooding is low (less than 0.1%), site specific Flood Risk Assessment may be required and the developer should satisfy themselves that the probability of flooding is appropriate to the development being proposed. The County Development Plan SFRA datasets and the most up to date information on flood risk, including that relating to climate scenarios, should be consulted by prospective

applicants for developments in this regard and will be made available to lower-tier Development Management processes in the Council.

FRM POL 12

To require that Strategic Flood Risk Assessments and site-specific Flood Risk Assessments shall provide information on the implications of climate change with regard to flood risk in relevant locations. The Flood Risk Management – Climate Change Sectoral Adaptation Plan (2019) shall be consulted with to this effect.

FRM POL 13

To require the submission of site-specific Flood Risk Assessments for developments undertaken within Flood Zones A & B and on lands subject to the mid-range future scenario floods extents, as published by the Office of Public Works. These Flood Risk Assessments shall consider climate change impacts and adaptation measures including details of structural and non-structural flood risk management measures, such as those relating to floor levels, internal layout, flood-resistant construction, flood-resilient construction, emergency response planning and access and egress during flood events

FRM POL 14

To require the undertaking of site-specific flood risk assessments for applications for development on land identified as benefitting land which may be prone to flooding.

FRM POL 15

To ensure that new developments proposed in Arterial Drainage Schemes and Drainage Districts do not result in a significant negative impact on the integrity, function and management of these areas.

FRM POL 16

Any potential future variations to and review of the Plan shall consider, as appropriate any new and/or emerging data relating to flood risk.

FRM OBJ 1

To implement and comply fully with the recommendations of the Strategic Flood Risk Assessment prepared as part of this Plan.

FRM OBJ 2

To implement in conjunction with the Office of Public Works the recommendations contained in the Flood Risk Management Plans (FRMP's), including planned investment measures for managing and reducing flood risk, subject to obtaining the necessary planning consent and undertaking the required environmental assessments.

8. ZONING

None of the subject sites are included in the Dromahair land use zoning objectives map as contained in Volume III – Book of Maps, Leitrim County Development Plan 2023-2029. As such, they are all located outside the development envelope of Dromahair and have not been provided with land use zoning objectives to govern their use. It is the general policy framework contained in the Leitrim County Development Plan 2023-2029 which is therefore applicable to the proposed project.

The LCDP has not assigned specific view or prospects within the proposed work area.

It shall be necessary as part of the design and application for consent to ensure that the existing views and character of the site are not impacted significantly. In this context, it is proposed that all flood defence structures will match the existing finishes of the sites. The embankments are located on grassland so they will be covered with topsoil and seeded with grass to match the pre-works conditions. The flood defence walls will be constructed to the heights of the existing walls and cladded with the same finishes.

9. LAND OWNERSHIP

9.1 LANDOWNER CONSENTS

The proposed sites are under the ownership of a number of different people. Permission to progress the application for consent has been gained from all the relevant landowners. A signed letter of consent was received from every landowner prior to the lodgement of the application for consent. These letters have been submitted as part of the overall planning consent application.

10. PLANNING ASSESSMENTS

10.1 ENVIRONMENTAL ASSESSMENT

10.1.1 EIAR Screening

Leitrim County Council have determined that the proposed development could be screened out of the need to undertake an Environmental Impact Assessment. A copy of this determination accompanies this application for consent."

10.1.2 Article 6(3) Appropriate Assessment Screening Report

An AA Screening Report has been carried out TOBIN for the proposed development in accordance with Section 177U (4) of Part XAB of the Planning and Development Act 2010 (as amended). The AA Screening Assessment concluded that in view of the best scientific knowledge and in view of the conservation objectives of the European sites reviewed in the screening exercise, likely significant effects upon the conservation objectives of the River Bonet SAC could not be definitively ruled out at the screening stage. Leitrim County Council have determined that the proposed development could not be screened out of the need to undertake a Stage II Appropriate Assessment. A copy of this determination accompanies this application for consent.

The stage 2 NIS was completed by TOBIN and was used to determine whether the proposed development would adversely affect the integrity of these European sites. This involves the identification of potential likely significant effects to habitats and or species which form the qualifying interests of these European sites. This report assesses the significance of potential likely significant effects on their conservation status. Negative impacts on the integrity of these habitats or species will require the implementation of avoidance or mitigation measures to avoid progression to stages 3 and 4 of the AA process as defined by the Planning and Development Acts 2000 to 2020.

Ultimately, the Stage 2 NIS concluded that the proposed development alone and in combination with other projects and plans, including the implementation of mitigation measures will result in no adverse effects on the site's integrity will arise, in view of the site's conservation objectives.

10.1.3 Invasive Species Survey

The Wildlife Acts, 1976 and 2000, contain several provisions relating to Invasive Non-Native Species (INNS), covering several sections and subsections of the Acts. It is prohibited, without a licence, to plant or otherwise cause to grow in a wild state, in any place in the State, any species of flora, or the flowers, roots, seeds or spores of invasive flora listed on the Third Schedule.

Articles 49 and 50 of the aforementioned Acts set out the legal implications associated with alien invasive species and Schedule 3 (the Third Schedule) of the regulations lists non-native species subject to the restrictions of Articles 49 and 50, which make it an offence to plant, disperse, allow dispersal or cause the spread of invasive species.

TOBIN carried out an Invasive Species Survey. The survey found that there was IAPS Japanese Knotweed and Himalayan Balsam detected within the site. As a result, TOBIN complete an Invasive Species Management Plan. The plan outlined a series of suitable methods to remove the invasive species prior to the construction works being undertaken. The works will be

undertaken by a competent contractor prior to any works on the site. The Invasive Species Management Plan has been submitted as part of this planning consent application.

10.2 Flora & Fauna

As part of the NIS and AA Screening a multidisciplinary ecological field survey was undertaken by a qualified and experienced TOBIN Ecologist at the proposed development site on the 26th of July 2023. The survey area included the proposed development site area and a 150m buffer surrounding the site. The data collected was robust and allowed TOBIN to draw accurate, definitive and coherent conclusions on the possible impacts of the proposed development. Habitats were classified using habitat descriptions and codes published in the Heritage Council's 'A Guide to Habitat Types in Ireland' (Fossitt, 2000).

The aim of the surveys was to identify and map the habitats present within the proposed development boundary, determine the presence or absence of protected habitats, and species, including Annex I habitats and to note the occurrence/potential occurrence of protected Annex II and IV species, as well as Annex I birds species and to identify any potential impacts of the proposed development.

The NIS concluded that no significant negative impacts on protected habitats or species are predicted arising from the proposed development. No Annex I habitats or habitat types of higher than high local importance were recorded on the site.

Habitat loss and disturbance impacts will occur during the construction and operation phases which cannot be avoided or fully mitigated, and these will have a slight, negative effect on the relevant receptors at a local level.

10.3 Landscape & Visual Impacts

The county development plan has not assigned specific view or prospects within the study area. All work will be done in accordance with the Leitrim County Landscape strategy. As part of the works there will be some removal of vegetation and trees at the site. The lost vegetation will be reinstated once construction is completed.

10.4 Air & Noise

All construction works will be carried out being mindful of potential noise impacts from construction activities. The contractor will take specific noise abatement measures and comply with the recommendations set out in.

Plant and machinery operating on the site will be the main source of noise during the works most notably during any earthworks. The contractor undertaking the construction of the works will be obliged to take specific noise abatement measures and will comply with the best practice outlined in BS 5228 and the NRA guidelines 'Good practice Guideline for the Treatment of Noise during the Planning of National Road Schemes'.

Working hours will be limited to 08:00 to 18:00 Monday to Friday and 08:00 to 14:00 on Saturday. This will reduce the potential noise impact on the local human receptors by avoiding early morning noise generating activities.

It is not anticipated that there will be any significant vibration impacts from the proposed works. Some minor vibrations will be generated from heavy plant and machinery, but it there will be no

piling or significant percussion plant required which could have the potential cause vibration effects or damage.

10.5 Traffic Management

As part of the Construction Stage Safety Plan for the works, a Temporary Traffic Management Plan (TTMP) will be prepared for the site activities and for any works required on the public road.

Construction traffic will utilise the existing regional road the R287. Any further access to the proposed sites will be provided by existing private access roads.

Routes for construction traffic involved in the delivery of goods to and from the site will be agreed with site management prior to deliveries happening.

Movements of large or abnormal loads will be addressed in advance with the relevant authorities. Certain trades will require parking on site for vehicles due to transportation of specialist equipment/plant requirements.

10.6 Waste Management

The project will be designed and constructed in the most efficient way possible as to reduce any waste generation during the construction and operation of the development.

The Contractor appointed with the delivery of the proposed development shall prepare and implement a construction stage Construction and Demolition Waste Management Plan in accordance with the Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects (2006).

An Outline Construction & Demolition Waste Management Plan has been prepared for the proposed development and is included as part of the planning submission.

10.7 Built and Cultural Heritage

The area surrounding Dromahair Railway Station is notable for its significant built heritage, reflecting its historical and architectural importance. The former railway station buildings, constructed in the late 19th and early 20th centuries, are protected structures due to their historical value and unique architectural style. These buildings were part of the Sligo, Leitrim and Northern Counties Railway, which played a crucial role in the region's transportation history.

The railway station complex includes several structures, such as the station master's house and various outbuildings, which showcase the industrial heritage of the area. These buildings are characterized by their robust construction and utilitarian design, typical of railway architecture from that period. The use of materials like limestone, red brick, and terracotta adds to their architectural significance.

The preservation of these protected structures is crucial for maintaining the historical integrity of the area.

The wall proposed for demolition is the existing wall located to the west and north of the Mill Apartments and Riverbank Restaurant. The wall is within the curtilage and attendant grounds of the railway station buildings, which are protected structures. Consequently, these protected

structures will be impacted by the proposed works. The closest protected structure to the proposed works is the Mill Apartments/Mill House accommodation, which is intended to be safeguarded by the works. There is a minimum of 8 meters between the proposed works and the Mill Apartments/Mill House accommodation.

An Architectural Heritage Impact Assessment was undertaken by ACP and concluded that the proposed works will have an overall positive impact on the historic character of the site as a whole and will ensure better flood protection while maintaining as much of the historic fabric and character as possible. The proposed mitigation measures outlined in the report will ensure that the impact of the individual and overall impacts are mitigated and any loss of fabric will be retained by record to an internationally accepted standard. The Architectural Heritage Impact Assessment is submitted as part of this planning consent application.

10.8 Soils, Geology & Hydrogeology

The Geological Survey Ireland (GSI) provides mapping with data related to Ireland's subsurface. There are no Karst features in the vicinity of the subject site.

10.9 Flooding

The proposed development has been subject to a detailed Stage 3 Flood Risk Assessment as part of the Flood Mitigation Feasibility Study report.

10.10Water & Hydrology

Three of the proposed developments which are at risk of flooding and are subject to this report are adjacent to the River Bonet. The further two developments which are at risk of flooding are in the vicinity of the subject site and are adjacent to the Killanumerry River and Adrakip More stream, which are both tributaries of the River Bonet.

The River Bonet originates in its headwaters in Lough Aganny, approximately 18km north of Dromahair. The river flows through Lough Grenade and flows towards the subject site in a southerly direction, with numerous tributaries feeding into it. The River Bonet then drains into Lough Gill approximately 3km northwest of Dromahair.

10.11Energy Efficiency

There will be no energy expenditure associated with the proposed development.

11. CONCLUSIONS AND RECOMMENDATIONS

The proposed Dromahair Flood Relief Scheme is a comprehensive initiative that aligns with both national and regional planning frameworks, addressing critical flood risk management and environmental sustainability objectives.

National Alignment

1. **Sustainable Management of Water and Environmental Resources**: The scheme enhances storm water infrastructure and implements sustainable drainage systems, reducing urban flood risks in line with the National Planning Framework (NPF).
2. **Flood Risk Management**: As part of the Catchment Flood Risk Assessment and Management (CFRAM) Programme, the scheme supports the National Development Plan's (NDP) commitment to invest in flood relief efforts, protecting properties from river and coastal flooding.
3. **Environmental and Climate Resilience**: The scheme contributes to National Policy Objectives by enhancing water quality, integrating sustainable water management solutions, and reducing the carbon footprint through climate action in the planning system.

Regional Alignment

1. **RPO 3.10**: The scheme ensures flood risk management informs development, avoiding inappropriate development in flood-prone areas and integrating sustainable water management solutions like SUDS and non-porous surfacing.
2. **RPO 3.11**: It involves collaboration between Local Authorities, DHPLG, OPW, and other relevant departments and agencies to implement CFRAM programme recommendations, ensuring progressive implementation of flood risk management policies and infrastructure.
3. **RPO 8.13**: The scheme supports the delivery of flood defence works planned by the OPW, addressing flood issues in the short term.

The proposed flood relief scheme aligns with the numerous objectives and policies outlined in the Leitrim County Development Plan (2023-2029) ensuring a comprehensive, sustainable, and resilient approach to flood risk management. In addition, by aligning with both national and regional objectives, the Dromahair Flood Relief Scheme not only addresses immediate flood risks but also promotes long-term sustainable and resilient development. The completed flood relief scheme will provide a future proof solution to flooding in Dromahair at the proposed development locations.

www.tobin.ie